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INTERNATIONALIZATION OF BOARD MEMBERS AND COMPLIANCE WITH MANDATORY DISCLOSURE: EMPIRICAL STUDY OF IFRS 3 (BUSINESS COMBINATIONS) IN BRAZIL

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The determinants tested in the mandatory disclosure are usually about business and cultural factors. However, the board members have a strong power of decision on the information disclosed, so it is natural that the characteristics of board members can influence the fulfillment of disclosure. This study analyses the level of compliance with IFRS 3 and examines whether it is influenced by the level of internationalization of board members. Our results indicate a moderate level of compliance, which is greater the greater the weight of foreign board members and the weight of board members with training abroad.

1. Introduction

The fulfilment of disclosure requirements is of the utmost importance to users of the information, when making economic decisions. Previous studies have shown that disclosure affects investors' decisions (Bhasin and Shaikh, 2011).

Studies have demonstrated the potential impact of accounting disclosure and therefore regulators need to ensure that financial information is accurate and transparent not only by increasing mandatory disclosure but also through enforcement mechanisms.

While research on mandatory disclosure has accompanied its increase in recent years as the need for information has grown, these studies are still outnumbered by those on voluntary disclosure.

Some studies have shown that the quality of information improved following the adoption of international standards - IFRS - International Financial Reporting Standards (Leuz and Verrecchia, 2000; Daske and Gebhardt, 2006), thus affecting the decisions of users of the information.

But do companies actually comply with the IFRS disclosure requirements? In fact, even though IFRS call for an increasing amount of information in line with the needs identified by users, the decisions of these users will be influenced if companies fail to comply, provide incorrect information, or even omit information. Chen and Zhang (2010) found that the application of IFRS do not necessarily mean full compliance with IFRS; for example, in China it was only after the application of enforcement mechanisms, including audit committees, that international standards were met. From this decade and because of the increasing importance of IAS, it’s began to emerge many studies that sought to answer the following question: why do non-compliance exist?

Given the wide range of disclosure required by IFRS, our study focuses on a single standard - IFRS 3 - Business Combinations. This standard sets out the principles to be used by the acquiring company engaged in a business combination, namely: how to recognize and measure the assets acquired and liabilities assumed in a business combination, how to recognize and measure the non-controlling interests and goodwill, and what kind of information must be disclosed in the new entity financial statements.

Business combinations reflect business investment aimed at increasing competitiveness, reduce risk and enhancing competition and synergies between business supports. Business combinations may also significantly affect companies' financial statements, including assets and liabilities. Hamberg, Paananen and Novak (2010) used Swedish data to demonstrate the accounting consequences of the adoption of IFRS 3 in the equity market and found that after its adoption in January 2005 the value of capitalized goodwill increased substantially. Similarly, the impairment of goodwill is considerably lower than its amortization and impairment in accordance with Swedish standards. Thus, the adoption of IFRS 3 led to an increase in profit. The authors also reported that, rightly or wrongly, investors see the gains arising from IFRS 3 as a consequence of higher future cash flows.

However, in spite of the potential significant effect of business combinations in the financial statements, not all the firms fully comply with IFRS 3 disclosure requirements (Glaum, Schmidt, and Street, 2013; Lucas and Lourenço, 2014). These studies analyse determinants of compliance, as company and cultural factors. But none of these studies relate the level of compliance with and the features of the company's board members, namely internationalization of board members. Note that, board members have a strong power of decision on the information disclosed, so it is natural that the characteristics of board members can influence the fulfillment of disclosure.

We aim to fil this gap in the accounting literature by analysing the level of compliance with IFRS 3 disclosure requirements and whether it is influenced by the level of internationalization of board members. The empirical study relies on an emerging country, Brazil, where the board members' internationalization is an essential feature in the labour market.

According to Peltonen, Sousa and Vansteenkiste (2012), financial characteristics are the second factor determining investment in emerging countries. This raised awareness of the need to understand the factors that affect compliance with the disclosure required in this type of market, so that the increasing transparency of information allows investors' information needs to be met.

Brazil adopted IFRS in 2010 and it is a relevant country because it is a growing capital market; in 2011, the Brazilian Stock Exchange (M&FBovespa) was the world's eighth largest. But Brazil is also a country which laws on investor protection are weak and where there is a high concentration of ownership (Lourenço and Branco, 2013). The specific features of this country, such as the risk associated with economic policies and their legal systems strongly, significantly influence disclosure. Paul N. Michas (2011) analyzed the importance of the auditing profession in emerging markets and showed that audit quality is higher in companies located in countries with a more developed auditing profession.

The disclosure of information and integrity of reports have also been affected by the governance structure through audit committees, family members in the government, among other factors (Anderson, Mansi and Reeb, 2004). If governance has an impact on the dissemination of information, it probably also has impact on compliance with mandatory disclosure. It is therefore necessary to understand which features of governance not previously studied may affect compliance. We analyse foreign board members and board members with training abroad.

Our results indicate a moderate level of compliance with IFRS 3 disclosure requirements, which is greater the greater the weight of younger board managers with post-graduate education, specially obtained abroad

The paper is organized as follows. In section 2, we review the literature on determinants of disclosure, as well as on IFRS 3. Section 3 presents the hypotheses development. Section 4 presents the methodology and Section 5 shows the results. Finally, section 6 presents the concluding remarks.

