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An Empirical Attempt on determining an Adjusted Model of Accounting Manipulation Detection

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Abstract
The quality of the information disclosed by financial statements is fundamental on assuring an optimal decision-making process. Determinants of financial information quality are numerous, but users' focus must be especially on the accounting compliance of firms' accounting strategy with current accounting regulation and international best practice. Unfortunately, financial reporting practice underline the opportunity of various accounting manipulation practices used by the preparers, leading in some cases to material financial figures alteration, and consequently to adverse selection in capital allocation. In this article we try to adjust Dechow et al. (2011) model to the Romanian economic environment.
Keywords: earnings quality; accruals; accounting manipulation; IFRS; Fscore.

Introduction

Financing decision is essential within the actual context of the recent financial crisis, reason why managers use various strategies for financing policy optimization, through the component of capital cost reduction and increase of the firms market value. This purpose affects significantly the quality of financial information disclosed by the mandatory and voluntary corporate financial reporting. Accounting

manipulation practice is part of current reality through a wide range of techniques and tools. The motivations behind those practices lead to multiple objectives set up by managers, shareholders and the other stakeholders. The fraud triangle is more than relevant when describing the context of the discussion, as the pillars of pressure, opportunity and rationalization depict fairly the construction of each of those practices (Hayes et. al., 2005). It just remain the question how can be drawn-up the boundaries between fraud and creative accounting and how the economic environment is reacting to such practices (enforcements mechanisms, quality of conceptual reporting framework, corporate governance practice, analysts' and auditors' missions, market perception on cost of capital and shares liquidity etc.).

The quality of financial information is fundamental on investors' resources allocation strategies, as moral hazard and adverse selection are altering the investment decision, especially in case of individual investors that cannot use analysts' services. Same, financial reporting quality is necessary for the markets to inspire confidence within investors that can lead to higher market liquidity, lower cost of capital, an implied reduced level of uncertainty and a proper environment for a sustainable economic growth.

Despite the advantages of a high quality financial reporting, significant part of the managers choose to manipulate accounting numbers by smoothing earnings over time, avoiding losses or earnings declines, delaying liabilities recognition, miss-classifying assets, or simply becoming more creative on building a superficial perception of firms financial health through financial statements.

In this article, we want to bring some insights on analytical techniques used on detecting accounts manipulation, by redesigning the model of Dechow et al. (2011). This model is one of several similar models, aimed to detect earnings management based on a score function built on accounting measures, which correlate the value relevance of the information disclosed on the statement of financial position, the statement of profit and loss, and the statement of cash flow.

This study is relevant in the context of the dynamics of Romanian accounting regulation, and the significant and continuous efforts of local standard-setter to harmonize local GAAP with the European Directives, and the International Financial Reporting Standards (IFRS).

The contradictory results regarding benefits and costs of IFRS adoption have installed an initial confusion around the decision of IFRS adoption, thus leading numerous companies before mandated IFRS adoption to follow strategies of delisting in order to avoid IFRS implementation at firm level (Bruggemann et. al., 2012).

The empirical analysis reveal potential risk of accounts manipulation within the process of IFRS implementation, as the recent experience revealed visible disparities on IFRS adoption and practice (Nobes, 2011) and the adoption of IFRS is not voluntary, but mandated.

Review of Related Studies

There is an end-less discussion in the literature, regarding financial information manipulation, as they are various opinions about the motivations or determinants that stay behind them (Stolowy and Breton, 2000; Dechow et al., 2010). These reviews seem to highlight a lack of a clear definition of what earnings management means. They draw several motivations behind the practice of earnings management and accounting manipulation, and try to make an in-depth analysis of the impact on decision making by analyzing the quality of the earnings, the accruals and their qualitative structure in order to isolate the discretionary component reflecting bad accounting practices.

Accounting manipulation techniques taxonomy

The interest for accounts manipulation, as a considerable part of earnings management practices, is visible as numerous areas such as firm valuation, debt contracting, managers accountability, or executive compensation contracts, use information disclosed on financial statements (Dichev et al., 2013). It is clear that all the financial numbers game's practices aim to alter, or distort a company's true financial performance and position in order to achieve a desired result, and mislead the users of financial information. What differ among the existing definitions is the distinction between real manipulation (timing of transactions) and artificial manipulation (timing of presentation).

