Revista de Educação e Pesquisa em Contabilidade
Journal of Education and Research in Accounting
Revista de Educación e Investigatión en Contabilidad

REPeC, Brasília, v. 7, n. 2, art. 2, p. 128-142, Apr./June 2013
Available online at *www.repec.org.br*

ISSN 1981-8610

Information Disclosure per Operating Segment: a Panorama of the Application of CPC 22

Abstract

The aim in this research was to outline a panorama of segment disclosure in the financial statements of publicly traded companies active in Brazil, which were published in 2010, the first year in force of CPC 22. Therefore, the researchers attempted to identify how the segments were defined and how many were published, besides analyzing these results with regard to the company's corporate characteristics: size, activity sector and listing status according to corporate governance levels. A bibliographic and descriptive study with a descriptive focus was undertaken. The data were surveyed in the notes to the financial statements of 81 publicly traded companies, selected among the largest companies in the 2010 edition of *Revista Melhores e Maiores*. Data analysis was based on descriptive statistics and correlation analysis. The research results showed that some companies did not refer in any way to segment information. The definition of the segments mainly followed the criterion of the business line, and 27% of the companies grouped the activities in a single segment. The correlation analysis showed that only the asset size showed a significant and positive relation with the characteristics of the definition and the number of segments published. Great heterogeneity was found in the structure of the segment reports published.

Key words: Accounting disclosure, Segment reporting, CPC 22, IFRS 8.

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Published in Portuguese, English and Spanish. Original Version in Portuguese.

Received in 11/17/2011. Ask to Revise on 02/02/2012. Resubmitted on 03/13/2012. Accepted on 07/11/2012 by Dr. Vera Maria Rodrigues Pontes (Assistant Editor) and by Valcemiro Nossa (Editor). Published on 06/28/2013. Organization responsible for the journal: CFC / FBC / ABRACICON.

1. Introduction

The Brazilian capital market has expanded as a result of different companies going public, new investors who entered the market, the search for training to be active in the market, among other factors. According to Lélis, Colauto, Pinheiro and Jordão (2008), as a result of the strong development of the capital market in economically developed and emerging countries, the market increasingly demands compulsory or voluntary information disclosure in financial terms, with a view to permitting greater transparency to investors.

The improvement in the information disclosure level to the market frequently involves the standardization of procedures; in line with that premise and as a part of Brazilian companies' adoption of the International Financial Reporting Standards – IFRS, CPC 22 – Segment Information was issued. According to this pronouncement, as from the year 2010, Brazilian publicly traded companies need to publish segment information as a part of their annual financial statements.

Iudícibus, Martins, Gelbcke and Santos (2010, p. 628) explain that

> The harmonization process of accounting standards in the international context provides accountants and managers with a new posture, whose judgment, relevance and economic influence are prioritized, to the detriment of the previously established regulatory standards.

Thus, in line with the premises of the international standards, now adopted in Brazil through the pronouncements of the Accounting Pronouncements Committee (CPC), managers and accountants will prioritize the economic essence of the fact over the rules and standards in their decisions.

At the same time, segment reporting needs to be elaborated based on the data used for internal decision making, that is, adopting a management approach, independently of fiscal or tax standards, thus providing managers with discretionary power. In accordance with Iudícibus *et al.* (2010, p. 628), "the main idea is to provide users with management information [...] the company managers use in their daily decisions".

In its transcription of IFRS 8, CPC 22 does not define a standardized format and contents for the data organizations need to disclose, departing from the premise that each company has an internal structure for decision making that specifically depends on its management model, which should guide this disclosure.

This lack of standardized disclosure is demonstrated in the study by Talha and Salim (2010), involving a sample of 374 companies in Malaysia. The authors found that 15.8% of the companies under analysis defined the operating segments within a geographic perspective, while 84.2% defined them per business line. In the research by Nichols and Street (2007), focused on the segment disclosure characteristics in 160 companies from different countries, the results show that managers use the flexibility of the standard to define the segments, disclosing between one and more than ten segments.

In view of this context, this study was based on the following guiding question: what are the characteristics of the segment disclosure by publicly traded companies active in Brazil, in 2010, particularly because that was the first year of compulsory disclosure?

