The Impact of the Cultural Dimensions on Accounting Practice in Brazil: a perspective based on the Accounting Operators' Perception

Abstract

The objective of this study was to verify to what extent the cultural dimensions impact the accounting practice in Brazil. To do so, with regard to the cultural dimensions, we used the adapted questionnaire Valued Survey Model 08 (VSM 08), which Hofstede constructed in 2008, and its Portuguese version. In order to capture accounting practices, we applied the questionnaire structured with direct questions to accounting operators, originally used by Chanchani and Willett (2004) and replicated by Almeida and Lisboa (2011) and Karabinar, Canel and Öktem (2012). The final sample consisted of 449 respondents from all over Brazil, divided into the following groups of operators: accounting users, accounting teachers, accounting professionals and accounting students. Considering that there is a diversified number of variables to capture cultural dimensions and accounting practices, we used Exploratory Factor Analysis (EFA). The factors were extracted through Principal Component Analysis and Varimax extraction. After the factor analysis, a multiple regression was performed with the extracted factors, in which the dependent variable corresponded to the accounting practices, and the independent variables were the cultural dimensions. The results indicate that the accounting operators are mainly conservative and the cultural dimensions that most impact the accounting practice are aversion to uncertainty and distance from power. It was concluded that it is not possible to infer that, at first, the adoption of international accounting standards leads to an improvement in the accounting process, since the countries where these standards were originally conceived (common law tradition) have a low aversion to uncertainty and distance from power, something contrary to the findings in this research.

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1. Introduction

The need for a consistent set of accounting standards at the international level is a constant, given that the flow of capital between countries with different legal, economic and market structures, among other aspects, has increased significantly in recent years. In addition to the capital flow, other factors motivate the race towards the standardization of accounting data, among which increasing the quality and transparency of the information generated. Despite this demand, internal and peculiar aspects of the countries should be considered in the process of convergence to international accounting practices, such as colonial heritage, legal system, source of financing, political system and culture, as they impact, in a different and significant way, the accounting practice (recognition, measurement and disclosure) of each country (Chanchai & Willett, 2004; Gray, 1988 and Nobes, 1998).

Studies have shown that cultural aspects affect the business environment of countries and that, therefore, they are determinant of the existence of differences in accounting practices among nations (Gray, 1988; Chanchani and MacGregor 1999; Weffort 2005; Karabinar, Canel & Öktem, 2012; Rodriguez, 2009). Therefore, it is also important to consider that cultural factors are decisive in the adoption of the International Financial Reporting Standards (IFRS) issued by IASB (International Accounting Standard Boards).

As for the effect of culture on the business environment, Hofstede (1980) proposed four dimensions of culture that most impact business and thus positioned the countries that presented them to a greater or lesser extent. Using this research, Gray (1988) incorporated them into what he called "accounting values", capable of reflecting the accounting practice of each country. In this sense, such values (or accounting practices, an expression that will be used hereafter) were divided into four perspectives, namely: professionalism, uniformity, conservatism and secrecy. In addition, Gray (1988) formulated related hypotheses for verification and positioned the countries in which these practices were more or less predominant.

Considering that the dynamics of Accounting is reflected by the influence it receives and exerts in the social and cultural environment it operates in, Hopwood and Miller (1994) have underlined, in recent years, that culture is a standard element to understand the standards and values of the social system. In addition, this accounting dynamics can be a construct used to explain and predict the behavior of individuals in a given social environment (Harrison & McKinnon, 1986). Therefore, understanding how the Brazilian accounting operators (here understood as teachers, professionals, students and users of accounting) realize this is a constant. In this sense, we raise the following research problem: **To what extent do cultural dimensions influence accounting practices in Brazil?**

The general objective of this research is to verify the impact of the cultural dimensions proposed by Hofstede (1980) on the accounting practices listed by Gray (1988), according to the accounting operators in Brazil. In addition, the following specific objectives are proposed: (i) to identify how Brazilian accounting operators reflect the cultural dimensions proposed by Hofstede (1980); (Ii) to identify how accountants in Brazil reflect the accounting practices proposed by Gray (1988); and (iii) to verify the impact of such cultural dimensions on the accounting practices that reflect their practice in Brazil.

In addition to other aspects, this study is justified by three main points, namely: (i) by contributing to the expansion of the discussions about the origins of the differences between countries' accounting practices and which are, at bottom, obstacles to the full adoption of IFRS; (Ii) by comparing whether the accounting practices adopted in Brazil are in line with the cultural profile of the countries that gave rise to IFRS - a profile characterized in general principles and not in procedural rules, because they are aimed at the investor; (Iii) to broaden the empirical verification of the hypotheses proposed by Gray (1988) and Hofstede (1980) regarding the classification of countries based on their cultural dimensions.