2. Literature review

2.1 Mandatory Disclosure

Although there are already many studies on the disclosure of accounting information, they are still predominantly on voluntary disclosure. Voluntary disclosure is *"any disclosure by companies not mandated by law and/or self-regulatory bodies"* (Owusu-Ansah, 1998, p. 154). Examples of studies about voluntary information include those of Hussainey and Walker (2009) on the effect of dividends on voluntary disclosure and the relationship between current earnings and future earnings and Patelli and Prencipe (2007) on the relationship between voluntary disclosure and independent directors in the presence of a dominant shareholder.

Studies on mandatory disclosure are scarcer and they predominantly analyse the determinants of the level of compliance with disclosure requirements. *"Mandatory disclosure is the minimum information wich promulgated regulation requires from a reporting entity"* (Abdullah, M., Evans, L., Fraser, I. Tsalavoutas, I., 2015, p.330). However, studies on mandatory disclosure have been growing considerably in recent years because of the increase in mandatory legislation in accounting through IAS's – International Accounting Standards and IFRS's - International Financial Reporting Standards.

However, while some studies address determinants that may influence the fulfilment of disclosure, other equally important studies seek empirical evidence of the impact of the disclosure level. For example, Diamond and Robert (1991) demonstrated that information disclosure reduces information asymmetry and the cost of capital, attracts investors and increases liquidity. Hodgdon, Tondkar, Harless and Adhikari (2008) found that compliance with the mandatory disclosure of IFRS decreases information asymmetry and improves the ability of financial analysts to provide more precise forecast.

As this work will be on mandatory disclosure and their determinants, then we will mention studies on this topic chronologically. The studies that we will mention imply the creation of an index to verify compliance with disclosure (independent variable), as well as a panoply of determinants (dependent variables) that have been tested over time.

Cooke (1989) studied the disclosure of Swedish companies. Two of the objectives of his paper was to understand the significant relationship between quotation status and disclosure and determine if quotation status, assets size, annual sales, number of shareholders and parent company relationship affect disclosure. To realize this work, the author creates an index with 224 items (financial statements – 119, measurements and valuation methods – 39, ratios, statistics and segmental information – 16, projections and budgetary disclosure – 9, financial story – 9, social responsibility accounting – 32). The results of the study demonstrated a significant relation between the extent of disclosure and listing status and also to size.

Patton and Zelenka (1997) realized an empirical analysis in Czech Republic about the determinants of the extent of disclosure. The sample of this study is composed by 50 joint-stock companies that were included in the 1993 Prague Stock Exchange. The dependents variables are based on Czech regulations (three indexes). At that time, the literature about mandatory disclosure was scarce, so the authors were seeking independent variables in studies about voluntary disclosure and the selected dependent variables were the firm size, profitability performance, financial risk (leverage and percentage intangible assets) and monitoring variables (listing status, big six international audit firm, number of employees and industry). The variables that showed statistically significant were: type of auditor, number of employees.

From 2000, it began to emerge studies on compliance with IAS, because these standards began at this time to gain much importance at the international level by means of accounting harmonization.

Street and Bryant in 2000 made a different study because analyse the compliance with IAS and in the same time analyse if companies with U.S. listings or filings present different results for compliance and for level of disclosure. The sample is composed by: 11 U.S. listed companies, 30 U.S. listing companies that claim to comply with IAS and finally 41 non U.S. filing or listing companies. In this study authors have to create an index of compliance with 29 standards (IAS). The results appointed that the extent of compliance is greater for companies with U.S. listings or filings, because the mean of index is higher when companies have U.S. listings or filings (84% against 77%). So, the findings suggest that the enforcement is higher for companies with U.S. listings or filings.

Chen, Charles J.P., Jaggi, Bikki (2000) examined the association between financial disclosures and independents on corporate boards on a sample of 87 large Hong Kong firms. The results of their study suggest that there is a positive association between the proportion of independents on corporate boards and financial disclosures. They also analyse the effect of family control and the results suggest that this association is weaker for family controlled firms compared to non-family controlled firms.

Naser, Al-Khatib and Karbhari (2002) investigate whether the introduction of IAS in Jordan in 1990 influenced the depth of corporate information disclosure. This research was conducted in 132 companies for the years 1998/1999 and were analysed independent variables into four categories: market – company size, audit firm's status, industry type; performance – profit margin, return on equity, liquidity; ownership – listed on the AFM (Amman Financial Market) with high spread and structure – companies listed on the AFM with a high gearing ratio. The dependent variable was an index of disclosure with 86 items and he results demonstrate that the disclosure improved with the introduction of IAS's and the disclosure level is normally associated with size, audit firms status, liquidity, gearing and profitability.

Archambault and Archambault in 2003 develop a model with cultural, national and corporate factors that can influence disclosure. This study stands out because it was carried out with a large number of countries (33 countries) and variables. For the study, the authors create an disclosure index with seven information categories: general information, income statement, balance sheet, funds-flows statement, accounting policies, stockholders information and supplementary information and extract the information from annual reports of 1993 and 1992. Note that, for each category exists different numbers of information's. In the model created by the authors the disclosure was a response of cultural (factors: power distance, individualism, uncertainly avoidance, masculinity, education and religion), national (factors: political – freedom, legal and press; economic – development, inflation and capital markets) and corporate systems (factors: financial – ownership, exchanges, dividends, auditors and leverage; operating: size, industries and foreign sales). The developed model provided a good explanation about the disclosure decision and also explain differences of disclosures between companies in same or different country.

Al-Akra, Edie and Ali (2010) examines the influence of accounting disclosure regulation, governance reforms and ownership changes on mandatory disclosure of IFRS's. This study was conducted in Jordan in the years 1996 and 2004 in 80 non-financial companies. To realize this study, the authors created two checklists based on IFRS's in the years 2004 and 1996 and found that disclosure compliance is significantly higher in 2004 (79%) than that in 1996 (55%). The regulation reforms was the most significant variable. Note also, governance reforms and the mandate of audit committees as a significant determinant of compliance.

