

*Full Length Research Paper*

# Comparative analysis of the index of disclosure and the importance given by stakeholders to information considered relevant for accountability in Philanthropic Institutions of Higher Education of Brazil (PIHEB)

Emanoel Marcos Lima<sup>1\*</sup> and Carlos Alberto Pereira<sup>2</sup>

<sup>1</sup>Universidade Federal da Grande Dourados – UFGD, 6681 Antonio Maria Coelho St, house 13 – Campo Grande – Mato Grosso do Sul – Brasil.

<sup>2</sup>Universidade de São Paulo – USP, 908 Luciano Gualberto Av - City – São Paulo – São, Paulo – Brasil.

Accepted 21 June, 2011

The objective of this paper is to make a comparative analysis of the accountability theory approach of the index of disclosure and the importance given by stakeholders to information considered relevant for accountability in Philanthropic Institutions of Higher Education of Brazil (PIHEB). The study developed an analysis of a population of 146 entities that are drawn up by a cadastre in the National Council of Social Assistance (NCSA). Firstly, it developed the Index of Disclosure of the Institutions of Higher Education of Brazil (IDIHEB) measured by the qualitative characteristics of disclosure divided into four groups: (i) general view (ii) service performance (iii) financial performance, and (iv) physical and financial situation, developed and used in the study of Coy et al. (1993). Furthermore, with the use of the Delphi technique and having as basis, the study of Coy and Dixon (2004), the research captured stakeholders' perception of what information they consider important for disclosure in relation to the PIHEB. The results revealed the existence of a gap between what the PIHEB discloses and what the participants of the Delphi technique consider important for the PIHEB to disclose. The research result also indicated that only less than 33% of PIHEB prepare voluntary disclosure; the majority prepares mandatory disclosure, showing that though few, the institutions are concerned about public accountability beyond legal requirements.

**Key words:** Disclosure, philanthropic undergraduate institutions, accountability.

## INTRODUCTION

Higher education in Brazil has always been a subject present in the proposals of all governments and which cannot be otherwise, given its importance in the development of the country. According to the 3<sup>rd</sup> article of the Federal Constitution of Brazil which outlines the

objectives of the Federative Republic of Brazil, the State must "[...] eradicate poverty and marginalization and reduce social and regional disparities". In turn, the 6<sup>th</sup> article, which deals with social rights, states that "education, health, work, leisure, safety, social security, maternity and children's rights as well as obligations towards the assistance of the destitute are social rights of citizens. Therefore, it is the duty of the State to promote the welfare of society as a whole without distinction as to origin, race, sex, color, age or any other form of discrimination, especially in providing basic needs such as health, education, work and safety". According to the Federal Constitution of 1988, higher education will be developed "with the cooperation of society" in the sense that it may also contribute to the formation of the citizen.

\*Corresponding author. E-mail: [emanoellima@ufgd.edu.br](mailto:emanoellima@ufgd.edu.br) Tel: (55)67-34102040.

**Abbreviations:** PIHEB, Philanthropic Institutions of Higher Education of Brazil; NCSA, National Council of Social Assistance; IDIHEB, Index of Disclosure of the Institutions of Higher Education Of Brazil; MAD, modified accountability disclosure; PAI, public accountability of index.

The State, in requesting the participation of civil society in the formation of people, recognizes its inability to meet all the educational needs of individuals.

To assist the state in its institutional purpose, the Philanthropic Institutions of Higher Education of Brazil (PIHEB) were created. These institutions, in addition to tax exemptions established by the Federal Constitution, also profit from the benefits addressed in Article 55 of the Organic Law of Social Security No. 8212 of July 24, 1991. The § 7 of Item III of Article 195 of CF/88 states: "Entities for social assistance are exempt from contribution to social security so long as they meet the requirements established by law." Non-profit institutions of higher education, provided they fulfill the requirements established in Decree No. 2536, are considered as aids for social assistance, and are therefore exempt from contributions to social security and business responsibilities, so long as the employee benefits (due autonomy and business) are collected normally. Because of the tax waiver in favor of PIHEB, they are responsible for providing receipts to certain government agencies. Therefore, until the year 2006, the general public had access to the financial statements of these entities only through information published in newspapers. However, since 2007, the Justice Department made it mandatory for the institutions classified as federal public utilities, which includes the institutions considered in this study to disclose their financial information via the electronic media so as to make it available to anyone who wishes to consult it.

The disclosure has an important role in reducing the informational asymmetry between the company and its stakeholders and is considered one of the main forms of communication between the company and the various users interested in evaluating its management's performance. An issue that is still being addressed by the positive research of international accounting since the 80s is entitled "Theory of Disclosure." Several authors have discussed this theory with emphasis on the articles, Verrecchia (1983) and Dye (1985). The main objective of this theory is to explain the phenomenon of financial disclosure, from some perspectives, seeking to understand, among other things, the economic reasons why certain information is voluntarily disclosed.

## THEORETICAL FRAMEWORK

### What are philanthropic institutions of higher education?

These institutions, due to their lack of profit purposes, are classified as third sector. The PIHEBs, despite belonging to the third sector, are not characterized by voluntary participation, because their activities are carried out by paid staff, which by so doing enables the retention and compensation of employees to perform the functions necessary for their development of activities. Moreover,

in addition to the services they provide, specific skills of employees are also necessary, to satisfy the requirements of the Ministry of Education, as well as those of society.