The accounts manipulation consists of three main directions:

- use of accounting choice, of which effect in investors decision making is mainly influenced by manager's intention to follow firm's objectives, or only personal interest (Fields et. al., 2001);
- opportunistic classification and disclosure items, favored by the lack of approach within the existing accounting regulation, which

permits the managers to control the level of financial transparency and determine them to use aggressive accounting practices that force the limits of the principle-based accounting standards (Ronen and Yaari, 2008);

- structuring and timing real transactions in order to achieve financial targets or aim for management buyout, case when they are opportune the use of various creative accounting techniques (big bath accounting, in substance defeasance, bill-and-hold transactions, channel stuffing, lease-back operation) (Stolowy and Breton, 2000).

In order to reduce accounts manipulation, the process of international accounting convergence conducted by IASB was supported, on a global scale, in order to limit the negative effects of the alternative accounting choices. But, this seemed to be not enough as the reporting incentives created by the markets and institutional structures play a central role for managers in setting the financial reporting strategy (Graham et al., 2005; Burgstahler et al., 2006). This is the way economic substance became relative, based on a function of managers' incentives, accounting standards quality, enforcement mechanisms and maybe, most important, the politics and economics of accounting regulation.

The problem of accounting misclassification and improper accounts recognition in financial statements is an old preoccupation of the international accounting standard-setters. Just that the political factor is persistent, through the lobbying practices, on preserving multiple accounting choices in order to defend especially the tax interest of the state in financial reporting as there is evidence that the firms tend to stimulate the tax directors to reduce the fiscal base as much as possible (Armstrong et al., 2012; Graham et al., 2013).

Structuring and timing real transactions in order to manipulate accounting numbers, shows the small flexibility of the accounting systems reported to the economic system they should serve. There is empirical evidence that managers prefer management activities manipulation instead of accounting manipulation, as the accruals manipulation are considered a substitute of real activities manipulation because of the higher cost of accrual manipulation (Graham et al., 2005; Zang, 2012). This means that the standard-setters have to focus more on detecting different potential fraudulent schemes, and less on prescribing different additional accounting choices to cover controversial specific topic of accounting.

Earnings quality factors

Defining earnings quality means we have to look for consistency of reporting choices over time, long-term estimates avoidance, earnings persistence based on a real economic growth, a strong correlation between earnings and future cash flows, a less volatile behavior of earnings than cash flow variations, or simply the achievement of a benchmarked level of earnings (Dechow et al., 2010; Graham et. al., 2013).

Dechow et al. (2010) reveals among the basic earnings quality determinants:

- the firm's characteristics defined by firm size, financial performance, perspectives of economic growth, or simply by debt covenants which, in general, are associated with accounting method choice;
- financial reporting practices, influencing earnings quality by discretionary financial reporting practices;
- governance mechanisms, which determine a slight reduction of earnings management practices in case of optimal executive compensation, a dispersed shares ownership, or efficient internal control mechanisms;
- quality of audit, a function depending on the auditor efforts and effectiveness explained by factors such auditor reputation, expertise, independence or perceived incentives and litigation risk implied by the contract of audit;
- equity market incentives which explain why managers are willing to engage in earnings management practices to assure better condition for IPOs issuance, or simply because they try to achieve different earnings benchmarks or targets set up by contractual agreements;
- other external factors that reflect the economic and political costs of earnings management, through accounting choice, referring to costs of debts covenants violations, state sanctions and lawsuits costs, or tax avoidance litigation costs.

Demirkan et al. (2012) explains cost of capital evolution not only by earnings management practices, but also by business model complexity, raising more severe internal agency problems. Belkaoui (1999) prove the causal relation between magnitude of earnings manipulation and firms' business model, with focus on international activities. Moreover, the national culture takes an important place on

earnings managements, earnings quality being positively associated with uncertainty avoidance, especially by its discretionary component (Nabar and Boonlert, 2007). An additional determinant of earnings quality is mentioned in Francis et al. (2006), who sustains that, in spite of methodological issue regarding empirical validation, the quality of the information system can be considered a significant factor of earnings quality, as it is required to integrate more and more sophisticated accounting valuation techniques.

Belkoui (2006) choose a different approach on analyzing the impact of earnings quality, as he points out interdependent relationship between earnings opacity, accounting system, religious perception regarding earnings manipulation, political environment and macroeconomic factors. Important insights are brought regarding the reality that validate a higher impact of political environment, social and economic elements on earnings opacity (defined as a complex interaction between the managerial motivation, accounting standards, and the enforcement of accounting standards) than the accounting order.