Alanezi and Albuloushi (2011) determined the impact of the presence of a voluntary audit committee on required disclosure practices of IFRS in Kuwait. Using 18 relevant IFRS in this context, an index based on 199 items was developed to investigate the level of disclosure in the annual reports of a sample of 68 listed companies in Kuwait in 2007. The level of compliance in this study is 72% (199 items checklist from some IFRS's). The results revealed that the presence of an audit committee, several members of the same family on the board and leverage were the most important variables to explain companies' disclosure practices of IFRS. The results of this study also showed that compliance is lower in family-dominated companies but is higher when exists an audit committee and when leverage is higher. Other variables (control variables) like company size, profitability, company age and ownership diffusion are not statistically significant.

Mısırlıoğlu, Tucker and Yükseltürk (2011) study if the mandatory adoption of IFRS by Turkish listed companies in 2005 was successful and guarantee compliance. To carry out this study the authors did not create an index of compliance but made an improvement coefficient to understand if disclosures practises have improved. They find that although there are some improvements, the vast majority of the disclosure items required by IFRS were not disclosed. The firm characteristics like Auditor type, size, and the degree of foreign ownership of shares exert a positive impact on the disclosures. The authors also studied the role of firm and country level factors played in the adoption of IFRS and for this realize interviews. These analyse reveals that the dominance of tax laws, the lack of enforcement, corporate governance issues, and inadequate management information systems were all significant constraints to the successful adoption of IFRS.

2.1.1 Mandatory Disclosure in IFRS 3 – Business Combinations

As IFRS 3 – Business Combinations is the norm investigated in this study, then we will mention some studies on compliance with the disclosure of this standard alone or this standard in conjunction with other standards.

Glaum *et al*. (2013) analysing the level of compliance with IFRS 3 and IAS 36 by European companies, the authors found a high level of compliance and that this can be influenced by both firm and country characteristics. At the firm level, they demonstrated that compliance is influenced by the importance of goodwill, experience with IFRS, the type of auditor, the presence of an audit committee, the issuance of securities in the study period, and the company's power structure. With respect to the country, compliance is influenced by the level of enforcement and the size of the capital market. Finally they found that the culture of the countries (conservatism) also has an impact on the level of compliance with disclosure requirements.

Lucas and Lourenço (2014) examined how firm and country characteristics influence the level of compliance with IFRS. This study was conducted based on European listed companies and determined the level of compliance with IFRS 3 disclosure requirements. The results showed that compliance is influenced by both corporate and country features. The results of this study show that firms located in common-law countries have a strong level of compliance with IFRS 3 and those in the "French-civil-law" countries have poor compliance. The return on assets was also found to be a strong determinant of compliance.

Abdullah *et al.* (2015) examine the effect of family control on IFRS mandatory disclosures for Malaysian companies in 2008. These authors demonstrate a negative association between a family control and compliance with IFRS's. Another interesting thing that the authors found was a negative relationship between board expertise in accounting and compliance. The authors suggest that managers with expertise in accounting, can use this knowledge tendentiously and only reveal what interests them. This study also demonstrates an insignificant relation between disclosure level and firm value. We emphasize the fact that this study looked at the length of several standards, however, the level of compliance for IFRS 3 was 77%.

In conclusion we notice that there is already some literature on compliance with the disclosure of IFRS and to precisely on IFRS 3. However, in cited literature were tested several variables (business, cultural, governance) that is believed to have an effect on compliance. But the fact is that has not tested whether certain board members features, including internationalization may have an effect on compliance

3. Hypotheses development

In fact, it has been demonstrated that disclosure has a strong impact on the users of information and therefore more studies are required on the determinants of compliance. However, there may be other determinants that have not yet been tested from this perspective e.g. characteristics of board members, and which may also prove relevant. The studies quoted below demonstrate the potential importance of the characteristics of the board members in other contexts.

Anderson *et al.* (2004) believed that the characteristics of the directors influenced the integrity of financial reports. In a sample of S&P 500 firms, they find that the cost of debt is inversely related to board independence and board size. They also find that fully independent audit committees are associated with a significantly lower cost of debt financing. Similarly, yield spreads are negatively related to audit committee size and meeting frequency.

Verriest, Gaeremynck and Thornton (2013) investigate the association between corporate governance strength and EU listed firms' choices on IFRS adoption in 2005. They measure governance strength by aggregating variables such as board independence, board functioning and audit committee effectiveness. To analyse compliance, the authors selected 15 standards. The sample was made with 223 European firms located in 15 different countries and results demonstrate heterogeneity in both compliance and disclosure quality. The authors also conclude that stronger governance firms comply better with IFRS and disclose more information (mandatory and voluntary)

Despite having shown the importance of correct disclosure and its potential impact, we believe we can add empirical knowledge by demonstrating that certain characteristics of the board not yet studied from this perspective also have a strong influence on the level of compliance with mandatory disclosure requirements. Note that Verriest *et al.* (2013) examine some governance characteristics (board independence, board and audit committee effectiveness and operations); however, they focused on a different standard (IAS 39) and the context was Europe rather than the emerging country i.e. Brazil used herein.

As Alanezi and Albuloushi (2011) said and we agreed board members frequently make decisions to benefit their own self-interest to the detriment of the shareholders. For that reason, a vigorous board is needed to represent shareholders' interests and to control the management' s actions, as well as a set of mechanisms to help in monitoring them.