Benedicto (1997) opined that institutions of education whether private or public, profit or non-profit are organizations established to provide benefits for society. These benefits are social, cultural, economic, educational, technological and moral. The existence of these institutions has meaning only when they are actually contributing to the development of the community. To these characteristics we may add that unlike most non-profit entities, these entities survive with funds coming from fees accruing from their provision of educational services as well as grants and agreements from/with both the private sector and government agencies. Profit is not the goal of these entities, however, it is needed to ensure the continuity and maintenance of their heritage as well as the fulfillment of their mission. Besides, the certification as an Entity for Social Services and Welfare, issued by the Ministry of Education is added to the characteristics of third sector entities. We must now, in view of what has been presented consider the objectives of this work as shown in the concept of PIHEB. Institutions of higher education that are certified as Entities for Social Services and Welfare are those which apply, annually, at least 20% (twenty percent) of their total gross revenue to charitable work; those that promote educational assistance at a higher level, intending to prepare the individual for the job market, leading thus to changes in society and; those whose wealth is created, maintained and expanded, from tuitions, grants, donations and partnerships with public and private entities and where their directors, advisors, shareholders, founders, benefactors or equivalents do not receive any remuneration in any form or title in view of the powers, functions or activities assigned to them by their incorporation (Lima, 2003).

### Disclosure literature

Hope (2003) argues that disclosure is an inherently complex phenomenon and a simple theory can provide a partial explanation. Verrecchia (2001) and Dye (2001) presented a conceptual vision and demonstrated arguments for the existence of a unified and comprehensive theory about disclosure. The taxonomy proposed by Verrecchia (2001) encompasses three broad categories of disclosure research in accounting (Table 1) which are:

1. Association-based research (association-based disclosure) seeks to identify the association between disclosure and the behavior of investors whose objective is to maximize their wealth. The analysis of this association is accomplished through the characterization of the effects of disclosure in the actions of investors at the time the disclosure occurs. Yamamoto and Salotti (2006), considered that studies on disclosure-based association have

**Table 1.** Characteristics of the disclosure of search categories.

Search category	Characteristics of disclosure	
	Timing of Disclosure ( <i>ex ante</i> or <i>ex post</i> )	File disclosure process endogenous or exogenous)
Association	<i>ex post</i>	Exogenous
Trial	<i>ex post</i>	Endogenous
Efficiency	<i>ex ante</i>	not applicable

Source: Yamamoto and Salotti (2006).

been successful because they provide detailed characterizations of the relationships or associations between disclosure, changes in prices, turnover or other market phenomenon.

2. Research based on discretionary disclosure (discretionary-based disclosure) seeks to identify the reasons for disclosure, and to identify why managers and/or companies decide to disclose certain information. One of the key issues for understanding this type of research is related to the problem of adverse selection, where the information that is not disclosed is interpreted as information not favorable. For instance, if a company has good prospects for the coming financial years, it has a greater incentive to disclose details on these angles, believing that the costs of disclosure would be smaller than the benefits and also because non-disclosure of information could lead the market to interpret that the financial outlook for the coming years is not good. On the contrary, if the company's financial prospects for the coming years are bad, then it is not worth it to incur such disclosure costs, considering that the non-disclosure will already be interpreted in such a way by the market. About adverse selection Dye (1985) states:

The current investors (that maximize wealth) prefer a management that will adopt policies to increase the market value of their shares. Since the company's market value before and after each disclosure is publicly observed, in principle, investors could conceive contract incentives that encourage management in suppressing unfavorable information to the company's value and disseminate information that increases the price of the company.

But if investors know that the management has information that has not been disclosed, they will correctly infer that the current market price of the company overestimates the value of the company itself, based on information (negative) retained by the management. Thus, investors will lower their demands for the company's stock price and the company will drop progressively until management releases the information.

3. Research based on efficiency disclosure (efficiency-based disclosure), discusses what kind of information is preferred and efficient, considering that the information has not been disclosed. To Dye (2001), most researchers

would agree that if the accounting company discloses more information, it may reduce their financial cost. The transaction cost, which is generated from the cost of adverse selection from the exchange of assets between investors with varying degrees of information knowledge, can influence the efficiency of the disclosure. In the pursuit of efficiency, companies seek to reduce information asymmetry in order to reduce this cost. According to Yamamoto and Salotti (2006), "the company could undertake to prepare their financial statements using accounting standards and procedures as transparently as possible." To the authors, if a good disclosure policy benefits the company and consequently reduces their financial cost, then what prevents the company from providing full disclosure?

In turn, Dye (2001) disagrees partially with Verrecchia, supporting the following arguments with respect to mandatory disclosure. Regarding mandatory disclosure, he agrees that the existing literature is not sufficiently mature to merit the status of a theory. Now with respect to voluntary disclosure, Dye argues that this issue can be studied as an appendix to the Theory of Games, where the entity will or will not be disclose, observing the degree of information's favorability to the entity. Dye (2001) cites as an example a company which in their report, only highlights its successful program to reduce costs, and makes mention of no type of its revenue. According to Dye, the theory can predict that revenue growth was not as satisfactory as cost reduction, even before examining the income statement. To Dye, using the premise that companies or their managers will disclose what they believe to be pro-business and omit what is negative does not necessarily lead to appreciation or depreciation of the stock price. Verrecchia (2001) argues that a comprehensive theory should recognize all aspects of the role of efficiency, incentives and endogeneity of the market process, and this covers the interactions between investors who are agents seeking to maximize their own well-being.

Dye (2001) presents some reasons why the market can not push companies to divulge information: (a) Lack of knowledge by the stakeholders of the potential of information available; (b) Different interpretation of the information by investors or its lack thereof; (c) As a function of management earnings, the credibility of the disclosure is compromised. According to the analytical model proposed by Verrecchia (2001), the discretionary

disclosure results in five empirically testable hypotheses, which are correlated: (a) positive with the company's performance, (b) negative with disclosure costs, (c) positive with a level of informational asymmetry between foreign investors and the company, (d) positive with importance given by the company to third party opinions, and (e) positive with past levels of disclosure. Verrecchia (2001) and Dye (2001), despite some disagreements, agree that special attention should be given to studies on the effectiveness of mandatory disclosure. However, the disagreement between Dye and Verrecchia regarding issues relating to the disclosure involved in the capital market and with regard to disclosure of the PIHEB as the objective of this study, indicate that we still have a long way to go, given the scarcity of studies in this area.

