Revista Catarinense da CIÊNCIA CONTÁBIL

ISSN 2237-7662, Florianópolis, SC, v. 18, 1-20, e2697, 2019

DOI: 10.16930/2237-766220192697
Available at http://revista.crcsc.org.br

CRCSC
CONSELHO REGIONAL DE CONTABILIDADE DE SANTA CATARINA

VALUE RELEVANCE ANALYSIS OF THE VALUE ADDED STATEMENT IN THE VARIOUS CORPORATE GOVERNANCE LEVELS AT BM&FBOVESPA

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ABSTRACT

The objective of the present study was identifying whether the informational content of the Value Added Statement (VAS) is relevant for investors. The sample entailed Brazilian companies belonging to the Special Corporate Governance Stock Index (IGCX) of BM&FBovespa, currently known as Brazil, Stock Exchange and Over-the-Counter Market (B3), in the period from 2011 to 2015. In order to achieve the objective, we employed multiple linear regression. 155 companies and 714 observations entailed the survey sample. The results indicate that the variable "net value added for distribution", at the statistical significance level of 5%, is relevant for the stock market at the various levels of corporate governance, however, it displays low explanatory power. Nevertheless, when the control variables are added in the regression, we may observe that earnings *per* share have more explanatory power in relation to net value added. These results indicated that the total net wealth obtained by the company (built by it and received in transfer from other entities) may be relevant to the users of the accounting information, although earnings *per* share were the most relevant indicator. We could not that, in general terms, there is concern about the information disclosure on the wealth generated by the entity, indicating that the content of the VAS leads to greater transparency of the entities and, consequently, is capable of influencing the decisions of the investors, but it presents a low coefficient content in relation to the other variables of the study.

Keywords: Informational Relevance. VAS. Corporate governance. Value relevance.

Article published in the annals of the XIV Congresso USP de Iniciação Científica em Contabilidade. It received the award for best work in the area of Financial Accounting.

Submitted on 06/18/2018. **Reviewed on** 02/18/2019. **Accepted on** 03/15/2019. **Published on** 04/23/2019.

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1 INTRODUCTION

In the context of the convergence of accounting, with the establishment of international accounting standards, searching for information that assures aid and reliability in decision making has become increasingly essential for users of accounting information. Cosenza (2003) highlighted that, with the evolution of commercial activity, new users emerged. The authors underscored the relevance of these users as important contributors to the economy, who are interested in the information of the company and that relate to the environment in which they are inserted.

In face of the interest to feed the users, especially investors, with better information, according to Luca, Cunha, Ribeiro and Oliveira (2009), the Value Added Statement (VAS) arose to satisfy the users' necessity of accuracy in accounting information on the value of wealth generated by the company and its distribution to the entities that contributed to the creation of this value and benefit from it.

In a few countries, the legislation requires the publication of the VAS, but the International Accounting Standards Board (IASB) encourages its disclosure (Luca et al., 2009). In years before the demonstration regulation in Brazil, some entities voluntarily disclosed the VAS, due to the influence of people's awareness augmentation, who requested additional information to the financial entities (Almeida, Coutinho & Silva, 2014).

With the increase in the dissemination of VAS, there has been the development of studies aimed at analyzing the relevance of this disclosure in Brazil and abroad (Arruda, Garcia, & Lucena, 2015; Barros, Catapan, Scherer, & Isidoro, 2013; Cosenza, 2003; Crippa, & Coelho, 2012; Machado, Macedo, & Machado, 2015; Stanzani, Fregonesi, & Nakao, 2016; Yogesha, & Mahadevapa, 2014). In general, these studies seek to verify whether the preparation, improvement and presentation of this accounting statement are relevant and generate benefits that exceed its preparation costs.

When referring to relevance, we should direct ourselves to research that deals with value relevance. Barros et al. (2013) employ this term as synonymous to informational content. Similarly, for Machado et al. (2015), this concept refers to researches that investigate the relevance and effect of accounting information on the capital market, more precisely, the price of shares. In this research, when investigating the VAS value relevance, the focus is the VAS information effect on stock prices. Therefore, the objective was to identify if its content presents a relevant value to the investors.