Brazil has very specific characteristics and compliance with standards is not high due to enforcement is low, so it is expected that the board members' features are a differential factor in fulfilling the mandatory disclosure. We emphasize also that a strong enforcement alone does not guarantee compliance, however, this is not the case of Brazil, because in this country the enforcement is low. It is further noted that Brazil adopted IFRS in 2010 and according to Amiran (2012) the adoption of international standards enhances foreign direct investment.

It has been shown that foreign investment improves governance and increase transparency (Dyck, 2001). Other studies also analyze the relationship between foreign ownership of firms and the degree of compliance, notably the study of Mısırlıoğlu *et al.*(2013).

Based on theoretical considerations, this study explores hypotheses about board members features that could affect the level of compliance with disclosure requirements, namely the internationalization.

<u>H1: Foreign board members improve compliance with disclosure</u>

<u>H2: Board members with foreign training improve compliance with disclosure</u>

4. Methodology

4.1. Sample and data

The sample for this paper was collected for the years 2010, 2011, 2012 and 2013. We analyzed all Brazilian listed companies and therefore collected electronically the reports of 607 Brazilian companies for the years 2010, 2011, 2012 and 2013. We subsequently checked every report to identify which companies had business combinations. This proved to be time-consuming as the IFRS do not define a priori the number of the note disclosing business combinations; it can be found in various numbers. Indeed, we found that some companies referred to this information throughout the report and not in a single Note. After this selection, we obtained a sample of 136 observations (companies with business combinations in 2010, 2011, 2012 and/or 2013).

We then collected the "*formulários de referência*" of these companies to assemble information related to the characteristics of the board, finance or audit committee, and revenue obtained from abroad. Eleven companies were removed from the sample as they did not provide the "*formulário de referência*" for the year under review. We had another constraint at this stage because not all "*formulário de referência*" divulged training administrators obtained. So we decided to remove the observations (17 observations) that do not disclose the information of training to more than 90% of its board members.

Finally, we eliminate observations in which the residue of statistical regression was more than "1.9" (6 observations), then getting a final sample of 102 observations.

The data on some of the control variables were taken from the database DataStream.

4.2. Variables

In order to examine whether company disclosure requirements are met with respect to business combinations, we developed an index of disclosure, which is used as the independent variable of our study.

There are two types of independent variable in the study: control variables and test variables. The control variables selected are: size; leverage; return on assets; operational cash flow; industry; listing in the United States, investment fund ownership, independent board members, existence of financial or audit committee, goodwill weight and Revenue from abroad. The test variables are: foreign board members and training abroad.

4.2.1. Dependent Variable

The dependent variable was examined by analyzing IFRS 3 at the time of the study (2010, 2011, 2012 and 2013).

As our study centers on required disclosure, we focused on paragraphs 59 and 63 of IFRS 3. These paragraphs require companies to disclose how business combinations occurring in the reporting period, and after the reporting period but before the approval of the accounts, affect the financial statements. It also requires companies to disclose whether the changes in the period's financial statements are the result of business combinations elapsed in the previous annual report period. Paragraphs B64 to B67 of, the IFRS 3 set out disclosure requirements.

It was impossible to confirm compliance with all the information because there are certain situations in which non-disclosure does not mean failure to comply but that it is not applicable to the company. Then we have built up a table where there was made a selection of items that can effectively check. This analysis resulted in a total of 11 major items and then according to these items have 13 more sub-items. Note that the organization of main items and sub-items is prepared precisely according to the IFRS 3.

Having constructed Table, we then place the compliance of each item and for each company in three classifications: 0 - does not disclose; 0.5 - partially disclosed (e.g., disclose only some of the business combinations); and finally 1 - disclose. This led to the following index (1):

$$\text{Index} = [\textstyle\sum_{i=l}^{n} di]/\text{n} \quad (1)$$

where Di = item index (0; 0,5 ou 1) and n = number of items.

This index shows the average level of disclosure of companies. It should be noted that constructing the index in this way does not affect businesses that do not disclose because it is not required; the average is obtained only from the number of items that should be disclosed. Companies with an average close to 1 generally meet the disclosure requirements and those with an average close to 0 do not. This index was constructed according to similar literature (Patton and Zelenka, 1997, Street and Bryant, 2000, Alanezi and Albuloushi, 2011, Cooke, 1989, Naser *et al.*, 2002)

4.2.2. Independent Variables

There are two types of independent variable - the control variables and the variables to test the hypotheses. The latter are: foreign board members (FOREIGN BOARD = percentage of foreign board members in a company) and training abroad (TRAINING ABROAD = percentage of Brazilian board members who have obtained training abroad in a company).

The control variables are: size (SIZE = natural logarithm of total assets); leverage (LEV = total liabilities / total assets); return on assets (ROA = net income / total assets); operational cash flow (funds from operations / total assets); industry (SIC 4, assigning the value "1" if the company belongs to the utility sector) listing in the United States (ADR, assigning the value "1" if the firm is listed in the US); investment fund ownership (INVEST FUND = percentage of a company owned by an investment fund); independent board members (INDEP BOARD = percentage of board members who are independent in a company); existence of financial or audit committee (FIN/AUD COMMIT, assigning the value "1" if the company has an audit/financial committee; weight of goodwill (GOODWIIL = goodwill / total value of the transaction) and finally revenue from abroad (FOREIGN REVENUE = percentage of company revenues from abroad).

These control variables were chosen in line with previous studies.

The size of firms is often positively associated with both mandatory disclosure (Archambault and Archambault, 2003 Ali *et al*., 2004, Cooke, 1989, Naser *et al.*, 2002). However, other authors find no evidence of an association between size and level of compliance with IAS required disclosures (Street and Bryant, 2000, Alanezi and Albuloushi, 2011, Patton and Zelenka, 1997).

