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Fair value accounting and market reaction: evidence from Romanian listed companies

Iuliana Georgescu a, Leontina Păvăloaia b, Ioan-Bogdan Robu c*

a, b, c Alexandru Ioan Cuza University of Iasi, B-dul Carol I nr 22, Iasi 700505, Romania

Abstract

The quality of the accounting information is determined by its capacity to capture the reality regarding the financial position and performance of the company by confronting the interested parts. On the stock exchange, the quality of the accounting information seen from the credibility point of view can be evaluated through the influence of the results in the financial statements on the market value of the company. The objective of this study is to estimate and test the existence of an influence of the accounting information on the market value, based on the multiple linear regressions. The analyzed sample contains 64 BSE listed companies, between 2010 and 2011, for which data has been collected from the annual and interim financial statements. The results of the study show that the accounting information in the interim financial statements have a greater influence on the market value compared to the information in the annual financial statements.

Keywords: Fair value, accounting information, book value, earnings, market value;

1. Introduction

According to the agency theory, the company is regarded to as a sum of contracts agreed by agents (managers) and principals (shareholders). Principals to represent their interests and to obtain future economic benefits mandate agents. These benefits are determined by the financial position and performance of the company, reflected by the information provided by the financial statements. Accounting information is useful to all stakeholders for them to make decisions. Elaborating and providing accounting information is meant to regulate the power relation between the two parts, the agents and the principals. On a stock exchange, investors (as principals) are interested in the

* Corresponding author: Ioan-Bogdan ROBU, Tel.: +0-040-721248795
E-mail address: bogdan.robu@feaa.uaic.ro
financial position and performance of the company, reflected by the information in the annual statements. Investors need such information in order to make strategic decisions regarding the share acquisition or sale, with direct impact on the stock exchange price or capitalization.

The article aims at analyzing and estimating the influence of the accounting information represented by a series of financial indicators from the statements on the decisions of investors on a stock exchange, with direct impact on the share price. The study has been carried out on a sample of 64 Bucharest Stock Exchange (BSE) listed companies, between 2010 and 2011. The results of the research have emphasized the existence of a significant influence of the indicators regarding the financial position and performance of the company on the company market value, estimated upon the share prices.

2. Literature review and hypothesis development

The usefulness of the accounting information and its influence on the users’ decisions result from its qualitative characteristics. According to the Conceptual Framework of the International Accounting Standards Board (IASB), the main qualitative characteristics of the accounting information aim to have relevance for its main users, and also to express the faithful representation, obtained from the correct use of the fair value accounting principles. The fulfillment of the requirements form the International Financial Reporting Standard (IFRS) accounting referential proposed by the IASB leads to the improvement of the accounting information quality due to a better display of the financial position and performance.

2.1. Qualitative characteristics of accounting information

In the accounting doctrine, criteria that allow to define the concept of accounting information quality are not identical, their selection and hierarchy being different (Minu, 2002; Domnișoru et al., 2006). The Anglo-Saxon conceptual frameworks (USA, IASB, The United Kingdom) see the quality of the accounting information as a basic element. To this respect, the set objective of the accounting information is represented by the support of users’ economic decision making. As for users, some conceptual frameworks favor the shareholders, considering them to be the main accounting information users, while the set objective of other conceptual frameworks (like the one of IASB) is to provide information to a wide range of users (shareholders, creditors, employees, banks, the state, the public etc.). The usefulness of the accounting information is determined by the fulfillment of all qualitative characteristics, according to the proportions in a certain situation. As some characteristics might be complementary, independent or even divergent, practical situations might emphasize a characteristic to the prejudice of other (Minu, 2002; Domnișoru et al., 2006).

Starting from the Conceptual Framework proposed by the IASB, van Beest and Braam (2006) establish a qualitative characteristics hierarchy: relevance, reliability/faithful representation and understandability are considered main characteristics, and the comparability is put in the background. The qualitative characteristics of the accounting information are accompanied by a series of limits. These limits are to provide an appropriate display, which will not lead to the loss of information relevance due to the delay in their display, and also to a loss of their credibility due to a faster delay. Therewith, finding a balance between the qualitative characteristics of the accounting information must also take into consideration the cost-benefit ratio.