Based on the requirements of the Brazilian capital market and the need to improve the relationship with investors, varied levels of corporate governance appeared with the intention of increasing investor transparency and, therefore, providing augmentation of value of these companies (Almeida et al. al., 2014).

It should be noted that, as companies strive to improve their relationships with investors, there happens valorization of their assets at corporate governance levels (Malacrida, & Yamamoto, 2006). Considering supposedly importance the companies belonging to the varied levels of corporate governance of BM&FBovespa (currently named B3) attribute to investors, these companies composed the research sample.

The researches of Barros et al. (2013) and Machado et al. (2015) evidenced an association between the net value added and the market price of the Brazilian companies' shares. Martins, Machado and Callado (2014) did not find any relevance in the informational VAS content when analyzing if it could explain the return of shares in the stock market. Thus, there is a gap in the literature regarding the relevance of this demonstration to the capital market and to a duality of results; our study seeks contributing to filling this gap.

This research also advances in relation to previous studies, when analyzing not only the relation between the net value added and the stock price, but also the value relevance of the value added, distributed in the form of equity compensation. Furthermore, we tested other explanatory variables considered in the literature, as well as we studied more recent periods in relation to previous research.

The need for transparency of organizational information justifies our research, as well as the information contained in the VAS contribution to the society and the agents that benefit from the accounting information do, since the existing literature still leaves open questions on the VAS relevance. Similar studies have been previously developed and contributed to the literature (Barros et al., 2013, Martins et al., 2014, Machado et al., 2015).

With the result of this research, we hope to contribute with the existing literature on the relevance of the VAS since the determination of its mandatory disclosure, along with the financial statements in the Brazilian stock market. As a practical contribution, we expect that the financial statements users will be made aware of the informational content that it carries and that it may aid in decision making.

2 LITERATURE REVIEW

2.1 Value relevance of accounting information

The accounting information is regarded as a decision-making tool for its users, even for those who analyze investments in the stock market (Marques, Santos, & Lemes, 2014). However, in order to achieve this, it must be relevant and faithfully represent the data presented (Faith, 2013).

According to Rezende, Batistella, Dalmácio and Brito (2008), research focused on value relevance has been developed in the academic environment, taking the profit or equity of the entity as a reference. The surveys are usually performed with the help of statistical tools, most importantly, by employing linear regression analysis, which assigns a dependent variable, relative to the share price, and as an independent variable, the others related to accounting (Martins et al ., 2014).

According to Machado et al. (2015), studies related to value relevance employ the capital market as a guideline for association tests between the relevance of accounting information and the variation of asset values, i.e., the authors seek, through the studies, to quantify the usefulness of the accounting information for the investors for the purpose of stock price formation (Macedo, Romano, & Silva, 2014).

Rodrigues, Elias and Campos (2014) demonstrated that the informational content of the financial statements to the investors is relevant. According to the authors, the capital market responds to the accounting information on the statements, associated with the timing in which they are transmitted to their users.

The increase in research associating the disclosure of financial statements with the stock market reaction led to the inclusion of new variables to explain the relevance of the accounting information; among these, we may emphasize corporate governance practices (Lima, 2010). The author adds that the financial statements contain information that affects the price of shares and draw investors' attention considering they are variables related to corporate governance.

Cahan, Emanuel and Sun (2009) investigated the relevance of variables related to corporate profit. For the authors, the relevance depends on the gain magnitute related to transparency and investor protection. The authors found that the relevance of accounting information has a strong relationship with investor protection mechanisms, among which the varied levels of corporate governance may be mentioned in Brazil.

In a study on the relationship between corporate governance and the value relevance of accounting information in Australia, the authors found that companies with strong corporate governance practices improve value relevance, what may influence company stock prices (Habib, & Azim, 2008).

In the same research line of Habib and Azim (2008), Lopes (2009) evidenced the relationship between corporate governance index and value relevance in Brazilian companies, suggesting that good corporate governance practices result in greater profit relevance. We may observe that the value relevance of the accounting information is connected to several factors related to the quality of the accounting information, one of them is the ability to influence the decision of the investors. In this research, we evaluated the VAS relevance and, in the next section, we discussed this demonstration.

