ANALYSIS OF THE SOCIAL INDICATORS OF COMPANIES IN THE BRAZILIAN ELECTRIC POWER SECTOR: A PANEL DATA APPROACH

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ABSTRACT

The present research is related to the theme of Internal Social Indicators (ISI), whose main objective is to analyze and verify if the variables independent of the proposed hypothetical model influence the ISI behavior. The selected companies are from the Brazilian electric sector and the period for examination was understood between 2013 to 2016.

To reach the objective of the research, an analysis of the secondary data collected in the sites of each selected company was carried out, where the sustainability reports and, in particular, the social report (BS) were verified.

The results of the proposed model indicated that the companies that invest most in ISI are those that have a better profitability of their assets and with a low level of indebtedness.

The applicability of the research is directed to the management of people, constructing to identify those companies that most invest their resources in ISI, evaluating the positive or negative relationship with the economic-financial indicators. Its result shows the companies that stand out and have this differential factor in the evaluation of the actuaries, workers and stakeholders.

Keywords: Social Balance, Indebtedness, Profitability, Corporate Social Responsibility.

1. INTRODUCTION

Companies increasingly recognize that their roles go beyond the production of goods and services. Instead, they need to seek a balance between profits and social actions that affect employees, local communities, the environment and society at large (Sucupira, 2001). In line with this awareness, the social balance sheet (SBS) was introduced in France in 1972, with the initial goal of describing the social activities of firms (Almeida et al., 2012; Carrol & Buchholtz, 1999).

According to Pinto and Ribeiro (2004), the SBS concept was gradually expanded by the departments of companies, reaching the accounting department, where these activities are now evidenced by the value-added statement (VAS).

Rios and Jaques (2011) define the SBS as a statement published annually to report information about the firm's social projects, benefits and actions. In turn, for Reis and Medeiros (2007), the SBS is a management instrument to identify problems and opportunities that managers can use as a tool to show the firm's social and envrionmental responsibility.

Borger (2013) argues that one of the major questions raised regarding social and envrionmental themes is whether they affect the competitiveness of companies, since in the traditional view, addressing social and envrionmental questions beyond what is required by law increases costs and reduces profits. Therefore, while the main goal of firms is to maximize profits, this should be pursued with a long-term rather than short-term perspective, by not only obeying the laws and regulations, but also by considering the non-marketing impact of their decisions and looking for ways to improve society, guided by responsible and sustainable business practices.

According to Chaves (2004), the sustainable development proposal should simultaneously cover the economic, social, cultural, political, technological and ecological aspects, seeking integration among these factors.

In light of this situation, the question underpinning this article is: do economic and financial variables influence the internal investments of firms, specifically in employees?

Our main objective is to analyze the behavior of internal social investments, measured by the Internal Social Index (ISI), of companies in the Brazilian electric power sector, in the period from 2013 to 2016, controlled for financial, accounting and economic indicators, considering the information disclosed as part of the Global Reporting Initiative (GRI) and in the VAS, to verify whether the variables of the proposed hypothetical model influenced the ISI variable in that period. A secondary objective is to classify the independent variables according to relevance in explaining the ISI.

For this purpose, we analyze whether the variables Net Revenue (NR), Gross Payroll (GP), Return on Equity (ROE), General Liquidity (GL), Current Liquidity (CL), Debt, EBITDA, Net Equity (NE), Value Added Distributed to Employees (VADE) and Total Value Added (TVA) exert an impact on the ISI.

This study relies on secondary data collected and analyzed for the period from 2013 to 2016 referring to companies in the Brazilian electric power sector (Attachment 1) listed for trading on the Brazilian exchange B3 S.A., with sustainability or integrated annual reports available at the B3 website. Additionally, some other relevant aspects regarding delineation of the study are: (i) restriction to the electricity sector, to avoid the bias of variability of results, which can happen when examining firms in various sectors; (ii) restriction to listed companies, due to the greater availability of data because of reporting requirements; (iii) limitation to large companies (with total assets greater than R$ 240 million or gross annual revenue above R$ 300 million in the preceding fiscal year) (BRASIL, 2007); and (iv) limitation to companies that published financial statements and the sustainability report, as part of the GRI, also disclosing the respective SBS.