We selected Leverage because some authors argue that firms with greater Leverage are likely to disclose more information (Alanezi and Albuloushi, 2011). However, Al-Akra *et al.* (2010) and found mixed results for this variable. And Patton and Zelenka, 1997 not found significant results for this variable.

The link between profitability and mandatory disclosure was also tested by Al-Akra *et al.* (2010) Owusu-Ansah (1998), Alanezi and Albuloushi (2011), Naser *et al.*, (2002). However, and for profitability, the results of these studies were not uniform because their relationship to compliance has not been proven by Street and Bryant (2000).

According to the literature, companies with higher liquidity ratios disclosure more information (Al-Akra *et al.,* 2010, Naser *et al.*, 2002). However, Al-Akra *et al.* (2010) found mixed results for this variable.

Prior research has yielded mixed results regarding the association between industry and level of disclosure. For example, the next authors found this evidence that type of industry is associated with the level of disclosure: Al-Akra *et al.*, 2010 and Alanezi and Albuloushi, 2011). While, Street and Bryant (2000), Naser *et al.*, (2002) and Patton and Zelenka, (1997) found no evidence of an association between industry and extent of compliance with IAS.

The fact that the companies are listed in the US market has been suggested as a determinant of compliance disclosure (Street and Bryant, 2000).

The ownership of companies by institutional investors can affect the companies' disclosure practices (Al-Akra *et al.,* 2010). Because of this fact, we resolve investigate if the ownership of investment fund companies affects disclosure.

The relationship between the independent board members and disclosure already has been tested (Verriest *et al.*, 2013, Abdullah *et al.*, 2015, Chen, *et al*., 2000).

The audit committee is an important characteristic of internal control because one of its responsibilities is monitoring the compliance with the rules like IFRS's. Empirical research provides evidence on the potential contribution on" the audit committee in the financial reporting process (Chen, *et al.,* 2000). For example, Al-Akra *et al.* (2010) and Alanezi and Albuloushi, (2011) show a positive relationship between the presence of an audit committee and the extent of disclosure.

The weight of goodwill was also tested when Nakayama (2012) examined the relationship between this variable and the fulfillment of disclosure.

According to the literature, foreign sales increase disclosure (Archambault and Archambault, 2003).

4.3. Research Model

This study examines the level of compliance with the IFRS 3 disclosure requirements in Brazil as well as the existence of foreign administration and the training received abroad may influence this level of compliance. In order to achieve this goal we use the following equation model:

$$\begin{aligned} INDEX = {} & \alpha_0 + \alpha_1\, SIZEj + \alpha_2\, LEVj + \alpha_3\, ROAj + \alpha_4\, CASHFLOWj + \alpha_5\, SIC\ 4j + \alpha_6\, ADRj \\ & + \alpha_7\, INVEST\ FUNDj + \alpha_8\, INDEP\ BOARDj + \alpha_9\, FIN\ AUD\ COMMITj \\ & + \alpha_{10}\, GOODWILLj + \alpha_{11}\, FOREIGN\ REVENUEj + \alpha_{12}\, FOREIGN\ BOARDj \\ & + \alpha_{13}\, TRAINING\ ABROADj + \varepsilon_j \quad (2) \end{aligned}$$

This equation is Ordinary Least Squares (OLS) that is the most commonly used technique in disclosure studies (Cooke, 1989, Naser *et al.*, 2002) where the dependent variable is the compliance/disclosure score and the independent variables include the factors discussed above.

Note that this regression has only 3 dichotomous variables: SIC 4, ADR, FIN AUD COMMIT.

5. Research findings

5.1. Descriptive Statistics and correlation

Table 1 presents descriptive statistics of the variables included in the model.

TABLE 1

The level of compliance with the IFRS 3 disclosure requirements is moderate because the average of this variable (INDEX) is 0.65. A minimum of 0.33 meaning that exist companies disclose little information. The maximum of 1.00 exists because an observation reflects that the company reported all that was supposed to disclose. In other studies, the average of this variable is usually higher, for example in Street and Bryant, 2000 and Al-Akra, *et al.* 2010 the index of compliance were above 80%.

The variable SIZE has an average 15.24, which is also close to the results of Archambault and Archambault (2003).

The variable LEV has an average of 0.58 which shows that the sample companies are more indebted compared to other studies in which leverage had lower average. (for example the study of Al-Akra, *et al.* 2010 and of Alanezi and Albuloushi (2011)

We found that the average value of variable ROA is quite low (mean – 0.04), which means the companies in question has low profitability. In others similar studies, the profitability is higher (Chen, *et al.* 2000, Al-Akra, *et al.* 2010, Alanezi and Albuloushi, 2011).

CASHFLOW variable has an average 0.08 which is consistent with prior research in accounting.

Of the total sample, 14% of companies belong to the utilities industry, 16% are listed in the US market and 42% have a financial or audit committee.

On average companies are held by investment funds at 4.5%, however, there are companies that do not have any participation by investment funds, but there are others with a great interest because the maximum of this variable is 63%. In study of Al-Akra, *et al.* (2010) a similar variable had a higher average (27%), but in this work the index of compliance is also higher.

Companies have on average 28.7% of its board members as independent (Chen *et al.,* 2000 reached the similar average in their studies). For this variable we find that there are companies that do not have independent directors but there are others in which the majority are independent, because the maximum is 86%.

