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VALUE RELEVANCE: A STUDY OF INITIAL PUBLIC OFFERINGS (IPOS)

Jefferson Pereira Andrade[1], Wenner Glaucio Lopes Lucena[1]

1 Federal University of Paraíba

ABSTRACT

Several studies correlate accounting information and stock market prices - which is called value relevance. The goal of this study is to evaluate the relevance of the accounting information related to stockholders' equity, net income and EBITDA in the stock price formation process of initial public offerings held at BM&F Bovespa between 2004 and 2012. In order to achieve the goals of the study, we performed regressions using the market value of the companies (obtained by multiplying the number of shares by the market value of these at the date of the IPO) as dependent variables and accounting variables as independent or explanatory variables. We were able to verify that, among the accounting variables surveyed, only one of them (Ebitda) was significant at the 10% level when evaluated alone and with a control variable, showing that it contributes to stock price formation. The other variables - net income and shareholders' equity – failed to present relevance for the Brazilian capital market.

Keywords: Value Relevance; Initial Public Offerings; Stock and Shares.

1. INTRODUCTION

One of the inevitable stages in a company's life cycle is the moment it becomes public through an Initial Public Offering (IPO), which refers to the issuance and sale of shares in the market for external financing (Yalcin et Unlu, 2017).

When an initial public offering is made, investors go through the difficulty of pricing these shares because they have little information about the issuing entity. The vast majority of the information comes from the mandatory disclosure prospectus, which contains some financial statements but causes great investor dependence and limitation (Lee et Masulis, 2011). In Brazil, this prospectus is mandatory due to the imposition of Resolution 400 by the national Securities Comission - CVM, which presumes to contribute to the pricing and reduction of the informational asymmetry involved in this process.

In this context, the financial statements represent an important source of information. Each stakeholder must provide relevant and quality information. For Costa et al. (2012), relevant accounting information is that one which assists users in their forecasts and which, consequently, is related to the company's share price.

Capital market accounting research has been shown to be of great interest nowadays, including market efficiency tests, critical and relevance analyses regarding the value of accounting information. These important decision tools are linked to equity, market investment decisions, accounting standards definition, and corporate disclosure decisions (Kothari, 2001). Based on previous studies researchers begin works that relate the stock price to the accounting information disclosed by the companies - studies known as value relevance and which aim to determine how much the information disclosed by the entities are relevant to the capital market.

The great importance of accounting information for the formation of the stock market price is related to its use of a standard practice by the companies that subscribe these shares (these practices are linked to the sector's price-earnings ratio and the gains of the current issuers to set the pri-

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ce of the IPO). On the other hand, market analysts base their investment recommendations on company earnings reports that have recently become public (Lee et Masulis, 2011).

Given the difficulty of pricing for current and prospective investors regarding the value of an IPO and the premise that the financial statements are capable of influencing stock prices, we came to the following research question: are the accounting information on net income, equity Liquidity and Ebitda relevant for the price formation of initial public offerings (IPOs)?

Thus, the general goal of this study is to analyze whether the accounting information on shareholders' equity, net income and Ebitda are relevant to the process of price formation of shares made available through IPO.

The research is justified since it contributes to the understanding of the relationship between the information provided by accounting reports and the process of forming the market price of the shares of an initial public offering.

This paper is structured in five sections: introduction, theoretical reference about initial public offerings and value relevance, methodology, data analysis and final considerations.

2. THEORETICAL REFERENCE

2.1 Initial Public Offerings

The decision to open capital is complex and extremely important. Despite this, in the period between 2004 and 2007 we observed a resumption of the opening of the capital of several companies in Brazil - the largest number of IPOs happened in 2007, when 64 companies were listed on the stock exchange, moving approximately R$ 55 billion in the Brazilian economy (Zilio, 2012).

Deciding to place stock on the market creates a number of adjustments to the legislation by the company. In addition, it is a bureaucratic process and entails costs, and some points of great relevance are listed below:

- Why an IPO?
- What is the best moment for the IPO?
- What benefits does an IPO bring to the company?
- How much does an IPO cost?

Responding to the first point, the motivations in making an IPO can be the most diverse. Zilio (2012) points out that the smaller, more profitable, more leveraged and more invested and growing companies are more likely to open capital. Also, Oliveira et Martelanc (2014) state that becoming a public company can be part of the growth cycle of companies, but if that were the only factor influencing the decision to go public, all large companies would be listed on the stock exchange market.