This study enables analysis of whether the firms in question invested in sustainability, mainly regarding the socioenvironmental question, in the period studied. According to Oliveira

(2005), the information disclosed by companies in their SBS reveals the relevance of the resources that are directed to society.

2. THEORETICAL FRAMEWORK

According to Brundtland (1999), the discussion about the concept of sustainability began in the 1980s, with the definition given in the Brundtland Report, according to which sustainable development is that which "meets the needs of the present generation without compromising the ability of future generations to meet their own needs" (GEISSDOERFER et al., 2017).

The concept of sustainability suggests it is necessary to determine limits on the possibilities for growth and design a set of actions that consider the existence of relevant social interlocutors and participants and assets, prompting educational practices and a process of dialog, strengthening the feeling of shared responsibility and observance of ethical values (JACOBI, 2003).

Modern companies that operate according to the tenets of sustainability tailor their business models in response to institutional pressures, by developing the ability to innovate efficiently in economic terms while also paying attention to social and envrionmental responsibility. These firms seek a competitive edge by developing products, services and processes and conducting their business activities based on social, envrionmental and economic dimensions (BARBIERI et al., 2010).

As defined by NBR 16001 (2004), issued based on ISO 26000 by the Brazilian Association of Technical Standards (ABNT), corporate social responsibility (CSR) is the responsibility of an organization for the impacts of its decisions on society and the environment, by means of ethical and transparent behavior that contributes to sustainable development, including the health and welfare of society. This means the company considers the expectations of stakeholders, and operates in conformity with applicable legislation and the relevant international standards, through policies integrated throughout the organization and practiced in all its relationships.

CSR requires companies to go beyond the traditional pursuit of return on finical assets and creation of value for the shareholders and customers, including promoting improvements in the communities where they operate and satisfying the needs of all stakeholders. Among the strategic objectives are care for the environment and steady improvement of the corporate reputation (HOLLIDAY et al., 2002).

The Global Reporting Initiative (GRI) is an independent international organization that, among other activities, publishes reports on firms' sustainability performance. The GRI helps companies and governments throughout the world to better understand the tenets of sustainability, by communicating actions and impacts of critical sustainability questions (GRI, 2018). The GRI sustainability report has the main function of assuring the reliability and transparency of information so that stakeholders can make better decisions based on consistent data (PEREIRA & SILVA, 2008; SIMMONS, CRITTENDEN & SCHLEGELMILCH, 2018).

According to Lucena and Travassos (2009), to assure high technical quality, credibility and relevance, the structure of sustainability reports should be continually improved by intense engagement that involves the GRI, stakeholders, audit organizations and specialists, which together develop and revise the content. They also state that since the first version, the guidelines of the GRI have covered aspects related to sustainability, by striking a balance among economic, social and envrionmental performance, known as the Triple Bottom Line (TBL). The TBL concept is attributed to Elkington (2000), who used it to describe sustainable development in an organizational setting, considering the three aspects of performance mentioned above – economic, social and environmental.

With the aim of satisfying the needs of all types of stakeholders, in the sectorial vision of corporate social responsibility. Firms try to distribute obligations among departments, with the marketing department being responsible for relations with customers, human relations for interaction with employees, procurement for relations with suppliers, press support for relations with the media, community relations for interactions with local community organizations, and environment for relations with environmental organizations and authorities (BORGER, 2001).

Martins (2007) noted that internal stakeholders have a direct influence on the perception of company's social actions carried out internally. Therefore, identifying the perceptions of internal stakeholders will contribute to the effort to improve working conditions and the quality of life of those involved. Success in this respect will be reflected in a new posture of companies, with focus on policies to assure occupational health and safety, well-being, quality of life and human rights.