### **Study of Coy et al. (1993)**

During the period of 1985 to 1990, there were considerable changes in the annual reports of institutions of higher education in New Zealand. The study sought to examine whether these changes have continued, based on the contents of the report, the opportunity of their publication and extent of their distribution. In the study, we used two sets of information. First, the reports published from 1992 through November 1993 are analyzed by the quality of their content using the disclosure index developed by Coy et al. (1993), and compared with similar reports from 1990 to 1991. Subsequently, in April 1993 questionnaires were sent to 32 institutions with the intent of getting information about when and to whom the annual reports of 1992 were distributed. The timeliness of annual reports of the institutions of higher education was considered under two aspects: the date when financial statements are sent to the parliament and the date when financial statements are available to external users and the general public. The first aspect named by the authors were regarded as the opportunity of the statutory process while the second, the opportunity for public accountability. The authors argued that individuals had the right to examine the institutions' reports from the date that the reports were made available to parliament, but the timeliness of the distribution of the annual reports to the public was left to the discretion of each institution. Distribution was considered by the authors to be the number of reports sent to individuals and other organizations, the scope and suitability of persons to whom the reports were sent, their availability in libraries, and how accessibility was handled, including press releases and the use of advertisements. The study indicated that the majority of the annual reports (61%) were distributed to people working in the higher education industry.

The annual reports of institutions of higher education in New Zealand were evaluated with the aid of a disclosure index that measures quality using an ordinal scale. In a previous study, Dixon et al. (1992) analyzed the reports

from 1985 to 1990 using an index called the score of accountability disclosure (AD-score). This index included 43 items that the authors identified through a combination of inductions and deductions or, in the opinion of the authors, contributed to public accountability. Before assessing the reports of 1992, the authors reviewed the AD-score method and decided to continue the development of the index, analyzing its weaknesses which had become apparent, including those attributable to the processing of the reports to be published in 1991 and 1992, and comparing them with previous years. As a result of this review, the number of items in the index was reduced from 43 to 26. This reduction included the insertion of a new item, the index allocation overhead, and the reduction of the current 43 items to 25 items through a combination of several items that were previously treated separately. The revised index was called Score of Modified Accountability Disclosure (MAD-score) and is presented together with their weights in Table 3. The detailed contents of each item are subsequently given.

### **Overview**

#### ***Statement of objectives***

Demonstration must include the following: mission, objectives and performance goals in detail, summaries, with understandable and realistic terminology. Items must be shown in quantitative/measurable dimensions and provided in a timeline.

#### ***Descriptive report/review***

The report is issued by the chairman and or vice chancellor. It is the report of key activities and achievements with reference to social, economic and environmental policies collectively. It includes some quantification containing measurements.

#### ***Summary of facts and figures***

Key facts and figures (highlight of statistical data), including trends and comparisons for four years with possible illustrations.

#### ***Financial review***

Review of revenues, costs, assets, liabilities, capital projects and any other significant financial trend. It includes explanation of trends and possibly illustrations.

#### ***Accounting policies***

Details of the accounting policies used and their changes, showing all applicable submission criteria. Reasons

**Table 3.** Items' index and their weights.

<b>Reports of qualitative characteristics of disclosure item</b>	<b>Weight</b>
<b>Overview</b>	
Statement of Objectives	3
Descriptive report/General review	3
Summary Facts and Figures	1
Financial Review	1
Accounting Policies	2
Directory Information	1
<b>Service performance</b>	
Number of Students	3
Graduates	2
Employment/educational destination of graduates	1
Publications	3
Student - faculty ratio	3
Targets	2
<b>Financial performance</b>	
Operating Statement	3
Depreciation	1
Budget information	2
Unit Cost per Student	2
Statement of Cash Flows	2
Research Grants	2
Overhead allocation	2
<b>Physical and financial condition</b>	
Balance Sheet	3
Faculty/Staff	3
Library	2
Investments	1
Commitments and Contingencies	2
Equal employment and educational equity information	2
Usage of Buildings	1
Total of weights	53

Source: Coy et al. (1993).

influencing the changes with detailed explanation and their respective impact-value statements.

### **Information for the board**

Address, telephone number, fax number, contents of website, date of issuance of the annual report, board member and who he represents, a senior administrative official.

### **Services performance**

#### **Number of students**

Number of students with information from at least 4 years

and trends detailing full-time and part-time students, and their level of study: undergraduate, postgraduate and other courses.

### **Graduates**

Number of trainees per course containing information from at least four years.

### **Students' education/employment destination information**

Destination of students after graduation, especially with respect to students from previous years.

**Publications**

Publications by course and type (for example, references to periodicals, articles, etc) for at least four years.

**Percentage of college students**

Percentage of students in college based on all students within the institution.

**Goals**

Clear description of objectives or goals specifically with respect to teaching and research, and their respective achievements.

Quantification, when possible, with respect to the costs and outcomes of revenue processes. Comparison between goals/targets and accomplishments.

**Financial performance****Statement of operations income statement**

Summary of operations within at least two-years for comparison purposes, including notes and other information necessary to allow for better user understanding.

**Depreciation**

Detailed description of the depreciation of all assets in use, including fees and lifetime.

**Budgetary information**

All the major financial statements, including operations, cash flow, cost of services and balance sheet showing variation and explanation of major changes.

**Individual cost per student**

Unit cost per student, total cost per college/school within at least four years showing trends and illustrations.

**Statement of cash flows**

Cash flow for at least two years for comparison purposes, with notes and other information necessary for the user to clearly understand the reconciliation of operational surplus or deficit.

**Research grant**

Information about the value of resources received for research by the field of study and project.

**Overhead allocation**

Composition of the total *overheads*. Additionally, details of the *overheads* allocation for colleges/schools, bases for allocation and comparison of the annual forecast.

**Physical and financial situation****Balance sheet**

Detailed demonstration, disclosing all assets including land, buildings and stocks, and all other obligations. Details of reserves and their changes. Annual comparison, extensive notes, analysis of assets by college/department. Controlled assets not legally considered as self-asset, initial and current financial assets, changes during the year and balance at the end of the year.

