IFRS accounting systems' classification: a new emerging cluster

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Abstract: This study aims to identify the position of emerging countries in the IFRS accounting systems' classification proposed by Nobes (2011). In spite of the international accounting harmonization efforts around the convergence to IFRS, there is empirical evidence of significant differences in the way IFRS has been applied worldwide. The traditional split between Anglo and Continental European countries are still observed even in an IFRS environment (Nobes, 2011). Considering the weight of emerging countries in the global economy, this research analyzes the accounting practices in the three BRICS countries that have adopted IFRS (Brazil, Russia and South Africa) in order to identify how they stand in the classification of accounting systems proposed by Nobes (2011). Our findings provide empirical evidence that there is a new cluster composed by the emerging countries, which is closer to the Continental European group than to the Anglo group. Curiously, the Netherlands, considered as an unclassifiable country, became closer to South Africa and then fused with the Emerging country cluster. The other countries are still in the same position shown by Nobes (2011), in the Anglo or in the Continental European group.

Keywords: IFRS, Emerging countries, Accounting systems, Classification

1. INTRODUCTION

This study aims to identify the position of emerging countries in the classification of IFRS accounting systems proposed by Nobes (2011). Considering the importance of the emerging countries in the global economy, we expand the prior classification of IFRS accounting systems in the Anglo *versus* Continental European countries, by including the BRICS countries that have already adopted IFRS. Our findings provide empirical evidence of a new cluster composed by the emerging countries, including the Netherlands, which is closer to the European continental group than to the Anglo group.

In the last decade, there has been a process of global convergence towards the adoption of a set of high quality accounting standards (the IFRS). However, many studies show that, even after the IFRS adoptions, significant differences in accounting practices can still be found (e.g. Daske et al, 2013; Kim & Shi, 2012; Florou & Pope, 2012; Chen et al, 2010; Nobes, 2006; Nobes, 2008). The main reasons that may lead to these differences in accounting practices in the IFRS era (national patterns of IFRS), include gaps in IFRS, overt and covert options, estimations in IFRS, different translation of IFRS, imperfect enforcement of IFRS and the difference between serious and label adopters.

Considering this context, it is still important to study the accounting systems classification. The process of classification is based on recognition of differences and similarities between objects in any particular set that is under observation. The classification of the accounting systems contributes to: describe essential facts about the accounting systems of each country; highlight the underlying structures of the countries and, in addition, may be used as a tool that helps to analyze the need for, means towards and progress of harmonization (Nobes, 1983).

To produce empirical evidence about the persistence of the different accounting systems after the adoption of IFRS, Nobes (2011) prepares a new classification of the countries based on the accounting policy choices made by the largest listed companies in eight countries in 2008/09 and compare to the classification of financial reporting proposed by Nobes (1983). All the companies were using the same reporting rules: International Financial Reporting Standards (IFRS), but this new classification of countries, based on IFRS practices, shows the same groups as the classification of national practices made by Nobes (1983), despite 30 years of harmonization, proving that international differences in accounting practices still can be found.

However, there is a lack of studies analyzing the accounting practices of firms in emerging countries, even that these countries have a growing weight in the global economy. This research seeks to fill this gap in the accounting literature by analyzing the accounting practices in three emerging countries that had already adopted IFRS, Brazil, Russia and South Africa.

The analysis of emerging countries is especially important due to their growing importance to the world economy and the increasing investment opportunity in these countries. According to the European Central Bank, the growing importance of the emerging economies is striking: the economic weight of these countries is increasingly influential and their growth and increased resilience to the turbulence of the economic are of increasing importance for the world economy (ECB, 2013). Between 1996 and 2010 the emerging countries grew more than twice the rate of developed countries (PWC, 2013). The BRICS countries are usually highlighted due to their importance for the global market, representing more than 20% of world Gross Domestic Product (GPD). The BRICS countries is have also attracted substantial amounts of Foreign Direct Investment - FDI (inward FDI), which represents foreign firms undertaking direct investment in their territories (Sauvant, 2005; Gammeltoft, 2008; Sethi, 2009; Filippov, 2010).

The empirical analysis is based on information about the accounting practices of companies listed in the main index of the stock exchange of each country: IBovespa for Brazil, MICEX-RTS Index for Russia and FTSE/JSE top 40 Index for South Africa. The data were collected from the annual financial reports of 2012.

To analyze the accounting practices, and then, classify the accounting systems, we used the same list of overt options that was applied by Nobes (2011). We, then, merge our data with those provided by Nobes (2011), getting a set of eleven countries. Finally, following the same methodology as that used by Nobes (2011), we performed the factor analysis to process the data, a cluster to produce a dendrogram of two-cluster solution by companies and multidimensional analysis to explore the results.

All the statistical results lead to the same conclusion: the IFRS accounting systems could be classified in three-groups: Anglo, Continental European and Emerging group (the new cluster). The results show that all the emerging countries are in the same cluster, which can be justified because of the features of these countries. The BRICS countries have a growing importance to the world economy and are characterized by a significant level of internationalization (with inward and outward FDI) and strong presence of multinational companies. Curiously, the Netherlands, considered as an unclassifiable country, came closer to South Africa and then fused with the emerging country cluster. The other countries are still in the same position shown by Nobes (2011): Anglo and Continental group.