Methodology research

Detecting accounts manipulation is an old preoccupation among the academics and practitioners, vivid proof being the vast literature developed around analytical procedures used within the audit missions. Analytical procedures consist of the analysis of significant ratios and trends including the resulting investigation of fluctuations and relationships that are inconsistent with other relevant information or deviate from predictable amounts (Hayes et. al., 2005; Dechow et al., 2010). They include trend analysis, ratio analysis, reasonableness testing or data mining analysis used for big data handling, their use being necessary on estimating significant audit risks in any phase of audit mission, including within the substantive testing.

Recent trends emphasize an increasing interest of auditors in using data mining techniques, based on more sophisticated multivariate statistical tools, aimed to direct the auditors' efforts towards a more rigorous and systematic way of financial statements interpretation. Factor analysis, principal components analysis, discriminate analysis, multivariate regression analysis, or inference statistics are the mostly used techniques in international auditing (Robu, 2014).

This study is designed to check Dechow et al. (2011) F-score model validity in the case of Romanian accounting environment, in the

context of recent mandatory IFRS adoption for statutory financial statements. The F-score model is defined by the relation bellow:

$$\widetilde{Fscore} = -6.789 + 0.817 * RSST + 3.230 * \Delta Rec + 2.436 * \Delta Inv + 0.122 * \Delta Cash\ Sales - 0.992 * \Delta Earnings + 0.972 * ACTI$$

, where:

RSST= $\Delta WC + \Delta NCO + \Delta FIN$

$$\Delta WC = (Current\ Assets - Cash\ \&Short\ term\ Investments) - (Current\ Liabilities - Debt\ in\ Current\ Liabilities)$$

$$\Delta NCO = (Total\ Assets - Current\ Assets - Investments\ \&Advances) - (Total\ Liabilities - Current\ Liabilities - Long\ term\ Debt)$$

$$\Delta Fin = (Short\ term\ Investments + Long\ term\ Investments) - (Long\ term\ Debt + Debt\ in\ Current\ Liabilities)$$

$$\Delta Rec = Rec_t - Rec_{t-1}$$

$$\Delta Inv = Inv_t - Inv_{t-1}$$

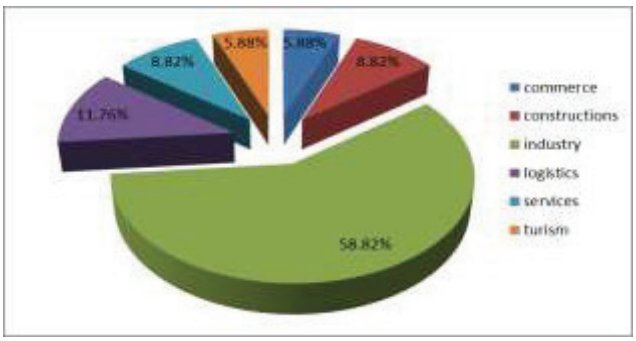
$$\Delta Cash\ Sales = \frac{Sales_t - \Delta Rec}{Sales_t}$$

$$\Delta Earnings = \frac{Earning_t}{\overline{TA}_t} - \frac{Earning_{t-1}}{\overline{TA}_{t-1}}$$

$ACTI_t$ - dummy variable controlling securities issuance during current year coded by 1 if the firm issued securities during year *t*.

$\widetilde{Fscore}$ values determine a predictive value which appreciate a firm's odds for accounting manipulation, as the econometric model is the binomial logistic regression. Mathematically, this means that the conditional probability for accounts manipulation in case of a firm *X* is calculated based on Fscore predictive value, using relation $Prob = \frac{e^{\widetilde{Fscore}_X}}{1+e^{\widetilde{Fscore}_X}}$. The unconditional probability is set up to 0.34% as it depend on the sample size used on Dechow et al. (2011) model. Consequently, we can calculate the *Fscore* value by reporting conditional probability to the unconditional probability, namely $= \frac{Prob}{0.0034}$. An *Fscore* greater than 1 indicate a higher probability of accounts manipulation.

Fig. no. 1. Sample distribution by activity



Source: authors own projection

The sample consists of the companies with the first most 34 liquid stock shares transacted on the Bucharest Stock Exchange. All financial information where collected by consulting each company's website and financial statements published on the BSE website. They refer to period 2011-2013 financial statements, being prepared according to IFRS, meaning a total of 2,161 observations.

