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Batistella, Ana Julia; Magro, Cristian Baú Dal; Mazzioni, Sady; Paulo, Edilson

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Relevance of accounting information and national culture

Relevância da informação contábil e cultura nacional

Ana Julia Batistella^a, Cristian Baú Dal Magro^a, Sady Mazzioni^a, Edilson Paulo^b

^a Universidade Comunitária da Região de Chapecó - Brazil

^b Universidade Federal do Rio Grande do Sul - Brazil

Keywords

Quality of information.
Relevance of information.
National culture.

Abstract

The aim of this study is to analyze the influence of cultural differences on the relevance of accounting information. The sample comprised 15,902 companies listed in the 30 countries with the highest Gross Domestic Product, in the period 2015-2017, totaling 47,706 observations. In order to achieve the goal of this study, descriptive statistics, cluster analysis and multiple linear regression were used. The results show that the relevance of accounting information is more accentuated in firms located in countries with cultural characteristics that are farther from power, more collectivist, with less aversion to uncertainty, greater femininity, and greater complacency. In turn, the cultural dimension of long-term orientation has not shown consistent results. It is concluded that the cultural dimensions of the countries interfere in the attribution of the relevance granted by the capital market to the accounting information produced by the companies.

Palavras-chave

Qualidade da informação.
Relevância da informação.
Cultura nacional.

Resumo

O objetivo deste estudo é analisar a influência das diferenças culturais na relevância da informação contábil. A amostra compreendeu 15.902 empresas listadas nos 30 countries com maior Produto Interno Bruto, no período de 2015 a 2017, totalizando 47.706 observações. Para atender ao propósito desta pesquisa, foram utilizadas a estatística descritiva, a análise de cluster e a regressão linear múltipla. Os resultados indicam que a relevância da informação contábil é mais acentuada em firmas localizadas em countries com características culturais de maior distância do poder, mais coletivistas, com menor aversão à incerteza, maior feminilidade e maior complacência. Por sua vez, a dimensão cultural de orientação de longo prazo não apresentou resultados consistentes. Conclui-se que as dimensões culturais dos countries interferem na atribuição da relevância concedida pelo mercado de capitais à informação contábil produzida pelas empresas.

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Practical Implications

The article aims to help auditors, regulatory agencies and global investors by indicating that, for companies in countries with a culture of masculinity, individualism and aversion to uncertainty, it is necessary to increase investments and broaden monitoring mechanisms in order to minimize the negative effects of such cultural factors on the quality of accounting information.

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Corresponding author: Tel. +55 (55) 99674-5296

E-mail: ana.batistella@unochapeco.edu.br (A. J. Batistella); crisbau@unochapeco.edu.br (C. B. Dal Magro); sady@unochapeco.edu.br (S. Mazzioni); edilson.paulo@ufrgs.br (E. Paulo)

Universidade Comunitária da Região de Chapecó. Rua Servidão Anjo da Guarda, 295-D, Efapi - Chapecó/SC - 89809-900, Brazil.

1 INTRODUCTION

Accounting information is endowed with quality when it is useful to stakeholders (Ball & Shivakumar, 2005; Dechow, Ge & Schrand, 2010), on faithfully reflecting the economic fundamentals and meeting the accounting standards in force (Yoon, 2007). The quality of accounting information depends on the compliance with characteristics that influence decision-making, such as, for example, value relevance (Ball & Shivakumar, 2005).

There are several metrics to measure the quality of accounting information (Francis, Lafond, Olsson & Schipper, 2004), the value relevance being underpinned by market information (Hung, 2000; Barth, Beaver & Landsman, 2001). In recent years businesses have successfully improved the relevance of accounting information (Barth, Li & McClure, 2019), as a result of the interference of regulatory aspects, such as, for example, accounting standards (Zeghal & Lahmar, 2018; Guermazi & Halioui, 2019; Wijayana & Gray, 2019), market protection laws, legal protection of minority stockholders' interests, effective application of accounting standards and audits, and the efficiency of the legal system in business (Houque et al., 2012).

Empirical evidence already indicates that quality of accounting information is influenced by a country's different regulatory attributes (Soderstrom & Sun, 2007; Isidro, Nanda & Wysocki, 2019). Even though accounting is linked to a nation's institutions, Cieslewicz (2014) maintains that national culture influences the institutional environment and attitude of individuals exercising power on decisions involving the capital market and accounting standards. It is hard to make human dynamics intelligible in the organizations of a country without knowing the culture that socialized the individuals in their environment (Hofstede, 1994).