This research contributes to the literature by expanding the classification of the accounting systems proposed by Nobes (1983, 2011), increasing the number of countries and, specially, including a set of emerging countries. Therefore, we provide insights on the position of the emerging countries in the IFRS era.

The remainder of the paper is organized as follows. The next section presents the background and section 3 explain the research design. Section 4 describes the results and section 5 offers a summary and concluding remarks.

2. BACKGROUND

2.1. Classification of accounting systems

The discussions about the classification of accounting systems began with Hatfield, in 1911 (revised in 1966), and Mueller, in 1967. However, only in 1970 this issue took more importance, being studied by several authors as Costa et al (1978), Frank (1979), Nair and Frank (1980), Goodrich (1982) and Nobes (1983).

Hatfield (1911) proposed one of the first attempts to classify the accounting systems. Subsequently updated in 1966, the author used some features based on differences between accounting practices in four countries (France, Germany, UK and US), suggesting a three-group classification: US; UK; and Continental Europe (France and Germany).

In 1967, Mueller suggested a new attempt to classify the accounting systems development, considering the institutional environment. The results of this research indicate that countries can be classified into four groups: a) the macroeconomic pattern: Sweden; b) the microeconomic pattern: Netherlands; c) the independent discipline approach: USA and UK; and d) the uniform accounting approach: France, Germany and Argentina.

Da Costa et.al (1978) classified thirty eight countries, based on accounting practices, using the Price Waterhouse's survey (1973). They identified two groups of countries: i) British Model: UK and nine former members from the British Empire; and ii) American Model: US, France, Germany, South American countries, and all other (except Netherlands and Canada which were not classified).

Frank (1979) contributes to previous literature by analyzing the extent to which different patterns of accounting concepts and practices are used in thirty eight countries and relating these differences to the economic and social environment prevalent in those countries. They classify the countries in four groups: a) British Commonwealth Model; b) Latin American Model; c) Continental European Model; and d) United States Model.

Nair and Frank (1980) extend the previous work and found different groups depending of the approach used: classification based on disclosure practices (seven groups) and classification based on measurement practices (four groups).

Nobes (1983) proposed a new classification of countries, using an alternative approach inspired on the biology classifications. He analyzed differences in the accounting practices of public companies from the developed Western world (14 countries), based on a program of visits, interviews and readings related to those countries.

Figure 1 presents the classification proposed by Nobes (1983). This classification demonstrates the traditional dichotomous classification of accounting systems: Anglo countries and Continental European countries, considering that the first split of countries was into two groups. Australia and UK merge, forming one group (Anglo countries group) and most continental European countries are merged in the other group (Continental European countries group).

FIGURE 1

This classification of the accounting systems, proposed by Nobes (1983), has been widely used by further international accounting studies (e.g. Gray, 1988; Doupnik & Salter, 1993; Roberts, 1995; Evans & Nobes, 1998; Robb et al, 2001; Beattie & Jones, 2001). More recently, Nobes (2011) prepares a new classification of countries based on the accounting policy choices made by large listed companies of eight countries and compare it with the classification proposed in 1983. Figure 2 present the empirical findings, which demonstrate that, despite 30 years of harmonization, significant differences in accounting practices between Anglo Saxon and European Continental countries still can be found.

FIGURE 2

2.2. IFRS adoption: seeking the comparability

One factor that contributed to the intensification of the pursuit for a set of international accounting standards is the need of companies to get funds in foreign markets (Soderstrom & Sun, 2008). According to Nobes (2006), the inconvenience of preparing two sets of consolidated financial statements (the international GAAP to raise funds and the local GAAP) led, in 1998, to the permission to use the internationally accepted principles instead of the Germany GAAP (HGB) in Germany companies. Germany was one of the precursors to the

European Union's requirement to use International Financial Reporting Standards (IFRS) in 2000, and the full adoption in 2005 for most EU listed companies (Nobes, 2006).

In 2013, the IFRS Foundation analyzed the progress towards global adoption of IFRS. This initiative is intended to provide a central source of information that contributes to the countries that have not yet adopted the IFRS and, for those who already adopt, permits to chart jurisdictional progress towards the achievement of that goal. This survey indicates that 70 jurisdictions, of the 81 analyzed, have adopted IFRSs for at least some companies in their capital markets (IFRS, IFRS Foundation charts progress towards global adoption of IFRS, 2013).

The adoption of IFRS is widely discussed around the world, seeking to understand how the implementation of the new pattern of accounting is occurring in each country. Some researches about the impact of the adoption of IFRS, especially on the capital market, provide evidence of significant differences between countries. The effect of IFRS adoption seems to depend on several institutional variables (Kim & Shi, 2012; Florou & Pope, 2012; Chen et al, 2010).