Chen et Chow (2011) pointed out in a study that one of the primary motivating factors for companies considering an IPO is their desire to increase their shareholder base and thereby minimize their cost of capital. Oliveira and Martelanc (2014) reinforce the idea by highlighting that the determining factors for a company to be listed are related to structural aspects of the company before the IPO, the consequences of such action on the company's investments and the financing policy of the company.

The IPO, as a financing form, implies in a way to raise funds in the market in order to meet the capital needs of the entity. Of the various stages of companies, figure 1 below presents the best form of financing and the right moment for each of the options:

Figure 1 indicates that the best moment to issue shares is when the company reaches its maturity. This point is corroborated by Zilio (2012).

Another factor regarding the realization of the IPO is that not only the features intrinsic to the corporations determine its right moment. According to Rossi Jr et Marotta (2010), companies take advantage of market conditions that cause temporary fluctuations in the cost of equity (these moments are known as "windows of opportunity" and in international literature as "equity market timing") suggesting that companies that perform an IPO at that time have a lower profitability and that these companies would have difficulty performing an IPO under other market conditions.

According to the authors, equity market timing is measured by the volume of IPOs performed over a given period of time, i.e., the number of IPOs increases whenever the market is warmed up and managers realize that there is a window of opportunity in the market making the cost of raising funds in the market smaller than the other financing modalities. This became very clear in Brazil from 2004 to 2007, when IPO growth was significant.

The IPO presents advantages and disadvantages that must be analyzed regarding its economic viability. Table 1 below demonstrates these.

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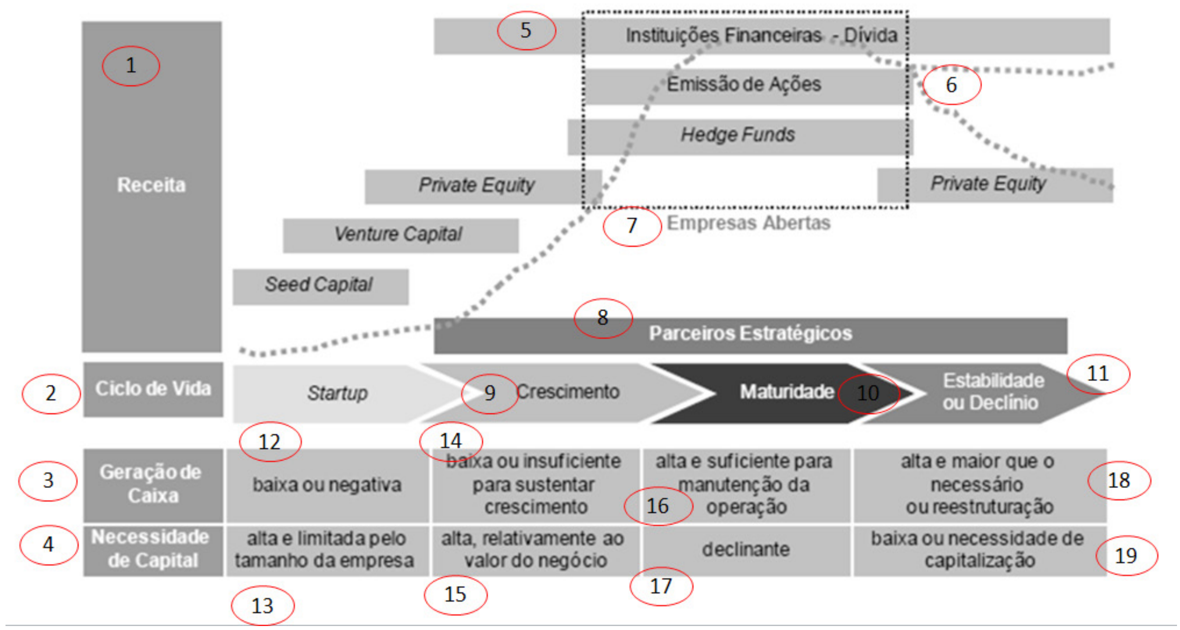

Figure 1. Financing sources during the different stages of a company

Source: BM&FBOVESPA (2011)

LEGEND

1. Revenue	2. Life Cycle	3. Cash Flow	4. Capital Need
5. Financial institution – Debt	6. Stock Issue	7. Open Companies	8. Strategic partners
9. Growth	10. Maturity	11. Stability or Decline	12. Low or negative
13. High, limited by company size	14. Low, insufficient to maintain growth	15. High, in relation to business value	16.High, sufficient to maintain company
17. Declining	18. High, higher than needed or restructuring	19. Low or required	