Hofstede (2011) places national culture in six dimensions, as follows: collectivism, femininity, uncertainty aversion, long-term orientation, complacency and power-distance. The actions of the collectivist society are based on the protection of everyone. Countries with femininity advocate social equality and work-life balance (Hofstede, 2011). In uncertainty aversion, evidence is procured to avoid the uncertain (Hofstede, 2011). In long-term orientation, society is concerned with the future (Doupnik, 2008). A complacent society allows people to freely satisfy their basic human requirements and desires (Hofstede, 2011). Lastly, the society with power-distance accepts unequal distribution of authority (Furrer, Ching Liu & Sudharshan, 2000).

The cultural factors are fundamental in forming corporate and social environments, with potential to affect business decisions (Sekely & Collins, 1998). When making it possible to check behavioral patterns of individuals in the same context, the culture is able to determine social recognition of accounting information produced by companies (Ali & Hwang, 2000). Other authors have proven that corporate social responsibility is measured by the culture of a country and directly affects the relevance of accounting information (Orij, 2010; Agudo-Valiente, Garcés-Ayerbe & Salvador-Figueras, 2015, & Batistella, Mazzioni & Dal Magro, 2020).

Accounting and market information depend on the characteristics, including the cultural, of a country (Wronski & Klann, 2020). In addition, Dal Maso, Liberatore and Mazzi (2017) offer evidence of national culture influence on the relevance of accounting information, but without addressing its direct impact. They postulate that the stakeholders' engagement is associated with assessment of the companies and relevance of the financial result, pointing out that the economic consequences of such practices depend on the cultural features of the country in which the company operates. Therefore, a particular nation's accounting is linked to the supporting institutions that, in turn, are influenced by the national economic culture of those who maintain them (Cieslewicz, 2014).

Guan and Pourjalali (2010) evidenced that uncertainty aversion increases the quality of accounting information while reducing earnings management. Other cultural values, such as individualism, power distance and masculinity, affect the scale of earnings management. Desender, Castro and De León (2011) concluded that companies in individualist countries have lower levels of accounting discretion. Wronski and Klann (2020) demonstrated that the national culture impacts the quality of accounting information, influencing accounting conservatism to a great or lesser extent.

In this context, it is argued that the countries can use accounting standards and behaviors of similar capital markets, but present differences in the relevance of accounting information as a result of the cultural differences. Nevertheless, interference of countries' cultural dimensions in attributing the relevance granted by the capital market to accounting information produced by the companies has not been duly explored. Considering the discussion herein, the problem of research is the following: **what influence do cultural differences have on the relevance of accounting information?** The study objective is to analyze the influence of the cultural differences on the relevance of accounting information.

This paper analyzes 15,902 companies from the 30 wealthiest countries, in the period 2015- 2017, totaling 47,706 observations. The diversity of countries allows the comparison of the differences in cultural dimensions, economic development and accounting standards. The results show that the cultural differences explain the relevance of accounting information, as higher in countries with a prevalence of dimensions of greater power distance, more collectivist with less uncertainty aversion, more femininity and more complacency.

The conclusion is that the countries' cultural dimensions impact on the quality of accounting information, increasing or diminishing the relevance of the information. This result can be of use to regulators, investors, financial analysts and top executives of multinationals, when providing insights that the country's culture interferes in the relevance of accounting information, thereby suggesting preferences in the acknowledgment of accounting information released by companies as a result of the cultural factors to which they are exposed.

The theoretical effect suggests wider conflicts of interest between the different stakeholders. In practical terms, companies are required to adopt strategies to overcome negative interferences of the country's culture in compliance with disclosure of accounting information (Orij, 2010, & Dal Maso et al., 2017).

2 THEORETICAL BENCHMARK AND RESEARCH HYPOTHESES

The accounting policy decisions, at a national level, are taken in response to the cultural values (Gray, 1988), which are deep-rooted in the regulatory agencies and capital market (Nabar & Boonlert-U-Thai, 2007). National culture affects professional judgment when interpreting and adopting the International Financial Reporting Standards (Chand, Cummings & Patel, 2012) and cultural traits cause economic consequences in the commitment of stakeholders (Dal Maso et al., 2017).

To convey the cultural diversity of 50 countries, based on studies in the 1980s, Hofstede (2011) developed the Theory of Cultural Dimensions, indicating that cultural values affect the behavior and way in which people act in their daily lives.

Hofstede (1983, 2011) identified the dimensions of national culture by which countries can be hierarchically organized, such as power distance, individualism vs. collectivism, uncertainty aversion, masculinity vs. femininity, long-term vs. short-term orientation, complacency vs. indulgence.

Based on the theoretical proposal of Hofstede (1983), Gray (1988) built four theoretical constructs that could predict the differences between each country's accounting practices, in accordance with its cultural dimensions. However, Gray (1988) did not test the proposed hypotheses, providing an opportunity to investigate the individualized impact of the countries' cultural dimensions, on the relevance of accounting information disclosed by the companies.