The aim in this study was to outline a panorama of segment disclosure in publicly traded companies active in Brazil, based on the analysis of the financial statements published in 2010, identifying how they were defined and how many segments were published, as well as to analyze these results in view of corporate characteristics like size, activity sector and listing status of the company according to the corporate governance levels.

The research is due and contributes to the development of the theme in Brazil, showing what practices companies address in the disclosure of their operating segments, the number of segments presented, how the companies are segmented and whether a segmentation pattern can be determined according to the companies' specific characteristics. It is highlighted that the results for 2010, published in 2011, represent companies' first experience in the compulsory disclosure of segment information.

Earlier studies in Brazil (Vasconselos & Szuster, 2003; Cruz, Machado, Pereira & Carvalho, 2011 and Schvirck & Gasparetto, 2011) addressed the theme based on voluntary data disclosure and found few segment data in the companies they investigated. Therefore, it is considered relevant to find out, when disclosure becomes compulsory, how publicly traded companies are making data available to their stakeholders.

2. Theoretical framework

2.1 Accounting information disclosure

The main goal of the reports accounting produced based on the recording of the facts that occurred in the companies is to provide stakeholders with information about the economic and financial situations, as well as the risks and returns related to the investment. Different authors have discussed accounting information users. Among them, Iudícibus (2004, p. 23) presents Figure 1, in which he lists the main clients and their aspirations with regard to the information accounting produces.

Accounting information user	Target for maximization or most important information type
Minority stockholder	Regular dividend flow.
Majority stockholder or with large interest	Dividend flow, market value of shares, earnings per share.
Preferential stockholder	Minimum or fixed divided flow.
Lenders in general	Future cash flow generation, sufficient to safely receive back the capital plus interests.
Governmental entities	Value added, productivity, taxable profit.
Employees in general, as wage earners	Future cash flow capable of safely guaranteeing good salary raises or maintenance; liquidity.
Middle and high management	Return on assets, return on equity; comfortable liquidity and indebtedness situation.

Figure 1. Accounting information users

Source: Iudícibus (2004)

Lopes (2002, p. 7) adds that the financial market "is one of the main accounting information users through analysts, brokers, institutional and individual investors, investment banks, etc." No matter the users' interests in the companies, the decisions they have to make need information about financial, economic or operational corporate data. In this context, information disclosure is fundamental for the users to know the company.

Accounting information disclosure, according to Iudícibus (2004, p. 121) "is linked to the objectives of accounting, by guaranteeing different information to various types of users". In line with Hendriksen and Van Breda (1999, p. 515), on the other hand, the aim of disclosure is to "provide users with important and relevant information [...] to help them make decisions in the best possible manner." The authors argue that "the amount of information received partially depends on the sophistication of who receives it". In this sense, Iudícibus (2004, p. 21) defends that the objective of accounting is to build "a basic accounting information file", in which each type of user can flexibly obtain the information (s)he finds convenient.

The dynamic nature of corporate facts, however, does not allow accounting to evidence everything that occurs in the companies. Thus, Lopes and Martins (2005, p. 55) argue that the managers use accounting to selectively inform about the company's most interesting aspects. This communication is selective because the managers do not provide all information they have at their disposal, but select what is most relevant according to their own interest.

The choices as to what information to publish are particularly made to comply with legal requirements and, according to Paulo (2007, p. 30), they are based on a broad set of factors that affect the figures. Some of these choices exert immediate and/or long-term effects on the income, while others only affect the year income.

Concerning disclosure based on discretion, Verrecchia (2001, p. 99) argues that this is an endogenous event, considering the incentives managers and/or companies receive to disseminate the information they know. This decision is typically taken in the capital market context, a significant consumer of published information. In other words, the companies tend to disclose information according to the benefits they can obtain from them.

Market regulators as well as investors and funders aim to improve companies' information disclosure. Investors and funders do this by offering more resources to companies with more transparent actions, and entities through standards and laws. In that sense, the harmonization of the Brazilian accounting standards with the international accounting standards motivated different changes in companies accounting and information disclosure practices.

As from 2010, disclosed at the start of 2011, publicly traded companies were obliged to disclose, together with already existing financial statements, segment information, in compliance with the pronouncement CPC 22. The intent is for companies to disclose information that allows the financial statement users to assess the nature and financial effects of the business activities it is involved in and the economic environments it operates in.