As long as IFRS contain options and require the use of judgment, some variations in accounting practices are inevitable, and some national versions of IFRS are arising. Nobes (2006) identify eight opportunities that contribute for systematic international differences in the IFRS era: i) Different versions of IFRS; ii) Different translation of IFRS; iii) Gaps in IFRS; iv) Overt options in IFRS; v) Covert options, vague criteria and interpretations in IFRS; vi) Estimations in IFRS; vii) First-time adoption issues; and viii) Imperfect enforcement of IFRS.

Nobes (2008) investigates international differences in the way as countries and companies have adopted IFRS. He shows that some countries, as Cyprus, have adopted IFRS for all financial reporting, some countries made a national version of IFRS (e.g. Australia), some countries adopted IFRS just for consolidate statement and only for listed companies (e.g. UK), some countries required IFRS for some purpose (e.g. France), while some have not yet allowed it for any purpose (e.g. USA). In other words, the adoption process is not the same in all countries. In addition, at company level, there are many differences of practices even in the

IFRS era, and national versions of IFRS practices are emerging. In sum, for Nobes (2008) global comparability has been improved with the adoption of IFRS, but there is still a long way to run.

Based on this literature that suggests motives for national versions of IFRS practices, Nobes and Kvaal (2010) investigate whether there are systematic differences in IFRS accounting policies between countries, and how policies were chosen in the transition to IFRS. They analyze a sample of companies of the largest five stock markets that use IFRS in the 2005-06 annual reports (Australia, France, Germany, Spain and UK), based on the list of IFRS overt options proposed by Nobes (2006). The results provide empirical evidence of national patterns of IFRS and indicate that pre-IFRS national practices continue where they are allowed within IFRS.

Seeking to verify whether the results found by Kvaal and Nobes (2010) persist over the years, the same authors (Kvaal and Nobes, 2012) examines the choices (16 overt options) made in 2008/09 IFRS financial statements by large listed companies from the same five countries, and compare these choices with those that had been made by the same companies in 2005/06. For Australian and UK companies, the findings indicate that there were few policy changes over the years. On the other hand, French and Spanish companies not only made more changes comparing to others companies as they also made more changes after transition than at the transition period. Kvaal and Nobes (2010) explain these results for French and Spanish companies based on the need of a "learning" process in these countries. However, despite of these changes, national patterns of IFRS practices continue over the years and the international comparability remains in doubt.

As referred in Section 2.1, Nobes (2011) also investigates whether the classification of countries made in 1983 persist after the adoption of IFRS. Based on the list of IFRS overt options proposed by Nobes (2006), the empirical analysis show that, despite 30 years of harmonization, significant differences in the accounting practices in Anglo and European Continental countries still can be found.

Furthermore, Nobes (2013) analyzed several issues that could lead to international differences in IFRS practices. According to Nobes (2013), care is needed to affirm that the adoption of IFRS is almost universal. Even with all companies in compliance with IFRS, the incentives of prepares and enforcers remain primarily local.

All these researches mentioned above present evidence that the comparability of the accounting information has not been achieved yet. The accounting practices, even after the adoption of IFRS, remain essentially similar to the national practices (pre-IFRS), due to several factors that contribute to the persistence of these differences over the years.

2.3. Emerging countries

2.3.1. Importance and features of emerging countries

According to the European Central Bank, the growing importance of the emerging economies is striking, especially in economic terms (macro and micro economic levels). The economic weight of these countries is increasingly influential. This growth and their increased resilience to the turbulence of the economy are really important for the world economy (ECB, 2013).

The emerging countries grew more than twice the rate of developed countries (between 1996 and 2010) and, more impressive, the income disparity between emerging and developed countries is declining rapidly (PWC, 2013). The BRICS countries deserve to be highlighted due to their importance for the global market, representing more than 20% of world GPD (Gross Domestic Product). The BRICS's group is formed by Brazil, Russia, India, China, and more recently South Africa. Considering this importance, especially for the capital market, it is extremely important to study these emerging countries.

The nature of growth of emerging countries is also quite interesting. It results from what's called South-South commerce, as opposed to the more familiar North-South commerce (Quinlan, 2008; Goldstein & Pusterla, 2010). South-South represents the commerce among the emerging countries and the North-South commerce is when developed countries invest in emerging countries to make products cheaply and then export to developed countries.

According to O’Neill (2006), since 2001, the international market has turned the eyes to the emerging countries, especially the BRICS countries, due to their growing importance to the world economy, and also, the increasing investment opportunity in these countries. Over the years the BRICS countries have emerged as central player in the world economy and global policymaking, affecting trade, capital markets, energy policy and investment decisions (O'Neill, 2006).

The BRICS countries are considered for some authors as global players (Sauvant, 2005; Gammeltoft, 2008; Sethi, 2009; Filippov, 2010). One way to understand the importance of these countries in the world economy is analyzing the foreign direct investment (FDI), which can be considers as the main vector of globalization. All the BRICSs countries have attracted substantial amounts of FDI (inward FDI), which represents foreign firms undertaking direct investment in their territories, by means of, for example, multinational companies. In the same way, all the BRICS countries are becoming source of outward FDI (OFDI), which represents firms undertaking direct investment abroad, in developed countries as well as in other emerging markets (Sauvant, 2005).