In highly hierarchical societies, power is distributed unequally and top-level individuals are not challenged. In light of this, leading directors are at the top of the hierarchical pyramid while stakeholders are at the bottom (Siegel, Licht & Schwartz, 2011). The power-distance culture influences corporate confidentiality when disclosing information to stakeholders, a factor explained by the interest in restricting information to preserve the inequalities of hierarchical power (Gray & Vint, 1995).

In countries with less power distance, a broader sense of equality permeates society. In fact, in such countries, people are socialized to internalize the commitment of cooperating and feeling concern with the wellbeing of everyone (Siegel et al., 2011). In such societies, it is more likely that the involvement of the stakeholders is valuable and able to reduce the asymmetry of information (Dal Maso et al., 2016), so that accounting information becomes more relevant to the capital market.

H₁: Accounting information is more relevant in countries with less power-distance.

Companies in countries with an individualist culture are more prone to protect only the wellbeing of stockholders, interfering in the quality of accounting information (Doupnik, 2008). The culture of individualism could harm the quality of accounting information, reflected in the loss of relevance of accounting information (Doupnik, 2008). In individualist societies, top executives are free to choose different accounting methods that measure the same factor, so that accounting information misrepresents the economic essence of the firm (Guan & Pourjalali, 2010).

In countries with an individualist culture (Hofstede, 2011), the capital market is more likely to mistrust the accounting information reported by the companies. Gray and Vint (1995) argue that the confidentiality of information is present in societies with individualist culture, since concern prevails for the group's interests that relate more to the company's administration and finance rather than to a wide range of stakeholders, including potential investors

In turn, companies in countries with a collectivist culture adopt conservative accounting policies in order to reduce the variability of the results through softer practice (Askary, Yazdifar & Askarany, 2008; Guermazi & Halioui, 2019; Wronski & Klann, 2020; Zeghal; Lahmar, 2018), in the hope of satisfying a large number of stakeholders (Hofstede, 1994). These factors cause accounting information to become relevant, since it is a communication tool regarding the standards.

H₂: Accounting information is more relevant in countries with a collectivist culture.

The executives of companies in countries with an uncertainty aversion culture show preference for accounting choices that create a security zone to increase subsequent profits, in the case of overestimated forecasts (Askary et al., 2008, Guan & Pourjalali, 2010). Countries with uncertainty aversion prioritize credit of the banking financial system (Kwok & Tadesse, 2006), with evidence that the relevance of accounting information is less in those countries (Ali & Hwang, 2000).

Kwok and Tadesse (2006) allege that uncertainty aversion causes devaluation of the stock market, making disclosure of accounting information less valuable. Gray and Vint (1995) suggest that countries with uncertainty aversion prefer information confidentiality resulting from the need to restrict information to the stakeholders. In this case, society seeks to avoid conflicts to restrict the uncertainties of competition and to preserve security.

H₃: Accounting information is more relevant in countries with less uncertainty aversion.

The masculinity culture leads to individuals maintaining ambitious career aspirations, preferring to work in top companies and earn high salaries. Hofstede (2011) notes that competitive environments are associated with countries with a masculinity culture. The masculinity culture shows a more assertive success-driven society, with tendencies to more transparent business information and, therefore, the confidentiality in disclosing information to stakeholders would be more prevalent in the feminist culture (Gray & Vint, 1995). However, Nabar and Boonlert-U-Thai (2007) have noted the interference of masculinity in accounting choices that imply the quality of accounting information.

In feminist societies, people and institutions are focused on building good relations and ensuring quality of life. Societies with a feminist culture appreciate responsible actions and are involved in the processes of corporate social responsibility (Batistella, Mazzioni & Dal Magro, 2020). Upholding the strength of institutions, society and people is part of the femininity culture (Hofstede, 2011). To that effect, companies in countries with a feminine culture would be more likely to demonstrate to the stock market information that properly recognizes their performance.

H₄: Accounting information is more relevant in countries with a femininity culture.

The quality of accounting information tends to be superior in countries that have a culture of long-term orientation. This is because societies with short-term orientation are encouraged to earn instant profit, creating relations in order to take immediate advantage (Hofstede, 2011). In turn, Wronski and Klann (2020) argue that for a society whose values reflect the short-term orientation culture, the most important results are those perceived and evidenced in the short term. These factors incentivize opportunist behavior and practices that have a detrimental effect on the quality of accounting information.