The Brazilian Institute for Social and Economic Analyses (IBASE, 2018) has the main mission of publicizing CSR, to construct stronger ties among companies, society and the environment. According to the Institute, the SBS should disclose data on the projects, benefits and social actions aimed at employees, investors, analysts, market players, shareholders and community members, thus constituting a strategic instrument to evaluate and multiply the exercise of CSR. The objective of having a single SBS model, developed by the Institute, is to allow comparison among companies while also assuring simplicity and ease of understanding.

According to Martins et al. (2013), the Internal Social Index (ISI) can be reported in a human resources balance sheet, with the purpose of demonstrating the profile of the employees along with their remuneration, fringe benefits and training. The expenditures in these areas reveal the firm's level of social responsibility, which should not be limited to the legal obligations set out in labor legislation, but should also include actions related to the professional and personal development of employees, improvement of working conditions and maintenance of a solid relationship between the company and workers (REIS & MEDEIROS, 2007).

The IBASE (2008) urges the inclusion of the following main benefits in the SBS for calculation of the ISI: food allowance, compulsory social charges, private pension plan, health insurance, occupational health and safety programs, education support, cultural programs, professional training and development, daycare assistance, and profit sharing.

The value-added statement (VAS) is one of the financial statements that must be disclosed by listed companies in Brazil. It was included by Law 11,638/2007, which amended the Law of Corporations (Law 6,404/1976), determining that as of January 2008, the executive

board must see to the preparation of the statement based on the commercial accounts (BRASIL, 1976).

With the advent of Technical Pronouncement 09, issued on October 30, 2008 by the Accounting Pronouncements Committee (CPC), the VAS was regulated and its model was approved. That pronouncement also determined the criteria for preparation and presentation, and indicated that the VAS is one of the components of the SBS, with the purpose of disclosing the wealth created by the company and the respective distribution (CPC, 2018).

3. METHODOLOGY

This work is quantitative, seeking to answer a research problem through applied research. Therefore, it can be labeled an explanatory study, since our main goal is to identify the most important variables that determine or contribute to the occurrence of the phenomenon studied (GIL, 2008).

The population of this study was composed of all the companies in the Brazilian electricity sector that published a Sustainability Report or Integrated Report, as posted at the website of the B3 Exchange (http://www.b3.com.br/pt_br/).

The sample was composed of companies in the Brazilian electricity sector that issued sustainability reports based on the guidelines of the GRI and the SBS model. These conditions were necessary because the ISI is composed based on the data of those reports.

The secondary data were gathered through searches of the website of each company in the sample. The data were treated with regression analysis for panel data, using the GRETL software, besides calculation of descriptive statistics to explore and graphically represent the dataset in question.

For the independent variables, we divided the values by the number of employees of each company, i.e., the study was conducted with relative values to enable a fair comparison among the companies, through computation of the Internal Social Index, using Net Revenue (NR), Gross Payroll (GP), EBITDA, Net Equity (NE), Value Added Distributed to Employees (VADE) and Total Value Added (TVA) per employee. The indicators ROE, GL, CL and Debt were not measured in relative values considering their nature.

The dependent variable is the Internal Social Index (ISI). As mentioned, this index is composed of expenses for food allowance, compulsory social charges, private pension plan, health insurance, occupational health and safety programs, education support, cultural programs, professional training and development, daycare assistance, and profit sharing, measured per employee, although some of these benefits apply to dependents as well (SOARES et al., 2011).