2.3.2. Status of accounting standards in BRICS countries

According to the IFRS foundation Jurisdiction Profiles, only some BRICS countries have already adopted IFRS, namely Brazil, Russia and South Africa.

In Brazil, the IFRS have been mandatory for the consolidated financial statements of public companies (whose debt or equity are traded in a public market) for the financial year ending 31 December 2010. Unconsolidated financial statements follow the BRGAAP that converged with IFRS in 2010. Brazil is a rare case of complete adoption of IFRS for both, consolidated financial statements and individual ones (Carvalho & Salotti, 2013).

In Russia, the IFRS became mandatory since 2012 for the consolidated financial statements of all companies whose securities are public traded (except for the companies that currently report using USGAAP and for companies that have only debt securities trading in public capital markets, which needs to apply IFRS only in 2015). According to Vysotskaya and Prokofieva (2013), Russia has not yet implemented IFRS for all types of business, but made considerable steps to introduce IFRS into its accounting system.

In South Africa, companies listed on the Johannesburg Stock Exchange (JSE) are required to apply IFRS since 2005 and, as SAGAAP was identical to IFRS, the SAGAAP was withdrawn for years starting on or after 1 December 2012. South Africa has a long history of cooperation with IASB and, this one, had a significant influence over financial reporting in South Africa (Coetzee & Schmulian, 2013)

Finally, China and India have not yet adopted IFRS. China has adopted national accounting standards that are somewhat converged with IFRS and a few companies (especially those that have investments abroad) use full IFRS. India still requires the adoption of national accounting standards, but this jurisdiction has already made a public commitment towards IFRS as a single set of accounting standards.

3. RESEARCH DESIGN

3.1. Sample and data

This study aims to identify the position of emerging countries into the classification of IFRS accounting systems proposed by Nobes (2011). The empirical analysis relies on a set of eleven countries, the same eight countries used by Nobes (2011) in his classification, (Australia, UK, Germany, France, Spain, Netherlands, Italy and Sweden) and the three BRICS countries that had already adopted IFRS (Brazil, Russia and South Africa).

For the eight countries previously classified, we used the data presented at Nobes (2011), which relate to the companies from the main Index of the stock exchange of each country. Regarding the three new countries, we used data of companies belonging to the IBovespa (Brazil), the MICEX-RTS (Russia) and the FTSE/JSE top 40 Index (South Africa). Our analysis thus relies on 421 companies, 287 from the eight countries previously classified by Nobes (2011) and 134 from the three BRICS countries now added in our study. Table 1 presents the companies' distribution by country and by industry.

TABLE 1

In order to analyze the accounting practices, and then, classify the accounting systems, we used the same list of overt options that was applied by Nobes (2011). Overt options represent the IFRS policy choices; that is, options that can be found in IFRS and which are plainly specified as a choice. However, two FRS overt options were excluded because they are no longer applicable (the overt option 4: focus on the statement of change in equity or SORIE/OCI, excluding owner transactions; and the overt option 10: capitalization of interest on construction, or expensing).[1] Table 2 presents the complete set of IFRS policy choices that were used in our empirical analysis.

TABLE 2

The data (accounting practices) regarding the set of companies from the eight countries previously analyzed is that used by Nobes (2011). For the three new countries, the data was hand collected from the 2012 annual reports of each company. As Russia adopted IFRS only in 2012, we used 2012 data in order to enable the inclusion of this country. The combination of data from 2012 (BRICS countries) with data from 2008/9 (other countries) do not invalidates

[1] Seeking comparability on the results of this research with the results in Nobes (2011), two adjustments were made in Nobes data. The overt options 4 and 10 were excluded and the empirical analysis was redone. The results came to the same conclusion and only few differences can be observed with this modification.

this research, considering that the overt options analyzed refer to accounting practices (both measurement and presentation practices, which are not easily changed) in the same standards (IFRS) and not to an amount of a specific year or other factor that it is not comparable in different years.

3.2. Empirical analysis

The empirical analysis used in this study is similar to that applied by Nobes (2011, 1983) and d'Arcy (2001). We, first, calculate the percentage of companies who have chosen each IFRS policy option, separately for each country. Second, we perform the principal component analysis (factor analysis), by processing the data seeking for components that are selection of practices with different weights that best explain the variance between the countries. Finally, we perform a cluster analysis to produce a dendrogram of two-cluster solution by companies and a multidimensional scaling that gives a graphical representation of the distances between the countries. As in Nobes (2011) we expect that all statistical techniques will lead to similar results, but presented in different graphical ways.

The aim to provide insight about where the emerging countries are plotted in the dendrogram and to provide a reference of the classification of countries based on their accounting systems.

4. RESULTS

4.1. IFRS policy choices

Table 3 presents the percentage of companies who have chosen each IFRS policy option, separately for each country.

TABLE 3

There is a wide range of variations in some accounting policy options. For example, the focus of the balance sheet on the net assets (Choice 1) ranges from 0% in countries like

Germany, France or Spain to 100% in Australia and 85.2% in the UK. The measurement of investment property at fair value (Choice 7) ranges from 5% in Germany and Italy to more than 70% in the UK, the Netherlands and Sweden.