**Faculty/staff**

Information about the total number of employees and college/school, classified by seniority, administrative functions, technical functions and others, full-time and part-time, with at least four years of comparative information. Percentage of teachers with doctorates. Staff turnover.

**Library**

Financial and non-financial information. Periodicals, amount and changes in inventories. Details of donations (sponsorships). Videos and similar collections. Library staff and facilities. Comparisons.

**Investments**

Report showing all investments, movements and outcomes. Comparative cost value and market value. Basis of assessment.

**Commitments and contingencies**

If there are no commitments and contingencies, clearly specify it as such. If there are contingencies, separate them, disclosing individual items with financial impact and

**Table 4.** Details of the Delphi panel.

Panel name	Panel description	Size
Internal citizens	Academic and general staff who served on university councils	7
External citizens	University councilors not employed by universities	9
Student representatives	Student representatives on university councils	6
Oversight agents	Five auditors, two MPs and two Education Ministry officials	9
Report preparers	Four finance and four information specialists from six universities	8

Source: Coy and Dixon (2004).

stating that all items were disclosed. If tradeoffs exist, demonstration with full disclosure, stating goals/projects and showing the expected total expenditure and expenditure-to-date through the date of financial closure. Clear demonstration of items that were released.

### ***Application and information of educational heritage***

Details of staff and students, including gender, ethnicity, disability and age.

### ***Use of building***

Includes the total area of buildings and facilities on campus, an indication of how they are used, including subjects, projects, laboratories, etc. The main findings of the study are: (i) there was a steady improvement in the quality of disclosure between 1991 and 1992, being that the improvement was lower than that found between 1990 and 1991; (ii) annual reports were published and made available to the general public, within an average of 24 weeks after their closure period and that time was significantly lower than reports from previous years; and (iii) the population involved in higher educational institutions which included executives/managers/administrators and academics was the largest group of interest.

### **Study of Coy and Dixon (2004)**

Based on the studies developed by Coy et al. (1993), the authors developed an index from the perspective of public accountability which captured the use of stakeholder opinions through the Delphi technique. The index called the Public Accountability Index (PAI) was applied in the annual reports of universities in New Zealand during the period of 1985 to 2000. The main objective of the PAI was to measure the quality of the annual reports of the university from a perspective of public accountability. This theoretical position suggested a broader focus on presentation rather than one that could be related to most restricted questions such as assessing its financial feasibility or just its educational performance alone. In the contemporary context of New Zealand universities, public accountability refers to the presentation

of comprehensive information about the condition of performance, activities and progress to all those with social, economic and political interests (Coy et al., 2001). The authors sought to develop an index that captured as truthfully as possible, the essence of public opinion on what should be disclosed and the relative importance of each item. They then developed the Delphi technique to get the opinion of the stakeholders of the university, instead of using alternatives such as ordinary questionnaires, interviews and focus groups. The Delphi technique was also used to test the relevance and importance of items in the index. The Delphi technique as shown in Table 4, involved a theoretical sample of 39 purposefully selected participants.

The participants received a questionnaire with 130 items which required them to indicate the importance of each feature in the annual reports using a four-point scale of "0" (not be disclosed) to "3" (very important to be disclosed), and to add a few more items that they considered important. From the reviews of Delphi panels, the authors prepared a draft of content that was sent for external observation having undergone more changes.

The final index included 58 items organized into eight groups. Through the Delphi technique three quality characteristics were tested, especially timeliness, accessibility and relevance. However, the authors decided that, from a practical standpoint, only opportunity could be included in the PAI because it is a separate and distinct quality that could be measured in the practical sense by recording the time that the reports are issued to the public. The characteristics of timing were measured as the time that elapsed between the date of the balance sheet and the publication of the report, and it was scored as follows:

- (1) Report available to the public at 12 to 13.6 weeks from the balance sheet date (score = 5).
- (2) The score that increased by 1 point every two weeks or within two weeks before 12 weeks.
- (3) The score that decreased by 1 point every two weeks or within two weeks after 13.6 weeks.

Thus, in a report available 22 weeks or more after the balance sheet date, the probable score is 0 (for example, in weeks: 8 to 9 = 7; 10 to 11 = 6; 12 to 13 = 5; 14 to 15 = 4; 16 to 17 = 3; 18 to 19 = 2; and 20 to 21 = 1). Based on

the review of literature, especially on disclosures, the authors identified three broad categories: overview, financials and services, and subdivided them into nine specific categories.

The overview of the items were subdivided into sections on the report of the university, and the items of services were subdivided into general teaching, research and community service items. With regard to service, educational items and more items were divided into input, process and output. These categories were scored because according to the authors, not all disclosures are equally important, and the weights do not add controversy to the index because they have little effect on the results.

The study was used in 2008 for the annual reports from 1985 to 2000 of the universities in New Zealand and the results of those classified as first and second places along with the weights established by the authors for each category are shown in Table 5.

## METHODOLOGY

The purpose of this chapter is to present the criteria used in the research in terms of experts' selection, structuring the disclosure index as well as those involved in the Delphi technique.

### Research planning and data collection

Field research is one way to verify reality, and according to Vergara (2000), "...empirical research is the ability to gather available information to explain a phenomenon in the place where the phenomenon happens or has happened". The form of data collection that was selected was obtained through queries to the Ministry of Justice's data base and also to the websites of the institutions surveyed. It was possible through the research conducted, to learn a little more about the reality of the PIHEB entered in the National Council of Social Assistance (CNAS) based on information collected through the MDA of Coy et al. (1993), and to draw up an index of disclosures for the Brazilian Philanthropic Institute of Higher Education.