The proposed hypothetical model has the objective of assessing the correlation and the panel data regression of the dependent variable ISI with the independent variables NR, GP, IND*, ROE, GL, CL, Debt, EBITDA, NE, VADE and TVA.

$$\text{ISIit} = \alpha + \beta 1\ NR_{it} + \beta 2\ GP_{it} + \beta 3\ IND_{it} + \beta 4\ ROE_{it} + \beta 5\ GL_{it} + \beta 6\ CL_{it} + \beta 7\ DEBT_{it} + \beta 8\ EBI_{it} + \beta 9\ NE_{it} + \beta 10\ VADE_{it} + \beta 11\ TVA_{it} + \varepsilon$$

*IND – Dummy - Public or Private Companies

4. RESULTS

The panel data model used considered fixed effects, with 56 observations, with inclusion of 4 cross-sections (period of 4 years), contemplating the 14 companies selected for analysis.

For suitable analysis of the data, considering the differences among the chosen companies, mainly regarding net assets, number of employees and results, we used relative values, following the lead of Taiarol et al. (2011), who divided the indicators of each variable by the respective number of employees, as indicated in the data obtained from the financial and social reports.

Table 1 reports the results of the regression of the proposed ISI model. There were five statistically significant variables associated with the index: NR, EBITDA and VADE, with significance of 1%; and GL and Debt, with significance of 5%. For the other variables, the correlations were low or not significant at either of those two levels.

Table 1 – Analysis of the hypothetical model

Variable	Coefficient	Standard error	T-ratio	P-value	
Const	58.9143	19.2753	3.056	0.0039	***
NR per emp (R$ thousand/emp)	0.0101165	0.00262081	3.86	0.0004	***
GP per emp (R$ thousand/emp)	−0.0541877	0.0603424	−0.8980	0.3744	
Dummy	−14.3656	11.5525	−1.244	0.2207	
ROE	4.42842	2.47503	1.789	0.081	*
GL	−5.82054	2.28755	−2.544	0.0148	**
CL	0.364656	3.68821	0.09887	0.9217	
Debt	−40.1568	17.466	−2.299	0.0267	**
EBITDA per emp (R$ thousand/emp)	0.0152988	0.00434755	3.519	0.0011	***
NE per emp (R$ thousand/emp)	−0.00316001	0.00158925	−1.988	0.0535	*
VADE per emp (R$ thousand/emp)	0.37399	0.0511401	7.313	5.98E-09	***
TVA generated per emp (R$ thousand/emp)	−0.00585728	0.00305057	−1.920	0.0618	*
Mean of dependent variable	78.69727	SD dependent variable	32.09743		
Sum of squared residuals	6241.985	SE of the regression	12.3387		
R-squared LSDV	0.889841	Within R-squared	0.866772		
F(14, 41) LSDV	23.65641	P-value(F)	3.09E-15		

*** Statistically significant at 1%

** Statistically significant at 5%

* Statistically significant at 10%

Source: Authors

The positive correlation of the variables NR, EBITDA and VADE with ISI shown in Table 1 indicatess a direct relation between accounting indicators and the social index. On the other hand, the low or negative correlation between the ISI and the other variables demonstrates that the economic indicators are less related to social events. A similar result was identified by Griffin et al. (1997), who found that accounting indicators were more suitable to represent the social performance, since they are less volatile than market indicators.

With respect to the P-value, Cottrel et al. (2018) mentioned that P-value finder seeks P-values from the Gaussian, chi-squared, F, gama, binomial or Poisson distribution. Therefore, our results ratify the correlation by the P-value lower than 1% for the variables NR, EBITDA and VADE, and for GL and Debt, with significance of 5%.

For NR, according to Kitahara (2007) it is defined as the gross revenue excluding taxes, product returns, abatements and commercial discounts. According to Table 1, for each R$ 1 million of NR, the sampled companies invested an average of 10.1% more in providing social benefits.

In the case of EBITDA, for each R$ million, 15.3% more was invested in social benefits. According to Martins (1998), EBITDA denotes the cash generated by the operational assets, because the earnings before interest, taxes, depreciation and amortization represent the potential cash flow generated by the operational assets. Therefore, it can be said that EBITDA is used as a measure of performance in generating internal resources resulting from the business activities, the reason why its calculation disregards any revenue or expense is not resulting from the main operations of the company (VASCONCELOS, 2001).