We will use SPSS 20.0 and Excel to proceed on data analysis, as follows:

- calculate the differences corresponding to 2012 and 2013 *Fscore* model;
- calculate descriptive statistics for main indicators composing predictive *Fscore*;
- determine the impact of ΔWC, ΔNCO, ΔFin on accruals variation magnitude (RSST);
- determine the probability distribution of the *Fscore* values obtained by year;
- proceed to redesign the coefficient of *Fscore* model, based on our sample observations:
  - first we classify the firms in two groups, firm with risk of manipulated accounting figures („manipulated") and firms without risk of manipulated accounting figures („non-manipulated");
  - we check for correlations between variables included in Dechow et. al. (2011) model and eliminate those with high coefficient of correlation, in order to avoid multi-linearity hypothesis;

- we proceed to a principal components analysis, to see how used parameters explain total variance among the entire sample observations;
- afterwards, we determine a binary logistic regression model that predicts if firm manipulate accounts or not, based on the uncorrelated parameters explaining the most part of total variation;
- we check for model validation according to the classification rate done by the model.

Results and discussion

On enterprise level, numerous comparative empirical studies are performed between reporting financial performances recorded in accordance with IASB international accounting standards and national accounting standards. These studies, based on cross-country samples, prove enhanced quality of accounting information released from financial statements prepared under IFRS (Chen et. al., 2010; Barth et. al., 2013), ensured by reducing earnings management practices determined by accounting choice. These results must be used cautiously because of the increasing flexibility of the revised and the new IFRSs, as they permit more options in areas of earnings smoothing, especially in the case of the mandatory IFRS adopters, who accounting chosen policies depends on market and institutional structures incentives (Capkun et. al., 2009).

IFRS adoption decision in Romanian environment has taken a long time, especially under the pressure of international financial institutions and political objectives. Actually, IFRS is mandatory for statutory and consolidated financial statement for financial institutions and listed companies. However, there remained the problem of a dual accounting system as Street and Larson (2004) revealed.

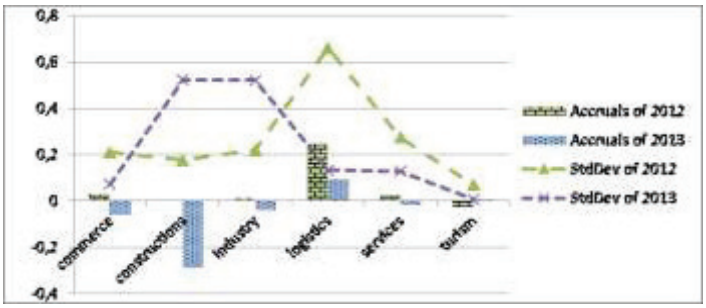
In spite of these results and of the higher claimed implementation costs and several areas of ambiguity provided by IFRS, Romanian environment shows a positive perception towards IFRS (Ionascu et. al., 2014). Cost of capital decrease, increase in transparency, comparability, value relevance and forecast accuracy as well are main reasons encouraging a real IFRS implementation at firms' level.

Table no. 1. Most important KPIs evolution

KPI	Year	*Commerce*	*Constructions*	*Industry*	*Logistics*	*Services*	*Tourism*
ROE	2011	5.75%	1.31%	23.96%	5.85%	2.78%	1.32%
	2012	0.34%	2.79%	5.49%	4.19%	-1.71%	1.55%
	2013	-2.20%	2.05%	7.29%	6.19%	1.84%	1.28%
Leverage	2011	51.22%	29.07%	41.47%	28.47%	14.50%	11.75%
	2012	54.80%	27.37%	43.43%	27.33%	13.87%	8.32%
	2013	51.98%	27.60%	14.71%	16.08%	13.95%	8.32%
Cash Cycle (days)	2011	-0.29	0.05	4.33	0.02	8.17	0.18
	2012	-0.10	0.02	4.01	0.03	2.42	0.15
	2013	-0.01	0.27	4.40	0.07	1.21	0.18
ROA	2011	53.17%	54.75%	100.30%	41.37%	40.70%	19.25%
	2012	60.19%	49.98%	93.59%	38.46%	39.22%	21.79%
	2013	66.10%	47.12%	39.16%	36.01%	39.66%	19.40%

