The effect of IFRS application on turnover figures of Romanian companies

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Abstract

Romanian accounting system had different development stages. The last one started when Romania accessed the European Union. As the EU member states had the obligation to issue financial statements of the listed companies using International Financial Reporting Standards (IFRS), Romania was no exception. As IFRS are different from national accounting regulations, it is expected that the reported turnover will be different under IFRS regulations compared to the national ones. In this paper we study to which extent the IFRS implementation has changed the accounting figures on turnover declared by Romanian listed companies. As the results show us, the majority of the companies have been neutral in what concerns the IFRS implementation, i.e., the reported turnover does not differ very much when different accounting regulations were applied (the national ones and the IFRS).

Keywords: European Union, IFRS implementation, Gray index

Introduction

When presenting the existing accounting systems in the European Union, it is useful to appreciate the extent to which national accounting systems got closer to the Anglo-Saxon accounting system, which is ultimately the purpose of implementing IFRS (International Financial Reporting Standards).

As national accounting systems differ each from another, each of them having their own rules and norms, it is not easy to achieve the goal of transborder accounting standardization. In order to better understand the topic, in the following, we will make a brief presentation of the literature.

Many authors have studied the effect that adopting IFRS has had on national accounting systems. For example, Jermakowicz (2004) analysed the process of IFRS adoption in Belgium, which

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is a country with a Continental-European accounting system, like Romanian one. Three firms were studied, being the first to adopt IFRS in 2003. The author of the study concluded that the efforts made by companies in adopting IFRS in accounting practices resulted in a significant impact on the reported net income values.

Jermakowicz and Gornik-Tomaszewski (2006) analysed the process of implementing IFRS at the EU level and stated that several companies adopted the international standards even before the Regulation on the adoption of IFRS in the EU was issued. Following the adoption of the Regulation, the replies received from companies to the questionnaires sent by the study authors showed that most respondents adopted IFRS in order to obtain consolidated financial statements. However, they would not have adopted them if this had not been mandatory. Moreover, the adoption process is laborious, difficult and expensive, and companies did not expect to decrease the cost of equity financing.

Weiβenberger, Stahl, and Vorstius (2004) analysed the reasons why German companies preferred IFRS or American standards over national accounting standards. Among the reasons invoked we can find: gaining a higher status in the financial markets, investors from all over the world, the creation of valuable additional accounting information. However, after the *de facto* implementation of IFRS, companies reported that none of the goals listed above were met.

Niskanen, Kinnunen, and Kasanen (2000) appreciated that the IFRS reporting in Finland did not produce a significant change for the 18 firms studied between 1984-1992, the financial data reported by these companies not being radically changed. The same can be said about Spain, following the study of Callao *et al*. (2010), who did not find an improvement in the quality of accounting data following the application of IFRS. Also, Carini *et al*. (2011) state that in Italy companies are reluctant to apply IFRS because of the calculation base for the tax calculation.

In addition to studying the impact of the transition to IFRS on accounting figures, it is useful to study this correlation in terms of the auditor who certified company's financial reporting. DeAngelo (1981) and Watts and Zimmerman (1986) suggest that large audit firms provide a higher quality audit service compared to small audit firms, given that they are more independent.

Caramnis and Lennox (2008) analyse the example of Greece and conclude that Big 5 firms allow more time when auditing compared to others. Also, they find a direct correlation between the time allocated to the audit and the biased financial results. Thus, the companies audited by non-Big 5 companies showed a biased financial data.

Concluding the literature review, we can appreciate that in some countries, the IFRS implementation has produced changes on reported accounting figures, meaning that the companies have chosen to apply accounting treatments different from those permitted under national accounting

system. On the other hand, other countries did not register any significant change between the reported data under IFRS or under the national regulations. Moreover, the literature has evidenced a direct correlation between the external financial auditor of the firm and their conservatism in what concerns IFRS implementation.

In Romania there are only few studies focusing on this issue. Ionascu *et al*. (2014) and Munteanu (2011) showed that accounting practitioners are receptive and optimistic about the application of IFRS, being aware of the benefits they bring. Further, Istrate (2014) studied the effect of IFRS on the net result reported by Romanian companies, demonstrating a negative effect of IFRS implementation.

In order to study the impact of applying IFRS on economic entities listed on the stock exchange, we extended Istrate's study (2014), taking into account not only the net result but also the turnover. In order to assess the impact of IFRS implementation on reported data by Romanian listed companies, we are taking into consideration two objectives. The first one is to analyse the conservatism of Romanian firms in what concerns IFRS implementation. The second one is to check whether their degree of conservatism is linked to their external financial auditor (Big 4 or non Big 4).