2.2 Value added Statement

According to Luca et al. (2009), Brazil has encouraged the VAS since the 1980s by arguing that the creation and distribution of wealth generated by the entity would be evidenced. The VAS began to be explored in 1970 in several European countries. However, the United Kingdom was evidenced in relation to the others for its notoriety by encouraging the elaboration of the VAS through the Accounting Standards Committee in 1975 and, as a consequence, the number of companies reporting voluntarily increased at each year (Machado et al., 2015).

With the VAS dissemination, statements became part of the annual reports of German, Belgian, Dutch, and Norwegian companies. However, under the International Financial Reporting Standards (IFRS), there is no obligation to publish this statement, and the IASB only encourages its disclosure, although there is no IFRS standard to guide the VAS elaboration (Luca et al., 2009). According to Oshiro (2003), European countries, which were interested in disclosure of wealth sharing generated by companies and motivated by recommendations from international organizations have already determined the publication of this demonstration, in a way similar to what happened in Brazil, where local standards have turned the VAS compulsory.

Haller and Van Staden (2014) underscore that the concept of value added, evidenced in the VAS since the 18th century, has been employed as a measurement of performance in the United States and that it represents an important results communication instrument directed at the varied stakeholders, in an efficient and effective manner.

With the advent of Law no. 11,638, from December 28, 2007, the VAS disclosure in Brazil became mandatory for companies named Anonymous society (S.A), while for other companies, issuing this document is optional. However, given the information content contained in this demonstration, it is recommended that all companies adopt it (Azevedo, 2009).

According to the Committee Accounting Pronouncements (CPC) in CPC 09, the wealth generated by the company must be distributed, at least, among the following groups: i) personnel and charges; ii) taxes, fees, and contributions; iii) compensation of third-party capital (interest, rents and others); and iv) compensation of shareholders' equity (interest on shareholders' equity and dividends and retained earnings or loss for the year). The groups in which the VAS is shared are in line with the Oliveira and Coelho citation (2014), according to which the VAS demonstrates the wealth generated by the company in its economic scope and should provide its users with knowledge on the distribution of such wealth.

The need for more complete information grounded the importance attributed to the VAS in the context of the convergence of accounting, since it should not be mistaken with the Income Statement (DRE). Cunha, Ribeiro and Santos (2005) noted that the DRE restricts only to shareholders the company's ability to generate profits, thus not considering the economic factors that contributed to the entity's wealth generation. Van Staden (2000) arguments by stating that the VAS presents little innovation regarding the information already contained in the DRE, however, it presents the information in a clearer and more concise manner.

Cosenza (2003) stresses that the purpose of VAS is not to replace DRE, but to complement it, since its conceptual structure allows the understanding of the benefits generated and their impacts on the company's results and of its participants, particularly employees, creditors financial and government. In the same line, Brito, Silva, Diniz and Miranda (2005) affirm that VAS presents, objectively and comprehensibly, the sharing of the wealth generated by the company to each of its employees, thus it becomes essential to meet the lack of information not present in other financial statements.

Arruda et al. (2015) extend the scope of the VAS by stating that, in addition to demonstrating the generation and distribution of wealth, it allows acknowledging economic and social information in addition to offering the possibility of better evaluation of the entity's activities within the society in which it is located. In the international scenario, Mook (2007) highlights the contribution of this demonstration to accounting, because it unites in a single report, topics that were hidden in the other demonstrations and that help in the analysis of organizational performance thanks to its rich informational content. Yogesha and Mahadevapa (2014) highlight that the VAS shows results for a larger group of stakeholders in comparison to the other statements and its components allows measuring the economic performance of entities.

The results of the research, as referred to, still leave questions open when concerning the relevance and informational importance of the VAS. Thus, Kroetz and Neumann (2008) highlight the need to expand the proposal to present this demonstration to better explore the VAS potential.

2.3 Previous empirical evidence on the value relevance of VAS

Previous studies, with similar objectives, were developed in order to contribute to the construction of the existing literature and evidence the VAS value relevance in the financial statements as a whole. Barros et al. (2013) evidenced the relevance of the VAS by associating the stock price with the net value added to be distributed, from 2000 to 2009, for a sample of 642 companies listed on the stock exchange market. The authors evidenced that the informational content contained in the VAS is relevant to the different levels of corporate governance.