Nevertheless, companies in countries with long-term orientation cause those who prepare the accounting information to stay in communication and relationship with the stakeholders, who exert pressure on the company to continue in the long term, so that the stockholders are less likely to chose accounting that increases immediate results, but that could impair future results (Orij, 2010, Flammer & Bansal, 2017, Dal Maso et al., 2017). This creates transparency and reduces information asymmetry, creating more relevance for accounting information.

H₅: Accounting information is more relevant in countries with a culture of long-term orientation.

In societies with a complacency culture, free behavior is encouraged while repression is inhibited by regulations (Hofstede, 2011). However, in accounting practice flexibility in professional judgment is necessary so that economic events are recognized and measured from the view of essence over form (Ball & Shivakumar, 2005). Likewise, market analysts show greater interest in accounting information that represents reliable economic events.

A country's government that prevents participation of private organizations in issuing accounting regulations makes corporate accounting information less relevant (Ali & Hwang, 2000). This statement corroborates the culture of repression, being consistent with the premise that the government sets corporate accounting regulations principally in order to meet regulatory requirements, such as calculating income tax or demonstrating compliance with the national government policies and macroeconomic plans, ignoring its relations with the stakeholders (Ali & Hwang, 2000).

Accordingly, the companies in countries with a complacency culture would be more likely to exercise professional judgment on accounting recognition, thereby essence over form prevailing (Gupta, 2017), enabling closer stakeholder commitment (Dal Maso et al., 2017), and thus making accounting information more relevant.

H₆: Accounting information is more relevant in countries with a culture of complacency.

3 METHODOLOGICAL PROCEDURES

The study considered the companies listed in the 30 countries with the highest Gross Domestic Product in 2017. In the Thomson ONE Banker® database, 22,893 firms were identified. The sample was defined by the companies and countries that provided the data of the variables and period of analysis.

In relation to the countries, those that did not provide information about the dimensions of culture were excluded and substituted by the country with the next highest Gross Domestic Product. The 30 selected countries were: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Colombia, Denmark, France, Germany, Indonesia, Italy, Japan, Malaysia, Mexico, Netherlands, Norway, Peru, Philippines, Poland, Russia, Singapore, South Korea, Spain, Sweden, Switzerland, Thailand, United Kingdom and United States of America.

Furthermore, companies in the financial sector were excluded for presenting specific characteristics of accounting regulation. The survey sample consisted of 15,902 companies and 47,706 observations. The analyzed data relate from 2015 (last update of the national culture variable by Hofstede Insights) to 2017 (last period available at the time of collection).

The selected countries have more robust stock markets, drawing more strongly from accounting information. This group of countries has different cultural characteristics that help test the hypotheses. Also, the countries with greatest economic development are more likely to adopt the International Financial Reporting Standards (Zeghal & Mhedhbi, 2006), except for the USA that has its own robust standard.

Table 1 shows the dimensions of culture and their modus operandi.

Table 1. Construct of dimensions of national culture

National culture	Metrics	Lead authors
Power distance	Scale 0-100, where the closer to 100 the greater the power distance, and the closer to 0 the shorter the power distance.	Doupnik (2008), Hofstede (2011).
Individualism/Collectivism	Scale 0-100, where the closer to 100 the greater the country's individualism and the closer to 0 the greater the collectivism.	Askary et al. (2008), Hofstede (2011), Guan & Pourjalali, (2010).
Aversion to uncertainty	Scale 0-100, where the closer to 100 the greater the uncertainty aversion, and the closer to 0 lower the uncertainty aversion.	Hofstede (2011), Nabar & Boonlert-U-Thai (2007), Askary et al. (2008).
Masculinity/Femininity	Scale 0-100, where the closer to 100 the greater the country's masculinity and the closer to 0 the greater the femininity.	Nabar & Boonlert-U-Thai (2007), Hofstede (2011).
Long-term/Short-term Orientation	Scale 0-100, where the closer to 100 the greater the long-term orientation and the closer to 0 the greater the short-term orientation.	Doupnik (2008), Hofstede (2011).
Complacency/Indulgence	Scale 0-100, where the closer to 100 the greater the complacency and the closer to 0 the greater the repression.	Hofstede (2011), Gupta (2017).

Source: Hofstede Insights (2015).

The building procedures and criteria for cultural dimensions are provided in detail in the works of Hofstede (1983, 2011). Data of the relevance of accounting information was collected from the Thomson ONE Banker® website and the national culture data on the website of Hofstede Insights (2015). By adopting the procedure suggested in Ohlson's model (1995), six-monthly share price information in the period $t+1$ and annual net profit information per share and accounting value per share in the t period were collected, bearing in mind that the market needs time to recognize the published profit.