Source: authors own calculation with Excel

Fig. no. 2. Deflated accruals level by type of activity

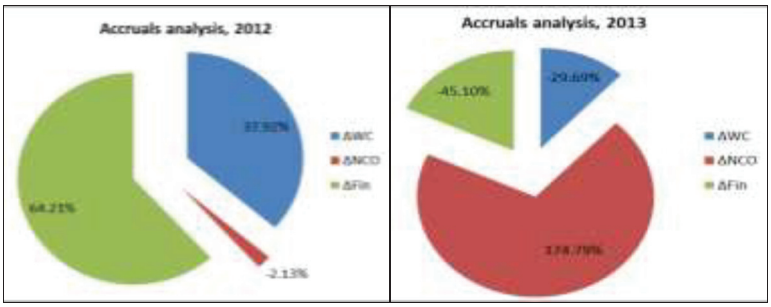


Source: authors own projection with Excel

Unfortunately, the level of accruals by firm varies widely, as the variance coefficient of standard deviation on the mean is of 60.11% for 2012 figures and of 169.45% for 2013 figures. This situation can be explained by the IFRS transition effects, which generated a substantial negative result in the comprehensive income statement of the firms, especially cause of IAS 29 inflation adjustments required for the equity capital.

The extreme values of accruals in domains like constructions and logistics are explainable as the length of the operating cycle is shorter and the level of inventory is low, compared with the industry firms.

Fig. no. 3. Components analysis of accruals



Source: authors own projection with Excel

The differences between IFRS and RAS regarding financial instruments accounting treatments has led to significant negative values of RSST, especially cause of the fair value impact on financial instruments valuation.

Table no. 2

Panel A: descriptive statistics for year 2012 (deflated by assets avg.)

	RSST	*ΔRec*	*ΔInv*	*ΔCash sales*	*ΔEarnings*
Mean	-0.069	0.008	0.000	0.766	-0.007
Standard Error	0.042	0.011	0.006	0.087	0.007
Minimum	-0.786	-0.200	-0.092	0.046	-0.119
Maximum	0.293	0.148	0.102	2.429	0.070
Confidence Level(95.0%)	0.084	0.022	0.013	0.178	0.015

Source: authors own calculation with Excel

There is interest of preparers on using income smoothing as the relation $\frac{\sigma(Earnings)}{\sigma(CFO)}$ takes value of 64.48% for 2011, 58.25% for 2012 and 64.16% for 2013, far from the ideal value.

Table no. 3

Panel B: descriptive statistics for year 2013 (deflated by assets avg.)

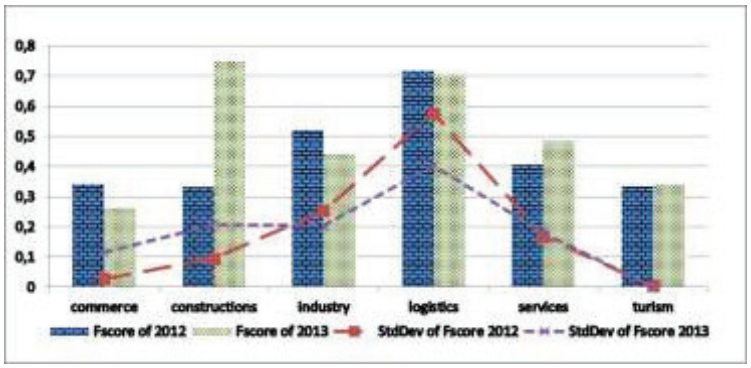
	RSST	*ΔRec*	*ΔInv*	*ΔCash sales*	*ΔEarnings*
Mean	-0.043	0.013	0.003	0.742	0.026
Standard Error	0.073	0.013	0.005	0.081	0.019
Minimum	-2.107	-0.222	-0.069	0.077	-0.072
Maximum	0.644	0.258	0.092	1.924	0.612
Confidence Level(95.0%)	0.150	0.027	0.010	0.165	0.040

Source: authors own calculation with Excel

The *Fscore* values obtained by applying Dechow et. al. (2011) model, reveal visible discrepancies among industries, confirming that accounting manipulation depend on industry specific, as well.

There is visible a change in the *Fscore* from 2012 to 2013, showing a slightly increase in accounting manipulation risk, as for 2012 there were 27 firms with an *Fscore* less than 0.5, and for 2013 they became only 23 firms with a *Fscore* less than 0.5.

