Emerging Markets Queries in Finance and Business

IFRS adoption in Romania: the effects upon financial information and its relevance

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Abstract

Starting from 2012, listed Romanian entities have to report their individual financial statements using International Financial Reporting Standards. This study is focused on presenting the differences between Romanian Accounting Standards and IFRS when financial information is analysed. The research is conducted upon the companies that are listed on BSE and tries to demonstrate if statistically any significance in mean, median and variance was observed among several accounting measures and financial ratios. An analysis upon the entire market and its subsamples, considering companies specialisation, was conducted. The results reveal that no statistically significant differences at median and mean level were observed. The relevance could be identified at variance variation considering the solvency ratio and the return on equity one. Regarding the subsample analysis, the results are mixt.

1. Introduction

The adoption of International Financial Reporting Standards (IFRS) is based on the fact that the accounting quality should be improved in terms of financial reporting, even though As a consequence, higher quality of financial information is expected in Romania, after the entities have adopted them. Starting with 2012, it is mandatory that financial statements to be reported under IFRS even for the individual situation. The regulation

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upon which this behaviour is imposed is based on the 881/2012 Order and 1286/2012 Order of the Ministry of Finance.

The present research is focusing on detecting if information under both accounting measures was significantly different in the pre-adoption year of IFRS. The article is organized as follow: first section presents literature review, the second one presents the section of database and methodology, the third one reveals the results that were obtained and summaries the interpretation of them, while the final section is focusing on conclusions of the conducted research.

2. Literature review

Even though improvement of financial reporting is expected, Iatridis and Rouvolis (2010) reveal that in the year of adoption, significantly higher earning management could be observed than in the pre-adoption period, as the transaction cost are extremely high. Moreover, it seems that the accounting quality in terms of financial reporting was reduced in the transition period (Lin et. All).Daskeet all (2008) conducted an analysis upon 26 countries and discovered that significant changes in market valuation could be found only in countries where entities are stimulated by financial materials to be transparent and legal enforcement is quite high. Studies in the field show mix results of financial measures reported under IFRS (Mirsigliogluet all -2013). No reliable improvement regarding financial reporting was detected in Spain (Callao et all- 2007) whileAgca and Aktas focused their research upon 25 financial statements in the pre adoption year and concluded that only the cash ratio and the asset turnover were significantly different when the entire sample is considered. Haller et all (2009) concluded that significant increase in net income and shareholder's equity considering consolidated financial statements could be revealed in Germany.

In a comparative analysis, Gaston et all (2010) discovered that both in UK and Spain the IFRS adoption had a negative impact upon financial reporting, but only for Spain it was statistically significant. Similar comparison analyses were conducted in

In Romania, no such analysis has been conducted according to our knowledge. Pascan and Turcas (2012) revealed that no proper tendency upon the value of net income could be detected on their 4 companies study.

The purpose of this study is to identify if any changes were observed in the year of pre-adoption of the International Financial Standards..

3. Database and methodology

In order to detect if the adoption of IFRS have improved the financial indicators, data from the entities that are listed on the Bucharest Stock of Exchange was collected. Initially, all companies that are traded on BSE were considered, but due to the lack of information or due to the fact that inconsistent data could be gathered, some of them were excluded. As a fact, from the entities that are listed, 22 are untraded, 1 is having its IPO emission, and 1 has other characteristics (NEP). Financial institutions (4 entities), financial societies (5 of them) and companies that are related with investment funds or intermediary activity were also excluded (FP; BRK). Companies that have opened their insolvency procedure or which were on insolvency between 2010 - 2012 were also omitted for the analysis (COFI, OLT, ENP, COS, UCM, SRT). Moreover, the societies were lack of financial information was encountered (CAOR, CMF, EPT, MPN, BVB) were not included in the analysis. As a fact, financial information for 56 companies was collected. The information is collected manually for all the entities and the period upon which the research was conducted was 2011. 2011 is the year of pre-adoption of IFRS, so the entities reported both under Romanian Accounting Standards (RAS) and the IFRS ones. In order to reveal if significant differences between the two accounting measures could be detected, financial information was compared in mean, median and variance.