Table 1 - IPO Pros and cons

ADVANTAGES	
Expansion of the funding base and its growth potential	It allows companies to have access to the national capital market as a source of financing for investments and acquisitions.
Increased strategic flexibility - equity liquidity	It allows the equalization of indebtedness, adjusting the equity and third-party ratio, reflecting corporate risk.
Institutional image - greater exposure to the market	Transparency and reliability requirements make business easier and attract end consumers, increasing prestige and market presence.
Corporate restructuring	A solution to business problems, such as succession, sharing, and inheritance.
Professional management	Acceleration of the company’s professionalization process.
Relationship with employees	The IPO can be made for the employees of the company itself.

DISADVANTAGES	
Costs	Venture capital involves costs that, as with all cost-benefit ratio, should be lower than the potential results to be achieved.
Quality of Information	Compliance with strict and specific standards for preparation and disclosure of financial statements.

Source: CVM (2014)

We can observe a greater number of positive points based on table 1. Therefore, when the company has sufficient capacity to meet the quality of the information required and when its costs are lower than its results, the IPO is a good financing option.

It is worth noting that IPO costs include payment of taxes, annuities, advertising, financial intermediation, allocation of personnel to follow up the process, assembly of internal structure to support the opening, fees and external audit costs.

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2.1.1 Price defining in initial public offerings

Defining what makes an IPO a successful operation is extremely complex; there is no formula to reach it. However, Park et al. (2016) point out that the actors involved (issues, subscribers and investors) play a fundamental role in this process and that companies must demonstrate strength for the post-IPO period, since informational asymmetry is pointed out as one of the main problems related to IPOs. In this context stands out the importance of the disclosure of accounting information, which according to current legislation is currently mandatory as an integral part of the prospectus. The statements are intended to present the company the investors assess, since not all of them are well known to the public.

Even before the company begins to trade its shares, the opening process causes expectations in the market. On the one hand, the administration expects the value of the offer to reach high prices that imply high amounts converted into cash. On the other hand, when these values reach low values investors tend to perform high returns known as underprincing (Yalcin et Unlu, 2017). Undeprincing, according to Lin, Pukthuanthong et Walker (2013), consists of a fact commonly observed in several economies of the world, not being exclusive of a single reality and occurs at different levels. The sub-billing is measured based on the difference between the closing value and the offered value on the date of the number of transactions performed multiplied. The higher the result, the greater the shareholders' profit and the smaller the company's returns. This implies that organizations must develop strategies to maintain IPO performance in their later period (Park et al, 2016).

Studies related to information asymmetry assume that market investors have different knowledge then of companies issuing financial papers, especially those that perform IPOs, making the underpricing necessary to achieve the balance of interests of all participants. As information asymmetry plays an extremely important role in the under-billing of IPO companies, verifiability criteria for firm recognition, their operational performance and their financial information must matter (Lin et Tian, 2012).

2.2 Value relevance

During the IPO, the quality of the information provided by the companies is expected to be better than the information provided by them prior to the IPO, due to a series of factors, mainly because of the greater demand of the supervisory bodies to which the companies start to submit. Akron, S. and Samdani (2017) emphasize that in this process the company must pay special attention to the quality of the information that comes to the market.

In order to measure the quality of this information that comes to market, the academy has developed the works titled value relevance - which, for Martins et al. (2014) are studies developed to provide a metric for the quality of accounting information. In general, these seek to investigate the relationship between the market values of companies and the information from their accounting (Martins et al., 2014). They are based on the assumption of efficient markets (market absorbs available information reflecting the stock price) developed within traditional finance.

According to Silva et al. (2014), accounting researchers who study value relevance treat the capital market as a kind of laboratory where tests are carried out to check whether accounting information is actually able to assist users in assessing the potential effects of past, present, or future transactions (predictive value), and in the confirmation or correction of their previous evaluations (confirmatory value). According to Lourenço et al. (2014), the difference between accounting values and market values was one of the main reasons for this type of study, due to the complexity of the variables that form the stock price. The book values represent only one part, that is, they are not able to fully explain the price of a stock.