The validity of this pronouncement tends to provide the company's stakeholders with a more detailed view of the company's business. According to Torres (2011), the stockholders and analysts now have information at their disposal which most companies did not usually publish: the profit obtained in each operating segment.

2.2 Segment reports

Company mergers, internationalization movements and the expansion of activity markets led to the establishment of corporate groups that are active in different geographical areas and distinct businesses. Holdings of publicly traded companies normally manage the activities of these clusters in a consolidated manner, that is, all businesses are grouped in a sole controlling company. Thus, information that can be relevant to the agent interested in the company are grouped together with different other data and presented to the market in a consolidated form.

With a view to the availability of more detailed information, the application of CPC 22, based on IFRS 8, aims to show to the market how the companies act in each of the segments, allowing the stakeholders to know the risks and possibilities inherent in each activity branch.

According to Iudícibus *et al.* (2010, p. 628),

> The basic principle is that the information presented per segment, together with the accounting information, allow users to correctly assess the nature of the business activities and their respective financial effects, providing true knowledge of the economic environment the company is inserted in.

Garrison, Noreen and Brewer (2007, p. 446) define a segment as a part or activity of the organization about which the managers would like to have cost, income or profit data. According to CPC 22, item 5, an operating segment is a component of the entity that develops business activities, through which it can gain revenues and incur expenses, whose income is regularly reconsidered in the decision making and performance assessment process, also permitting the individualization of available financial information.

Iudícibus *et al.* (2010, p. 628) defend that the separation per segment is important to understand the company's history and trends and the regional context of a product or service, to assess the influence of political aspects and to measure the contribution of a relevant client to company revenues, among other possibilities created through segment reporting.

In that sense, Vasconselos and Szuster (2003, p. 72) comment that

> Segment information gains increasing importance in the economic-financial analysis of Brazilian and international companies, improving their disclosure and, from a management viewpoint, it is very helpful in decision making. From the perspective of external users, it enhances companies' transparency, as it provides the market with information about the strategy adopted in their activities.

Before the application of CPC 22, little encouragement towards segment reporting was provided in Brazil, in accordance with Iudícibus *et al.* (2010, p. 627), although some companies did provide this disclosure, either voluntarily or because it was required for them to be active in international markets, but in a timid and incipient form.

The theme segment reporting is recent in Brazil. International standards have been prescribing these procedures for some time though. In November 2006, the International Accounting Standards Board – (IASB) issued IFRS 8, which replaced International Accounting Standard 14 (IAS 14), issued in 1981 and updated until its recent replacement in 2006. In the environment the Financial Accounting Standards Board (FASB) regulated in June 1997, the most recent version of the standard on this theme was issued, the Statement Financial Accounting Standard 131 (SFAS 131), substituting SFAS 14 from 1976.

In Brazilian legislation, segment reporting has been and, in accordance with the research by Vasconselos and Szuster (2003, p.86), before the enactment of CPC 22, the lack of an explicit standard about the presentation of this information in the Brazilian market made the companies publish it abroad, according to IASB or FASB standards, and not in the internal market.

In 2002, Vasconselos and Szuster (2003) undertook a study in 30 companies listed on Bovespa, based on data published in 2001, to assess the quality of voluntary accounting information disclosure per segment in Brazil, involving companies traded on the international market, obliged to publish segment information in accordance with IAS 14. In the group studied, 57% published segment reporting in the management report and 17% in notes to the financial statements. The authors also highlight that 26% of the companies did not present any kind of segment information in the Brazilian market.

Vasconselos and Szuster (2003, p. 85) concluded that it cannot be confirmed that companies traded abroad present better information in the Brazilian market, that is, that the lack of legislation on the compulsory publication of this information made companies publish the information in the external market and not in Brazil.

Voluntary segment reporting in Brazil was focused on in a study by Cruz *et al.* (2011), aimed at verifying how companies published segment information for 2009. The research was undertaken in 106 companies listed on BM&FBovespa (2012) and found that only 13.2% of the companies studied voluntarily presented segment information. Cruz *et al.* (2011, p.16) conclude that, in general lines, segment reporting remains incipient in the Brazilian context.