### Construction of the disclosure index

Disclosure index studies have a strong foundation in accounting literature. Most studies, according to Gordon et al. (2002), have used a pre-determined list of disclosures that financial analysts and/or stakeholders consider important in the process of investment decision-making. The authors adopted in their studies indexes that are weighted as well as not weighted. The study focused on disclosures of PIHEB. Only disclosures found through information provided by the institution to the Ministry of Justice as well as those available on their website were examined, given that our request to the CNAS was denied. For the purposes of this study, what we considered as disclosure were:

- (a) Required - those information required in the report of accountability of the Ministry of Justice, namely the balance sheet, income statement for the year, statement of the objectives and statement of the accounting policies.
- (b) Volunteer - information available on the web.

In this study, we chose to develop our own disclosure index due

to not having Brazilian indexes for the institutions surveyed, which were based on the index structured by Coy et al. (1993) and adapted to the Brazilian reality. The index included mandatory and voluntary information, and enabled all stakeholders such as government, managers and civil society to have general information of the institution, and know about their financial performance and services provided as well as their financial standing.

The index developed comprised 26 questions, considering that when the item was published by the entity, it received a weight of 1 and when it was not, it received a weight of 0. As in Gordon et al. (2002), the study did not perform any kind of scoring based on the quantity or quality of disclosures due to the fact that there was no available information to make such an assessment. So as an example, an institution reporting an item for the last 5 years received the same score as an institution disclosing information for only 1 year.

The structure used to calculate the PIHEB's disclosure index is the MDA developed by Coy et al. (1993). The index comprises four sets of information which include:

- (i) General information about the institution (6 items) which is related to the objectives of the institution, key facts and figures, accounting policies and information about the board.
- (ii) Performance of services (6 items) which is related to the institution's performance regarding students, graduates, the destination of graduates, publications, percentage of students and goals.
- (iii) Financial performance (7 items) which has to do with the entity's financial performance showing the results of operations, detailed information about depreciation and budget costs to students, cash flow, allowance for research and allocation of overhead.
- (iv) Physical and financial standing (7 items) which shows the physical and financial standing of the entity revealed through balance sheet, college official documents, investment sheets, library information, commitments and contingencies, heritage and educational use of the building.

For each set of information, which was obtained by dividing the sum of points scored versus the total points possible in the set, the same procedure was used to calculate the total disclosure index.

### Disclosure index

Table 6 presents a summary of the disclosures in each item studied considering the entirety of the institutions. It is seen in Table 7 that all the institutions surveyed released items 1, 5, 13 and 20. These items are required to appear in the Ministry of Justice's liability report, and consequently, are considered as required items of disclosure. It was observed that item 21 was the most published item amongst the items considered to be of voluntary disclosure; 22 institutions representing only 15.07% of total institutions disclosed it. It was also observed that group I showed the highest index (37%). It should be noted that two items appearing in that group, statements of goals and policy statements, are mandatory disclosures required in the Ministry of Justice's liability report, which enabled this group to obtain a higher score than the other groups.

### The Delphi technique

Developed by the Rand Corporation of California in the late 1940s as a means of obtaining advice from a group of experts or specialists (Martino, 1993), Delphi is used to solicit opinions from interested participants, scholars and experts, whose identities are unknown to one another and who will work independently. The method includes rounds in which each participant is asked to comment on issues of interest and then these views are tabulated;



**Table 5.** Results of the PAI.

Categories of Item	Category weight	University of Auckland		Victoria University of Wellington	
		1996	2000	1996	2000
<b>Scores of categories</b>					
Timeliness	10	0	100	80	140
Overview: Report	7	94	90	86	86
Overview: University	10	68	77	86	77
Financial	25	76	76	85	51
Service: General	8	51	80	80	74
Service: Teaching	25	43	44	87	42
Service: Research	13	48	67	82	22
Community service	2	54	84	86	60
Score of index public of accountability		54	77	84	69

Source: Coy and Dixon (2004).

the tabulation is used in the next round as a way of achieving greater consensus amongst the participants. Each round allows, amongst other things, the participants to reconsider their position in light of the responses of other participants. For Wright and Giovinazzo (2000), "[...] the technique is based on the use of structured knowledge, experience and creativity of a panel of experts, assuming that collective opinion, when organized properly, is better than the opinion of an individual by himself."

Three basic conditions, according to Martino (1993), are necessary for the development of the methodology, which are: the anonymity of respondents, the statistical representation of the distribution of results and feedback responses received from the panelists, which will enable the review of their responses in subsequent rounds.

According to Estes and Kuespert (1976), the Delphi technique became widespread in the early 60s from the works of Olaf Helmer and Norman Dalke. According to Estes and Kuespert, the original goal was to develop a technique that would enhance the use of expert opinion in technological forecasting. More recently, according to Wright and Giovinazzo (2000), "[...] the traditional concept of the Delphi technique, often applied to future events and trends has been extended to incorporate the search for ideas and strategies relating to more general organizational politics. This new form of Delphi was not seen so clearly as an instrument of forecasting, but rather as a support technique in decision-making processes and policy development, thus becoming known as the Policy of Delphi (Delphi Policy).

In this study, the goal was not to ascertain the views of experts on future issues but rather, from the study by Coy and Dixon (2004) in New Zealand, whether or not it is important to disclose certain information. In this sense, it is understood that the Delphi policy can perfectly serve the objectives of this work.

### Expert's selection

The individuals invited to participate in this study were selected based on the functions they perform, and which are related to the entities surveyed in this study. We invited accountants, auditors, deans, assistant deans of administration and finance, teachers, tax auditors and representatives of government agencies like the CNAS and the Ministry of Justice. According to Cunha (2007), the number of experts varies; while some authors believe that it should be between 10 and 15 participants, arguing that the inclusion of more participants provides little increase in results, others believe that the number should be between 15 and 30 or more, or between

10 and 50. The fact is, according to Cunha (2007), there is a consensus that a number below 10 participants "[...] limits the analysis of the responses as well as the assurance of its function as a consensus, and generates information that is relevant and useful."

### Preparation of the questionnaire

The questionnaire was developed by David Coy and Keith Dixon in their paper entitled "The Public Accountability Index: Crafting a Parametric Disclosure Index for Annual Reports", and which was used in higher educational institutions in New Zealand.