For the variable FIN AUD COMMIT the average is a little low compared to other studies (mean: 0,422). For example, in the study of Al-Akra, *et al.* 2010 the average of the variable round the 0,70). However, in study of Alanezi and Albuloushi (2011) the results were similar to ours in this variable and in index variable that is the dependent variable. This may mean that the enforcement mechanisms are low in the companies analyzed, like in the study of Alanezi and Albuloushi (2011)

For the goodwill we have on average a weight of 63% compared to total value transacted which shows that on average goodwill represents more than half of the amount paid in business combinations. There are observations that goodwill is 0 because we have a badwill. Note also that there are some observations that goodwill is higher than the transacted amount (maximum - 4.73%).

On average 17% of company revenues is obtained from abroad and for this variable we found that there are companies that derive all their income in Brazil but there are others in which most of the revenues are obtained abroad (maximum - 76.5%). In paper of Archambault and Archambault (2003) this variable has a higher average (33%), however it was also significant, is not the case in this study (see Table 4).

Finally, on average 12% of the company's board members are foreigners and for Brazilian board members, on average 24% received some kind of training abroad. There are companies where the majority of its board members are foreigners (maximum - 91%), however, there are others that do not have foreign board members. Companies where the board members are mostly foreign are subsidiaries of companies headquartered abroad. Note, however that there are companies in the same circumstances in which its board members are not mostly foreigners. There are also companies that no board members had training abroad but there are others where the majority of the board members received at least one type of training abroad.

Table 2 presents correlations between variables.

TABLE 2

In table 2 we can find some important correlations. For example, we note that the disclosure index is negatively correlated with returns on assets, suggesting that when companies have low profitability have also increased efforts to comply with the mandatory disclosure in order to inform the scribblings of information. Another fact that is positively correlated is the existence of investment funds in the shareholding position of the companies analysed, as well as the existence of foreigners in the administration. The existence of investment funds positively influence the mandatory disclosure was already expected, because when there are investment funds in shareholding position, these are more demanding on compliance with disclosure, and with stricter rules.

With regard to the SIZE variable, we find that there is a positive correlation with the fact that the companies are listed in the United States, however a negative correlation with foreign board members. These results suggest that the listed companies in the United States are the largest, however, larger companies have less foreign in administration.

In relation to the leverage we verify the existence of a negative correlation with the return on assets and operating cash flow. This significant correlation was already expected, because the most indebted companies are less profitable and have less operational flows. Note also that the return on assets is positively related with the operating cash flow.

It was also other significant correlations, namely, a positive correlation between listed companies in the United States and the weight of goodwill and a negative correlation between the existence of a financial/audit committee and revenue from abroad.

Finally, it can be seen through the table 2 that firms with more foreign board members also have more foreign revenue, however, when there are more foreigners, there are also fewer Brazilians with some kind of training received abroad in administration.

Table 3 shows the regression results.

TABLE 3

Table 3 shows that companies that comply with the mandatory disclosure are companies that: are higher; which are less indebted; who have less returns; that have higher operating cash flows; who have investment funds in their ownership positions; who have more foreigners board members and Brazilian board members with some kind of training abroad. Note that the most important variables are the return on assets (ROA), the presence of investment funds in shareholding position enterprises (INVEST FUND) and that the foreign board members (FOREIGN BOARD), with a significance level of 0.000.

As it was expected according to the literature (Archambault and Archambault, 2003) the variable SIZE shown to have a significant and positive relationship with the compliance levels. This variable is very important and there are many explanations for this relationship. For example, Abd-Elsalam (1999) argued that firm size is a comprehensive variable that could proxy for competitive advantages, information production costs and political costs.

With regard to the leverage, the regression results are the same as already shown literature (Al-Akra, *et al.* 2010). However, Alanezi and Albuloushi (2011) reached significant results for this variable but with opposite sign (positive).

Regarding profitability, much of the literature has revealed positive and significant relationships, for example: Al-Akra, *et al.* 2010. However, Owusu-Ansah, 1998 found a negative significant relationship. This author said that enterprises that lose cash are more likely to divulge more information in order to preserve or justify their weak or insufficient performance. What happened in our sample is that on average companies have very low yields which may explain the negative and significant sign. Alanezi and Albuloushi (2011) reached similar results in their study.

Regarding the results of the liquidity ratio literature presents different results. For example, in the study of Al-Akra, *et al.* (2010), this variable was also significant but had negative sign. However, the liquidity ratio of this study was not operational, and our study is operational.

Institutional investors have shown not to be a significant variable in the study of Al-Akra, *et al.* (2010) but in our study it is one of the most important variables. These results were expected, because in study of El-Gazzar (1998), the presence of institutional investors in companies encourages the dissemination of information because of their fiduciary responsibilities and to increase portfolio performance.

The regression results confirmed the hypothesis of the study. That is, the internationalization affects compliance of the disclosure, because FOREIGN BOARD and

TRAINING ABROAD variables are statistically significant, and the 1st variable (FOREIGN BOARD) has a higher level of significance.

6. Conclusions

This study aims to assess the level of compliance with IFRS 3 disclosure requirements and to examine whether certain characteristics of the board members impact such level of compliance. The results indicate a moderate level of compliance with the disclosure required by IFRS 3 under analysis with an average of 65%.

We also demonstrate that the level of compliance with IFRS 3 disclosure requirements is greater the greater the weight of foreign board managers and the weight of board members with training abroad.

This study contributes to the literature as it confirms that the boars members' characteristics may also affect the disclosure performance. This connection had not yet been established in previous studies, which only considered variables and underlying business characteristics for certain countries. The results of this study are of interest to regulators, investment analysts, and market participants.