In Brazil, some options are either 100% (Choice 4 and 9) or 0% (Choice 1 and 6). These results are justified by cultural features and local rules, which prohibit the use of revaluation in PPE as well as the use of the direct operating cash flow method. These percentages in Brazil, on the topics 4 and 6, are similar to those in Germany and France, revealing the persistence of national practices after the IFRS adoption.

Finally, it is important to highlight that, in some options, the Netherlands, Russia and South Africa seem similar (e.g. Option 10: actuarial gains/losses to OCI; Option 5: interest paid as operating cash flow; and Option 8: some designation of financial assets at fair value). Brazil seems more similar, in terms of choices, with Russia than with South Africa.

4.2. Principal Component Analysis

The factor analysis process the data in order to look for components that are selections of practices that best explain the variance between the objects of study, in this case, countries (Nobes, 2011). This technique identify the principal components and focus on those that best explain the variance between the variables.

Table 4 presents the principal component analysis scores, highlighting each country in the component on which it loads the greatest. By using eigenvalues greater than one to select the factors, three components (factors) were identified, which explain 79.5 % of the variance between countries.

TABLE 4

As in Nobes (2011), UK and Australia are the countries that most exhibit the component 3 (Anglo countries), and Germany, Spain, France and Italy are the countries that most exhibit the component 1 (Continental European countries). In addition the emerging countries are, together with the Netherlands and Sweden, in component 2. However, Brazil is closer to the Continental European group than the other emerging countries.

4.3. Cluster Analysis

The second exploratory statistical technique used in this study is the cluster analysis (method of average linkage between the groups). This technique, used by Nobes (1983, 2011) and D'Arcy (2001), identify the most similar pair and then fuses these two together as a single unit and looks for the next nearest pairing, and so on. Figure 3 presents the results of this analysis.

FIGURE 3

The most similar pair of countries is the South Africa and Netherlands. It, than, fuses with Russia and, after, Brazil forming the new emerging cluster. The left side of the graphs shows the cluster of emerging countries and the similarity of this countries with the Netherlands, considered as an unclassifiable country in many previous studies (e.g. Da Costa et al, 1978; Nobes, 1983; Parker, 1991; D'Arcy, 2001; Nobes, 2011).

As in Nobes (2011), our results indicate that German and France are similar countries, as well as Spain and Italy. Thus, the middle of the graph represents the Continental Countries. Finally, Australia and UK are displayed together, representing the Anglo Saxon Countries.

4.4. Multidimensional Scaling

The last statistical technique applied in this study is the multidimensional scaling. This technique, used by Nobes (2011), Frank (1979) and d'Arcy (2001), represents data as a configuration of points in two dimensions, giving a graphical representation of the distance between the countries. Table 4 presents the results of this analysis. All the measures of goodness of fit are adequate[2].

FIGURE 4

The results of this analysis also show clearly three groups of countries: a) UK and Australia in the Anglo Saxon group; b) Spain, Germany, Italy and France in the Continental European group (with German closer to the Anglo Saxon group than to the other Continental European countries); and c) Russia, Brazil, South Africa and Netherlands in the Emerging countries group. This graphical presentation also shows the proximity between the Netherlands and South Africa.

4.5. Discussion

All the statistical techniques used in this research came to the same conclusion: the IFRS practices of very large companies show a three-group classification. In addition to Nobes (2011), a third cluster is identified: the emerging cluster. All the BRICS countries that were analyzed (Brazil, Russia and South Africa) are displayed in the same cluster, which could be justified based on the features of these countries.

The BRICS countries take an important position in their regions, in economic terms, due to their size, population, economic and market growing (Fiori, 2007). They also have strategic partnerships, not just because of the historical analogy, but due to their significant trade and financial flows between them. The proximity of the BRICS countries exists not only because they are members of the same group that seeks international insertion, but because these countries have significant mutual interests (Casella, 2010). According to Hoskisson et al (2000, p.249) emerging economies have some similar features, as “low income and rapid-growth using economic liberalization as their primary engine of growth”.

[2] Tucker coefficient of congruence: .98; Stress S: .088 and DAF: .96.

The companies of BRICS countries are usually characterized by a high level of internationalization (by means of inward and outward FDI and by the presence of multinational companies), and by an increasing importance in the global economy (Sauvant, 2005; Gammeltoft, 2008; Sethi, 2009; Filippov, 2010). The increasing size and complexity of the emerging markets multinational companies is a distinguishing feature of the contemporary global economy (Goldstein & Pusterla, 2010). The strong relationship between the BRICS countries and the international feature of their companies allow us to understand why the "new emerging cluster" has emerged.

Even though the Netherlands is not an emerging country, it came closer to the South Africa and then fused with the emerging country cluster. In Nobes (2011), and others studies about the classification of accounting systems, the Netherlands were considered as an outsider (unclassifiable country). One possible explanation for its inclusion in the emerging cluster is related to the international feature of their companies. Many multinational companies that have the distribution center in Europe are located in the Netherlands (Oum and Park, 2004). This feature contributes to our understanding of why Netherlands is in the same cluster of the emerging countries, which are countries characterized by a significant level of internationalization (with inward and outward FDI) and a strong presence of multinational companies.