This research, in addition to this introduction, is composed of four other parts. In the next section, the theoretical basis and hypotheses are presented; the third part is composed of the methodological procedures; in the fourth, the research findings are analyzed and, finally, in the fifth part, the final considerations are listed.

2. Theoretical Background

2.1 Cultural aspects in accounting practice: the studies by Hofstede (1980)

In anthropological terms, according to Chaui (2008), culture corresponds to a set of signs and meanings built within a society and with which the individuals inserted in this medium establish relations among themselves. This set covers language, religion, sexuality, instruments and forms of work, forms of housing, clothing and cooking, leisure, music, dance, social relation systems, particularly systems of kinship or structured family, power relations, war and peace, the notion of life and death.

Based on this perception, it is verified that this concept of culture is in line with Hofstede's (1980), who defines it as "a collective programming of the mind, capable of distinguishing one human group from another". Thus, it is perceived that culture is an inherent attribute of each social group, capable of promoting coexistence and, at the same time, distinguishing one among other groups.

In a pioneering and comprehensive study, Hofstede (1980) conducted a research to detect how the culture of a given country is impacting the business environment. To do so, he conducted a survey of employees from International Business Machines (IBM) between 1967 and 1973, in over 50 countries. Based on the research findings, Hofstede constructed four dimensions underlying the culture that most influence business and, thus, positioned the countries that presented them to a greater or lesser extent. The dimensions are: (i) Distance from Power (DP); (Ii) Individualism vs. Collectivism (CI); (Iii) Masculinity x Femininity (MF); and (iv) Aversion to Uncertainty (AU).

(i) **Distance from Power (DP):** expresses the extent to which the less powerful members of a society accept inequality. The key question here is how society deals with inequalities between people. This dimension varies from high to low. Countries with low DP show that there is no difference in the power and wealth of the citizen. Thus, in these societies, access to the authorities is more open to all, and, as far as Accounting is concerned, the Accounting operators are allowed to issue their own rules. In addition, social mobility in these societies is more permeable. On the other hand, countries with high DP indicate that individuals have accepted the marked existence of inequalities of power and wealth. These societies are more inclined to follow a less flexible social class system, which does not permit expressive mobility of its citizens. In addition, they demonstrate the centralization of power in the hands of a small privileged group. With regard to Accounting, a high Power Distance means that the Accounting operators do not construct their own standards. Instead, they grant this attribution to an entity with the capacity to construct these standards.

(ii) **Individualism x Collectivism (IC):** according to Hofstede (1980), in individualistic societies, individual interest prevails, and people grow up thinking about their own good. In these societies, the bonds of help and fellowship between individuals are not mandatory, so they tend to have greater freedom to issue judgment. Collectivism refers to a preference for a strongly united structure in society where people can expect their relatives or members of a particular group to care for them in return for unquestionable loyalty. In this sense, the capacity for judgment is not that exercised. Like the Power Distance, it can range from low to high. Societies with a low CI score indicate that they have a larger natural community, with close ties between individuals. This culture reinforces families and collectivism. All have responsibility for the members of their group. On the other hand, societies with a high CI index indicate that individualities and individual rights are relevant within a society. Accounting professionals in individualistic societies have greater power and value for judgment, while in collectivist societies, they do not.

(iii) **Masculinity x Femininity (MF):** this dimension refers to a preference in society for achievement, heroism, assertiveness, competitiveness and the material reward for success. In masculine societies, these values are sharper while, in feminine societies, they are not. In addition, male societies emphasize financial and personal achievement, ambition for performance, and an attempt to excel beyond the most marked competition among economic agents. The roles, in this type of society, are strictly different between men and women. Female societies have a preference for cooperation, modesty, care for the most fragile and quality of life.

(iv) **Aversion to Uncertainty (AU):** expresses the extent to which the members of a society are uncomfortable with uncertainty and ambiguity. The key question here is how society deals with the fact that the future cannot be known: should we try to control the future or just let this happen? Countries that have a high AU index maintain rigid codes of belief and behavior and are intolerant of unorthodox behavior and ideas. This is evidenced in accounting practice, for example, in countries whose regulation of the accounting practice is very accentuated in procedural rules emanating from an entity with powers to do so. Societies with a low AU index maintain a more flexible attitude to accounting regulations and tend to evidence higher levels of information.

What Brazil is concerned, according to Figure 01, the country is classified as low on Individualism and Masculinity – thus indicating high degrees of Collectivity and Femininity – but with a high Distance from Power and Aversion to Uncertainty.

Individualism	Distance from Power	Aversion to Uncertainty	Masculinity
Index	Index	Index	Index
38	69	76	49
Low	High	High	Low

Figure 01. Cultural dimension scores in Brazil

Source: Hofstede (1980).