The study of other variables that may characterize corporate governance would be a fruitful avenue for future research in order to prove that governance also affects the fulfilment of disclosure.

References

Abd-Elsalam, O.H. (1999): “The Introduction and Application of International Accounting Standards to Accounting Disclosure Regulations of a Capital Market in a Developing Country: The Case of Egypt, PhD Thesis, Heriot-Watt University, Edinburgh, UK.

Abdullah, M., Evans, L., Fraser, I., Tsalavoutas, I. (2015): “IFRS Mandatory disclosures in Malaysia: the influence of family control and the value (ir)relevance of compliance levels” *Accounting Forum*, Vol. 39, pp. 328-348

Alanezi, F.S. and Albuloushi, S.S. (2011): “Does the existence of voluntary audit committees really affect IFRS-required disclosure? The Kuwaiti evidence”. *International Journal of Disclosure and Governance*, Vol. 8 (2), pp. 148-173

Al-Akra, M. and Ali, M. (2010): “The value relevance of corporate voluntary disclosure in the Middle-East – The case of Jordan”. *Journal of Accounting and Public Policy*, Vol. 31 (5), pp. 533-549

Amiran, Dan (2012): “Financial Information Globalization and Foreign Investments Decisions”. *Journal of International Accounting Research*, Vol. 11 (2), pp. 57-81

Anderson, R.C., Mansi, S.A. and Reeb, D.M. (2004): “Board characteristics, accounting report integrity, and the cost of debt”. *Journal of Accounting and Economics*, Vol. 37, pp. 315-342.

Archambault, Jeffrey J. and Archambault, Marie E. (2003): “A multinational test of determinants of corporate disclosure”. *The International Journal of Accounting*, Vol. 38, pp. 173-194

Bhasin, M., and Shaikh, J.M. (2011): “Intellectual capital disclosures in the annual reports: a comparative study of the Indian and Australian IT-corporations”. *International Journal of Managerial and Financial Accounting*, Vol.3. (4), pp. 379-402.

Chen, Charles J.P., Jaggi, Bikki (2000): “Association between independent nonexecutive directors, family control and financial disclosures in Hong Kong”. *Journal of Accounting and Public Policy*, Vol. 19, pp. 285-310

Chen, J.J. and Zhang, H. (2010): “The Impact of Regulatory Enforcement and Audit upon IFRS Compliance – Evidence from China”. *European Accounting Review*, Vol. 19 (4), pp. 665-692.

Cooke, T. E. (1989): “Disclosure in the Corporate Annual Reports of Swedish Companies”. *Accounting and Business Research,* Vol. 19 (74), pp. 113–124.

Daske, H. and Gebhardt, G. (2006): “International Financial Reporting Standards and experts’ perception of disclosure quality”. *Abacus*, Vol. 42 (3), pp. 461– 489.

Diamond, D.W. and Robert, E. (1991): “Disclosure, Liquidity, and the Cost of Capital”. *The Journal of Finance*, Vol. 46 (4), pp. 1325–1360.

Dyck, A. (2001): “Privatization and corporate governance: principles, evidence and future challenges”. *The World Bank Research Observer*, Vol. 16, pp. 59-84.

El-Gazzar, Samir M. (1998): “Predisclosure Information and Institutional Ownership: A Cross-Sectional Examination of Market Revaluations During Earnings Announcements Periods”. *The Accounting Review*, Vol. 73(1), pp. 119-129

Glaum, M., Schmidt, P. and Street, D. L. (2013): “Compliance with IFRS 3- and IAS 36-required disclosures across 17 European countries : company and country-level determinants”. *Accounting and Bussiness Research*, Vol. 43 (3), pp. 163– 204.

Hamberg, M., Paananen, M. and Novak, J. (2011): “The Adoption of IFRS 3: The Effects of Managerial Discretion and Stock Market Reactions”. *European Accounting Review*, Vol. 20 (2), pp. 263-288

Hodgdon, Christopher, Tondkar, Rasoul H., Harless, David W., Adhikari, Ajay (2008): “Compliance with IFRS disclosure requirements and individual analysts’ forecast errors”. *Journal of International Accounting Auditing & Taxation*, Vol. 17, pp. 1-13

Hussainey, K. and Walker, M. (2009): “The effects of voluntary disclosure and dividend propensity on prices leading earnings”. *Accounting and Business Research*, Vol. 39 (1), pp. 37–55.

Leuz, C. and Verrecchia, R.E. (2000): “The economic consequences of increased disclosure”. *Journal of Accounting Research*, Vol. 38 (Suppl), pp. 91–124.

Lourenço, I.C. and Branco, M.C. (2013): “Determinants of corporate sustainability performance in emerging markets: the Brazilian case”. *Journal of Cleaner Production*, 57, pp. 134-141.

Lucas, S. and Lourenço, I. (2014): ‘The effect of Firm and Country Characteristics on Mandatory Disclosure Compliance’. *International Journal of Managerial and Financial Accounting*, 6(2), pp. 87-116.

Michas, P.N. (2011): “The Importance of Audit Profession Development in Emerging Market Countries”. *The accounting review*, Vol. 86 (5), pp. 1731-1764.

Mısırlıoğlu, İ.U., Tucker, J. and Yükseltürk, O. (2013): “Does Mandatory Adoption of IFRS Guarantee Compliance?”. *International Journal of Accounting*, Vol. 48 (3), pp. 327-363

Nakayama, W.K. (2012): “Divulgação de Informações sobre operações de Combinação de Negócios na vigência do pronunciamento técnico CPC 15, São Paulo, 2012. Dissertação de mestrado

Naser, Kamal, Al-Khatib, Khalid and Karbhari, Yusuf (2002): “Empirical evidence on the depth of corporate information disclosure in developing countries: the case of Jordan”. *International Journal of Commerce and Management*, Vol. 12 (3 & 4), pp. 122-155.