In line with these results, in the study by Schvirck and Gasparetto (2011), involving 49 companies listed on BM&FBovespa (2012), the relation between voluntary segment reporting in 2009 and corporate governance levels was investigated. The results indicated that companies that adhere to the highest governance level are more prone to voluntary segment reporting, although all companies demonstrated low levels of adherence to the requirements of CPC 22.

Possible reasons for this lack of voluntary disclosure, besides the lack of a standard, include fear related to this disclosure. Talha, Sallehhuddin and Mohammad (2006, p. 266) explain that one of the main arguments is that the high cost of information preparation exceeds the potential benefit. In addition, the authors present the benefit strategic company information provides to potential competitors as the most serious argument against the publication of segment information.

In this context, Talha *et al.* (2006) developed a study of 116 companies listed on the Malaysian Stock Exchange between 2000 and 2002, with a view to empirically assessing the change in companies' competitive advantage patterns after the publication of segment information. The results indicate that companies' competitiveness or financial performance level increases when the quality of segment disclosure drops, that is, when the companies publish higher-quality information, its competitiveness level tends to decrease, as measured by their financial performance. When considering company size, the study indicates that, given the same quality level of the disclosure, large companies present worse competitiveness levels than smaller companies, that is, larger companies are more exposed to competitive disadvantage than smaller companies.

Edwards and Smith (1996) assessed the existence of competitive disadvantage based on segment reporting in British companies. The study evidenced greater competitive disadvantage for companies that publish segment reports per geographical region when compared to those that publish per business segment.

In Malaysia, Talha and Salim (2010) developed a study of 374 companies listed on the local stock exchange, aimed at investigating the factors that make companies choose between business line or geographic region as the primary segment. The research was based on data for 2006 and found evidence that size, financial performance and industrial sector significantly affect the choice of the primary segment according to the business line, to the detriment of the geographic information.

In another study, Jahmani (2003) found that business segment and geographical segment disclosure affect the company's risk perception. The companies' consolidated financial statements do not provide investors with sufficient information for appropriate decision making, and the data per business line or geographical region are valuable information to complement the consolidated statements.

Ettredge, Kwon and Smith (2002) assessed the effects associated with the use of SFAS 131 in the United States capital market and found that the adopted of this standard significantly affected the companies that used to be more encouraged to combine information per segment. As a result of the management approach, companies started to disclose information in a form less aggregated per product line, which according to the authors improved corporate disclosure.

In Brazil, in 2011, Ernst Young Terco, together with Fipecafi, developed a study of 56 companies to assess the application of CPC 22 as from the statements for 2010. The results showed that the companies disclosed between one and nine segments, highlighting the large number of companies (23%) that published information for only one segment. As regards the segment definition, 61% were based on the product line, 7% on the geographical area and 32% on both.

Garrison *et al.* (2007, p. 446) explain that segments can be company divisions, sales territory, individual stores, service centers, factories, marketing departments, individual clients and product lines. A company's operations can be segmented in many ways.

In the light of SFAS 131, Pahler (2003, p. 458) argues that, conceptually, segment information can be presented in different forms, for example: per product and service, per geographic area, per legal institution, per client type, or according to how the company organizes the segments internally (per subsidiary, division, department or other internal units), to report the form management uses for decision making. The author highlights that the latter form, the management approach, is required in SFAS 131 as well as in IFRS 8.

Established based on IFRS 8, according to CPC 22, information needs to be reported based on the management approach, that is, reports need to be provided on the same base used internally to assess the performance of operating segments and make decisions on resource allocation. As described under item 25 of the pronouncement,

> the amount of each item in the segments disclosed should correspond to the value the main operation manager reports for the sake of decision making on segment resource allocation and performance assessment.

The management approach proposed in the standard was a source of criticism in some studies, like Crawford, Helliar and Power (2010) for example, who mention that investors are concerned with IFRS 8, considering the possibility of data manipulation, due to the freedom in the segment reporting process, as the standard requires the disclosure of information prepared and measured for the sake of internal management decisions, without clear discussion about who manages the operations, i.e. an important agent in the definition of the company's segments. The pronouncement determines on the disclosure of geographical segments, but permits non-disclosure of this information if the company does not prepare them for internal purposes, attribution the form and contents of disclosure to the managers' discretion.