Although Hofstede's theoretical construct (1980) is widely used as a theoretical platform for cultural studies, some research has criticized it. Baskerville (2003), for example, points out some aspects that were not taken into account, namely: (i) Hofstede's theory (1980) is not anchored in theoretical bases from Sociology and Anthropology; (ii) in spite of being much cited by the Citation Index in Social Sciences, mainly in Administration and Psychology, the opposite occurs in Sociology and Anthropology, in which higher citation indices were expected; (iii) the studies were developed between the second half of the 60's and the beginning of the 70's, and this work was published in the 80's, that is, the time lag can compromise its conclusions, taking into account the dynamic cultural change of societies.

It should be noted that Hofstede (1980) inserted two other cultural dimensions, as well as indulgence and long-term orientation. However, the studies of Gray (1988) do not make reference to them and, therefore, will not be studied here.

2.2 Accounting practice according to Gray (1988)

Departing from Hofstede's theoretical proposal (1980), Gray (1988) built four theoretical constructs and four hypotheses that could explain and predict the differences among countries' accounting practices according to their cultural dimensions. He argues that the accounting operators' accounting systems are related to the culture. The accounting practices, in turn, being a subsystem of each country's culture, affect how the accounting operators execute accounting. Gray's theoretical constructs (1988) and hypotheses are presented below:

(i) **Professionalism x State Control:** this construct refers to the preference for the exercise of individual judgments of the profession and the maintenance of professional self-regulation. The key issue here is to see to what extent accounting operators are independent to self-regulate as professionals and to make judgments. With regard to the concatenation with Hofstede's cultural dimensions (1980), it is verified that professionalism is more strongly related to individualism. This is justified by the fact that there is a preference for independent professional judgment. On the other hand, it appears that this construct has a weak relation to the aversion to uncertainty, since the practice is very important, as well as a belief in fair play, in which a variety of professional judgments tends to be more easily tolerated (Gray, 1988) - there is also a weak relationship between professionalism and the distance from power because, in this construct, there is a concern with equal rights for all, in which people of the various levels of power feel less threatened and more prepared to trust others and where there is a greater conviction of the need to justify the imposition of laws and regulations. To the extent that a country is classified as more professional, it is assumed that accounting professionals will have greater freedom and autonomy to make judgments about the economic phenomenon that can be registered by accounting. On the other hand, in countries with greater state control, the accounting professionals would be less independent. Although Gray (1988) found no connection with masculinity, he raised the following hypothesis:

H_1: *The higher a country's ranking in terms of individualism and the lower in terms of aversion to uncertainty and distance from power, the more probable the country's ranking in terms of professionalism.*

(ii) **Uniformity x Flexibility:** refers to the existence of a uniformity of accounting practices companies perform over time. Gray (1988) cautions that the preference for uniformity is consistent in a society with strong aversion to uncertainty, indicating a society concerned with law, order, and rigid and written codes of behavior. In addition, there is a relationship, but not very strong, with the distance from power since the imposition of laws and codes is uniform and emanated from a group holding political power. As in professionalism, Gray (1988) found no connection with masculinity and this accounting value. With regard to accounting practice, more uniform countries would tend to operate accounting more closely than what the accounting policy recommends, to the detriment of the economic essence, whose characteristic is more evident in countries with rules based on general principles and where the accounting practice is more regulated by its own professionals. Thus, Gray (1988) proposes the following hypothesis:

H_2: *The higher a country's ranking in terms of aversion to uncertainty and distance from power and the lower in terms of individualism, the greater the country's trend towards having uniform rules.*

(iii) **Conservatism x Optimism:** this construct relates to the preference of a cautious and prudent approach to accounting phenomena in order to cope with the uncertainty of future events, as opposed to a more optimistic view, related to risk taking in the form of a less cautious approach. Gray (1988) explains that the link between conservatism and the dimensions proposed by Hofstede (1980) is more strongly related to the aversion to uncertainty. The preference for more conservative measures to profit is consistent with the strong aversion to uncertainty, which follows a concern with safety and prudence and a perceived need to take cautious measures to contain future uncertainties. Thus, Gray (1988) raises the following hypothesis:

H_3: *The higher a country's ranking in terms of aversion to and the lower in terms of individualism and masculinity, the greater the country's trend towards conservatism.*

(iv) **Secrecy x Transparency:** concerns the preference for confidentiality and restriction of disclosure of business information only to those who finance the company. Secrecy is the value that is related to the quantity of accounting disclosures. Thus, with increased secrecy, the quantity of disclosure to the public tends to drop. Gray (1988) states that secrecy is consistent with a preference for collectivism because of the greater involvement with the company rather than with external parties. Moreover, the intimate connection in societies with a high power distance is also undeniable, since this dimension is characterized by the restriction of information to preserve inequalities of power. Thus, he raises the following hypothesis:

H_4: *The higher a country's ranking in terms of aversion to uncertainty and distance from power and the lower in terms of individualism and masculinity, the greater the country's trend towards secrecy.*

Figure 2 summarizes the concatenation between Gray's accounting values (1988) and Hofstede's cultural dimensions (1980), in which the positive sign ("+") indicates a direct relation and the negative sign ("-") the opposite, while the question mark ("?") indicates an unidentified relation.