For data analysis, first the cluster by similarity of countries by national culture was prepared, using the cluster analysis. The conceptual model of the dimensions of the national culture of Hofstede (2011) was used, whose measuring scale was updated in 2015 (Hofstede Insights, 2015). In this respect, it was decided to form three clusters to segregate the countries in each national culture dimension.

Later, based on the groups of countries with most cultural similarity, a linear regression for each cluster in each national culture dimension was prepared by the model of relevance of accounting information. The relevance of accounting information was measured based on Ohlson's model (1995), according to Equation 1.

$$P_{(it+6)} = \beta_0 (\beta_1 PL/VPA_{it}) + (\beta_2 LL/VPA_{it}) + \varepsilon_{it}$$

em que:

$P_{(it+6)}$ = Share price of firm i in the $t+6$ period (six months after financial statement disclosure);

PL/VPA_{it} = Book value of net assets divided by net assets at company i 's market value i in period t ;

LL/VPA_{it} = Net profit divided by the profit per share of company i in the period t .

Based on this methodology, higher values of the determination coefficient (R^2) of the regression models of countries with similar cultures suggest greater relevance of accounting information (Ohlson, 1995).

4 ANALYSIS AND DISCUSSION ON RESULTS

Descriptive statistics (supplementary material) provide the information referring to the indicators of each cultural dimension and each country in order to separate those that have more or less power distance, individualism, uncertainty aversion, masculinity, long-term orientation and complacency. Table 2 presents the results of the relevance of accounting information for each dimension of national culture, separating companies according to the classification of the countries in clusters.

Table 2. Influence of national culture on relevance of accounting information

Dependent variable: share price			
Panel A – Power distance			
Cluster 1 – Austria, Australia, Germany, Canada, Denmark, USA, Norway, United Kingdom, Netherlands, Sweden, Switzerland.			
Cluster 2 – Japan, France, Brazil, Italy, South Korea, Spain, Peru, Argentina, Poland, Belgium, Thailand, Singapore, Colombia.			
Cluster 3 – China, Russia, Mexico, Indonesia, Malaysia, Philippines.			
Independent variables	Cluster 1 Least power distance	Cluster 2 Intermediate	Cluster 3 Greatest power distance
Profit per share	-0.5214*	-0.0262*	1.2998*
Book value per share	0.1912*	0.0403*	0.7387*
Constant	33.5620*	23.1202*	3.5694*
R^2	0.0310	0.0156	0.2230
p-value	0.000*	0.000*	0.000*
Observations	13,541	21,312	12,853
Panel B – Individualism versus Collectivism			
Cluster 1 – China, South Korea, Mexico, Indonesia, Thailand, Singapore, Malaysia, Philippines, Colombia.			
Cluster 2 – Japan, Brazil, Russia, Spain, Peru, Argentina, Poland, Austria.			
Cluster 3 – USA, Germany, United Kingdom, France, Italy, Canada, Australia, Netherlands, Switzerland, Sweden, Belgium, Norway, Denmark.			
Independent variables	Cluster 1 Collectivist	Cluster 2 Intermediate	Cluster 3 Individualism
Profit per share	-0.9518*	0.0232*	0.3913*
Book value of share	0.3919*	0.2028*	0.0386*
Constant	4.6791*	12.2087*	45.3576*
R^2	0.4035	0.0573	0.0219
p-value	0.000*	0.000*	0.000*
Observations	19,828	12,368	15,510

Table 2. Influence of national culture on relevance of accounting information (continued)

Panel C – Uncertainty aversion			
Cluster 1 – China, United Kingdom, Sweden, Denmark, Singapore, Malaysia.			
Cluster 2 – USA, Germany, Canada, Australia, Indonesia, Netherlands, Switzerland, Thailand, Norway, Philippines.			
Cluster 3 – Japan, France, Brazil, Italy, Russia, South Korea, Spain, Mexico, Peru, Argentina, Poland, Belgium, Austria, Colombia.			
Independent variables	Cluster 1 Least uncertainty avoidance	Cluster 2 Intermediate	Cluster 3 Greatest uncertainty avoidance
Profit per share	0.5871*	-0.5535*	-0.0218
Book value of share	0.1835*	0.1958*	0.0407*
Constant	3.4488*	32.8974*	29.0802*
R ²	0.1548	0.0311	0.0156
p-value	0.000*	0.000*	0.000*
Observations	15,478	12,714	19,514
Panel D – Masculinity versus Femininity			
Cluster 1 – Netherlands, Sweden, Norway, Denmark.			
Cluster 2 – USA, China, Germany, United Kingdom, France, Brazil, Italy, Canada, Russia, South Korea, Australia, Spain, Mexico, Indonesia, Peru, Switzerland, Argentina, Poland, Belgium, Thailand, Singapore, Malaysia, Philippines, Colombia.			
Cluster 3 – Japan, Austria.			
Independent variables	Cluster 1 Femininity	Cluster 2 Intermediary	Cluster 3 Masculinity
Profit per share	0.6369*	0.1291*	0.1557*
Book value of share	0.2035*	0.0575*	0.0386*
Constant	19.3622*	24.3949*	15.3935*
R ²	0.1738	0.0201	0.0819
p-value	0.000*	0.012*	0.000*
Observations	1,528	36,906	9,272
Panel E – Long-term orientation			
Cluster 1 – USA, Canada, Australia, Mexico, Argentina, Poland, Thailand, Norway, Denmark, Malaysia, Philippines, Colombia.			
Cluster 2 – United Kingdom, France, Brazil, Italy, Spain, Indonesia, Peru, Netherlands, Sweden, Austria.			
Cluster 3 – China, Japan, Germany, Russia, South Korea, Switzerland, Belgium, Singapore.			
Independent variables	Cluster 1 Short term orientation	Cluster 2 Intermediate	Cluster 3 Long-term orientation
Profit per share	-0.0005	0.0725	0.0784*
Book value of share	0.0099*	0.3632*	0.2402*
Constant	5.9012*	28.5749*	24.4943
R ²	0.0044	0.0157	0.0354
p-value	0.000*	0.000*	0.000*
Observations	13,548	7,905	26,253