Research in this area is carried out through statistical analyzes, usually regressions. The growth of the positivist approach to accounting in the second half of the twentieth century has led many empirical studies to use the R^2 regression result to measure the usefulness and relevance of accounting information (Lopes et al., 2007), relating accounting data disclosed as independent variables and information on the price of the shares collected in the stock market as dependent variables. Even at different levels, those studies evidence the existence of a positive relationship between the data (Barros et al., 2013).

Amid all the available literature on accounting information relevancy, accounting theory has been relatively quiet about its role in inefficient and emerging markets. Accounting can be expected to be less relevant in these markets because the stock price does not reflect the information due to a variety of market problems. However, the sources of information are little available, making accounting information relatively more important than other sources available in more developed markets (Lopes, 2002).

2.2.1 Studies about relevance of information

There are several approaches to research that aim to identify the relevance of accounting information to the market. The purposes are varied, but they are not really far from the main focus. Basically, the empirical literature in this area has two main strands: comparisons on the importance of

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internal content versus information adjustments to the US-GAAP and purely internal studies that sometimes compare results across markets but always use the national securities market as the main reference (Lopes, 2002).

Of the possible applications, the research on value relevance has allowed us to examine the effects of changes in accounting in recent years, such as those caused by the process of conversion to international accounting standards and changes in legislation in Code-Law countries. We present a series of studies developed in this area as following.

Costa et Lopes (2007) studied the adaptations made by Brazilian companies that trade on the New York Stock Exchange in their accounting reports to adapt to the USGAAP, verifying their relevance to the Brazilian market. This study focused on information related to shareholders' equity and net income. Through the regressions, the researchers concluded that the information disclosed in accordance with generally accepted principles in Brazil are relevant to the market and that the adjustments made to the USGAAP are also relevant in relation to shareholders' equity, but not in terms of net profit.

Zanini et Kronbauver (2009) aimed to verify whether accounting, into the new economy that migrated from an industrial to an intellectual age, lost relevance due to its difficulty in measuring intangible assets. Through the analysis, it was noticed that there was no reduction in the relevance of traditional indicators information (earnings per share and equity value per share), except for small losses in the Argentine market. In Brazil and Peru, it was observed that there was an increase in the explanatory power of the indicators.

Malacrida (2009) investigated the relevance of current cash flow information, accruals and current income to estimate the future cash flow and the profit of the shares of Brazilian companies listed on the BM&FBOVESPA in the period between 2000 and 2007. Through the analysis of the data the researcher observed that the current profit is more relevant to predict the future cash flow than the current cash flow itself. Accruals are also relevant for predicting future cash flow by adding predictive capability to current profit. Although relevant, this accounting information failed to be sufficient to predict cash flow for periods longer than one year.

Macedo et al. (2011) analyzed the effects of Law 11.638 / 07, which replaced the Statement of Cash Flows (DFC) by the Statement of Source and Application of Resources (DOAR) regarding the relevance of the accounting information. For this, they compared the coefficients of determination of the regressions, which had as independent variables the origin of resources per share and the operational cash flow per share. As a result, the authors came to the conclusion that the substitution of DOAR by DFC was beneficial to the users of accounting information in the market.

Costa et al. (2012) analyzed whether the relevance of accounting information is affected by economic crises (1997, 1998, 1999, 2002 and 2008). They used a methodology similar to that used by Ohlson (1995), with data presented in panels or cross-selection, with year net income and equity as independent variables and market value as dependent variable. The results found by the respondents suggest that equity is highly relevant, while net income is of limited importance in periods of crisis.

Barros et al. (2013) investigated the relevance of accounting information after the adoption of international accounting standards in Brazil by Law 11.638/07. Data were collected from 50 companies listed on BM&FBOVESPA three years before law 11.638 and three years later. The annual return per share represented the dependent variable, and Ebitda per share, earnings per share, earnings per share, share price and billings per share were chosen as independent variables. The adopted methodology considered the separation between common and preferred shares. The research, found evidence that investors who own common shares make decisions based on Ebitda, equity value of shares and billing to mark their information; while those that hold preferred shares make use of the equity value and the billing of shares. As a final result, study confirmed that the convergence process raised the relevance of the accounting information.