Stanzani et al. (2016) noticed the relevance of the VAS in a sample of 62 companies listed on the BM&FBovespa from 2010 to 2012 and confirmed the relevance of this statement to explain the variation in stock returns and the stock market. Arruda et al. (2015) have shown that the constant divisions in the VAS have little influence on the return of shares in different period scenarios. In order to analyze the share returns, they observed three events windows: short (three days before and after the disclosure of the demonstrations), average (seven days before and after), and long (15 days before and after). The authors have shown that interest on equity has a negative relation over a period considered to be short (of three days) - that is, in this period, the values evidenced in this category negatively affect the return of shares.

In another study, Machado et al. (2015) published the relevance of the VAS in explaining the return of shares and that the wealth created per share better represents the ability to explain this return, since users expect the company to create wealth that guarantees future accessibility and not only its own capital remuneration.

Crippa and Coelho (2012), in a similar study to that of Machado et al. (2015), using companies listed on the BM&FBovespa as sample, have concluded that in addition to VAS being relevant, it may present information about the company's conduct regarding corporate governance and the interests of those using that information.

Scherer (2006) also noted the relevance of net value added for distribution to companies listed on BM&FBovespa. In an additional analysis, by separating the companies from the sample among those belonging to varied levels of corporate governance from those that did not belong, the author reported the relevance of the value added, disclosed in the VAS, for companies belonging to it. According to the author, this is justified by the need of investors to provide additional information to substantiate their decisions. Table 1 reports the results of research on value relevance, as well as the hypotheses tested in this study.

Table 1
State-of-the-art and its hypotheses

Author and Year	Results	Hypothesis
Machado *et al.* (2015)	The VAS has relevant informational content, as it explains the variation in the stock price of companies. The relationship between earnings *per* share (EPS) and the price was significant in spite of the inclusion of the Book Value of Equity Per Share (BVES), and net earnings per share (LLPA) variables.	H1: Companies with greater distribution power influence the company's share price.
Barros *et al.* (2013)	The net value added for distribution is relevant to the investor. Shareholders' equity was not relevant to the market.	H2: Companies that generate value to their shareholders, influence the price of the company's stock. H3: Companies that focus on creating equity value, influence the price of the company's stock.
Crippa e Coelho (2012)	The market does not consider information of wealth destined to shareholders with the same relevance as it appreciates the wealth production capacity of companies, and the value of the firm is more associated with the wealth generated, than with the way wealth is distributed among stakeholders. The size of the company was associated with the stock return, while the level of corporate indebtedness did not present statistical significance.	H4: The amount distributed to own equity influences the price of the company's share. H5: The company's indebtedness influences the share price of the company. H6: The total assets of the company influence the price of the company's stock.
Klapper e Love (2002)	Governance is correlated with the asymmetric information extent and the contracting imperfections faced by firms. Better corporate governance is highly correlated with better operating performance and market valuation. Companies with American Depositary Receipt (ADR) have better corporate governance practices and, therefore, have better results in the capital markets.	H8: The level of corporate governance in which the company is listed influences the share price of the company. H_9: The fact that the company issues shares in the US stock market influences the stock price of the company.

Source: elaborated by the authors.

In the next topic, we present the methodological aspects that support the research, regarding the objectives, the technical procedures, the approach of the problem, and the instruments of data collection.

3 METHODOLOGICAL ASPECTS

The survey sample entails companies belonging to the Special Corporate Governance Stock Index (IGCX) of Brazil, Stock Exchange and Over-the-Counter Market (B3). We chose companies listed in the index on November 14, 2016, and with the data extracted in the period from 2011 to 2015. Moreover, the sample companies are listed at Level 1, Level 2, and *Novo Mercado* level of corporate governance. We investigated a total of 155 companies (a total of 714 observations). From an initial number of 180 companies, 15 were excluded because they were listed twice, due to the fact that they were negotiating different types of actions, and 10 were excluded due to the unavailability of some information in the VAS.