Fig. no. 4. FScoresplit by type of activity



Source: authors own projection with Excel

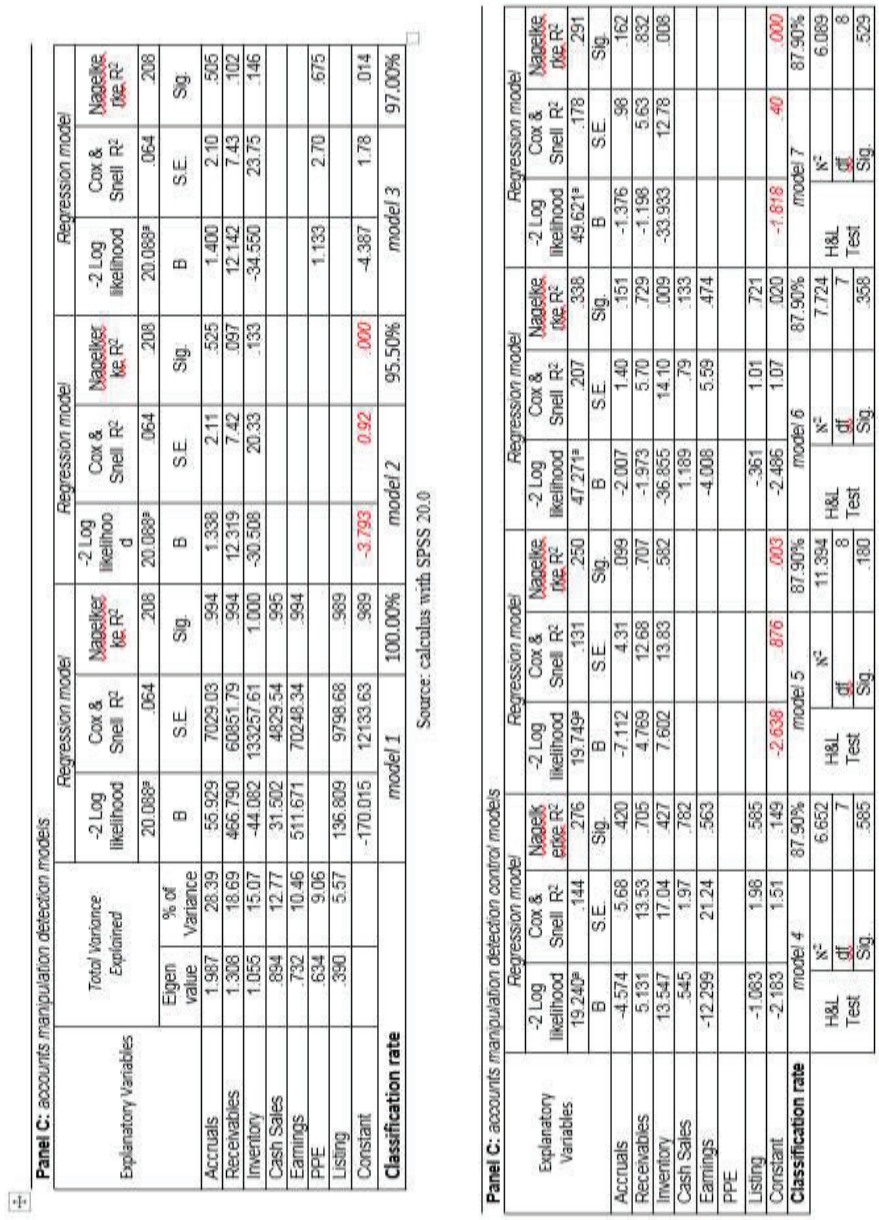
In addition, there is evidence for 2012, that the financial component of RSST accruals is high, most probably as an effect of the fair value model first implementation. On the next year, the situation turn around, as the non-operating component of accruals is really high, suggesting an increase in accounting manipulation through the accounting estimates used.

Table no. 4. Correlation Matrix

	Accruals	Receivables	Inventory	Cash Sales	Earnings	PPE	Listing
Accruals	1	.077	-.022	***.365***	.081	-.059	-.257
Receivables		1	.279	.041	.064	.064	-.117
Inventory			1	.255	***.370***	.081	***-.348***
Cash Sales				1	.106	-.225	-.257
Earnings					1	-.115	-.202
PPE						1	-.048
Listing							1

Source: author's calculation with SPSS 20.0

In addition, if we look at the maximum values for measure of Cash Sales variation, and correlate with a relative low variance in receivables, we can assume that earnings smoothing practices most probably affect the financial statements. However, it is hard to decompose Sales variation into variation cause by accounting choice, fundamental earnings process, or intentional earnings smoothing (fraudulent revenue recognition). Moreover, the numerous changes made in the revenue recognition area along the last ten years have induced more flexibility for the preparers of the financial statements.