Considering the literature in the field, the hypotheses upon which the study was conducted were:

- H1: There could be significant difference upon the value of accounting figures calculated under RAS and IFRS.
- H2: There could be significant difference upon the financial ratios calculated under RAS and IFRS.

For each entity, data regarding the value of their assets, liabilities, equity, net sales was collected. Moreover, financial indicators were calculated and the analysis was repeated. The indicators considered are reported in Table 1.

Table 1. Financial indicators included in the analysis

Indicator	Formula
Liquidity ratio	$Current_{assets_n}/Current\_liabilities_n$
Solvency ratio	$Total_{assets_n}/Total\_liabilities_n$
Indebtedness ratio	$Total_{liabilities_n}/Own\_equity_n$
Return on equity	$Net_{profit_n}/Own\_equity_{n-1}$
Return on assets	$Net_{profit_n}/Total\_assets_n$
Net margin	$Net_{profit_n}/Net\_sales_n$
Autonomy ratio	$Own_{equity_n}/(Long_{term_{liabilities_n}} + Own\ equity_n$

The analysis was also repeated considering the sector classification. This classification is made using the CAEN code. Moreover, the auditor variable was also considered as there is a possibility that entities to reduce their earning management if they are audited by big 4 companies.

4. Results and discussions

Firstly, the normal distribution both for the accounting measures and financial ratios was tested. The analysis also included the auditor variable, quantified as a dummy one, where 1 is allocated for the Big 4 auditors entities. The results are presented in Table 2.

Table 2.Measure accounting and financial ratios indicators- testing of normality

Measure accounting indicators	RAS values			IFRS values		
	Skewness	Kurtosis	JB	Skewness	Kurtosis	JB
	6.57	46.77	4875	6.73	48.38	5220.2
Total assets	5.18	31.72	2175.1	6.01	40.85	3681.3
Current assets	5.01	27.44	1628.2	6.67	48.75	5928.7
Short term liabilities	5.52	37.94	2664.5	5.53	35.26	2713.2
Long term liabilities	6.79	48.97	5362.6	6.88	50.01	5599.9
Own equity (n)	6.71	48	5053.8	6.76	48.44	5150.7
Own equity (n-1)	6.76	48.43	5295.4	6.67	48.74	5298.7
Net profit	5.124	29.42	1874.5	5.125	29.43	1875.4
Net sales	0.94	1.90	11.22	0.94	1.90	11.22
Liquidity ratio	3.19	15.46	449.6	3.64	19.68	759.44
Solvency ratio	4.98	31.25	2056.2	1.57	5.26	34.48
Indebtedness ratio	5.97	43.91	4162.13	-4.87	34.67	2581.42
Return on equity	7.20	52.92	6187.3	-2.75	13.96	2516.47
Return on assets	-5.26	35.01	2602.3	-5.64	38.45	185.58
Net margin	-4.32	21.88	1006.7	-4.48	22.89	1111.03
Autonomy ratio	-1.69	6.26	51.51	-2.33	8.57	123.79

*where the accounting measure indicators are scaled in millions.

The hypotheses regarding the normality of the accounting measures and financial ratios were rejecting with

a probability less than 5 per cent.

After the normality of the variables was tested, the equality of means, median and variance was analysed. For each of them the probability associated with their own significance test was pointed out. The results are presented in Table 3.