In order to demonstrate the explanatory power of VAS and its association with the B3share price, the assumptions were tested using multiple linear regression technique by ordinary least squares (OLS), observing the basic assumptions proposed by Fávero, Belfiore, Takamatsu and Suzart (2014). In order to correct the data normality in the regression test, we used the winsorizing technique, as well as the Ladder test, which directs the variables correction necessity regarding distribution asymmetry. We only identified the need to correct the share price by the square root (pa_sqt) and the total asset by the neperian logarithm (atl). Table 2 lists the variables tested with the respective hypotheses and the motivating studies of the methodology adopted.

Table 2
Variables used in the research

Variable - Abbreviation	Hypothesis	Formula/metrics	Sign	Motivating studies
(Dependent) **Share price (pa)**		*pa* / *pa (t-1)*		Barros *et al*. (2013); Arruda *et al.* (2015); Machado *et al.* (2015)
(Independent) **Earnings per share (la)**	H_1: Companies with greater distribution power influence its share price	*la* / *la (t-1)*	+	Scherer (2006); Stanzani *et al.* (2016); Machado *et al.* (2015)
Net added value for distribution per share (val_a)	H_2: Companies that generate value for their shareholders influence its stock price.	*val_a* / *val_a (t-1)*	+	Barros *et al*., 2013; Scherer (2006); Crippa and Coelho (2012)
Book value per share (vpa)	H_3: Companies that focus on creating equity value influence the price of the company's stock.	*vpa* / *vpa (t-1)*	+	Barros *et al*. (2013)
VAS proportion to equity (vatpro)	H_4: the amount distributed to equity influences the price of the company's share.	*vapro* / *vat*	+	Martins *et al.* (2014); Barros *et al.* (2013); Scherer (2006)
Indebtedness (end)	H_5: The company's indebtedness influences the share price of the company.	*at- pl* / *at*	-	Crippa and Coelho (2012)
Total assets (at)	H_6: The total assets of the company influence the price of the company's stock.	Negative Logarithm of Total Company Assets.	+	Crippa and Coelho (2012)
Sector (set)	H_7: The classification sector of the company influences the share price of the company	Sector *Dummies*: 1 – Industrial goods; 2 – Cyclic consumption; 3 – Non-cyclic consumption; 4 – Financial and others; 5 – Basic materials; 6 – Petro, gas and biofuels; 7 – Health; 8 – Information technology; 9 – Telecommunications; 10 – Public utility.	+	
Corporate Governance (gcorp)	H_8: The level of corporate governance in which the company is listed influences the share price of the company.	Governance *Dummies*: 1 – Level 1; 2 – Level 2; 3 – *Novo Mercado*.	+	Klapper and Love (2002)
ADR	H_9: The fact that the company issues shares in the US stock market influences the stock price of the company.	*Dummy* 0: the company does not issue shares in the United States; *Dummy* 1: the company issues shares in the United States	+	Klapper and Love (2002)

Source: adapted from Barros *et al.* (2013) for the variables employed on our research.

Although other researches have not tested the relationship including the sector classification as a control variable, in this research this was done in order to verify if the sector interferes in the performance of the company. Equation 1 expresses the regression model we tested in this study.

Equation 1

$$Pa_{ij} = \beta_0 + \beta_1 La_{ij} + \beta_2 Val\_a_{ij} + \beta_3 Vpa_{ij} + \beta_4 Vatpro_{ij} - \beta_5 End_{ij} + \beta_6 At_{ij} + \beta_7 i.Setor_{ij} + \beta_8 i.Gcorp_{ij} + \beta_9 i.Ano + \beta_{10} Adr_{ij} + \varepsilon \quad (1)$$

The following topic reports the results of the research and its main discussions, the results are presented through the descriptive statistics and through the mentioned regression model.

4 RESULT ANALYSIS

4.1 Descriptive Statistics

Table 3 shows the descriptive statistics for the quantitative variables of the research.

Table 3
Quantitative variables descriptive statistics

Variables	Obs	Mean	Median	Standard Deviation	Mininum	Maximum
Pa	715	0.95	0.93	0.38	0.17	1.97
La	775	(0.84)	0.64	10.98	(90.15)	14.79
Val_a	715	245,443.90	82,940.40	459,966.80	(18,917.33)	2,426,104.00
Vpa	769	18.15	9.16	34.45	(0.30)	244.50
Vatpro	774	0.09	0.15	0.69	(4.40)	2.19
End	769	2.48	1.43	3.06	(3.28)	16.87
At	769	32,300,000	4,834,415	138,000,000	135,299	1,030,000,000

Note. Pa = Share price; La = Earnings per share; Val_a Net added value for distribution per share; VPA = Book value per share; Vatpro = VAS proportion to equity; End = Indebtness; At = Total assets. Source: elaborated by the authors.