Cultural Dimensions (Hofstede)	Accounting Values (Gray)			
	Professionalism	Uniformity	Conservatism	Secrecy
Distance from Power	-	+	?	+
Aversion to Uncertainty	-	+	+	+
Individualism	+	-	-	-
Masculinity	?	?	-	-

Figure 2. relation between Hofstede's cultural dimensions (1980) and Gray's accounting practices (1988)
Source: Baydoun and Willet (1995) - with adaptations.

2.3 Background studies on Gray's theoretical proposal (1988)

According to Chanchani and MacGregor (1999), studies related to the impact of culture on accounting practice can be divided between "pre-Gray" and "post-Gray". In that period, there were no empirical studies that sought to verify the impact of the culture of the countries in the accounting practices, being that, at that time, anthropological and more theoretical studies were predominant. On the other hand, in this period, empirical studies on the impact of culture in Accounting started.

The following studies from the post-Gray period stand out: Eddie (1990) classified the countries according to their accounting practices adopted through indices and related them with their cultural dimensions; Chanchani and Willett (2004), aimed at empirically operationalizing the theories of Gray (1988), conducted a survey of accountants and users of accounting information in New Zealand and India. The research findings showed that professionalism and uniformity are the constructs that were most evident among those investigated, followed by secrecy. Ding, Jeanjean and Stolowy (2005), in order to detect how a country's accounting practices may differ from international financial reporting standards (IFRS), showed that cultural aspects, rather than legal aspects, are decisive for the existence of differences among accounting practices. Karabinar, Canel and Öktem (2012) showed, through an investigation of Turkish accountants, that the most outstanding accounting values were, respectively, professionalism, uniformity and secrecy.

Although the findings of these investigations meet the theoretical proposition of Gray (1988), some studies, however, have found evidence to the contrary. Tsakumis (2007), in order to show the existence of significant differences between US and Greek accountants regarding conservatism and secrecy, showed that there were no significant differences; Almeida and Lisboa (2011) conducted an investigation to verify the cultural values of Gray (1988) among the accounting operators in Portugal, showing that, although state control is the most latent accounting value among them, conservatism and secrecy are disproportionate to what the theory advocates.

2.4 Hypotheses

Brazil is a country with high rates of distance from power and aversion to uncertainty and a low rate for masculinity and individualism (Hofstede, 1980). Thus, based on the theoretical proposals by Gray (1988), Brazilian accounting operators are expected to present the following accounting practices: high level of conservatism, secrecy (low disclosure) and low level of professionalism, authority and encouragement. Hence, the following hypotheses are raised:

A) Hypotheses related to professionalism x state control

H_{A1} = The Brazilian accounting operators tend to grant the power to regulate the accounting profession to the state power.

H_{A2} = The Brazilian accounting operators tend to be less independent in the judgment of accounting practices.

B) Hypothesis related to uniformity x flexibility

H_{B1} = The Brazilian accounting operators tend to be more uniform in the accounting practices.

C) Hypothesis related to conservatism x optimism

H_{C1} = The Brazilian accounting operators tend to be more conservative in the accounting practices.

D) Hypothesis related to secrecy x transparency:

H_{D1} = The Brazilian accounting operators tend to be more conservative in the accounting practices.

3. Methodological Procedures

The research universe consisted of all accounting operators with available data (including e-mail). The instrument was made available virtually through the Google Docs tool, and invitations to participate in the survey were sent via email. In addition to the replication of the questionnaire to registered e-mails, the snowball technique was adopted. It consists of asking the respondents to send the data collection instrument to their peers in order to contribute to the research (Collins & Hussey, 2005). This technique, however, has the limitation of selecting the sample for convenience and being non-probabilistic.

A questionnaire structured with direct questions was applied to the accounting operators, originally used by Chanchani and Willett (2004) and replicated by Almeida and Lisboa (2011) and Karabinar, Canel and Öktem (2012) to capture the accountants' values. To capture the cultural dimension, we used the Valued Survey Model (VSM) 08, built by Hofstede (2008), and its Portuguese version.

As the instrument for capturing accounting values was written in English, it had to be translated and culturally adapted to Brazilian Portuguese. To do so, the following steps were performed: (i) the questionnaire was initially translated into Portuguese; (Ii) to verify if there was any semantic loss in the translation process, the translated version was delivered to three professors holding a Ph.D. in Accounting; and (iii) after the adjustments they suggested, a single questionnaire was created. After this step and the necessary adjustments, we reached the final questionnaire used in this investigation, followed by a five-point Likert scale. For each statement, the respondent indicated a single answer that would correspond to his/her level of agreement, ranging from 1 (totally agree) to 5 (totally disagree).