In Australia, Ji et Lu (2014) evaluated the relevance of the value of intangible assets including goodwill. They also checked whether their relevance were associated with the reliability of accounting values in the pre and post-adoption periods of international accounting standards (IFRS). Researchers used a sample of 6,650 companies and obtained the following results:

- Intangible assets are capitalized in Australia, both in pre and post-adoption periods regarding IFRS.
- The relevance is greater in companies with more reliable information about intangible assets.
- The relevance value of intangibles decreased in IFRS post-adoption period. However, the positive relationship between the value of relevance and the reliability of intangibles remained unchanged in the post-adoption period.

Santos et Cavalcante (2014) investigated the effects of the adoption of International Financial Reporting Standards (IFRS) on the relevance of information based on accounting conservatism and timing. As a result, the researchers concluded that the adoption of IFRS was beneficial to the relevance

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of the information in Brazil, corroborating with the existing studies in the national and international literature. In addition, the results suggested that the conversion process reduced the timing of the information and did not affect the level of conservatism.

In contrast with other studies, Duarte et al. (2017) evaluated the effects regarding the choice for OLS regressions using two tests and two models each, where the variables net profit in the following period and market value were used as the dependent variable. The authors concluded that quantile regression presented superior results to OLS under restricted working conditions, such as the presence of heteroskedasticity and outliers.

Silva et al. (2017) analyzed the relevance of intangible assets in the Brazilian stock market. To do so, they used a sample of 164 companies listed on Bovespa between 2010 and 2013 and confirmed the relevance of net income, shareholders 'equity, intangible assets, goodwill, adjusted shareholders' equity and adjusted net income up to six months after the date of publication.

3. METHODOLOGICAL PROCEDURES

We collected accounting and market data related to companies in the Economática® database and in the accounting statements of these organizations for the development of the research. All accounting variables used refer to the latest statements published by the companies prior to the public offering. The variables collected were shareholders' equity, net income, depreciation, amortization, taxes on profit, financial expenses and financial income. In addition to the accounting data, we collected the closing price of the shares and the number of common and preferred shares at the IPO date.

After this, we calculated the market value and Ebitda for each of the companies analyzed. The market value was obtained by multiplying the number of shares by the quotation. We obtained Ebitda following the guidelines of CVM resolution 527 of October 2012, as described in equation 1 below:

$$EBITIDA=+TRI_{LUC}+(REC_{FIN}-DEP_{FIN})+DAE \qquad (1)$$

whereas:

LL = net profit;

TRI = Taxes on profit;

REC_FIN = Financial income

DEP_FIN = financial expenses;

DAE = Depreciation, amortization and depletion.

Whenever we wish to study the behavior of one variable in relation to the other, we can use the regression analysis, which in turn aims to describe by means of a mathematical model the relation between the two variables starting from **n** number of observations. For the development of the research, we used the following econometric models described in equations 2, 3 and 4 below:

$$VM_{it}=\propto_0+\propto_1 \ll+\varepsilon \qquad (2)$$

$$VM_{it}=\propto_0+\propto_1 PL+\varepsilon \qquad (3)$$

$$VM_{it}=\propto_0+\propto_1 EBITDA+\varepsilon \qquad (4)$$

whereas:

VM_{it} = = Share price of company *i* at *t* time.

$\propto_0$ =Intercept.

$\propto_1$ = = Line slope coefficient.

LL= Net income for the quarter prior to the IPO.

PL= Shareholders' equity for the quarter prior to the IPO.

Ebitda= Ebitda in the quarter prior to the IPO.

The models aim to identify the effect of the variables to be tested in relation to the companies' market value. As described, models 2, 3 and 4 use only the dependent variable to be tested, which may interfere with the model result. However, to deal with the problem and assign greater robustness, we made use of the following models (equations 5 and 6 inserting a new control variable:

$$VM_{it}=\propto_0+\propto_1 EBITDA+\alpha_2 PL+\varepsilon \qquad (5)$$

$$VM_{it}=\propto_0+\propto_1 \ll+\alpha_2 PL+\varepsilon \qquad (6)$$

The choice of variables was due to the fact that several studies as Ohlson's (1995); Galdi et Lopes' (2008); Zanini and Kronbauver's (2009), and several others that confirmed the relevance of accounting profit and equity in various contexts, such as crises, changes in legislation, adoption of international standards and others, but none of them studied the relevance of these variables in the context of an IPO. The use of Ebitda is based on the significance found in the works of Barros et al. (2013) which found explanatory power in

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the variable after the adoption of IFRS and Vieira et Girão's (2014), which verified an increase in the explanatory power of Ebitda after the adoption of CVM Resolution 527.