The variables that presented the highest mean and median (Table 3) were the net value added to be distributed *per* share and the equity value *per* share, however, we highlight the high standard deviation value for the net value added to be distributed *per* share. Regarding the minimums and maximums, it is important to emphasize that, by dividing the share price by the price of the previous share, the effect of the scale of the variables is reduced. Thus, the lowest (minimum) share price is 0.17 and the highest (maximum) is 1.97.

We should emphasize that the different observations presented in Table 3 are due to the presence of missing data - those that were not available for a particular variable and sample. Thus, some companies may have shown equity value *per* share (VPA) and have not evidenced the value of the share, resulting in a greater number of VPA observations. Table 4 shows the relative frequency of the qualitative variables of the study.

Table 4
Qualitative variables descriptive statistics

		Freq. N=775	Relative Freq.	Accum. Freq.
Sector	Industrial goods	120	15.48%	15.48%
	Cyclic consumption	200	25.81%	41.29%
	Non-cyclic consumption	70	9.03%	50.32%
	Financial and others	135	17.42%	67.74%
	Basic materials	80	10.32%	78.06%
	Petrol, gas and biofuels	20	2.58%	80.65%
	Health	30	3.87%	84.52%
	Information Technology	20	2.58%	87.10%
	Telecommunications	5	0.65%	87.74%
	Public utility	95	12.26%	100%
Total		**775**	**100%**	
Corporate Governance	Level 1	115	14.84%	14.84%
	Level 2	90	11.61%	26.45%
	Novo Mercado	570	73.55%	100%
Total		**775**	**100%**	
ADR	Does not issue shares abroad	410	52.90%	52.90%
	Issues shares abroad	365	47.10%	100%
Total		**775**	**100%**	

Source: elaborated by the authors.

Regarding the sectors, "cyclic consumption" and "financial and others" were the most representative. Regarding the level of corporate governance, most of the companies in the sample are listed on the *Novo Mercado* and their shares are divided almost equally between issuance or not of shares to the American Market.

4.2 Results presentation and analysis

We tested data correlation and detected no strong correlation between them, in order to meet the requirements presented by Fávero et al. (2014) for multiple linear regression. Table 5 presents the results without the control variables.

Table 5
Regression result of without control variables

pa_sqt	Coef.	Std. Err.	T	P>t	[95% Conf. Interval]	
Val_a	0	0	5,30	0	0	0
Vatpro	0,02	0,01	1,72	0,09	-0	0,05
_cons	0,94	0,01	110,05	0,00	0,92	0,96
F (2,711) = 16,86			R-squared = 0,02			
Prob > F = 0						

Note. Pa_sqt: Share price corrected by the square root; Val_a: Net Value Added for distribution *per* share; Vatpro VAS proportion to equity. Source: elaborated by the authors.

By isolatedly analyzing the effect of the VAS variables and their relationship with the share price, as described in Table 5, the F-test showed a statistic of 16.86. With this result, we may reject the null hypothesis that all parameters are statistically equal to zero, i.e., that there is at least one coefficient, statistically significant at 5%, of explanatory variables. The t-test showed that only the net value added for distribution *per* action (val_a) was significant at the 5% level, however, the *pa* variable displayed a low explanatory power. The results indicate that the total net wealth obtained by the company may explain its performance in the capital market, signaling that the accounting information is relevant to the decisions of the users.

We added other variables were added in order to find a better explanation for the share price variation and to make sure that even in the presence of other variables, the value added *per* share is actually significant for the share price. Aiming at giving more consistency to the research, the representative VAS variables added to the model, which are extracted from the literature and shown to be related to informational relevance - that is, as variables that may influence the investor's decision in monetary terms. Thus, it was possible to assess whether or not the contained informational content influences the stock price of the companies under study, controlled other factors. The result of the regression test of the complete model is displayed in Table 6.