Accounting practices	Questions
Conservatism [CON]	The accounting profession should be self-regulated.
	Accountants are the best evaluators of the entity's financial position and performance.
	Accountants are the best evaluators on what to disseminate in the financial statements.
	Accountants should maintain a high standard of ethical conduct.
Secrecy [SEC]	Financial statements should be available to the general audience, and not only to the stockholders and managers.
	Only a minimal quantity of detailed information should be included in the financial statements.
	Information on the management and the stockholders should not be included in the financial statements.
	The managers' predictions should be included in the financial statements.
Professionalism [PROF]	Depreciation rules should be defined by regulators external to the entities, specifically for distinct groups of assets.
	The financial statements of all companies should have the same standardized structure.
	Once defined, the accounting policies should not be changed.
	In case of inflation, the inventory valuation method LIFO should be used instead of FIFO.
Uniformity [UNI]	In equally valid measuring situations, assets and revenues should be undervalued.
	The market value is generally less relevant than the historical cost.
	Overall, the market value should be used instead of the historical cost.
	The level of details of the financial statement rules should be enhanced.

Figure 3. questionnaire used to capture the accounting practices

Source: Chanchani and Willett (2004) – with adaptations.

Concerning the cultural dimension, the adapted Valued Survey Model 08 (VSM 08) was used, built by Hofstede (2008), and its Portuguese version. The adaptation was necessary as, originally, the VSM 08 is intended to capture other constructs – such as pragmatism and indulgence – not analyzed in this investigation. For each assertion, followed by a five-point Likert scale, the respondent marked a single answer, according to the situation presented. The questionnaire used to capture the cultural dimensions is displayed in Figure 4:

Cultural Dimensions	Questions
Distance from Power [DIP]	Having a head (direct superior) you respect.
	Being consulted by your direct superior on the decisions involving your work.
	In your professional experience, how frequently are subordinates afraid of contradicting the head?
	It is important to avoid, at all cost, an organizational structure in which some subordinates have two heads.
Masculinity [MAS]	Being acknowledge for good performance.
	Having pleasant people to work with.
	Living in a desired area.
	Having chances of promotion.
Individualism [IND]	Having sufficient time for your personal or family life.
	Having employment security.
	Doing an interesting job.
	Having a job respected by your family and friends.
Aversion of Uncertainty [UNA]	How frequently do you feel nervous or tense in your job?
	Overall, how would you describe your current health condition?
	You can be a good manager without having an exact answer to all questions a subordinate may ask concerning his job.
	The rules of a company or organization should not be disrespected, not even when the employee thinks that doing so would benefit the company or organization.

Figure 4. questionnaire used to capture the cultural dimensions

Source: Hofstede (2008)– with adaptations.

Still in relation to the instrument, it is important to highlight that it consists of three main sections. The first sought to capture cultural dimensions; the second, accounting values; and the last section captured information about the respondent's profile, with four questions. The information on the profile involved self-inclusion in the accounting operator category (the respondent indicated whether he preferred to be a student, teacher, professional, or accounting user), education, age in full years, and gender.

Considering that there is a diversified number of variables to capture the cultural dimensions and the accounting values from the accounting operators, we used Exploratory Factor Analysis (AFE). The factors were extracted through Principal Component Analysis and Varimax extraction. In Figure 5, the acceptability conditions for the factorial analysis are presented.

Phase	Technique	Rule for validation
1. Dimensionality	Principal Components	Existence of only one eigenvalue
	Kaiser-Meyer-Olkin (KMO) index	KMO > 0.50: acceptable
	Bartlett's sphericity	Low level of significance

Figure 5. Acceptability conditions for factor analysis.

Source: Hair, Black, Babin, Anderson and Tatham (2009)

After the factor analysis, a multiple regression was developed with the extracted factors, in which the constructs representing the accounting practices served as the dependent variable, and the constructs representing the cultural dimensions as the independent variables. The econometric model used in this research is presented below, based on the theory.

Professionalism = f (Individualism; Aversion to Uncertainty; Distance from Power)
Uniformity = f (Individualism; Aversion to Uncertainty; Distance from Power)
Conservatism = f (Individualism; Aversion to Uncertainty; Masculinity)
Secrecy = f (Individualism; Aversion to Uncertainty; Masculinity, Distance from Power)

Below, a figure is displayed with the expected signs for the regression coefficients according to the theory, considering Brazil.

Cultural Dimensions (Hofstede)	Accounting Practices (Gray)			
	Professionalism	Uniformity	Conservatism	Secrecy
Distance from Power	+	+	?	+
Aversion to Uncertainty	+	+	+	+
Individualism	-	-	-	-
Masculinity	?	?	-	-

Figure 06. Relation between Hofstede's cultural dimensions (1980) and Gray's Accounting Practices (1988) considering Brazil

Source: Baydoun and Willet (1995) – with adaptations.