In the Romanian accounting framework, the issue of defining the accounting information quality is based on the texts that had been issued by legislators between 1990 and 2012. During the first stage, a reform was made which aimed at creating the Romanian accounting law, followed by the stage of harmonization with the European Directives and the IAS/IFRS, and nowadays the standards applied both to small and BSE listed companies take the qualitative features in the General Framework of IASB.

2.2. Faithful image and its relevance on the stock exchange

The true and fair view concept is assigned to the Anglo-Saxon accounting practice and culture. Lee (1981) assumes that the application of true and fair view leads to the report of the financial statements prepared according to the generally accepted accounting principles. To this regard, one must use as much as possible accurate information and make as much as possible reasonable estimations, which can lead to an objective display regarding the financial position and performance, with no significant errors, distortions, manipulations or omissions (Lee,
At the same time, IFRS 13, *Fair Value Measurement* defines this concept as the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. Though being consecrated in practice and literature, defining this concept still raises issues and is accompanied by ambiguity (Kilgore *et al.*, 1999).

Pallisserry (2012) claims that the faithful view ensures transparency in financial reporting and ensures the company development by attracting more investors. On the stock market, the faithful view can be evaluated through the impact accounting information might have on the share prices of the listed companies and by default on the capital gains yield they provide (Barth, 1994). To this respect, a series of studies show that the net accounting value of the assets for a listed company (Ohlson, 1995) and also the obtained accounting results (Beaver, 1968) have a great influence on the market value.

2.3. Research hypothesis

In assessing the quality of the accounting information, Ciftci (2010) has taken into consideration the answer coefficient for the market value reference. Starting from the models proposed by Ohlson (1995) and Beaver (1968), which describe the influence of *book value* and *accounting earnings* on the *market value*, this study aims at testing the following work hypothesis for the Romanian BSE listed companies:

**H1:** *Book value* and *accounting earnings* reported at the end of the financial exercise have a greater influence on the *market value* comparing to *book value* and *accounting earnings* reported in the interim financial statements.

3. Research methodology

In order to obtain the research results and validate the propose work hypothesis, this study followed a logical, positivist approach. For the evaluation of the extent to which reported financial information faithfully reflect the company’s financial position and performance, the influence of *book value* and *accounting earnings* on *market value* has been tested and estimated. The existence of a significant and positive relation between the considered exogenous variables and the endogenous one show that reported financial statements faithfully reflect the company’s financial position and performance.

3.1. Studied population, analysed sample, variables and data source

The study has been carried out on Romanian BSE listed companies between 2010 and 2011. The analyzed sample includes only the companies that are under the incidence of the *Order of the Public Finances Ministry no 881/25.06.2012* and which have used the Romanian accounting norms according to the European Directives between 2010 and 2011. This has ensured the registration of 256 observations (company/year): 64 companies x 4 moments (2 corresponding to final financial statements + 2 corresponding to the interim financial statements).

Variables that were used in the analysis have considered the level of *total stockholders’ equities* (BV), *income before taxes* (IBT) and *market value* (MV), scaled with the level of *total liabilities* (TL). The data related to each variable was collected from the financial statements reported by each company on the BSE site, http://bvb.ro/ListedCompanies.

3.2. Data analysis methods, models proposed for testing and validation

Multiple linear regression analysis has been used for data analysis (Jaba, 2002). By using this method, the influence of the factor variables ($X_k$) on the resultative variable ($Y$) has been estimated and tested, the econometric models having the following form:

$$Y = \beta_0 + \beta_k \cdot X_k + \varepsilon$$  \hspace{1cm} (1)

where, $\beta_{k=0,\ldots,K}$ represent the regression model parameters, and $\varepsilon$ is a error type random variable. Depending on the proposed work hypothesis, the linear regression models are as following:

**H1:**

$$\text{(MV/TL)}_{\text{Final}} = \beta_0 + \beta_1 \cdot (\text{BV/TL})_{\text{Final}} + \beta_2 \cdot (\text{IBT/TL})_{\text{Final}} + \varepsilon$$  \hspace{1cm} (2)

$$\text{(MV/TL)}_{\text{Interim}} = \beta_0 + \beta_1 \cdot (\text{BV/TL})_{\text{Interim}} + \beta_2 \cdot (\text{IBT/TL})_{\text{Interim}} + \varepsilon$$  \hspace{1cm} (3)

where *Final* represents the data displayed in the annual financial statements reported at 31.12.N, and *Interim* represents the data in the intermediate financial statements reported in June N. The estimation and testing of the
regression model coefficients has been carried out using the SPSS 20.0 software.