The questionnaire was divided into 9 blocks originally containing 126 items; it was changed to 113 items with 13 items being eliminated as it was understood that they did not apply to the Brazilian context. The questionnaire was available for completion at: <http://fs11.formsite.com/Amauryj/form604527272/index.html> and included the following questions:

I – Statement of objectives; II – Statement of service performance; III – Statement of cost of services; IV – Statement of cash flows; V – Statement of financial position; VI – Statement of resources; VII – Statement of commitments; VIII – Statement of accounting policies; and IX – Other items. For each question the participant indicates only a single number with regard to the degree of relevance, for example, whether or not they considered it important to disclose information about the item (Table 8).

It was emphasized that the disclosure involved internal and external institution users.

### Collecting information

After the registration of the address, phone number and email address of all the higher educational institutions in Brazil which used in this study, some of the institutions were randomly contacted by phone and asked to provide the name and e-mail address information of the accountant, dean or assistant dean of administration and finance in accordance with the structure of the institution. For each institution, it was only requested information about a single contact, that is, if data referent to the accountant was asked for, then data referent to the dean or assistant dean was not necessary. Then, after collecting this information during the months of July and August 2008, on September 13, 2008, 65 invitations for the first round of Delphi were sent by e-mail. E-mail confirmations

**Table 6.** Summary of Disclosure by group.

<b>Report of qualitative characteristics of disclosure item</b>	<b>Total</b>	<b>Disclosure</b>	<b>Percent</b>
<b>Overview</b>			
Statement of Objectives	146	146	100.00
Descriptive report/General review	146	8	5.50
Summary facts and figures	146	3	2.00
Financial review	146	3	2.00
Accounting policies	146	146	100.00
Directory information	146	16	11.00
<b>Service performance</b>			
Number of students	146	0	0.00
Graduates	146	1	0.07
Employment/Educational destination of Graduates	146	0	0.00
Publications	146	5	3.42
Student - faculty ratio	146	1	0.07
Targets	146	5	3.42
<b>Financial performance</b>			
Operating statement	146	146	100.00
Depreciation	146	2	1.37
Budget information	146	1	0.07
Unit cost per student	146	0	0.00
Statement of cash flows	146	0	0.00
Research grants	146	4	2.74
Overhead allocation	146	0	0.00
<b>Physical and financial condition</b>			
Balance sheet	146	146	100.00
Faculty/Staff	146	22	15.07
Library	146	5	3.42
Investments	146	1	0.07
Commitments and contingencies	146	4	2.74
Equal employment and educational equity information	146	0	0.00
Usage of buildings	146	10	6.85

**Table 7.** Disclosure Index.

<b>Qualitative characteristics</b>	<b>Score</b>
Overview	0.37
Service Performance	0.02
Financial Performance	0.15
Physical and Financial Condition	0.18
Median score	0.18

**Table 8.** Ranking search.

<b>Score</b>	<b>Description</b>
0	Not to be disclosed
1	Should be disclosed, but the item is of lesser importance
2	Intermediate importance
3	Crucially important

from 19 people were received, but the remaining people did not respond. After the e-mail confirmation, the questionnaire with 113 questions for users to indicate their opinion on the importance of disclosing particular items was sent on October 1, 2008.

#### **Tabulation and analysis of feedback received**

According to Cunha (2007), the analysis of responses is usually performed based on statistical standards such as number of observations, the highest and lowest observed value, means, assurance limits, standard deviation curve, quartile, median and frequency distribution. The analysis of responses is intended to provide means so that the participant can re-evaluate his/her position in the previous round.

### **RESULTS AND ANALYSIS PRESENTATION**

The Delphi technique was applied in two rounds in order to capture the participants' opinions about the importance of certain information being disclosed to the general public by the PIHEB. Although 19 people accepted the invitation, only 14 responded to the Round 1 of the questionnaire and 11 responded as described subsequently.

#### **Participants' profile**

Listed below are the 14 participants of the 1st round of the Delphi technique and their respective credentials, in alphabetical order. The credentials were extracted from the Lattes Platform page or provided by the participants themselves.

#### **Alexandre Pompeu dos Santos**

Masters in business administration, specialist in controllership, accountant, independent auditor registered in the chamber of realty property values and shareholder of CSN Independent Auditors' Society.

#### **Célio Pedro Wolfarth**

Assistant Dean of administration at the University of Vale do Rio dos Sinos (Unisinos).

#### **Eduardo Bechara Szazi**

P.H.D in International Law from Leiden University (Netherlands), Business Administration specialist, law graduate, partner in Soffiatti Szazi Bechara Lawyers. Adviser and member of Group of Institutes, Foundations and Companies (GIFE). Member of the International Society for Third-Sector Research (London) and member of the Advisory Board of the International Center for Not-for-Profit Law (Washington DC).

#### **Guilherme Campos e Silva**

Accountant, independent auditor registered with the chamber of realty property values and partner of Price Waterhouse.

#### **Emílio Henrique Rohr**

Accountant for Universidade Presbiteriana Mackenzie (Mackenzie Presbyterian University).

#### **Ilza Mateus de Souza**

Municipal secretary of social welfare in the city of Campo Grande - MS.

#### **Lucimirla M. Rassele**

Accountant for Faculdade Salesiana de Vitória.

#### **Marcelo Coletto Pohlmann**

P.H.D and masters in accounting, bachelor of accounting and law, treasury advocate and professor at the Pontifícia Universidade Católica de Porto Alegre – RS.

#### **Márcio do Espírito Santo**

Treasurer of the Universidade Metodista de Piracicaba – UNIMEP.

#### **Maria Hélade Longo de Oliveira**

Bachelor in law and tax audit for the city of Campo Grande - MS.

#### **Mauro Fernando Gallo**

P.H.D in accounting, master's degree in strategic accounting, economic sciences graduate, instructor at the School of Finance and Administration of the Ministry of Finance, member of the Gallo Strategy and Planning S/C Ltd. Lead Professor for the Foundation Trade Alvares Pentead, professor at Toledo Institute for Teaching and tax advisor.