Owusu-Ansah, S. (1998): “The impact of corporate attributes on the extent of mandatory disclosure and reporting by listed companies in Zimbabwe”. *The International Journal of Accounting*, Vol. 33 (5), pp. 605-631.

Patelli, Lorenzo and Prencipe, Annalisa (2007): “The Relationship between Voluntary Disclosure and Independent Directors in the Presence of a Dominant Shareholder”. *European Accounting Review*, Vol. 16 (1), pp. 5-33.

Patton, James and Zelenka, Ivan (1997): “An empirical analysis of the determinants of the extent of disclosure in annual reports of joint stock companies in the Czech Republic.” *The European Accounting Review*, Vol. 6 (4), pp. 606-626)

Peltonen, T.A., Sousa, R.M. and Vansteenkiste, I.S. (2012): “Investment in emerging market economies”. *Empirical Economics*, Vol. 43(1), pp. 97-119.

Street, D.L. and Bryant, S.M. (2000): “Disclosure level and compliance with IASs: a comparison of companies with and without U.S. listings and filings”. *International journal of accounting*, Vol. 35 (3), pp. 305–329.

Verriest, A., Gaeremynck , A. and Thornton, D.B. (2013): “The Impact of Corporate Governance on IFRS Adoption Choices”. *European Accounting Review*, Vol. 22 (1), pp. 39-77.

Table 1 – Descriptive Statistics

	Mean	SD	Median	Min	Max
INDEX	0,652	0,156	0,649	0,333	1,000
SIZE	15,235	1,827	15,060	8,107	20,989
LEV	0,582	0,191	0,554	0,181	1,116
ROA	0,037	0,063	0,033	-0,344	0,241
CASHFLOW	0,076	0,069	0,073	-0,100	0,307
SIC 4[A]	0,137	0,346	0,000	0,000	1,000
ADR[A]	0,157	0,366	0,000	0,000	1,000
INVEST FUND	0,045	0,120	0,000	0,000	0,631
INDEP BOARD	0,287	0,190	0,250	0,000	0,857
FIN AUD COMMIT[A]	0,422	0,496	0,000	0,000	1,000
GOODWILL	0,628	0,708	0,585	0,000	4,722
FOREIGN REVENUE	0,168	0,265	0,000	0,000	0,991
FOREIGN BOARD	0,116	0,221	0,000	0,000	0,909
TRAINING ABROAD	0,237	0,184	0,200	0,000	0,714

[A] This average represents the percentage of firms belonging to the utilities industry, listed in the United States, who have financial/audit committee

Table 2 - Correlation Matrix

	INDEX	SIZE	LEV	ROA	CASHFLOW	SIC 4	ADR	INVEST FUND	INDEP BOARD	FIN AUD COMMIT	GOODWILL	FOREIGN REVENUE	FOREIGN BOARD	TRAINING ABROAD
INDEX	1,000													
SIZE	0,069	1,000												
LEV	-0,089	0,224**	1,000											
ROA	-0,300***	-0,051	-0,474***	1,000										
CASHFLOW	-0,041	-0,001	-0,270***	0,645***	1,000									
SIC 4	0,179*	0,193	0,084	-0,074	0,103	1,000								
ADR	0,235**	0,264***	0,050	-0,016	0,148	0,063	1,000							
INVEST FUND	0,482***	-0,037	-0,177*	-0,083	-0,127	0,038	0,326	1,000						
INDEP BOARD	-0,179*	-0,027	0,098	-0,083	-0,068	-0,001	-0,209**	0,019	1,000					
FIN AUD COMMIT	0,151	-0,052	-0,005	0,117	0,216**	0,121	0,014	0,105	-0,089	1,000				
GOODWILL	-0,041	0,125	-0,025	0,176*	0,172*	-0,210**	0,263***	-0,114	-0,078	0,035	1,000			
FOREIGN REVENUE	0,007	0,028	0,175*	-0,126	-0,048	-0,032	0,070	-0,126	-0,008	-0,274***	-0,003	1,000		
FOREIGN BOARD	0,337***	-0,353***	-0,044	-0,046	-0,003	0,046	-0,106	0,100	-0,166*	0,060	-0,071	0,280***	1,000	
TRAINING ABROAD	0,049	0,153	-0,051	-0,008	0,10	-0,085	0,14	-0,118	0,139	-0,083	0,088	-0,195**	-0,270***	1,000

***. Correlation is significant at the 0,01 level (2-tailed). (n = 102).

**. Correlation is significant at the 0,05 level (2-tailed). (n = 102).

*. Correlation is significant at the 0,1 level (2-tailed). (n = 102).

Table 3 - Regression results

	Index
SIZE	0,013*
LEV	-0,165**
ROA	-1,215***
CASHFLOW	0,487**
SIC 4[A]	0,033
ADR[A]	0,055
INVEST FUND	0,522***
INDEP BOARD	-0,098
FIN AUD COMMIT[A]	0,030
GOODWILL	0,002
FOREIGN REVENUE	-0,006
FOREIGN BOARD	0,253***
TRAINING ABROAD	0,152**

***. Correlation is significant at the 0,01 level (2-tailed). (n = 102).

**. Correlation is significant at the 0,05 level (2-tailed). (n = 102).

*. Correlation is significant at the 0,1 level (2-tailed). (n = 102).

Adjusted R^2: 0,504