For the analysis of the assumptions of the regressions, we used the White test to verify the heteroskedasticity, the FIV test to verify the collinearity and the Chow test to identify the stability of the parameters, in addition to the normality test. All tests, as well as regressions, were performed on the Gretl statistical software.

The composition of the sample was initially based on the survey in the Bovespa web portal for all publicly traded companies that made an IPO between the years 2004 and 2012. With this, we obtained a sample universe of 151 companies. We selected this time interval because, according to Pinheiro (2012), due to the favorable development of the economy especially since 2004, there was a large number of IPOs in Brazil, representing a considerable number of listed companies. From the universe found, the sample was defined as shown in figure 2 below.

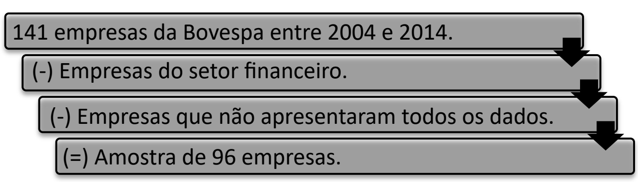

Figure 2. Research sample formation.

Source: Authors' study

Among the 151 companies that carried out the IPO in this period, eight were from the financial sector and were excluded from the sample due to their differentiated regulation; 47 of them did not have all the data available for the study and were also excluded. As a final result of the sampling process, a sample of 96 companies was reached.

4. DATA ANALYSIS

Table 1 shows the descriptive statistics of the studied variables (market value, net income, equity and Ebitda) as follows.

Table 1 - Descriptive statistics of the data collected

	Maket value	Net income	Equity	Ebitda
Average	3005100	49199	450060	49637
Median	1160600	11907	194140	24000
Minimum	12098	-183520	-4809	-298700
Maximum	100310000	869790	3511700	661760
Std. Deviation	10663000	124360	646160	128070

Source: Authors' study

*In thousands of Reais

The companies analyzed have an average market value of R$ 3,005,100,000.00 with a minimum of R$ 12,098.00, a maximum of R$ 100,210,000,000.00 and a standard deviation of 1,066,300. As to net income, the average presented was R$ 49,199,000, with a standard deviation of 10,663,000. There were companies that presented losses in this period: the lowest result was R$ -183,520,000.00 and the best result was R$ 869,790,000.00.

The average equity presented was R$ 450,060,000.00, with a standard deviation of 646,160, ranging from R$ -4,809,000 to R$ 3,511,700,000.00. Finally, the variable Ebitda presented an average of R$ 49,637,000.00, with a standard deviation of 128070, the lowest value of R$ -298.700.000,00 and a maximum value of R$ 661,760,000.00.

Table 2 below shows the relevance of the accounting profit to the financial market according to equation 2.

Table 2 - Relevance of accounting profit

Explanatory variable	Coefficient	Std error	Reason-t	P-value
Intercept	7779532.313	3198710.959	2.432	0,0169
Net profit	2.90992	8.83894	0.3292	0,7427
R2	0.001152	Adjusted R2		-0.009474
F test	0.108383	p-value (F)		0.742725
White test	0.0637742	p-value(white)		0.968616
Normality test	3517.06	p-value		0
Chow test	1.03738	p-value (Chow)		0.358491

Source: Authors' study.

According to the Chow test the regression does not present structural problems since it does not reject the null hypothesis that there is no structural failure in the regression. Nevertheless, the regression presents problem as to its predictive capability and the variable net profit does not affect the growth of the explanatory variable, and there are still problems regarding normality of the residues.

Table 3 presents the results of the regression for the equity variable according to equation 3 as follows.

Table 3 - Relevance of equity

Explanatory variable	Coefficient	Std error	Reason-t	P-value
Intercept	8358200.149	3.630346.93	2.302	0,0235
Equity	-0.154888	1.702	-0.091	0,9277
R2	0.000088	Adjusted R2		0.010549
F test	0.008282	p-value (F)		0.927683
White test	0.842855	p-value(white)		0.65611
Normality test	3426.78	p-value		0
Chow test	1.07454	p-value (Chow)		0.345702

Source: Authors' study

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The model presented in Table 3 failed to pass the F-test with p-value greater than 0.05, a fact confirmed by the t-test which was also not significant, so we can not state that the net profit is relevant to the capital market, according to the data used for this investigation. We found no problem regarding heteroskedasticity according to White's test, but the regression presents problems regarding the normality of the residues.