Panel C: *accounts manipulation detection models*

Explanatory Variables	Total Variance Explained		Regression model				Regression model				Regression model			
	Eigen value	% of Variance	-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2		-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2		-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2	
			20.088[a]	.064	.208		20.088[a]	.064	.208		20.088[a]	.064	.208	
			B	S.E.	Sig.		B	S.E.	Sig.		B	S.E.	Sig.	
Accruals	1.987	28.39	55.929	7029.03	.994		1.338	2.11	.525		1.400	2.10	.505	
Receivables	1.308	18.69	466.790	60851.79	.994		12.319	7.42	.097		12.142	7.43	.102	
Inventory	1.055	15.07	-44.082	133257.61	1.000		-30.508	20.33	.133		-34.550	23.75	.146	
Cash Sales	.894	12.77	31.502	4829.54	.995									
Earnings	.732	10.46	511.671	70248.34	.994									
PPE	.634	9.06									1.133	2.70	.675	
Listing	.390	5.57	136.809	9798.68	.989									
Constant			-170.015	12133.63	.989		-3.793	0.92	.000		-4.387	1.78	.014	
Classification rate			*model 1*		100.00%		*model 2*		95.50%		*model 3*		97.00%	

Source: calculus with SPSS 20.0

Panel C: *accounts manipulation detection control models*

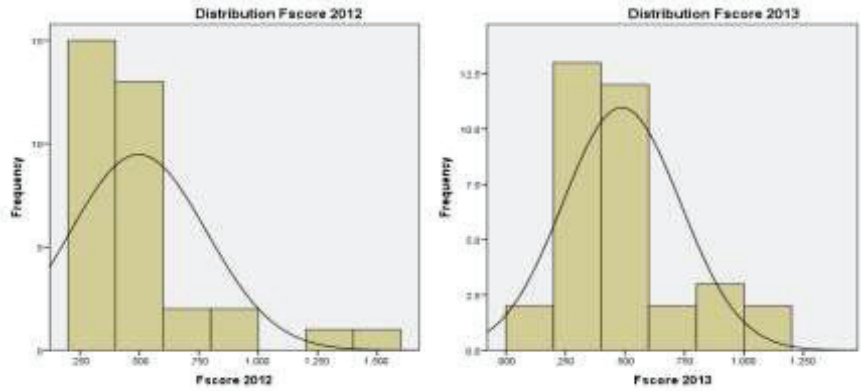
Explanatory Variables	Regression model				Regression model				Regression model				Regression model			
	-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2		-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2		-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2		-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2	
	19.240[a]	.144	.276		19.749[a]	.131	.250		47.271[a]	.207	.338		49.621[a]	.178	.291	
	B	S.E.	Sig.		B	S.E.	Sig.		B	S.E.	Sig.		B	S.E.	Sig.	
Accruals	-4.574	5.68	.420		-7.112	4.31	.099		-2.007	1.40	.151		-1.376	.98	.162	
Receivables	5.131	13.53	.705		4.769	12.68	.707		-1.973	5.70	.729		-1.198	5.63	.832	
Inventory	13.547	17.04	.427		7.602	13.83	.582		-36.855	14.10	.009		-33.933	12.78	.008	
Cash Sales	.545	1.97	.782						1.169	.79	.133					
Earnings	-12.299	21.24	.563						-4.008	5.59	.474					
PPE																
Listing	-1.663	1.96	.585						-.351	1.01	.721					
Constant	-2.183	1.51	.149		-2.636	.876	.003		-2.486	1.07	.020		-1.818	.40	.000	
Classification rate	*model 4*		87.90%		*model 5*		87.90%		*model 6*		87.90%		*model 7*		87.90%	
H&L Test	K^2		6.652		K^2		11.394		K^2		7.724		K^2		6.089	
	df		7		df		8		df		7		df		8	
	Sig.		.585		Sig.		.180		Sig.		.358		Sig.		.529	

Source: calculus with SPSS 20.0

Next, we try to estimate the sign reflecting the type of the influence of each variable considered in the accounts manipulation detection model, by estimating a new logistic regression based on the financial measures included in our sample and the classification made by applying the Dechow et al. (2010) model.

The correlation matrix emphasizes a strong relation of dependence between variance of Cash Sales and Accruals. In addition, inventory variances are positively related with variation in earnings, but negatively associated with the listing dummy variable. Consequently, we will proceed to eliminate several variables from the Dechow et al. (2010) model in order to avoid the variables being collinear.

Fig. no. 5. Fscore Histogram split by year



Source: authors' projection with SPSS 20.0

On building models adjusted to Romanian environment for measuring the risk of accounts manipulation, we first eliminate variables Cash Sales, Earnings and Listing as they correlate with the other considered variables.