#### **Olímpio Carlos Teixeira**

Masters in accounting, accountant and independent auditor registered in the chamber of realty property values.

### Tomaz de Aquino

Lawyer, public advocate for the State Ministry of Minas Gerais and member of the Centro de Apoio Operacional ao Terceiro Setor (CAOTS).

### Valdete de Barros Martins

President of the National Council of Welfare-CNAS.

### Comparison between disclosures provided by the PIHEB and feedback received from Delphi's participants

Table 9 shows, first, the amount and percentage of PIHEB that showed the disclosure items in accordance with the methodology adopted in this paper. In this sequence, it is also showed the insightful results of the Delphi technique participants after the second round. For the Delphi technique, we used the study done by Coy and Dixon (2004) because it is an extended study in comparison to a previous study done by Coy et al. (1993), which enabled participants to indicate scores of other items not covered in the first study. This fact does not overthrow the analysis considering that with the exception of item 9 of the study which was used to construct the index, all other items were listed in the 2004 study and although this was not evidenced by any PIHEB.

(A) Group I – Overview outlines the trends demonstrated previously in the PIHEB disclosures of mandatory items, in cases of items 1 and 5. Not more than 16 institutions disclosed other items in this group, representing 11% of the total PIHEB surveyed. However, it was established from the responses of the Delphi technique participants that between the items 1 to 5, only 3 showed a score less than 50% as a disclosure item of extreme importance. Thus, adding up the received score to the score given by participants as an item of intermediate importance, the score exceeds 90%. Item 6 was excluded from the second round for receiving a score over 50% in the first round of the Delphi technique due to the fact that the sum of scores 0 and 1, with respect to the opinion of the participants of the Delphi technique, indicated an item of lesser importance. With the exception of item 6, the result of the Delphi technique clearly points to the disclosure of all items of this group.

(B) Group II – Service performance: this group has no mandatory items and low disclosures made by PIHEB were observed, where items 10 and 12, which contained the bulk of scores, were reported by only 5 institutions. Item 7 was not disclosed by any of the institutions surveyed. Item 9 was not disclosed by any institution, but was not identified in the Delphi technique either. It could

be demonstrated through the responses of the Delphi technique participants that there is a strong tendency towards the disclosure of items in this group, since once adding up the scores which were received as of extreme importance and of intermediate importance, all items received scores above 60%.

(C) Group III - Financial performance provides a mandatory disclosure item which is in line with the responses of participants of the Delphi technique. In other words, there is an understanding between the Ministry of Justice and participants of the Delphi technique that this item should be disclosed. It should be noted that this item is part of the requirements for the PIHEB to profit from tax-breaks. The other items of voluntary disclosure did not receive by the PIHEB the weight they received from the Delphi technique participants, given that item 18, the most publicized, was reported by less than 3% of the institutions surveyed. From the perspective of the Delphi participants, regarding voluntary disclosure of items, it is important to disclose all items, especially items 14, 17 and 18 which received scores higher than 90% considering the scores 2 and 3.

(D) Group IV - Physical and financial situation: it is noticed again in this group the agreement between PIHEB and participants of the Delphi technique with respect to voluntary disclosure items. The other items of voluntary disclosure, though improved compared to the previous groups, were still subject to the stakeholders involved in this research to consider its importance of being disclosed. In this group, item 25 had highest score from the respondents, receiving a score of over 90%. We also emphasized the similarities between the PIHEB that reported on item 21, 15.07% and those who considered it extremely important 18.18%.

The results show a clear difference in opinion regarding voluntary disclosure items, between what is being reported by the PIHEB and what the participants of the Delphi technique considered important to be disclosed.

It also highlights the gap between what the government considers important, which are items of mandatory disclosure, and what the stakeholders participating in this study consider relevant. It should also be noted that in addition to the items listed in Table 5, the results of the Delphi technique also suggest other items that were considered important by participants. Studies in New Zealand point to regulation as the main factor in improving rates of disclosure amongst the institutions of education. For this reason, and based on the results presented, it would be up to the government to establish standards and incentives to promote improvements in the PIHEB's rates of disclosure. Given these aspects, the results do not indicate that the PIHEB are totally unrealistic with regard to disclosures as for-profit entities, but in addition to being de-motivated, they also have arguments for not providing voluntary disclosure. It should be noted, however, that for-profit entities have a

**Table 9.** Comparison between PIHEB disclosure and Delphi.

Report of qualitative characteristics of disclosure item	PIHEB		DELPHI			
	Disclosure	Percent	0 %	1 %	2 %	3 %
<b>Overview</b>						
Statement of objectives	146	100	0.00	0.00	27.27	72.73
Descriptive report/General review	8	5.50	0.00	9.09	18.18	72.73
Summary facts and figures	3	2.00	9.09	0.00	54.55	36.36
Financial Review	3	2.00	9.09	9.09	9.09	72.73
Accounting Policies	146	100	0.00	0.00	27.27	72.73
Directory Information	16	11.00	14.29	42.86	7.14	35.71
<b>Service performance</b>						
Number of students	0	0.00	0.00	0.00	27.27	72.73
Graduates	1	0.07	0.00	18.18	36.36	45.45
Employment/Educational destination of graduates	0	0.00	0.00	0.00	0.00	0.00
<b>Publications</b>						
Student - faculty ratio	5	3.42	0.00	9.09	27.27	63.64
Targets	1	0.07	0.00	36.36	63.64	0.00
Targets	5	3.42	9.09	18.18	9.09	63.64
<b>Financial performance</b>						
Operating statement	146	100	0.00	9.09	27.27	63.64
Depreciation	2	1.37	9.09	0.00	27.27	63.64
Budget information	1	0.07	18.18	0.00	9.09	63.64
Unit cost per student	0	0.00	18.18	0.00	45.45	36.36
Statement of cash flows	0	0.00	0.00	9.09	18.18	72.73
Research grants	4	2.74	0.00	9.09	27.27	63.64
Overhead allocation	0	0.00	27.27	9.09	9.09	54.55
<b>Physical and financial condition</b>						
Balance Sheet	146	100	0.00	9.09	9.09	81.82
Faculty/Staff	22	15.07	9.09	9.09	63.64	18.18
Library	5	3.42	9.09	27.27	36.36	27.27
Investments	1	0.07	27.27	0.00	9.09	63.64
Commitments and contingencies	4	2.74	9.09	9.09	9.09	72.73
Equal employment and educational equity information	0	0.00	0.00	18.18	36.36	54.55
Usage of Buildings	10	6.85	0.00	27.27	45.45	27.27