Methodology, data description and discussions

Measuring the companies' turnover

In order to assess the impact of IFRS on accounting data, we used Gray's index. Gray proposed an index (1980) to measure the impact that the adoption of international accounting standards had on the accounting numbers reported by companies. He proposes an "index of conservatism" and it has the following formula:

$$I_C = 1 - \frac{R_A - R_P}{|R_A|}$$

where I_C is the Conservatism Index, R_A is the *adjusted result according to IFRS*, R_P is the *published result according to national accounting standards.* The results taken into consideration can be any reported financial number.

Gray's index measures the differences between the financial result according to national accounting standards and the result obtained from the application of international accounting standards (IFRS).

The values obtained after its computation can be explained as follows:

- If the index $I_C > 0$ then we can say that economic entities have adopted accounting practices different from national ones;
- An index $I_C < 0$ denotes companies' "conservatism" over international standards, demonstrating a preference for accounting practices that are closer to national accounting standards.

Gray suggests some limits for results interpretation. Thus, an I_C index <0.50 is characteristic for companies with a high degree of conservatism, while an I_C index> 1.50 is characteristic for very optimistic companies.

Three other subgroups were identified by Gray:

- Pessimistic subgroup, where $I_C < 0.95$;
- The optimistic subgroup, where $I_C > 1.05$;
- The neutral subgroup, where the I_C is in the range 0.95-1.05.

Conservative accounting behaviour can be encountered both at the level of national practices, generalized at the state level, but can be equally well encountered only within certain companies.

To appreciate the effect of the adoption of IFRS by the Romanian companies, we used the financial data for 2011. According to the Order of Ministry of Public Finances no. 1286/2012, the companies listed on the stock exchanges must use the International Financial Reporting Standards in its financial statements. The financial year from which this obligation was imposed was 2012. For comparability matters, the economic entities also restated their financial data for 2011. This is the reason why for the 2011 year we have annual accounts prepared both according to the Romanian accounting norms, but also according to the international financial reporting standards.

Financial statements are subject to statutory audit by one or more auditors (Toma, 2012). To collect data on the auditor of economic entities, we used the report of the independent auditor, published together with the set of financial statements for 2011 of each company on the website of the stock exchange.

Under the conditions of the adoption of IFRS, Gray's formula becomes:

$$I_C = 1 - \frac{R_{IFRS} - R_{NR}}{|R_{IFRS}|}$$

where R_{IFRS} represents the accounting result obtained following the application of IFRS, R_{NR} represents the result obtained based on Romanian norms.

As Gray's index aims to assess the changes that occurred with the application of IFRS compared to Romanian standards, the final formula becomes:

$$I_C = 1 - \frac{R_{IFRS} - R_{NR}}{|R_{NR}|}$$

The latter formula, in which the basis of comparison are national standards, has also been used in other articles, such as Haller *et al*. (2009), Hellman (2011), Istrate (2014).

Data description

The data taken into account for this study were collected from the website of the Bucharest Stock Exchange, www.bvb.ro. For the statistical processing of the collected data, we used the version 13.0 of Stata.

Starting from the total number of companies traded on the Stock Exchange, we identified some companies for which it was impossible to obtain comparative data, such as unlisted companies, or those whose financial year is different from the calendar year and others that do not have had financial reports on the Exchange's website until 2005 and 2010, respectively.

Table 1. Structure of the sample taken as a basis for calculation.

Data	No of companies
Companies listed on the Bucharest Stock Exchange	83
Financial intermediaries	-8
Companies whose financial year does not correspond to the calendar year	-1
Companies unlisted from the stock exchange	-5
Companies for which we do not have data for 2011	-7
Total companies to be analyzed	65

Source: own calculation

The companies in the sample are heterogeneous, if we refer to their size. We can distinguish the following categories of companies:

Table 2. Categories of companies

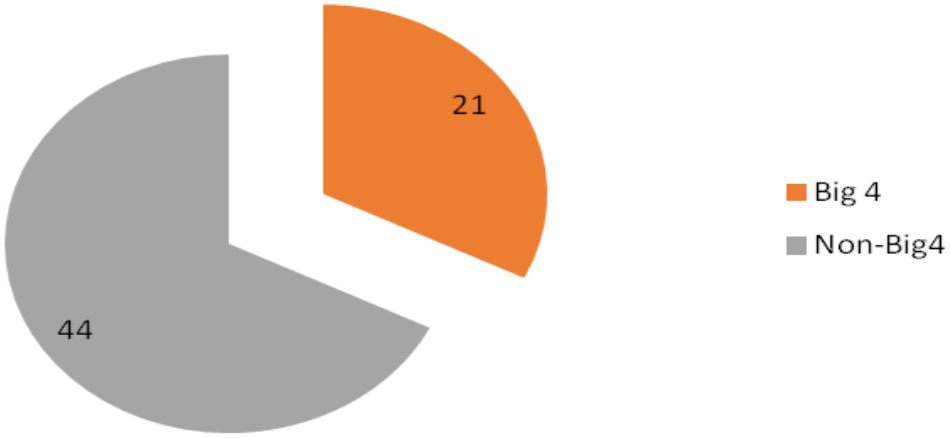
	Micro-enterprise	SME	Big Company	Very big company
Number of employees	<10	< 250	< 1000	>=1000
Turnover	< 2 mil. €	<= 50 mil. €	<= 100 mil. €	>100 mil. €
Number of companies in the sample	3	46	4	12

Source: own calculation

The auditors of these companies are diverse. Most of them opted for an auditor who is not part of the Big 4 companies. Out of the total of 65 companies in the sample, only 21 of them used the

audit services of a Big 4 company operating in Romania: KPMG, Deloitte, PricewaterhouseCoopers, Ernst & Young (see Figure 1).

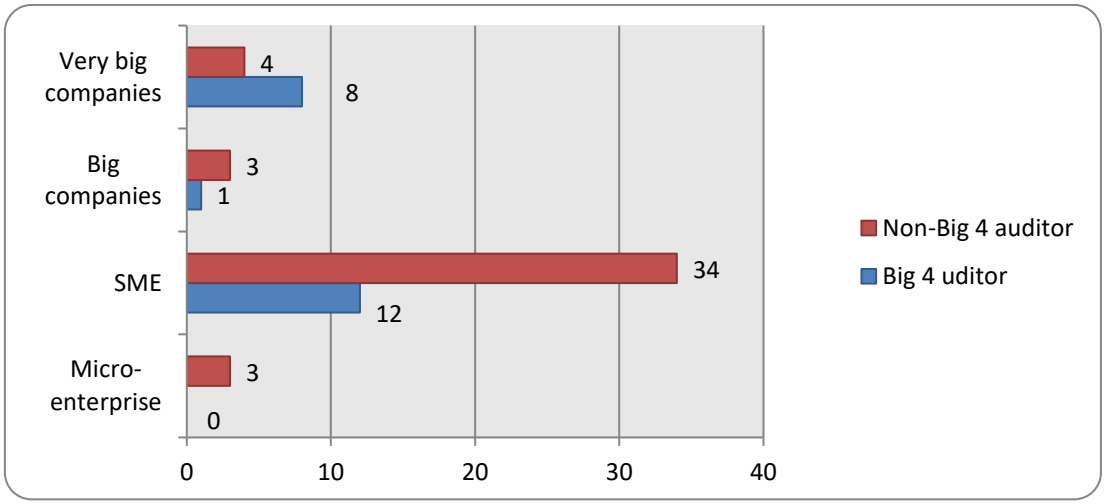
Figure 1. Distribution of economic entities by auditor



Source: own representation

If we refer to the option for a Big 4 auditor depending on the size of the company, we can notice from the figure below (Figure 2) that only in the category of the very large companies the option for a Big 4 auditor is prevalent. This is somewhat predictable, if we refer to the high price of an audit mission performed by a Big 4 company. Another reason for this preference is the superior trust that a report from such an auditor can have.

Figure 2. Option for Big 4 versus non-Big 4 auditors



Source: own representation

Model and discussion

The formula by which the turnover conservatism index was calculated is as follows:

$$IG_T = 1 - \frac{T_{IFRS} - T_{NR}}{|T_{NR}|}$$

where IG_T represents the Gray Index related to turnover, T_{IFRS} - turnover calculated according to IFRS norms, T_{NR} - turnover calculated according to Romanian norms.

Table 9 shows the classification of the index by subgroups, as well as the general index.