In addition, we consider an additional variable PPE, widely used on the classic accruals models, to reflect the impact of the accounting estimates (depreciation, impairment, fraudulent expenses capitalization).

The first model is a pure copy of the Dechow et al. (2010) model regarding the dependent used variable. Even if the classification rate given by the model is 100%, we can't validate this model as the variables used are strongly correlated. This is cause by the high number of variables for such a small sample of observations and the impact of extreme values as Dechow et al. (2012) also appreciated.

There is a rule in the multivariate data analysis that as many variables are, as the sample of observations must be larger, meaning that we have to reduce the variables from the model. The twofold criteria

used are the Pearson correlation value and the percentage of variance explaining the total variance within the sample observations. Consequently we obtain a new model using only variables RSST, inventory variance and receivables variance (model 2, model 3), which has a classification rate of 95% with all coefficients significantly different of null value (all Sig. values are greater than 5%).

The marginal effect of including the PPE measure as an additional variable in the model seems to improve the classification rate only with 2%. Model 3 can lead us to the conclusion that there is small risk that accounting manipulations referring to PPE accounting deter financial information.

Classification used to group the financial statements is made based on the *Fscore* obtained for each firm included in our sample. But this type of classification is relative as the regression function used for extrapolation is determined on a samples based on US firms being charged officially for financial statements manipulation. Therefore, our initial classification presumes that we accept the model is valid for Romanian environment as well.

Therefore, we introduce alternative control models (models 4 and model 6 VS model 1, models 5 and model 7 VS model 2) using different classification criteria. In case of models 4 and 5 we have classified firms, only for 2012 according to the information disclosed in the financial statements that mention in financial statements for 2013 year that the values corresponding to 2012 figures were adjusted because accounting misstatements. In case of models 6 and 7 we classified financial statements as being affected by accounting manipulation practices if net cash flow was of different sign than the net income, as theoretically there should be a strong positive connection between the two financial measures.

The results for the other four models are not conclusive as the signs vary from first model to the control models in case of inventory, earnings or listing independent variables. This situation can be explained especially because of the small size of used sample and because of the extreme values included in the regression models and the incompatible criteria used on classifying altered financial statements. We tend to make use rather on the control models as they base the financial statements classification on local data.

Essential on determining a more accurate predictive function of accounting manipulation, is the creation of a long timeframe database

containing evidence with firms found to misstate the financial statements, as SEC already does.

Conclusion

Our study tried to reveal some aspects regarding the impact of accrual accounting on the value relevance of the financial information, from the perspective of potential accounting manipulation managers tend to make use. There is evidence that the value relevance of the financial information is only slightly affected by the accruals component generate by the earnings management practices consisting of option for different accounting choices preferred by preparers of the financial statements. Analytical procedures used in auditing financial statements prove to be of real support, as results obtained from using multivariate data analysis are appreciate as confident. It is essential to mention that this does not mean the ratios analysis, or trend analysis will become useless. They can be used as control tools, complementary to the advanced statistics tools.

Statistical test run shows that the Dechow et al. (2010) model has to be adjusted to local environment. Surprisingly, the only financial measure that is in contradiction with the expected sign of influence on the risk of the accounting manipulation is the variation of inventory. Even so, there is only small evidence that the financial statements affected by the IFRS transition are actually deterred by accounting manipulations, as only 4.5% from the firms included on our sample were classified as with high risk of accounts manipulated according to Dechow et al. (2010) model. However, these results have to be interpreted carefully, as IFRS 1 permits on the first financial statements prepared according to IFRS several exemptions, especially when we refer to accounting estimates and implementation of the fair value valuation basis for assets. First financial statements prepared according IFRS requirements have to be analyzed with caution, as there is a theoretical risk of accounting manipulation such as big bath accounting, knowing that IFRS transition will record a significant negative result anyway.

Concluding, we are aware of the caveats of our research, looking forward for improving the weaknesses revealed in the paper. Overall, we recognize the opportunity of adopting IFRS, but auditor have to keep an eye open all the time, as the new financial reporting philosophy move from a rules-based accounting to a more flexible principle-based

accounting, where the professional judgment gain a central place on accounting strategy configuration. Corporate governance mechanisms, as well, have to focus their resources more in the direction of strengthening their internal control procedures and improve the instruments used. The elements from the multivariate data analysis techniques have to be used on a wider range of professionals, as they can offer more precise information, but with regard to the effects of the continuous IASB accounting standards improvement strategy.

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