The composition of the variable VADE considers values similar to those that compose the dependent variable. The ISI includes values such as meal allowance, compulsory social charges, private pension plan, health plan, occupational health and safety programs, education, culture, training and professional development, daycare and profit sharing, among others (TAIAROL, 2011).

The variable GL measures the capacity of the company to meet its obligations assumed in the short and long term (Assaf Neto, 2008; Vital et al., 2009). With respect to the Debt variable, according to Assaf Neto (2008), it enables evaluating the degree of financial commitment of the company to creditors and its ability to meet its long-term financial commitments.
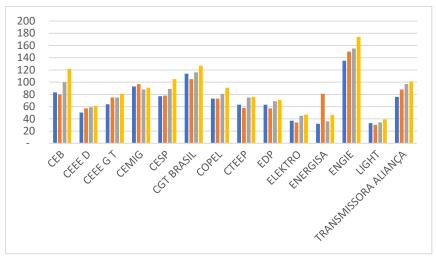
In addition to the panel data analysis, performed with the GRETL software, we also performed graphical analysis of the variables that obtained statistical significance of 1% or 5%.

The ISI per employee generally showed a rising evolution during the period analyzed. The results indicate that Engie Brasil Energia S.A. was the company that earmarked the most to its employees, followed by CGT Brasil, with respective values in 2016 of R$ 174 thousand and R$ 127 thousand per employee per year. On the other hand, the companies with the lowest

spending in the categories composing the ISI were Light Energia S/A and Energisa S/A, with respective values of R$ 33 thousand and R$ 32 thousand, in 2013.

In the general tally, the average yearly amount paid for social benefits per employee as reflected by the ISI was approximately R$ 79 thousand, or a total of about R$ 4.4 million between 2013 and 2016.
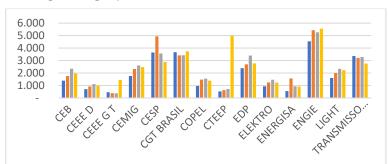
Graph 1 - ISI per Employee (bars)

Source: Authors

With respect to NR per employee, the average presented by the companies included in the sample was approximately R$ 2.2, or a total NR of about R$ 126.3 million per employee during the entire study period.

The company that stood out was Engie Brasil Energia S.A. which in 2016 generated R$ 5.5 million in NR per employee. However, the greatest growth between 2013 and 2016 was attained by CTEEP, which in 2013 generated R$ 533 thousand per employee, while in 2016 this figure was about R$ 5 million per employee, a variation of 938%.
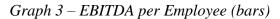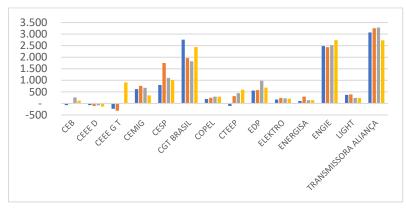
Graph 2 - NR per Employee (bars)

Source: Authors

In the case of EBITDA, there were significant differences in the values per employee of the selected companies. Those that stood out were Transmissora Aliança, Engie Brasil Energia S.A. and CGT Brasil Energia Ltda., which in 2016 generated EBITDA values per employee of R$ 2.7 million (Transmissora Aliança and Engie Brasil Energia S.A.) and R$ 2.4 million (CGT Brasil Energia Ltda). On the opposite side, CEEE D presented negative values during the entire period, with the greatest loss occurring in 2016: negative EBITDA per employee of R$ 135 thousand.

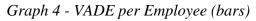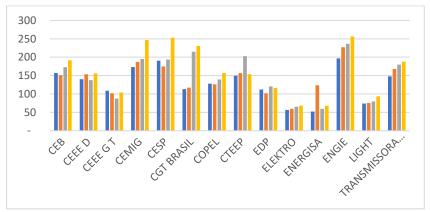*Graph 3 – EBITDA per Employee (bars)*

Source: Authors

The value added distributed to employees had a positive evolution in the period from 2013 to 2016, with average growth of 26%. This performance was mainly due to CGT Brasil, for which the VADE variable grew by 204%, and Engie Brasil Energia S/A and Energisa S/A, with increases of 130%.