Table 6
Result of regression with control variables

pa_sqt	Coef.	Robust Std. Err.	t	P>t	[95% Conf.Interval]	
La	0	0	5,81	0	0	0,01
Val_a	0	0	1,96	0,05	0	0
Vpa	-0	0	-4,27	0	-0	-0
Vatpro	0,01	0,01	1,23	0,22	-0,01	0,04
End	-0	0	-1,63	0,10	-0,01	0
Atl	0,01	0,01	1,98	0,05	0	0,03
Setor						
2	-0	0,02	-0,11	0,91	-0,05	0,04
3	0,05	0,03	1,81	0,07	-0	0,10
4	0,02	0,02	0,93	0,35	-0,02	0,06
5	0,01	0,03	0,30	0,76	-0,05	0,07
6	0,03	0,04	0,78	0,43	-0,04	0,10
7	0,07	0,03	2,16	0,03	0,01	0,14
8	0	0,03	0,02	0,98	-0,07	0,07
9	-0,01	0,09	-0,07	0,94	-0,18	0,16
10	0,06	0,03	2,19	0,03	0,01	0,11
Gcorp						
2	0,04	0,03	1,13	0,26	-0,03	0,10
3	0,06	0,02	2,58	0,01	0,01	0,11
Ano						
2012	0,20	0,02	10,10	0	0,16	0,24
2013	0,02	0,02	1,48	0,14	-0,01	0,06
2014	-0,01	0,02	-0,75	0,45	-0,05	0,02
2015	-0,06	0,02	-2,84	0,01	-0,10	-0,02
Adr	-0,01	0,01	-0,85	0,40	-0,04	0,02
_cons	0,68	0,10	6,54	0,00	0,48	0,88

F (22, 691) = 16,31	Shapiro-Francia (Prob>z) = 0,67
Prob > F = 0,00	VIF (variance inflation fator) = 1,67
R-squared = 0,3437	

Note. Pa_sqt: Share price corrected by the square root; La: Earnings per share; Val_a: Net Added Value for distribution per share; VPA: Book value per share; Vatpro: VAS proportion to equity; End: Indebtedness; At: Total assets corrected by the neperian logarithm; Set: Sector; Gcorp: Corporate Governance. Source: elaborated by the authors.

As shown in Table 6, when adding the other variables, the F-test resulted in a statistic of 16.31 which, in an F-distribution, returned a p-value lower than 0. This result leads to the null hypothesis rejection, as it happened in the previous test.

Among the quantitative variables, only those of the proportion of the value added distributed as VAS proportion to equity (vatpro) and indebtedness (end) were not statistically significant at 5%, with a p-value higher than 0.05 – i.e., hypotheses 4 and 5 were rejected.

Regarding the variables qualitative (i. Gov, i.setor, i.ano adr), the t-tests results allowed concluding, considering sector 1, that corporate governance level 1 and year 2011 were reference groups, that there are differences between sectors, years and levels of corporate governance for the behavior of the share price variable. On the other hand, for the adr dummy, we could conclude that there is no difference for the behavior of the stock price variable between the companies that emit shares in the United States and those that do not emit.

Based on the regression result without the control variables, we noted that only the net value added for distribution presented significance at the 5% level, confirming the findings of Machado et al. (2015), who concluded that earnings *per* share presents a better ability to explain share returns.

For each monetary unit (Table 6) where there is a change in earnings per share, the share price will also change. Considering the significance of earnings per share in relation to other variables, the results corroborate the findings of Scherer (2006), Machado et al. (2015), and Stanzani et al. (2016), in which they verified the earnings relevance in influencing the return of the shares.

We note that the value-added variable was also significant, but the increase in the share price with the increase of one monetary unit of value added per share seems insignificant. Barros et al. (2003) found that companies belonging to varied levels of corporate governance tend to present best practices and found, as we did in this study, relevance in the net value added variable.

Regarding the variable value per share (vpa), we observed a significant change in the price of shares, corroborating to studies that, when analyzing the impact of stockholders' equity, evidenced their relevance in explaining the return of actions (Barros et al., 2013, Machado et al., 2015, Scherer, 2006).