In the definition of segments for disclosure, factors can be identified that permit the aggregation of amounts, according to CPC 22 item 12,

> Two or more operating segments can be combined into a sole operating segment [...] if they share similar economic characteristics or if they are similar with regard to each of the following aspects:
> - nature of the products or services;
> - nature of the production processes;
> - type or category of clients for their products and services;
> - methods used to distribute their products or deliver the services; and
> - if applicable, the nature of the regulatory environment, e.g. banks, insurances or public services.

The accounting standard established that, after identifying the segments, they should be submitted to quantitative tests in order to decide whether they can be disclosed or not. Thus, according to CPC 22 item 13, segments can be disclosed when they comply with any of the following criteria:

a) when the revenues the segment provides is equal or superior to 10% of the revenues in all operating segments;
b) when the profits or losses are equal or superior to 10% of the highest between the following amounts:
   i. profit in all segments that did not make any losses; and
   ii. losses in all operating segments that revealed losses.
c) when the segment assets represent 10% or more of the combined assets in all segments.

According to CPC 22 item 19, if the number of segments for disclosure "[...] is higher than 10, the entity should weigh whether the practical limit has not been reached already". Based on this determination, it is observed that, even if the management approach is used to elaborate segment reporting, decision makers internal to the company have access to different other pieces of information for support, that is, segment reporting tends to contain more information than consolidated reports, but nevertheless do not contain the same level of detail as internally used information.

In this context, the disclosure of income information per segment can take different forms and structures as, when using the management approach, the information structure of disclosure can strongly differ among companies.

3. Methodological Procedures

The research departs from a descriptive focus, as it presents the publication characteristics of the sample companies' segment reporting; Gil (2002, p. 43) explains that the primary aim of descriptive studies is to describe the characteristics of a given population or phenomenon, or to establish relations among variables.

Concerning the technical procedures, this research is a bibliographic study, developed based on existing material, mainly including books and scientific papers, as defined by Gil (2002, p. 44); and also as a documentary study, in view of Martins and Theóphilo's (2007, p. 55) explanation about the use of documents as a source of data, information and evidences.

The sample used to develop the research was defined based on the access to the data needed. Among the 300 largest companies listed in the 2010 edition of *Revista Exame Melhores e Maiores*, publicly traded companies were chosen whose statements had been published on the BM&FBovespa (2012) website, resulting in a group of 81 companies for analysis.

Considering this group, the notes to the financial statements were verified to examine how the segments were disclosed. The study data relate to the year 2010. After characterizing the segment reporting, it was tested whether the variables related to the company's corporate characteristics, size, listing status on the stock exchange and activity sector were somehow correlated with the number of segments disclosed.

The results were analyzed by means of descriptive statistics, which Martins (2002, p. 19) defined as the organization, summary and description of a set of data. Thus, the research data were grouped and ranked to characterize the analysis elements and the correlation between the study variables was assessed to understand existing relations between them. The data were statistically treated with the help of SPSS 13.0.

4. Presentation and Analysis of Results

This study was aimed at presenting a panorama of segment reporting as required in CPC 22 for the financial statements published as from 2010, without any intent to assess the quality of the information disclosed, but focusing on how the companies defined the segments and how many they disclosed. The researchers consider, however, that a more detailed presentation enhances the quality of the information. Hence, it is expected that companies that disclose more segments further their users' understanding about their activity context.

To put the research in practice, financial statements were analyzed for 81 publicly traded companies that are active in the Brazilian market. In that group, 13.5% of the companies did not make any reference to segments in their notes to the financial statements, contravening CPC 22. These companies were excluded from subsequent analyses as they did not present data for use in the study. Therefore, the final segment information sample consists of 70 companies.

The adoption of the management approach for segment reporting, according to the standards, permits choices that can cause structural differences in the statements disclosed as, in line with Talha *et al.* (2006, p. 272), managers make discretionary judgments when determining how to define the segments, what items are disclosed and the level of materiality.

In this context, the initial assessment was focused on how the companies defined their segments. Among the companies that disclosed segments, 11% used the geographical region as the criterion for their definition; 86% used the product or service line, that is, the business line; and 3% used both, as shown in Figure 1.