Table 3. Gray's turnover index

	Gray's index, general Gray's index, classified by subgroup	IG_T=0.99 No. of companies
I	0.5	1
II	0.5-0.74	0
III	0.75-0.94	1
	Pessimistic companies (<0.95)	*2 (3%)*
IV	0.95-0.99	6
V	1	50
VI	1.01-1.05	5
	Neutral Companies (0.95-1.05)	*61 (94%)*
VII	1.06-1.25	2
VIII	1.26-1.5	0
IX	1.5	0
	Optimistic companies (>1.05)	*2 (3%)*
	Total	**65 (100%)**

Source: own calculation

From the above data, we note that, on average, Romanian companies are skeptical about the application of International Financial Reporting Standards to the calculation of turnover (the general index is 0.99). The classification of the index by subgroups denotes a symmetrical distribution of pessimistic and optimistic companies (both subgroup indices have a value of 3%), most companies being neutral compared to the new standards (a majority of 94%).

From the analysis of the index in the Stata software, we can extract the general characteristics of the index: a minimum of 0.07 (the value of the index related to the most pessimistic company) and a maximum of 1.08 (the value of the index related to the most optimistic company) (table 10).

Table 4. Characteristics of the turnover index

Variable	Obs	Mean	Std. Dev.	Min	Max
IG_T	65	0.9855385	0.118388	0.07	1.08

Source: data extracted from Stata Software

The equation of the linear regression of the turnover index takes the following form:

$$\mathbf{IG_T=\beta_0+Auditor*\beta+\alpha}$$

Where:

IG_T is the dependent variable, measured by the Gray Index.

Big4_auditor is the independent variable, which shows company's selection for a Big 4 or a non-Big 4 auditor,

β are the coefficients (Coef in the table below) that describe the magnitude of the influence that being audited by one of the a Big 4 has on the dependent variable IG_T,

α is the constant (cons in the table below), or the value that the dependent variable IG_T takes when the independent variable Big4_auditor is zero, meaning that the auditor was a non-Big 4.

Table 5. Regression of the dependent variable IG_T

IG_T	Coef.	Std. Err.	t	P>|t|	[95 % Conf.	Interval]
Big4_auditor	0.034026	0.031357	1.09	0.082	-0.0286349	0.096687
Constant	0.974546	0.017823	54.68	0.000	0.9389291	1.010162
Companies	65					
F (1, 63)	1.18					
Prob. > F	0.082					
R-squared	0.018					

Source: data extracted from Stata Software

Considering the regression analysis data from Table 5 we draw several conclusions. The value of P of 0.082 shows us that the result is only significant at 10%, so we can only be sure 91.8 that the influence of the type of audit on firms' conservatism is different than zero. A direct and positive link has been evidenced between the conservatism index of turnover and the Big 4 auditor. In this sense, companies that have a Big 4 auditor have an increase in the index of 0.034 compared to the rest of the companies. The increase is not large, but a direct link has been established between these variables. If the conservatism of the firms audited by the Big 4 auditors is 1.009, the value of the same indicator for the other auditors is 0.975.

Conclusions

Our study aimed to discover the impact IFRS implementation has had on Romanian companies, focusing on their turnover. In order to asses this impact, we used Gray's conservatism index, which measures the differences between the reported turnover according to national accounting regulations versus the reported turnover under IFRS regulation.

The value obtained by the turnover conservatism index shows us that, on average, Romanian companies have been neutral, in the most optimistic scenario, in what concerns the implementation of International Financial Reporting Standards. These companies are, in majority, 100% Romanian companies. By other hand, companies that have an index beyond 1.05 are the ones who are present on the international marketplaces. These ones are interested in presenting accounting figures that are internationally comparable.

The results show the preference for accounting treatments that do not differ substantially from the national accounting standards, this being comfortable for calculating taxes. Although there is a goal in comparable financial results, the state is the most important user of the data contained in financial reports, so that Romanian companies are using mostly the national accounting referential.

Given these results, there several measures that can be implemented:

First of all, there is a big need of more IFRS courses for the practitioners. This way, these new regulations will become more understandable and more easy to use in day by day practice. These recommendations are also available for the financial auditors. As not all Romanian companies can afford a Big 4 auditor, the other auditors must get familiar with IFRS in order to assist their clients in IFRS implementation and to be able to provide reliable knowledge.

Another recommendation refers to the national accounting regulator. If the regulator permits a more flexible approach in what concerns taxation, it would be easier for the companies to use IFRS regulations when completing financial reports. This goal can be better achieved with the collaboration of the national regulator, the professional accounting body and the IFRS Foundation and the International Accounting Standards Board (IASB).

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