4. Analysis and Discussion of Results

The final sample consisted of 449 respondents from all over Brazil. Data were collected between October 2013 and June 2014 and the characteristics are displayed in Table 1.

Table 01:
Statistics of respondents

Education Level	Gender		Total	
	Female	Male	Absolute	%
Ph.D.	1	7	8	1.78%
Finished undergraduate	50	93	143	31.85%
Unfinished undergraduate	31	41	72	16.04%
Master's	15	32	47	10.47%
Unfinished master's	0	1	1	0.22%
Post-graduate (specialization, MBA)	77	96	173	38.53%
Accounting Technician	2	3	5	1.11%
TOTAL	**176**	**273**	**449**	**100.00%**
Category of Operators	Gender		Total	
	Female	Male	Absolute	%
Accounting student	31	37	68	15.14%
Accounting teacher	13	39	52	11.58%
Accounting professional	122	188	310	69.04%
Accounting user	10	9	19	4.23%
TOTAL	**176**	**273**	**449**	**100%**

Source: elaborated based on research data.

A principal component analysis was conducted based on the 32 instrument items with orthogonal (Varimax) rotation for each cultural dimension and accounting practice. According to Hair *et al.* (2009), a single factor is expected for each construct. Next, the results of the EFA adequacy are displayed.

Table 02:
Adequacy of factor analysis for accounting values and cultural dimensions

Factors	Tests to verify the applicability of Exploratory Factor Analysis		
	Dimensionality		
	Principal Components	KMO	Bartlett
DIP		0.50	0.00
MASC		0.61	0.00
IND		0.65	0.00
UNA	Only one eigenvalue was found	0.50	0.00
CON		0.59	0.00
SEC		0.52	0.00
PROF		0.56	0.00
UNIF		0.50	0.00

Source: elaborated based on the research data.

According to the data in Table 2, for each factor, only one factor was extracted. As for the KMO statistics, all factors presented coefficients equal or superior to 0.50, thus indicating its acceptability. What Bartlett's sphericity test is concerned, at a 95% confidence level, all factors are significant.

Table 3: presents the descriptive statistics of the factors

Table 3:
Descriptive statistics of the factors

Statistics	FACTORS							
	DIP	MASC	IND	UNA	CON	SEC	PROF	UNIF
Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median	0.15	0.13	0.27	0.03	0.12	0.09	0.02	-0.03
Variance	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Minimum	-5.14	-3.77	-4.23	-3.14	-5.13	-1.69	-2.65	-2.44
Maximum	1.26	1.06	0.93	2.38	1.20	2.82	2.42	2.64

Source: elaborated based on the research data.

According to the data in Table 3, all factors correspond to 0 and 1 for the mean and standard deviation, respectively, indicating that these variables are normally distributed.

Table 4:

End result for the model Professionalism = f (Individualism; Aversion to Uncertainty; Distance from Power)

Coeficients	Value	t	Sig.	Collinearity Statistics
				VIF
(Constant)	-0.08	−0.18	0.85	NA
DIP	0.16	3.01	0.00 ***	1.31
UNA	0.10	2.34	0.01 **	1.00
IND	0.04	0.84	0.39	1.31
Summary Model				
Adjusted R squared (%)	Durbin-Watson	Variance analysis - ANOVA		
4%	1.92	F	7.80	Sig.	0.000

** Significant at a 95% confidence level
***Significant at a 99% confidence level

Source: research data.

Table 4 presents the final results of the statistics for professionalism as a dependent variable and the distance from power, aversion to uncertainty and individualism as independent variables, estimated using the GRETL software by means of the OLS method. Considering that the econometric modeling through traditional OLS presented problems of heteroscedasticity, we adopted the econometric modeling using Ordinary Least Squares (OLS) with corrected heteroscedasticity. To detect the existence of autocorrelation between the residues, the Durbin-Watson test was applied. According to Field (2009), the values for this statistic close to 2 correspond to the non existence of autocorrelation between the residues. The multicollinearity test was performed using the Variance Inflation Factor (VIF) test, and it was verified that the model is within an acceptable multicollinearity.

The variable IND did not present statistical significance and, in addition, its sign does not comply with the theoretical excerpt raised for the Brazilian accounting operators, that is, they do not prefer an independent professional judgment, thus evidencing a certain mismatch of Gray's (1988) proposition with reality, as evidenced by Tsakumis (2007) and Almeida and Lisboa (2011). However, although not statistically significant, the sign of this construct evidences some preference for an independent professional judgment among the Brazilian accounting operators interviewed. To a certain extent, this is relevant because an independent judgment is more in line with international accounting practices to which Brazilian accounting has adapted based on Law 11.638 / 2007. In this sense, the data point to a certain trend towards independence among the accounting operators with respect to the operation of accounting, thus allowing for a freer judgment about the economic phenomenon observed in an entity. Therefore, we cannot accept Hypothesis H_{A1}.