Similar to international studies that have shown the importance of better investor protection practices, the dummies showed that the share price of companies listed on the *Novo Mercado* governance level will have a positive variation, in line with the findings of Habib and Azim (2008) and Lopes (2009).

When analyzing the results for the period 2011 to 2015, we concluded that the year 2012 should be underscored among the others by the increase in the share price. In 2012, the economy was in a scenario of greater global liquidity and increased investor confidence regarding better transparency practices, which have consequently attracted more investors.

The year 2015 also presented a significant stagnation, however, a fall in stock prices occurred. It was a year marked by the slowdown in the Chinese economy and high declines in the Brazilian stock market (Barbosa, Severiano, & Malan, 2015).

Another important point that should be emphasized in the results is the sector's impact on stock prices. We noted that if the company belongs to the health sector or to the public utility sector, there is a greater possibility of having an impact on the share price in relation to the companies belonging to the other sectors. The fact that the company is from the health sector provides an increase in the share price, and if it is from the public utility sector, this will cause an increase in the share price.

Table 7
Summary of results by means of confirmation of hypotheses

Hypothesis	Variable	Expected Sign	Sign Found
H1	La	+	+
H2	Val_a	+	+
H3	Vpa	+	-
H4	Vatpro	+	n.s.
H5	End	-	n.s.
H6	Atl	+	+
H7	Set	+	+
H8	Gcorp	+	+
H9	Adr	+	n.s.

Nota. La: Earnings per share; Val_a: Net added value for distribution per share; Vpa: Book value per share; Vatpro: VAS proportion to equity; End: Indebtness; Atl: Total assets corrected by the neperian logarithm; Set: Sector; Gcorp: Corporate governance. Source: elaborated by the authors.

We verified (Table 7) the acceptance of hypotheses 1, 2, 3 and 6 while evidencing that earnings per share, value added per share, book value per share and company size are relevant to the share price, as well as the control variables sector, corporate governance index, and analysis period. The statement of value added per share, the main object of the study, was relevant to the market, despite the low explanatory power for share return. The results indicate the relevance of the information in terms of the wealth created by the company as a whole, as well as the relevance of the earnings per share and the total assets of the companies, which indicates that the information of accounting exerts value relevance, i.e., they indicate the effect on users' decisions.

5 FINAL CONSIDERATIONS

Given the mandatory nature of VAS in Brazil, we sought, in the present study, to assess the relevance of its informational content in the Brazilian stock market, since users accounting information and investors are increasingly concerned with the availability information with greater transparency and reliability. This research investigated the relevance of this demonstration in the varied levels of corporate governance (IGCX), over a five-year period.

The pieces of evidence found confirmed the relevance of the VAS in the stock market, but with low explanatory power. When the control variables were added in the regression, we noticed that the earnings per share showed to be more significant in terms of explanatory power of the changes in the stock return.

Among the research hypotheses, those that indicated the influence of distributed capital to shareholders were rejected, and the indebtedness with the changes in the share price also does not justify these variations. The results point to the concern of investors with the wealth generated as a whole, and not only with their distribution and retention of profits by the company. However, it is noted that investors are not supposed to be concerned about how wealth is distributed but are primarily interested in knowing how much wealth was generated (value added to be distributed) and the value of the profit obtained (net profit, which is one of the main determinants of dividends), as well as the company size, i.e., the company's ability to generate and maintain assets.

The results found are consistent not only with the national literature, but also with the international literature. When analyzing the qualitative variables, we noted that companies belonging to the *Novo Mercado* level of corporate governance tend to influence the return of shares, as Cahan et al. (2009), which emphasized the relevance of profit-related variables, associated with the quality of earnings earned by investors, and these gains related to their transparency and protection.

We considered the objective of this study as accomplished, when verifying that the informational content of VAS influences the decision of the investors in the Brazilian capital market. However, as the literature suggests, the VAS is a piece of information complementary to the other accounting information.

As a limitation of this study, we had the investigation of only companies from one country, while it is important to investigate companies from different markets to capture the different aspects of the influence of accounting information on the capital market. Based on the results of the research, we suggest for future studies, the analysis of the relevance of the VAS in a more detailed way for the different sectors of the economy, given the shortage of studies that could justify the relevance of the health or public utility sectors in the formation of the share price.

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