This research is in accordance with the study by Ernst Young Terco and Fipecafi (2011), considering the predominant definition of segments per business line. Due to the difference in the groups of companies studied, however, the percentages found did not coincide.

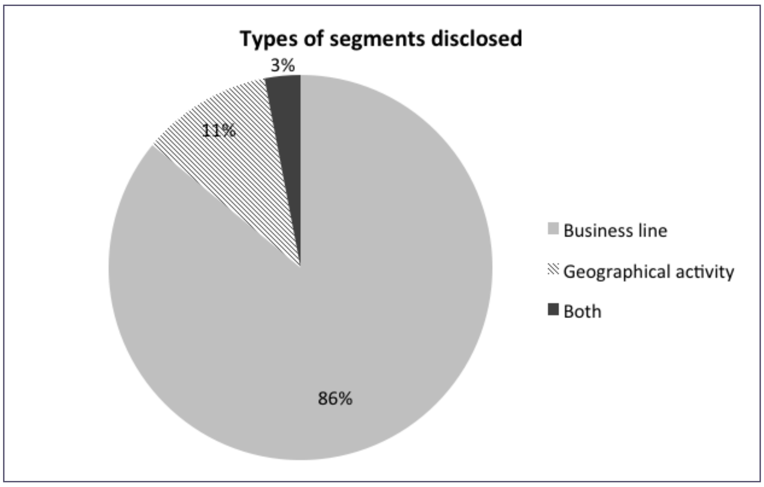

Figure 1. Types of segments disclosed by the companies

In some studies, it is reported that the use of SFAS 131 and IFRS 8, substituting the earlier standards, improved the companies' information disclosure by breaking down product lines and increasing the number of segments disclosed (Berger & Hann, 2003; Street, Nichols & Gray, 2000; Ettredge, Kwon, Smith & Stone, 2006; Nichols & Street, 2007; Mardini, Crawford & Power, 2012). In the Brazilian market, the companies disclosed between one and eight segments. In Table 1, the research findings on the number of segments published are summarized.

Table 1
Number of segments disclosed

Number of segments	% of companies in the sample
One segment	27.1%
Two segments	22.9%
Three segments	20.0%
Four segments	17.1%
Five segments	5.7%
Six segments	4.3%
Seven segments	1.4%
Eight segments	1.4%

The data in Table 1 reveal low levels of segmentation in the companies analyzed. In 27.1%, information is presented in a consolidated form, arguing that that was how the decision maker received the information, or that company activities are centralized in one identifiable line of business.

In the study sample, 42.9% of the companies belong to the groups with two and three segments, one of which tends to be the corporate segment, that, not an operating segment but an administrative structure.

The results demonstrated in Table 1 are related to the findings in the study by Ernst Young Terco and Fipecafi (2010), especially regarding the concentration of companies that published between two and four segments, as well as the considerable number of companies that presented data in a single segment.

The company's activity area can influence the disclosure format. Talha and Salim (2010, p.22) argue that the disclosure level differs according to the sector, that is, each sector has its own characteristics and regulations. In that sense, Table 2 demonstrates the disclosure characteristics of the segment reports according to the sample companies' activity sector. The small number of companies in each sector did not permit any further discussion on this item.

Table 2
Segment definition form segregated per sector

Sector	Segment definition			Number of segments
	Geographic	Business line	Both	
Wholesale		1		1
Car industry		3		2 to 5
Capital goods	1			2
Consumption goods	3	3	1	2 to 4
Energy		20		1 to 8
Construction industry	1	1		2 and 4
Digital industry		2		2 and 4
Mining		1		5
Paper and pulp		3		2 and 3
Agricultural production			1	2
Chemical and petrochemical		3		2 and 6
Services		6		1 and 4
Iron and steel	1	2		4 and 5
Telecommunication	1	6		1 and 3
Textile	1	1		1 and 3
Transportation		3		1 and 2
Retail		5		1 and 4
TOTAL	**8**	**60**	**2**	

In Table 2, the sector of consumption goods stands out, which showed higher levels of segment definition per geographical sector, in 43% of the companies. It can be inferred that, as this sector tends to work with a wide range of products, information per geographical area is more relevant than information per business line.