On the other hand, the DIP and UNA factors present statistical significance and the signs of their coefficients are in agreement with the theory presented here for accounting operators in Brazil. In this sense, there is a strong relationship between professionalism and distance from power, which indicates a lack of concern for equal rights for all. As a result, people from the various levels of power feel more threatened and less prepared to trust others, demonstrating greater conviction of the need to justify the imposition of laws and regulations. With regard to Accounting, this indicates that, to some extent, the accounting operators interviewed prefer to give the state power the competence to regulate the accounting profession. This idea is more evident when the UNA construct is realized, by which one perceives a strong relation with the professionalism, indicating a disbelief in the fair game, in which a range of professional judgments does not tend to be easily tolerated (Gray, 1988). Therefore, the hypothesis H_{A2} cannot be rejected.

Table 5:

End result for the model Uniformity = f (Individualism; Aversion to Uncertainty; Distance from Power)

Coefficients	Value	t		Sig.	Collinearity Statistics	
					VIF	
(Constant)	0.00	−0.18		1.00	NA	
DIP	0.06	3.01		0.23	1.31	
UNA	0.03	2.34		0.45	1.00	
IND	0.08	0.84		0.13	1.31	
Summary Model						
Adjusted R squared (%)	Durbin-Watson		Variance Analysis - ANOVA			
1%	1.84	F	2.53	Sig.		0.05

Source: Research data

Table 5 presents the final results of the statistics for uniformity as a dependent variable and the distance from power, aversion to uncertainty and individualism as independent variables estimated using the GRETL software by the OLS method. To detect the existence of autocorrelation between the residues, the Durbin-Watson test was applied. According to Field (2009), the values for this statistic close to 2 correspond to the non existence of autocorrelation between the residues. The multicollinearity test was performed using the Variance Inflation Factor (VIF) test, and it was verified that the model is within an acceptable multicollinearity.

Although not significant, the positive sign of the UNA construct demonstrates a certain trend of accounting operators towards aversion to uncertainty, which indicates an accounting practice concerned with law, order, and strict and written codes of behavior and evidence, thus a trend towards uniform accounting practices, which limits to a certain extent, a better reporting of the economic phenomenon that can be registered, measured and evidenced by accounting. Moreover, this is in line with international accounting practices, whose main characteristic is the registration of the economic phenomenon according to its essence, and not according to its formal aspects. This fact becomes more evident when the positive relation between power distance and uniformity is verified, since the imposition of laws and codes is uniform and emanates from a group holding political power, thus evidencing the non-significant participation of the operators of accounting regulation. Finally, it is worth commenting on the relation between individualism and uniformity. In contrast to the other constructs, which showed positive signs, in line with what was expected for Brazilian accounting operators, this showed a positive sign, indicating some preference for an independent professional judgment by the Brazilian accounting operators in terms of uniform accounting practices, although not statistically significant. Therefore, the hypothesis H_{B1} cannot be fully accepted.

Table 6:

End result for the model Conservatism = f (Individualism; Aversion to Uncertainty; Masculinity)

Coefficients	Value	t	Sig.	Collinearity Statistics
				VIF
(Constant)	0.00	0.00	1.00	NA
DIP	0.03	0.79	0.42	1.00
UNA	0.20	3.28	0.00***	1.95
MAS	0.11	1.76	0.00*	1.96
Summary Model				
Adjusted R squared (%)	Durbin-Watson		Variance Analysis - ANOVA	
1%	1.84	F 2.84	Sig.	0.03

Source: research data.

Table 6 presents the final results of the statistics for conservatism as a dependent variable and the distance from power, uncertainty aversion and masculinity, as independent variables, estimated using GRETL software by means of the OLS method. To detect the existence of autocorrelation between the residues, the Durbin-Watson test was applied. According to Field (2009), the values for this statistic close to 2 correspond to the non existence of autocorrelation between the residues. The multicollinearity test was performed using the Variance Inflation Factor (VIF) test, and it was verified that the model is within an acceptable multicollinearity.

Gray (1988) explains that the link between conservatism and the dimensions proposed by Hofstede (1980) are more strongly related to the aversion to uncertainty and less intensely to the distance from power and masculinity, since societies with high levels of this characteristic tend to be more cautious and prudent regarding the accounting process and, according to Table 06, this association is perfectly evidenced both in terms of signs and statistical significance. Therefore, it is clear that the accounting traders interviewed give preference to more conservative measures when profits are obtained, following a concern with safety and prudence and a perceived need to take precautionary measures to contain future uncertainties. Thus, the hypothesis H_{C1} is accepted.

On the other hand, negative signs were expected for the coefficients of the DIP and MAS factors in view of the Brazilian cultural scenario proposed by Hofstede (1980). Low-power societies show more optimistic (and therefore less conservative) citizens compared to those with a high power distance. Thus, for the interviewees, a positive association was expectedtween the distance from power and conservatism, something that is verified, although not statistically significant. In addition, male societies emphasize financial and personal achievement, ambition for performance, and an attempt to excel at the collective, thus indicating a certain trend to individuality. Regarding its relation to conservatism, an inverse relationship is expected, which is not evidenced in the findings of this investigation though.