The proximity of the Netherlands with the South Africa, as shown in Figure 3, may be also due to the strong historical relationship between these two countries since the colonization era. The strong cultural influence of Netherlands in South Africa began in 1652, when the Netherlands controls the first colony in the south of South Africa: the Cabo Colony. The control of the Dutch lasted until 1806, when it was occupied by British. In addition, a number of Dutch companies outsource their call centers to South Africa, due to the mutual intelligibility of the Dutch and Afrikaans languages, which contributes to understand the proximity of these countries.

In the case of Brazil and Russia, these countries have similarities, although Russia fuses first with the pair South Africa–Netherlands. Some explanations for the proximity of Brazil and Russia are: the strong influence of the legal system in both countries; changes in privatization; government structure (increased participation of the State); both countries have a dynamic internal market, dependent on exportation of primary products; historical issues and the company's needs to raise funds abroad, especially before the IFRS adoption (Carvalho & Salotti, 2013; Vysotskaya & Prokofieva, 2013). According to Cardim (2012), countries as Brazil, India and China are really important for Russia, in terms of economic policies.

In addition, the BRIC countries can be paired into two groups: Brazil and Russia are the first pair, considering that these countries are identified as "large land mass countries with relatively low populations that are rich in exploitable and exportable nature resources" (Borker, 2012, p.314). Complementary, on matters of disclosure, Russia and Brazil have greater similarities, speacifically, these countries have cultural values associated with the development of accounting systems and, this one is characterized by some features: statutory control, uniformity, conservatism and secrecy (Borker, 2012).

Germany, France, Spain and Italy fuse and form the European continental group. And, as expected, Australia and UK are together in the Anglo Saxon group. However, Germany is the country which is closer to the Anglo Saxon group and France is the country which is closer to the Emerging group. Australia practices are the furthest from the other groups. These results are consistent with the results found by Nobes (2011).

5. CONCLUSION

The purpose of the IASB is to develop a single set of high quality standards, enforceable and globally accepted, seeking the comparability of the financial statements across the world. However, the adoption of IFRS is widely discussed around the world and the literature suggests motives for national versions of IFRS practices. Nobes (1983) classified the accounting systems in two groups: Anglo and European countries and, in 2011, provide empirical evidence that this classification still remains in the IFRS era. This paper addressed a gap in the literature, by analyzing the position of three emerging countries (Brazil, Russia and South Africa) in the IFRS accounting system classification proposed by Nobes (2011).

The empirical analysis provides empirical evidence of a new emerging cluster. The Anglo, European and Emerging countries groups can be discerned in the IFRS practices of very large companies. The Netherlands, consider as an outlier, merge with the emerging group, fusing in a group with global players companies.

This study contributes to the literature by bringing empirical evidence that the accounting practices are resistant even to sustained attempts at international harmonization. In addition, this study provides insights on the position of the emerging countries in the IFRS era. For the largest listed companies from the Anglo, European and Emerging countries, there are clear country-related differences that would stickle the international comparability of financial information, desired by standard setters and other stakeholders worldwide.

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Table 1: Sample distribution by country and by industry

	Country	Australia	UK	Germany	France	Spain	Netherlands	Italy	Sweden	Brazil	Russia	South Africa	Total
	Industry (a):												
0	*Oil & Gas*	3	4	0	1	1	1	2	0	1	2	0	15
1	*Basic Materials*	5	10	3	1	2	0	0	3	11	10	10	55
2	*Industrials*	5	3	5	7	7	5	5	6	6	4	3	56
3	*Consumer Goods*	1	9	6	7	0	4	0	5	11	0	2	45
4	*Health Care*	2	5	1	2	0	0	0	1	1	1	2	15
5	*Consumer Services*	6	22	4	6	4	2	1	1	8	5	5	64
6	*Telecommunications*	1	3	1	1	1	1	1	2	3	1	2	17
7	*Utilities*	1	7	2	3	5	0	5	0	11	7	0	41
8	*Financials*	16	21	7	4	7	3	13	7	15	4	9	106
9	*Technology*	0	1	1	2	1	1	0	1	0	0	0	7
	Total companies	40	85	30	34	28	17	27	26	67	34	33	421

(a) Industry according to Industry Classification Benchmark (ICB)

Table 2: IFRS policy choices used in the empirical study

Index	Policy choices
1 (*)	(a) Balance sheet shows assets = credits
	(b) Shows net assets
2 (*)	(a) Income statement by function
	(b) By nature
3 (*)	(a) Equity accounting results included in ‘operating’ profit
	(b) Below
	(a) SORIE/OCI, excluding owner transactions
4 (*)	(a) Direct operating cash flow
	(b) Indirect
5 (*)	(a) Interest paid as operating cash flow
	(b) As financing
6	(a) Only cost for PPE
	(b) Some fair value
7	(a) Investment property at cost
	(b) At fair value
8 (*)	(a) Some financial assets designated at fair value
	(b) Not
9 (*)	(a) FIFO for inventory cost
	(b) Weighted average
10	(a) Actuarial gains and losses to SORIE/OCI
	(b) Corridor method, or to income in full
11	(a) Proportional consolidation of joint ventures
	(b) Equity method

This list of policy choices is based on the Nobes (2011) study. Two policy choices were excluded from Nobes (2011), because they are no longer applicable (the policy choice about the statement of changes in equity and the policy choice about the capitalization of interests).