Table 2. Influence of national culture on relevance of accounting information (continued)

Panel F – Complacency versus Repression		
Cluster 1 – China, Japan, Germany, France, Italy, South Korea, Spain, Indonesia, Peru, Poland, Thailand, Singapore, Philippines, Russia.		
Cluster 2 – USA, United Kingdom, Brazil, Canada, Australia, Mexico, Netherlands, Switzerland, Sweden, Argentina, Belgium, Austria, Norway, Denmark, Malaysia, Colombia.		
Independent variables	Cluster 1 Repression	Cluster 2 Complacency
Profit per share	-0.2680*	0.7504*
Book value of share	0.0531*	1.6604*
Constant	19.6513*	9.3008
R ²	0.0197	0.3914
p-value	0.000*	0.000*
Observations	32,025	15,681

Source: Research data.

Note: * Significance level 1%

As explained in the methodological procedures, the greater the R² (explanatory power of the model), the more relevance given to the accounting information. The results in Table 2 therefore indicate that companies located in countries with greater power distance, more collectivists, less uncertainty aversion, more femininity and greater complacency, produce information that is acknowledged by the market as being more relevant.

Findings suggest rejecting H₁ (accounting information is more relevant in countries with less power distance), contradicting the inferences of Gray and Vint (1995) and Siegel et al. (2011), that power distance increases informational confidentiality and worsens the recognition of accounting information in the capital market. However, they do match the results of Goodwin, Goodwin and Fiedler (2000), that in countries with a high power distance, individuals are more likely to produce more realistic information on the economic side of the business.

The results can be explained by the need for companies to use accounting information even more strongly to justify their decisions (Hofstede, Hofstede & Minkov, 2010), due to the distancing between the leaders of the organizations and their stakeholders. Moreover, it could be inferred that corporate management in countries with greater power distance has privileged information and the stakeholders' only information source is perhaps their own accounting disclosure (Offerman & Hellmann, 1997).

The results do not allow rejection of H₂ (accounting information is more relevant in countries with a collectivist culture), corroborating Douppnik (2008) and Askary et al. (2008), when suggesting that, in countries with individualist culture, businesses would be more likely to safeguard the actual benefits of a small group of stockholders and executives in detriment to the interests of the other stakeholders. As a result, the information asymmetry and conflicts of interest increase, impairing the quality of accounting information and, consequently, its relevance.

The greatest relevance of accounting information in countries with a collectivist culture may derive from society's confidence in and respect for the institutions, valorizing relationships, fulfilling obligations and, first and foremost for communication that could improve the stakeholders' interest in accounting information disclosed by the companies (Gray & Vint, 1995, Hofstede, 2011).

It is suggested that flexibility and freedom of societies with an individualist culture has jeopardized the information essence of accounting in the company's communication with the stock market and its stakeholders (Guan & Pourjalali, 2010). In the end, the results are also correspond to Gray and Vint (1995), when identifying that companies in individualist countries more inclined toward information secrecy, a factor that could generate information asymmetry with its stakeholders, thereby reducing the relevance of accounting information.

The results in Table 2 do not allow rejection of H₃ (accounting information is more relevant in countries with less uncertainty aversion), and may derive from the fact that the capital market has strict corporate monitoring (Ali & Hwang, 2000, Kwok & Tadesse, 2006).