Table 7:

End result for the model Secrecy = ƒ (Individualism; Aversion to Uncertainty; Masculinity; Distance from Power)

Coefficients	Value	t	Sig.	Collinearity Statistics	
				VIF	
(Constant)	0.00	0.00	1.00	NA	
UNA	0.03	0.63	0.52	1.01	
DIP	0.05	0.89	0.37	2.06	
MAS	0.05	0.76	0.44	2.08	
IND	-0.11	-1.63	0.10	1.39	
Summary Model					
Adjusted R squared (%)	Durbin-Watson		Variance Analysis - ANOVA		
4%	1.83	F	2.84	Sig.	0.45

Source: Research data

Table 7 presents the final results of the statistics for secrecy as a dependent variable and distance from power, aversion to uncertainty and masculinity and individualism as independent variables, estimated using the software GRETL and the OLS method. To detect the existence of autocorrelation between the residues, the Durbin-Watson test was applied. According to Field (2009), the values for this statistic, close to 2, correspond to the non-existence of autocorrelation between the residues. The Multicollinearity test was performed using the Variance Inflation Factor (VIF) test, and it was verified that the model is within an acceptable multicollinearity.

It is verified that none of the factors presented statistical significance, although the constructs "aversion to uncertainty" and "distance from power" presented coefficients with positive signs, and, in this sense, is in agreement with the theoretical excerpt proposed here for Brazil, somehow indicating a preference for the secrecy of the information offered.

Gray (1988) affirms that secrecy is consistent with a preference for collectivism, due to the greater involvement with the company rather than external stakeholders. Moreover, the intimate connection in societies with a high power distance is also undeniable, since this dimension is characterized by the restriction of information to preserve inequalities of power. Therefore, the H_{D1} hypothesis can be accepted, even if partially.

Next, Figure 7 displays the main conclusions on the hypotheses raised:

Hypotheses	Result
H_{A1} = The Brazilian accounting operators tend to grant the power to regulate the accounting profession to the state power.	Partially Accepted
H_{A2} = The Brazilian accounting operators tend to be less independent in their judgment of accounting practices.	Not Accepted
H_{B1} = The Brazilian accounting operators tend to be more uniform in the accounting practices.	Partially Accepted
H_{C1} = The Brazilian accounting operators tend to be more conservative in the accounting practices.	Accepted
H_{D1} = The Brazilian accounting operators tend to be more secretive in the accounting practices.	Partially Accepted

Figure 7. Result of hypotheses tests

Source: research data.

5. Conclusion

The objective of this study was to verify to what extent cultural dimensions impact accounting practices in Brazil. The results indicate that the accounting operators interviewed are mainly conservative, and the cultural values that most impact the accounting practice are "aversion to uncertainty" and "distance from power".

It should be noted that the study presented here did not take into account the specifications of Accounting, which may be somewhat rigid (such as public sector accounting) or more flexible (such as management accounting). However, depending on the performance and the manner in which each accounting specification is handled, this may change. In addition, despite being a survey that included accounting operators from all over Brazil, the data should be considered in the context of the respondents.

Based on the obtained data, it is noticed that, at first, there is no congruence between the values recommended in the international accounting standards and what the agents responsible for its execution perceive, since it provides an improvement in the accounting process, in which these standards were originally conceived (legal tradition of common law), and present a low aversion to uncertainty and distance from power, going against what was found in this investigation, although there are other aspects of these countries that are congruent in the research findings, such as independence of judgment. Thus, this research contributes to the discussion about how other factors - in addition to the legal and regulatory system - influence the accounting process in emerging countries and in the legal code law tradition, whose main characteristic is financial reporting that privileges the stock market less, but which is strongly focused on meeting the normative aspects, thus providing a lesser reflection of the economic reality in a satisfactory way.

As limiting factors of research and recommendations for future research, we have: (i) we observe that the findings of this research, in some aspects, diverge from the theory pointed out, thus suggesting new research with a larger number of participants and using other statistical techniques, such as confirmatory factorial analysis; (Ii) although widely used in cultural research, Hofstede's (1980) construct, as previously pointed out, is open to criticism. Therefore, it is recommended to use other instruments to capture the cultural dimensions, such as the Globe, which contemplates nine factors to capture the cultural dimension; and (iii) the translation into the Brazilian language and the cultural adaptation of the instrument to capture accounting practices, although reviewed by three PhDs in Accounting, may have been the object of semantic loss. In this sense, other scales should be used to capture the accounting practices, or a specific Brazilian scale should be constructed. This also applies to the instrument for capturing cultural dimensions.

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