(*) Non-financial companies only.

Table 3: IFRS policy choices

Index	Policy choices	Australia	UK	Germany	France	Spain	Netherlands	Italy	Sweden	Brazil	Russia	South Africa
1	(b) Focusing on net assets	100.0	85.2	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	8.3
2	(a) Income statement by function	58.3	82.1	82.6	62.1	4.8	50.0	7.1	95.0	96.2	66.7	83.3
3	(a) Equity profit in operating	68.8	42.6	22.7	10.0	0.0	0.0	0.0	93.3	83.7	45.8	26.3
4	(b) Indirect operating cash flows	8.3	100.0	100.0	100.0	87.5	100.0	100.0	100.0	100.0	93.3	66.7
5	(a) Interest paid as operating cash flow	81.5	65.1	68.2	80.0	47.6	78.5	92.9	90.0	77.4	53.3	87.5
6	(b) Some PPE at fair value	15.0	11.1	0.0	0.0	0.0	11.8	0.0	3.8	0.0	5.9	3.0
7	(b) Investment property at fair value	39.3	70.8	5.3	14.3	13.3	75.0	5.6	100.0	28.6	55.6	58.3
8	(a) Some designation of financial assets at fair value	25.0	11.1	17.4	33.3	19.0	75.0	12.5	52.6	75.0	87.5	80.0
9	(b) Weighted average	52.9	30.0	75.0	50.0	88.2	41.7	78.6	10.0	100.0	83.3	64.3
10	(a) Actuarial gains/losses to OCI	86.7	86.4	63.3	50.0	63.2	31.3	20.8	20.0	50.0	33.3	37.5
11	(a) Proportional consolidation	11.5	23.3	15.8	75.8	91.3	46.0	39.1	33.3	79.6	20.0	52.0

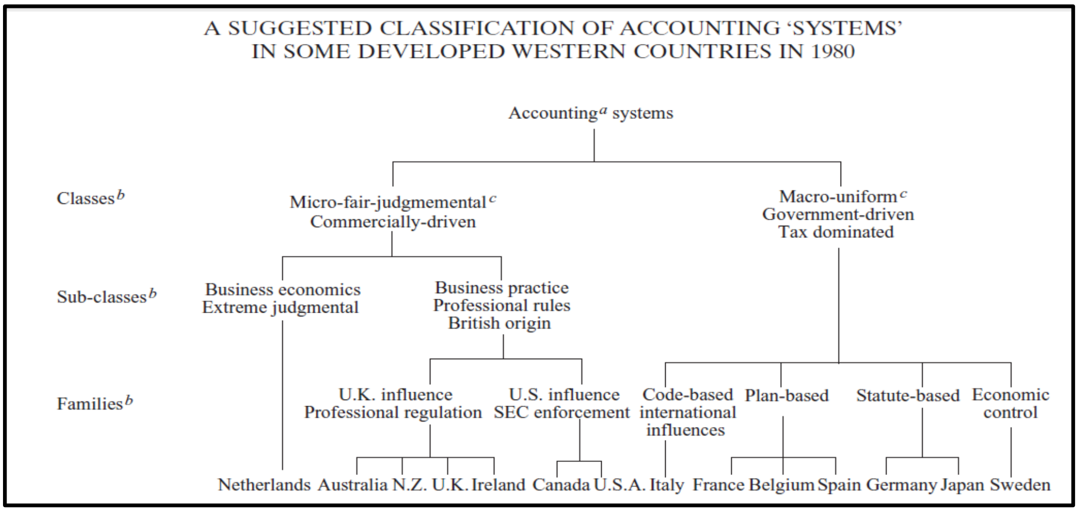
This table presents the percentage of companies who have chosen each accounting policy option. The data of the first eight countries is from Nobes (2011). The data of the last three countries (Brazil, Russia and South Africa) is hand collected from the companies' 2012 annual reports.