fundamental difference compared with the entities that are considered in this study. The resources of for-profit companies are supplied by a set of individuals or companies who expect the best financial returns on their investments. On the other hand, in the case of PIHEB, funds are provided by the community and government through contributions, fees and tax breaks, thus, their results are expected to promote better education, although greater financial returns are not always sought on their investment. Considering that the community is the main provider of public resources, it should receive from the government and PIHEB information on how its resources are being utilized.

## Conclusions

In this research, we found that there are few empirical works on disclosures of non-profit organizations and lesser yet are the works related to the philanthropic institutions of higher education. For providing services of relevance to the country, these institutions receive tax breaks that must be converted into services for the community. However, in Brazil, little is known about how PIHEB have developed their activities, given that these institutions are only accountable to the government. Some PIHEB, although, very few, in addition to the annual financial statements, also have available on their

web pages management reports, auditor's opinion and social audit accountability report. This attitude reflects these entities' concerns for public accountability since in addition to providing information to regulators they also make the information available to the various stakeholders so that they can perform their own analysis. Therefore, this study aimed to conduct a comparative analysis of the theory of disclosure between the disclosure index of the PIHEB and the stakeholders' opinions on what information they consider relevant to be disclosed. As a result, based on the study done by Coy et al. (1993) and information available through the Ministry of Justice, we built a self-disclosure index of the 146 entities registered with the CNAS. Then the Delphi technique was applied in order to capture the opinions of the stakeholders of the entities that were made the object of this study, with respect to information considered relevant for disclosure. Lastly, in light of these results, the responses of the stakeholders were analyzed in comparison to the disclosure index built.

The results of the Delphi technique's application developed based on the study of Coy and Dixon (2004), when compared with the rate of PIHEB disclosures, enabled us to verify the existence of a gap between the information that participant stakeholders considered important to be disclosed and what the PIHEB have actually made available. It is worthy to note that the possible causes of the existence of this gap are probably related to the fact that most institutions limit themselves to reporting required information as well as show lack of motivation in providing voluntary disclosures.

Regarding this last aspect, one can agree to the possibility of expanding this research, especially with regard to the need for:

1. Understanding the factors leading most PIHEB to making only required disclosures;
2. Investigating, through the surveys of PIHEB leaders, the reasons for disclosing or withholding information, and
3. Investigating how financial information should be presented in order to maximize its understanding and benefits to the users.

## REFERENCES

- Benedicto GC (1997). Contribution to the study of a management accounting system for effective management of educational institutions. Thesis (Ph.D) – Faculty of Economics, Administration and Accounting from the University of São Paulo. p.230.
- Coy D, Dixon K (2004). The public accountability index: crafting a parametric disclosure index for annual reports. *Br. Account. Rev.*, 36: 79-106.
- Coy D, Fischer M, Gordon T (2001). Public accountability: a new paradigm for college and university annual reports. *Critical Perspectives Account.*, 12:1-31.
- Coy D, Tower G, Dixon K (1993). Quantifying the quality of tertiary education annual reports. *Account. Financ.*, 33(11):121-129.
- Cunha JVA (2007). Doctors in accounting from FEA/USP: analysis from the perspective of human capital theory. Thesis (Ph.D) – Faculty of Economics, Administrations and Accounting from the University of São Paulo, p. 267.
- Dixon K, Coy D, Tower G (1992). External reporting by New Zealand universities 1985-1989: improving accountability. *Financ. Account. Manage.*, 7(3): 159-178.
- Dye RA (1985). Disclosure of non proprietary information. *J. Account. Res.*, 23(1):123-145.
- Dye RA (2001). An evaluation of "essays on disclosure" and the disclosure literature in accounting. *J. Account. Econ.*, 32(1/3): 181-235.
- Estes GM, Kuespert D (1976). Delphi in industrial forecasting. *Chem. Eng. News*, 8: 40-47.
- Gordon T, Fischer M, Malone D, Tower G (2002). A comparative empirical examination of extent of disclosure by private and public colleges and universities in the United States. *J. Account. Publ. Pol.*, 21: 235-27.
- Hope KO (2003). Firm-level disclosures and the relative roles of culture and legal origin. *J. Int. Financ. Manage. Account.*, 14(3): 218-248.
- Lima EM (2003). Contribution to the calculation and disclosure of the results of higher education institutions with a certificate of social welfare charity - IESCEBAS. Dissertation (Masters). Thesis (Ph.D) – Faculty of Economics, Administrations and Accounting from the University of São Paulo, p.183.
- Martino JP (1993). Technological forecasting for decision making. New York: Mc Graw-Hill Inc.
- Vergara SC (2000). Projects and research reports on administration. São Paulo: Atlas.
- Verrecchia RE (1983) Discretionary disclosure. *J. Account. Econ.*, 5: 179-194.
- Verrecchia RE (2001) Essays on disclosure. *J. Account. Econ.*, 32(1/3): 97-180.
- Wright JTC, Giovinazzo RA (2000). Delphi – a tool to support the prospective planning. *Notebook Adm. Res.*, 1(12).
- Yamamoto MM, Salotti BM (2006). Accounting information: studies on its disclosure in capital market. São Paulo: Atlas.