In the energy sector, all companies under analysis defined their segments per business line. The difference in the number of segments can be highlighted as, while some companies published only one segment, others published eight, showing that no pattern can be established in this sense.

According to Talha and Salim (2010, p. 21), the listing status of the company can also influence its disclosure practices. In the Brazilian market, companies can be listed in four different segments, according to the stock exchange standard. The New Market is the highest level, followed by Level 2, Level 1 and companies that did not adhere to any of the levels, the so-called Traditional Market. Companies at higher governance levels tend to be more prone towards disclosure and, hence, will disclose more segments and define segments based on different criteria. According to the research results by Murcia and Santos (2009, p. 12), corporate governance is one of the factors to explain the disclosure level.

Then, the segment reporting characteristics were observed, aiming to identify the companies' behavior according to their market level. Table 3 displays the summary of this analysis.

Table 3
Segment definition form segregated per corporate governance level on Bovespa

Sector	Segment definition			Number of segments
	Geographical	Business line	Both	
New Market	12.5%	79.2%	8.3%	1 to 5
Level 2		100%		1 to 4
Level 1	15.4%	84.6%		1 to 6
Traditional Market	10.3%	89.7%		1 to 8

The research data show that the listing level was not relevant in the definition of the reporting characteristics. It should be highlighted, however, that only New Market companies published segments per business line as well as per geographical region. In the New Market, 41.7% of the companies published two operating segments, 25% only one and 20.8% four segments. Concerning companies in the Traditional Market, 34.5% published only one segment and 31% three operating segment.

The evaluation of company size is cited in different studies as a relevant sector for accounting disclosure. In Brazil, Cunha and Ribeiro (2008), Salotti and Yamamoto (2006) and Murcia and Santos (2009) found a significant relation between company size and disclosure.

In the same sense, Silva (2008, p. 54) presents different accounting measures used as a proxy for company size. In the research by Silva (2008) about disclosure studies, revenues and total assets were used as a measure of company size.

In this study, total assets were used as a criterion for company size. The sample was stratified based on the definition of quartiles according to the sample companies' total asset value. Thus, the first quartile grouped the smallest companies and the last the companies with the largest total asset value. Data on segment reporting characteristics according to the company size are displayed in Table 4.

Table 4
Segment definition form according to company size

Sector	Segment definition			Number of segments
	Geographical	Business line	Both	
Up to R$ 3.336	11.1%	88.9%		1 to 7
Between R$ 3,336 and R$ 7,753	11.8%	88.2%		1 to 8
Between R$ 7,753 and R$ 22,625		94.1%	5.9%	1 to 5
Higher than R$ 22,625	22.2%	72.2%	5.6%	1 to 6

Table 4 reveals that, in all groups, the definition of segments per business line is predominant. The disclosure of both segment types is only present in groups 3 and 4, which contain the largest companies.

In the first group, involving the smallest companies, reports were published with between one and seven segments. It is highlighted that 38.8% presented one segment, that is, the companies identified a single business line and, therefore, there is no need to present a partial report about segments. In 27.8% of the companies, two segments were presented, 16.7% three, 11.1% four and 5.6% seven different segments.

In the second quartile, 35.2% of the companies published only one segment, 29.4% two segments, 11.8% three and four segments and 5.9% six and eight segments.

The third group also included the largest companies: 29.4% with only one segment, 17.7% two and four, 23.5% three and 11.7% five operating segments.

The largest companies also revealed the highest segmentation level. Only 5.5% published only one segment, 16.7% two, 27.8% three and four and 11.1% segmented their business in five and six segments.

In summary, considering company size, the largest companies tend to publish more segmented reports for the sake of decision making as, in the group with the highest total assets, 77.8% disclosed between three and six segments while, in the group with the smallest asset size, about 65% of the companies published one or up to two operating segments.

The analysis of correlations between the variables supports the data assessed based on the proportions described earlier. Table 5 shows that only the size of companies' assets was significantly related with segment, type and quantity characteristics. Hence, the larger the company, the more segments it tends to disclose and the more it tends to use more than one criterion to define what segments can be disclosed.