Table 4: Principal component analysis scores

	Components[3]		
	1	2	3
Australia	-.085	-.238	**.785**
UK	.116	.239	**.786**
Germany	**.707**	.439	.405
France	**.828**	.450	.028
Spain	**.948**	-.011	-.155
Netherlands	.413	**.748**	.127
Italy	**.872**	.257	.096
Sweden	-.101	**.896**	.169
Brazil	.589	**.596**	.011
Russia	.371	**.789**	-.034
South Africa	.409	**.808**	-.005

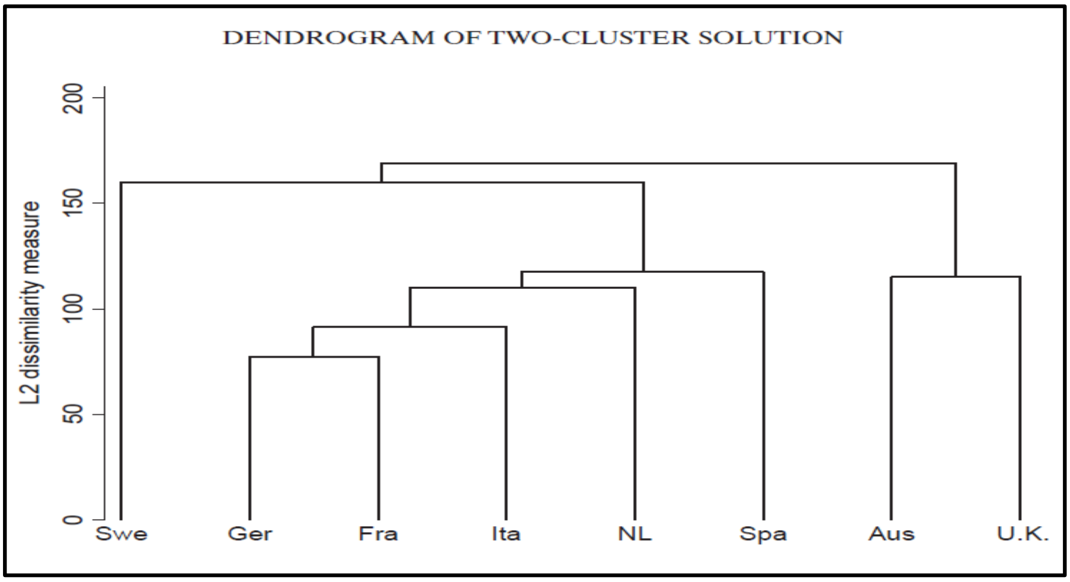
[3] Bold values demonstrate the component that each country loads the greatest

Figure 1: Classification of Accounting Systems proposed by Nobes (1983)



Source: Nobes (1983).

Figure 2: Classification of Accounting Systems (Nobes, 2011)



Source: Nobes (2011).

Figure 3: Cluster analysis results

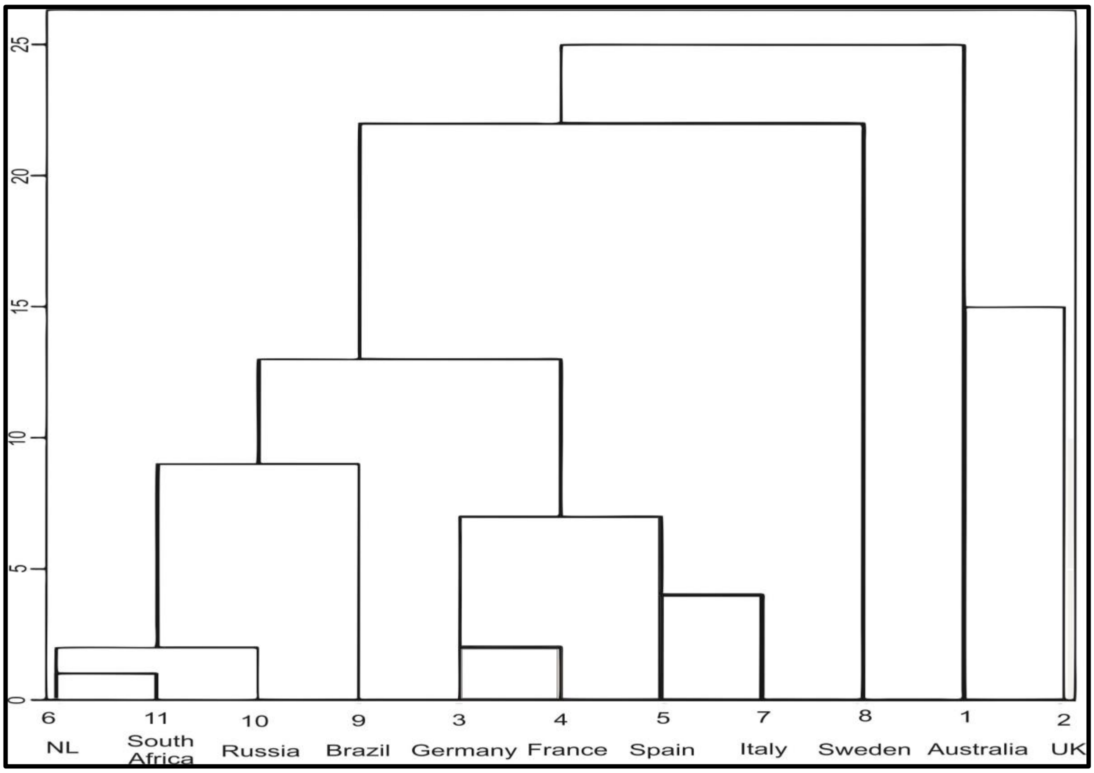


Figure 4: Multidimensional Scaling of the clusters