Table 3. Significance of mean, median and variance for the variables encountered

Indicators	Mean			Median			Variance
	RAS	IFRS	p-value	RAS	IFRS	Wilcoxon prob.	Levene test
Total assets	1100.1	1180.3	0.9315	163.5	162.2	0.8912	0.8622
Current assets	257.67	314.27	0.7519	54.44	54.46	0.8002	0.5493
Short term liabilities	279.79	282.35	0.9901	26.29	26.47	0.9977	0.9572
Long term liabilities	87.95	94.88	0.9133	1.92	4.76	0.2363	0.8972
Own equity (n)	572.5	597.63	0.9604	95.51	86.97	0.7270	0.9063
Own equity (n-1)	571.71	571.64	0.9044	93.88	88.91	0.8712	0.8423
Net profit	93.56	68.06	0.7905	2.00	2.03	0.6478	0.8501
Net sales	713.62	712.81	0.9987	83.54	83.56	0.9629	0.9997
Liquidity ratio	3.55	3.51	0.9602	1.90	2.05	0.6312	0.6818
Solvency ratio	7.26	5.19	0.2330	3.74	3.73	0.7270	0.0634***
Indebtedness ratio	231	15.91	0.4806	29.90	31.24	0.7489	0.1549
Return on equity	137.3	-0.91	0.3071	3.62	4.78	0.5514	0.0611***
Return on assets	-0.18	1.22	0.7726	1.82	1.70	0.7052	0.7261
Net margin	-10.85	-19.23	0.5843	2.65	2.59	0.8159	0.3101
Autonomy ratio	88.04	87.26	0.8409	97.71	87.25	0.2421	0.8153

Source: authors' calculations, Where *** is significant at 10%

As it can be seen from Table 3, no statistically significant differences at median level were observed. The relevance could be identified at variance variation considering the solvency ratio and the return on equity one. As a consequence, we expect that the subsample analysis to reveal both these results. The evidence is pointed out in Table 4.

Table 4 Relevance of accounting measures and financial ratios calculated on each individual subsample

CAEN category	Entities	Results
Oil extracting industry	DAFR, PTR, SNP	No significant differences between mean, median and variance of RAS and IFRS values could be detected (the lowest p-value for variability was 0.3089 for current assets)
Processing industry	ALR, ATB, BIO, ELMA, PREH, TBM, ARS, ALT, ARM, ARTE, BRM, SPCU, CBC, CEON, CMCM, CMP, CNTE, CGC, ELJ, ELGS, ECT, MECF, MEF, MJM, PPL, RTRA, ROCE, RRC, SNO, STZ, STIB, TRP, ART, UZT, VESY, APC, VNC,SCD	No reliable significance between RAS and IFRS value could be observed considering the accounting measures (the lower p value was detected at net profit mean comparison- 0.1795), while for the financial ratios significant variability of ROE was discovered (0.0557) and statistical uncertainty results were revealed for Solvency ratio (0.1844) and Indebtedness ratio (0.1612)
Manufacture and supply of electricity, gas, steam and air conditioning	TEL, AMO	Significant differences between variance values could be detected in accounting measures and financial ratios (Current and Total Assets, Net sales, Own Equity, Short term Liabilities) financial ratios: liquidity and solvency ratios (Leneve probability test < 0.001)
Constructions	IMP, COMI, COTR	Significant differences between variance of RAS and IFRS values could be detected in

		financial ratios (indebtedness ratio – 0.0716, net margin 0.0543 and solvency ratio 0.0335)
Wholesale and retail trade, repair of motor vehicles and motorcycles	RPH, ALU, RMAH, PEI	No significant differences between mean, median and variance of RAS and IFRS values could be detected (the lowest p-value for variability was 0.1961 for return on equity)
Transport and storage	OIL, TGN, SOCP	Significant differences between variance of RAS and IFRS values could be detected in long term liabilities (0.0661) and in autonomy ratio (0.0434)
Hotels & restaurants	BCM, TUFE, EFO	Significant differences between variance of RAS and IFRS values could be detected in autonomy ratio (0.0847) and solvency ratio (0.0224)

As it can be seen, mixt results are obtained when the subsample analysis is conducted. Almost each subdivision has the variability of solvency ratio significant different if both accounting measures are discussed. It could be concluded that even though no relevance of individual elements could be detected, taken as a whole (as a ratio), their value is important for the development of the company.

For oil extracting industry no significance of difference between the accounting measures under RAS and under IFRS could be identified. This aspect could be due to the fact that these societies relay their analysis on long term perspective.

Considering the processing industry the variability of return on equity is significantly important. This means that entities that act in this area obtained a higher variability of their shareholders' remuneration. It could be due to the fact that implementation of IFRS could basically generate higher variability of net profit, which is a sign of earnings management mitigation process.

On Manufacture and supply of electricity, gas, steam and air conditioning area, several accounting measures and accounting ratios were considered significant. The problem is conferred by the fact that only 2 companies are included, so the results obtained could be doubtful.