4. Results and discussions

Within the study, testing and validation of the proposed work applying the multiple linear regression analysis, considering the data collected for the sample of 64 BSE listed companies, has carried out hypothesis. For the variables that were included in the regression model, descriptive statistics are displayed in Table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>(MV/TL)$_{final}$</th>
<th>(BV/TL)$_{final}$</th>
<th>(IBT/TL)$_{final}$</th>
<th>(MV/TL)$_{interim}$</th>
<th>(BV/TL)$_{interim}$</th>
<th>(IBT/TL)$_{interim}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.40</td>
<td>3.08</td>
<td>5.18</td>
<td>5.60</td>
<td>0.18</td>
<td>0.24</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.01</td>
<td>0.03</td>
<td>-1.33</td>
<td>-0.24</td>
<td>-1.15</td>
<td>-0.40</td>
</tr>
<tr>
<td>Maximum</td>
<td>24.47</td>
<td>26.52</td>
<td>83.65</td>
<td>78.07</td>
<td>2.06</td>
<td>2.22</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>4.07</td>
<td>5.38</td>
<td>11.02</td>
<td>10.77</td>
<td>0.60</td>
<td>0.52</td>
</tr>
</tbody>
</table>

From Table 1, for a company, accounting information in the annual or interim financial statements describe a decrease of the book value and income before taxes. This had a significant impact on the market value, the values registered for this variable showing a decrease from a financial exercise to another. Regarding the differences between the annual and interim values for the analysed values, it can appreciate that on average, for a company, interim market value is much higher than the 2011 final market value compared to 2010. For the other variables, the displayed values in the interim statements were much lower than the values displayed in the annual financial statements, both in 2010 and 2011.

Based on the data in Table 2, we can evaluate the faithful image reflected by the annual and intermediated financial statements through the relation between market value and the book value and income before taxes as factor variables. Thus, the more faithful the financial statements reflect the financial position and performance of the company, the more these statements have a greater influence on the market and significantly influence the market value. In order to do that, $R^2$ values from a financial exercise to another are analyzed in the study, for the annual and interim financial statements. It can be noticed from the table that the estimated $R^2$ for models that use information from interim statements is higher than the estimated $R^2$ for the models that use information from the annual financial statements. This shows that accounting information in the interim statements have a greater influence on the market value compared to the information in the annual financial statements. Such an influence can be explained through the volatility of the share price of listed companies, significantly influenced by the interim financial data.

Regarding the influence of each independent variable on the market value, the values of the regression models parameters in Table 2 are analyzed. It can be noticed that on the BSE, both in 2011 and 2010, income before taxes has a greater influence on the market value than book value. An increase of the accounting result causes a significant growth of the stock capitalization, explained through the market reaction to accounting information. Comparing the values of the four regression models parameters, it can be noticed that income before taxes from the interim financial statements has a significant influence on the market value. Comparing to 2010, the 2011 values of the...
income before taxes from the interim statements determine a much higher variation of the market value. Therewith, the income before taxes values from the interim statements determine a much more significant variation of the market value compared to the income before taxes values from the annual financial statements.

5. Conclusions

Based on the results in the study, one may conclude that on the BSE, accounting information in interim financial statements has a much more significant influence on the market value than the accounting information in the annual financial statements, which lead to the invalidation of work hypothesis $H_1$. Regarding the quality of the accounting information, subsequently to the analysis of the three indicators, it has been noticed that the faithful view and its reflection in accounting in a corresponding manner have a significant influence on the stock market.

The results of the study can be useful for investors willing to appreciate the sensitivity degree of the stock course or the capital gain yields offered by the BSE listed companies’ shares at the issuance of the annual or interim financial statements. Based on the values of the indicators regarding the companies’ financial position and performance, investors can estimate the future economic benefits they can gain on the stock exchange after trading the shares of BSE listed companies.

The future research directions aim at testing and estimating the influence of the IFRS implementation on the growth of the reported financial information quality and by default on the improvement of the faithful view of the financial position and performance of the BSE listed companies.

References