Nabar and Boonlert-U-Thai (2007), Douppnik (2008), and Guan and Pourjalali (2010) have already addressed similar results for another characteristic of accounting quality, the results management, with less practice in countries that have a culture of less uncertainty aversion.

The results correspond to the premises that stakeholders create more trust in disclosure of accounting information that is more transparent, confirming the undesirable effect caused by the culture of uncertainty aversion, where individuals seek to avoid conflict by restricting and preserving information (confidentiality) to occasional less relevance of accounting information (Gray & Vint, 1995).

Nor do the findings make for rejection of H_4 (accounting information is more relevant in countries with a culture of femininity), corroborating the evidence of Nabar and Boonlert-U-Thai (2007), that businesses located in countries with a masculinity culture have less quality of accounting information, and may explain its less relevance.

The masculinity culture increases the ambition and admiration for success, leading to the executives adopting an opportunist behavior in reporting accounting information. However, the findings contradict the evidence of Gray and Vint (1995), when observing that the masculinity culture produces a more assertive society, tending to transparency of business information.

The results reject the H_5 (accounting information is more relevant in countries with long-term orientation culture), contradicting the arguments of Flammer and Bansal (2017) that the capital market scrutinizes the companies with long-term orientation.

It can be implied that long-term orientation culture does not interfere in the relationship and communication of companies with their stakeholders, neither in the quality of accounting information, other cultural factors prevailing in the relevance of accounting information. Considering that it is one of the last dimensions that Hofstede (2011) included, it still requires further study.

Based on the study's results, it is not possible to reject H_6 (accounting information is more relevant in countries with a complacency culture), suggesting that societies looking closely at factors linked to the happiness and quality of life of individuals that prioritize satisfaction and freedom against repression, offer greater relevance in accounting information from companies.

The results suggest that the relevance of accounting information is closely bound to the cultural characteristics of the society's freedom of choice, collective work and without power being concentrated in a few individuals. It is confirmed that in countries with a culture of repression, the governments tend to set strict rules on accounting regulations, without private bodies participating, and with preferential interest in fiscal accounting bent on levying taxes, thereby losing the essence of information in corporate accounting (Ali & Hwang, 2000).

5 FINAL COMMENTS

The findings regarding the national culture dimensions relating to countries with greater power-distance, collectivism, femininity, weak uncertainty aversion and complacency, have proven to be significant in explaining the relevance of accounting information.

Companies in countries with greater power distance were expected to have less relevance of accounting information, but the results have shown the opposite, contradicting the evidence of Gray and Vint (1995), Siegel et al. (2011) and Dal Maso et al. (2016). This finding shows that societies with greater power distance use accounting information as a tool for communicating with stakeholders, seeking to glimpse less hierarchical distancing. On the other hand, it showed no significance in relation the cultural dimension of long-term orientation. This result suggests that long-term orientation cannot change decision-making aspects of published accounting information.

The results confirm the evidence of Nabar and Boonlert-U-Thai (2007) and Chand et al. (2012), in which a country's culture stands out from the accounting regulations, especially with regard to professional judgment applied to accounting choices. This can be evidenced by the cultural factors that have influenced the quality of accounting information from the capital market.

In general, the conclusion is that cultural dimensions influence the transparency of accounting information, information asymmetry and conflicts of interest between management and the other stakeholders, as well as the way in which the capital market considers reliable the accounting information disclosed by the companies.

The findings contribute to auditors, regulatory agencies and global investors when indicating that for companies in countries with a culture of masculinity, individualism and uncertainty aversion, further investments and broadening monitoring mechanisms are necessary in order to minimize the negative effects of such cultural factors on the quality of accounting information. Moreover, it is concluded that conflicts of interests can be expanded in the cultures of masculinity, individualism and uncertainty aversion, bearing in mind that the scope of information asymmetry creates a loss of relevance of accounting information.

In the social sphere, it contributes by offering evidence to the regulatory agencies and users of accounting information. The results can also be of interest to researchers in the field of International Accounting, business analysts and global organizations. Furthermore, the results contribute to the international organizations of accounting standardization by providing evidence that the cultural aspects are relevant for the effective adoption of more robust accounting standards, in order to produce relevant accounting information.

A suggestion for future research is to replicate the methodology with a wider sample range of countries in order to find greater cultural differences for triangulation. Another suggestion is to analyze the long-term orientation indicator by focusing more on understanding its influence on the quality of accounting information. Studies regarding culture and specific indicators of organizational behavior may also be relevant.