Table 4 shows the result of the analysis performed for interest before interest rates, taxes, depreciation, depletion and amortization according to equation 4, as following.

Table 4. Relevance of Ebitda

Explanatory variable	Coefficient	Std error	Reason-t	P-value
Intercept	2221100	1152860	1.927	0,0571
Ebitda	15.7945	8.43188	1.873	0,0641
R2	0.035985	Adjusted R2		0.025729
F test	3.508853	p-value (F)		0.064149
White test	0.500345	p-value(white)		0.778666
Normality test	3403.65	p-value		0
Chow test	0.925084	p-value (Chow)		0.400155

Source: Authors' study

The dependent variable demonstrated, according to the t-test, to influence the growth of the market value of the companies that carried out an initial public offering. This fact was confirmed by F-test; both presented significance level of 0.10 (the significance level of 10% is used here as in the works of Barros et al. (2013), Martins et al. (2014) and others). According to Chow test, the model has no structural failure or problems with heteroskedasticity.

Still according to the table, as demonstrated in the normality test, the null hypothesis that regression residues presenting a normal probability distribution was rejected.

Table 5 below shows the results obtained in a multiple regression using the stockholders' equity as control variable according to equation 5.

The variables tested according to the t-statistic are not able to explain the variations suffered by the dependent variable, as for the f-statistic, it accepts the alternative hypothesis that the coefficient of determination is equal to zero.

It is also worth noting that the errors or residues do not present a normal distribution, which can compromise the f-statistic considering the analyzed sample. No evidence of heteroscedasticity and collinearity was found according to White's tests and FIV statistics.

Table 5 - Relevance of net income with control variable

Explanatory variable	Coefficient	Std error	Reason-t	P-value
Intercept	2998910	1356760	2.21	0,0295
Net income	-0.371866	1.80447	-0.2061	0,8372
Equity	3.52748	1.80447	-0.2061	0,8372
R2	0.001608	Adjusted R2		-0.019863
F test	0.074874	p-value (F)		0.927916
White test	0.864205	p-value(white)		0.972759
Normality test	3464.65	p-value		0
Chow test	0.789998	p-value (Chow)		0.502588
FIV	1.114			

Source: Authors' study

Table 6 below shows the regression results for Ebitda with a control variable according to equation 6.

Table 6 - Relevance of Ebitda with control variable

Explanatory variable	Coefficient	Std error	Reason-t	P-value
Intercept	2609480	1337420	1.951	0,0541
Net income	-1.00288	1.73246	-0.5789	0,5641
Ebitda	17.0633	8.74111	1.952	0,0539
R2	0.039446	Adjusted R2		0.018789
F test	1.90955	p-value (F)		0.153908
White test	9.88761	p-value(white)		0.0784832
Normality test	2774.78	p-value		0
Chow test	1.61667	p-value (Chow)		0.191057
FIV	1.067			

Source: Authors' study

As expected, only the variable Ebitda presented significance at the 10% level, but there are problems regarding the normality of residues, there is no colinearity, heteroscedasticity and structural problems.

5. FINAL CONSIDERATIONS

The present research aimed to verify whether the information cleared and disclosed in the accounting related to stockholders' equity, net profit and Ebitda are value relevance characteristics for the stock price formation process in the initial public offerings and, consequently, to the Brazilian capital market.

To achieve the goals, we conducted simple regression analyzes using the market value of these companies as a dependent variable and accounting variables as explanatory variables. We also generated multiple linear regressions comprising the variables net profit, Ebitda and also equity as the control variable, in order to attribute greater robustness to the models employed.

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We observed that, of the accounting variables studied, only one of them (Ebitda) was significant at the 10% level when evaluated separately, thus proving to contribute to stock price formation. The other variables, net income and shareholders' equity, were not significant. This result can be explained by the fact already highlighted in the review of the literature that in several situations the companies that carry out IPOs are not well known and that a significant part of them will present negative results, which will require measures related to the long term performance from the probable investors.

As for the analysis of the informational content in conjunction with the control variable, we observed that Ebitda also remained significant at the level of 0.10, while the other variables maintained coefficients of determination equal to zero.

The findings of this work partly corroborate with the findings of Silva et al. (2012) where net income failed to present relevance for investors in the electricity sector and diverges with respect to Ebitda and shareholders' equity.

This study presents as a limitation the number of observations and variables. For further research, we recommend to replicate this analysis using other variables.

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