On the other hand, CEEE GT and CTEEP were the companies that distributed the least wealth to employees in the period 2013 / 2016, with respective of 96% and 102%. In particular, CEEE GT in this period distributed to employees the approximate amount of R$ 409 thousand, or nearly 50% lower than Engie Brasil Energia S/A in monetary values and 112% lower than CGT Brasil in growth percentage.
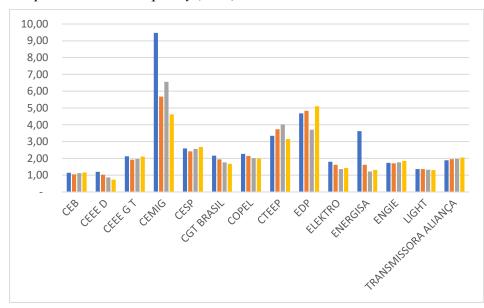
Graph 4 - VADE per Employee (bars)

Source: Authors

The GL variable denotes the company's situation in the short and long run regarding the ability to meet obligations assumed. A value lower than 1 indicates that, in theory, the company is facing financial problems and will have difficulties in satisfying its obligations.

The companies that stood out in this indicator were EDP and CEMIG, with respective average values between 2013 and 2016 of 4.6 and 6.6. The companies CEB and CEEE D presented the lowest values among the companies studied. In 2016, CEB still had a value above 1 (1.16), but for CEEE D the indicator was below 1 (0.74).
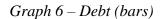
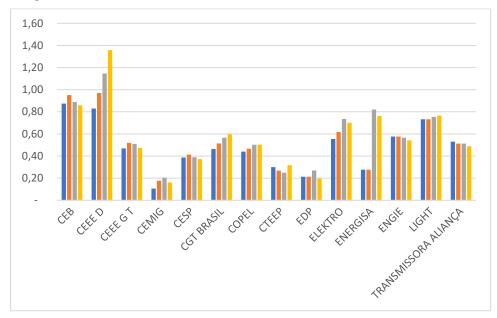*Graph 5 – General Liquidity (bars)*

Source: Authors

Regarding the Debt variable, the average leverage ratio of the companies was 0.46, indicating that liabilities amounted to roughly half of the value of assets. This means that on average the companies' capital structure was composed of debt and equity in equal proportions of 50%.

The companies with the greatest indebtedness were CEB and CEEE D, with ratios in 2016 of 0.86 and 1.36, respectively. However, the companies that most increased their leverage in the period were Energisa S/A, with an increase in 2016 in relation to 2013 of 176%, CEEE D, with an increase of 64%, and CEMIG, with 53% greater debt.

On the other hand, CEMIG, EDP and CTEEP stood out for low indebtedness in 2016, with respective values of 0.16, 0.20 and 0.32.

Graph 6 – Debt (bars)

Source: Authors

5. CONCLUSIONS AND RECOMMENDATIONS

According to the results obtained, our hypothesis was accepted. Therefore, we can conclude that the independent variables behaved in the same form as the results of the regressions. The statistically significant variables at 1% were NR, EBITDA and VADE, while at 5% they were GL and Debt.

The results show that for each R$ 1 million in NR, the companies allocated 10.11% to social benefits to employees. For EBITDA, for each R$ 1 million of positive result, 15.3% was earmarked to the benefit categories composing the ISI. In the case of VADE, the results demonstrate that for each R$ 1 million of value distributed to employees, 37.4% went to the ISI.

With respect to GL, the results (Table 1) were negative 5.82, leading us to infer that the most indebted companies were trying to improve the internal social index, contradicting the market consensus that the general liquidity ratio contributes to measure a company's capacity for payment, i.e., its capacity to meet the obligations assumed.