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Appendix A - Descriptive statistics of culture dimensions

Countries	USA, GER, UK, CAN, AUS, HOL, SWI, AUT, NOR, DNK	JPN, FRA, BRA, ITA, KOR, ESP, PER, ARG, POL, BEL, THA, SIN, COL	CHN, RUS, MEX, IND, MAL, PHI
Power Distance (PDI)	Cluster 1 PDI Less power distance	Cluster 2 PDI Intermediary	Cluster 3 PDI More power distance
Average	31.9	62.38	87.60
Standard Deviation	9.69	7.76	9.14
Countries	USA, GER, UK, FRA, ITA, CAN, AUS, HOL, SWI, SWE, BEL, NOR, DNK	CHN, KOR, MEX, IND, THA, SIN, MAL, PHI, COL	JPN, BRA, RUS, ESP, PER, ARG, POL, AUT
Individualism (IDV)	Cluster 1 IDV Less individualism	Cluster 2 IDV Intermediary	Cluster 3 IDV More individualism
Average	22.50	46.50	77
Standard Deviation	6.21	8.40	8.45
Countries	CHN, UK, SWE, DNK, SIN, MAL	USA, GER, CAN, AUS, IND, HOL, SWI, THA, NOR, PHI	JPN, FRA, BRA, ITA, RUS, KOR, ESP, MEX, TUR, ARG, POL, BEL, AUT, COL
Uncertainty Aversion (UAI)	Cluster 1 UAI Less uncertainty aversion	Cluster 2 UAI Intermediary	Cluster 3 UAI More uncertainty aversion
Average	26.83	52.7	84.64
Standard Deviation	10.34	7.31	7.52
Countries	HOL, SWE, NOR, DNK	USA, CHN, GER, UK, FRA, BRA, ITA, CAN, RUS, KOR, AUS, ESP, MEX, IND, PER, SWI, ARG, POL, BEL, THA, SIN, MAL, PHI, COL	JPN, AUT
Masculinity (MAS)	Cluster 1 MAS Less masculinity	Cluster 2 MAS Intermediary	Cluster 3 MAS More masculinity
Average	10.75	54.83	87
Standard Deviation	5.12	11.43	11.31
Countries	USA, CAN, AUS, MEX, ARG, POL, THA, NOR, DNK, MAL, PHI, COL	UK, FRA, BRA, ITA, ESP, IND, PER, HOL, SWE, AUT;	CHN, JPN, GER, RUS, KOR, SWI, BEL, SIN;
Long-term orientation (ITOWVS)	Cluster 1 ITOWVS Less long-term view	Cluster 2 ITOWVS Intermediary	Cluster 3 ITOWVS More long-term view
Average	29	55.5	83.37
Standard Deviation	8.49	8.07	8.74
Countries	CHN, JPN, GER, FRA, ITA, KOR, ESP, IND, PER, POL, THA, SIN, PHI; RUS	USA, UK, BRA, CAN, AUS, MEX, HOL, SWI, SWE, ARG, BEL, AUT, NOR, FNK, MAL, COL	
Complacency (IVR))	Cluster 1 IVR Less complacency	Cluster 2 IVR More complacency	
Average	37.57	68.18	
Standard Deviation	9.40	10.75	

Source: Research data.

Appendix B - Hofstede National Culture Score

Countries	Acronym	PDI	IDV	MAS	UAI	ITOWVS	IVR
United States	USA	40	91	62	46	26	68
China	CHN	80	20	66	30	87	24
Japan	JPN	54	46	95	92	88	42
Germany	GER	35	67	66	65	83	40
United Kingdom	UK	35	89	66	35	51	69
France	FRA	68	71	43	86	63	48
Brazil	BRA	69	38	49	76	44	59
Italy	ITA	50	76	70	75	61	30
Canada	CAN	39	80	52	48	36	68
Russian Federation	RUS	93	39	36	95	81	20
Korea, Rep.	KOR	60	18	39	85	100	29
Australia	AUS	38	90	61	51	21	71
Spain	SPA	57	51	42	86	48	44
Mexico	MEX	81	30	69	82	24	97
Indonesia	IND	78	14	46	48	62	38
Peru	PER	66	37	45	85	46	49
Netherlands	HOL	38	80	14	53	67	68
Switzerland	SWI	34	68	70	58	74	66
Argentina	ARG	49	46	56	86	20	62
Sweden	SWE	31	71	5	29	53	78
Poland	POL	68	60	64	93	38	29
Belgium	BEL	65	75	54	94	82	57
Thailand	THA	64	20	34	64	32	45
Austria	AUT	11	55	79	70	60	63
Norway	NOR	31	69	8	50	35	55
Denmark	DNK	18	74	16	23	35	70
Singapore	SIN	74	20	48	8	72	46
Malaysia	MAL	100	26	50	36	41	57
Philippines	PHI	94	32	64	44	27	42
Colombia	COL	67	13	64	80	13	83

Source: Research data.