On construction field, the variability of solvency, indebtedness ratio and net margin is significant, which summaries not only the indicators for short term activity, but also for long term one in order to ensure entity development.

Surprisingly, no relevance of any indicator (mean, median and variance) could be observed on wholesale and retail trade, repair of motor vehicles and motorcycle, even though all entities are in the wholesale and retail trade sector. We expected that these companies to reveal significant differences as they usually focused on short term profitability.

Transport and storage domain points out that significant variability of long term liabilities and autonomy ratios were detected. In fact, these elements could ensure the sustainability of the companies on the long run, as this companies base their strategy on long run development, but could be less sensitive to macroeconomic fluctuations.

The last category, Hotels & restaurants have the variability of solvency and autonomy ratio significant, which illustrates that they base their development on own resources and not on borrowed capital from other entities. Moreover, they solvency ratio relevance points out that these entities try to create a sustainable development, which could not be affected by fluctuations in other area.

Conclusions

This research was conducted on the BSE entities and tried to identify if any significant differences in accounting measures and financial ratios in the pre-adoption year of IFRS were observed. The results show that no significance at mean and median level was detected, but when the variance was analysed, solvency ratios and return on equity one were found relevant. Moreover, at subsample analysis, other elements were discovered

important as return on equity on processing industry, variability of solvency, indebtedness ratio and net margin on construction field, significant variability of long term liabilities and autonomy ratio for transport and storage domain and solvency and autonomy ratio for Hotels & restaurants category. For oil extracting industry and wholesale and retail trade, repair of motor vehicles and motorcycle specialization no relevance of any indicator was established, while for manufacture and supply of electricity, gas, steam and air conditioning area the results are doubtful.

The lack of our research was created that no all entities that are traded on The Bucharest Stock of Exchange were analysed due to the lack of information or their insolvency procedure. Other problems are correlated with collecting manually the data and with the ambiguous reporting by these entities.

Further study could be done on specific sectors, by including in the analysis all companies that act on the Romanian market. An analysis upon the entities that had insolvency problems could also be conducted. Moreover, the research could be repeated by observing if any significant differences could be gathered after the period of transition to IFRS accounting measure.

Acknowledgements

References

Agka, A., Aktas, R., 2007. First Time Application of IFRs and Its Impact on Financial Ratios: A Study on Turkish Listed Firms. Problems and Perspectives in Management 5, p. 99-112.

Beuren, I., M., Hein, N., Klann, R., C., 2008. Impact of the IFRS and US-GAAP on economic-financial indicators, Managerial Auditing Journal 23, p. 632 - 649.

Callao, S., Jarne, J., I., Lainez, J., A., 2007.Adoption of IFRS in Spain: Effect on the comparability and relevance of financial reporting, Journal of International Accounting, Auditing and Taxation 16, p. 148-178

Daske,H. et all., 2008. Mandatory IFRS Reporting around the World: Early Evidence on the Economic Consequences. Journal of Accounting Research 46, p. 1085-1142342

Haller, A., Ernstberger, J., Froschhammer, M., 2009. Implications of the mandatory transition from national GAAP to IFRS — Empirical evidence from Germany, Advances in Accounting, incorporating Advances in International Accounting 25, p. 226-236**.**

Iatridis, G., Rouvolis, S., 2010. The post-adoption effects of the implementation of International Financial Reporting Standards in Greece, Journal of International Accounting, Auditing and Taxation 19, p. 55-65.

Lin, S., Ricardi, W., Wang, C. 2012.Does accounting quality change following a switch from U.S. GAAP to IFRS?Evidence from Germany. Journal of Accounting and Public Policy 31, p. 641-657.

Mirsiglioglu, I., U., Tuker, J., Yukselturk, O., 2013. Does Mandatory Adoption of IFRS Guarantee Compliance?, The International Journal of Accounting 48, p. 327-363

Pascan, I., D., Turcas, M., 2012. Measuring the impact of first-time adoption of International Financial Reporting Standards on the performance of Romanian listed entities, Procedia Economics and Finance 3, p. 211-216