Table 5
Correlation between the variables

		Number of segments	Type of segment	Activity sector	Corporate	Total Assets
Number of segments	Pearson Correlation Sig. (2-tailed)	1	0.074 0.544	-0.160 0.186	-0.111 0.362	**0.295*** **0.013**
Type of segment	Pearson Correlation Sig. (2-tailed)	0.074 0.544	1	-0.096 0.431	-0.181 0.133	**0.263*** **0.028**
Activity sector	Pearson Correlation Sig. (2-tailed)	-0.160 0.186	-0.096 0.431	1	0.049 0.688	0.077 0.526
Corporate Governance Level	Pearson Correlation Sig. (2-tailed)	-0.111 0.362	-0.181 0.133	0.049 0.688	1	-0.075 0.535
Total Assets	Pearson Correlation Sig. (2-tailed)	**0.295*** **0.013**	**0.263*** **0.028**	0.077 0.526	-0.075 0.535	1

* Correlation significant at 0.05

5. Final Considerations

Information availability is important for decision makers, whether these are managers, investors, funders or any other agent interested in a company, and whether they are internal or external to the organizations.

In 2010, CPC pronouncement 22 came into force in Brazil, which sets rules for the publication of segment information. Hence, publicly traded companies need to comply with this standard, disclosing income information to users external to the company in the segmented form, that is, in further details than in the consolidated statements.

In view of the regulatory innovation established in CPC 22 and the expected expansion of the data the companies disclose to the stakeholders based on the segments, this research was aimed at outlining a panorama of segment disclosure in the first year this pronouncement came into force, with a view to answering the question about the publication characteristics of segment information by publicly traded companies active in Brazil in 2010. Therefore, considering a group of 81 companies listed on BM&FBovespa (2012), it was analyzed how they defined their segments, how many segments they disclosed and whether this disclosure was somehow related with the companies' corporate characteristics.

The study results demonstrated that the segment information is published in a very heterogeneous manner, and that no type of pattern can be established, neither according to activity sector, corporate governance level or corporate asset size. Nevertheless, when considering the latter, a positive and significant correlation was found between size and number of segments, in view of the greater administrative complexity of larger companies.

Considering the possibility of defining segments for disclosure according to the company's management structure, the companies predominantly chose segment disclosure according to the business line. As regards the number of segments in the companies, this ranged between one and eight.

The research demonstrated that no quantitative pattern can be established, independently of the corporate characteristics as, in 2010, 27.1% of the companies under analysis did not publish segmented activities, that is, they disclosed only one segment, while 60% published between two and four operating segments and 12.9% between five and eight segments.

The company size was the only study variable with statistically relevant results. Large companies tend to define the segments based on more than one criterion, possibly because they are active in larger markets; in addition, in this group, fewer companies did not publish segment information according to the criteria of the CPC 22. Also, these were the companies with the highest segmentation level, which can be explained by the fact that they are active in more branches and consumer markets.

As regards the listing status in terms of corporate governance levels, the New Market group reveals a trend towards a more significant disclosure level, as companies in this group published both geographical and business line segments. On the other hand, in the Traditional Market group, more companies did not publish segment information, confirming the expectation of greater willingness towards disclosure among companies with better corporate governance practices.

The research results revealed how the companies are structured in terms of operating segments, based on the compulsory publication required in CPC 22, during its first year in force. This standard contributes to the improvement of market information disclosure by requiring that publicly traded companies provide their external agents with information about the composition of the company income, considering the share of each of its operating segments.

On the other hand, by granting freedom for the company to define what can be published, based on the quantitative criteria presented earlier, and by using the management approach, room is created for the companies to discretionarily assume that all of its activities are aggregated in a sole segment, so that they do not disclose any information further than that published in their statements before CPC 22 came into force. It should be highlighted, however, that the companies under analysis significantly adhered to the pronouncement, as only 13.5% of the 81 companies in the sample did not publish segment information.

The present study results are limited to the group of companies under investigation. As the selected group figures among the largest Brazilian companies, they may not picture the characteristics of less relevant companies in the economic context.

This research was focused on the analysis of the criteria used to define what segments to disclose and how many. Therefore, for the sake of future research, the information disclosure level required by CPC 22 should be investigated, also attempting to understand the possible determinants of a higher or lower disclosure level in the segments disclosed.

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