In turn, in the case of Debt, the negative value of 40.16 demonstrates that the less leveraged companies allocated higher investments to internal social benefits to employees.

The graphical examination of the variables present in our model in comparison with the dependent variable ISI indicated that the companies that stood out the most in allocating resources to employees were those with the highest NR. In other words, higher net revenue was associated with greater social investment in employees. This result is in line with the findings of previous studies, which have reported a positive correlation between revenue and internal and external social indicators, demonstrating a positive relationship between socio-

environmental investments and financial performance (Taiarol et al., 2011; Ceretta et al. 2009; Frey & Silveira Filho, 2003; Meirelles Neto et al., 2009).

With respect to VADE in relation to the ISI, the two variables were strongly related, as was also found by Taiarol et al. (2011). However, they stressed that the correlation analysis specifically with the variable VADE suffers from a bias that explains the correlation with the ISI, because some values contained in the independent variable are also included in the composition of the dependent variable ISI.

For EBITDA, we identified that the companies that stood out in social investments also had the best financial results. This observation is in line with the finding of Kitahara (2007), who identified a strong relationship between financial performance and investments in social responsibility actions.

Regarding the variables Debt and GL, the result of Debt was in accordance with the regression analysis, in which the companies with higher leverage and less capacity to honor their obligations tended to invest less in social benefits. In turn, the result for GL was in line with the normal situation in the market, in which companies with better indicators tend to have higher ISI values.

Overall, the results identified in this study are in line with those of previous studies, demonstrating that better (worse) financial performance is associated with better (worse) corporate social responsibility performance.

In this study, we used independent variables that can influence or be affected by the internal social indicators in a determined business segment. However, this list is not exhaustive, so new socioeconomic indicators can be included in future works, and other market segments can be analyzed (oil & gas, pharmaceuticals, automotive, among others).

As limitations of this study, we can mention the use of GL and the short period analyzed, of only four years. The GL variable had a negative value in the hypothetical model (Table 1), which runs counter to the academic definitions and hampered obtaining citations regarding this variation. With respect to the period analyzed, we limited it to four years because the SBS and financial statements necessary for the analyses have undergone significant changes in the past decade.

This study has direct application to the management of human resources, by contributing to identify companies with higher IPI values, as well as its positive or negative relationship with economic and financial indicators, providing information for evaluation by shareholders, workers and other stakeholders.

Among the avenues for future studies, we can mention the formulation of new indicators of corporate social performance, which can help analyze the relationship between social and financial performance. This theme is very important among academics and business managers, because the focus on employees and society strengthens the image and values conveyed to the internal and external publics.

REFERENCES

ALMEIDA, E. P.; SILVA, E. C. C.; PIRES, H. A.; PAIVA, L. R. S.; MACHADO, M. V. **Origem e evolução do balanço social no mundo e no Brasil**: da "Carta de Princípios do Dirigente Cristão de Empresas" aos dias atuais. Web artigos, 2012.

ASSAF NETO, A. **Estrutura e análise de balanços**: Um enfoque econômico-financeiro. São Paulo: Atlas, 2008.

BARBIERI. J. C.; VASCONCELOS, I. F. G.; ANDREASSI, T.; VASCONCELOS, F. C. **Inovação e sustentabilidade: novos modelos e proposições**. RAE - Revista de Administração de Empresas, vol. 50, n. 2, p. 145 – 146, 2010.

BORGER, F.G. **Responsabilidade Social**: efeitos da atuação social na dinâmica empresarial. Universidade de São Paulo. São Paulo: FEA/USP, 2001. Tese (Doutorado) – Faculdade de Economia, Administração e Contabilidade – Departamento de Pós-Graduação.

BORGER, F.G. **Responsabilidade social empresarial e sustentabilidade para a gestão empresarial**. Grupo Ethos, 2013. Disponível em: https://www3.ethos.org.br/cedoc/responsabilidade-social-empresarial-e-sustentabilidade-para-a-gestao-empresarial/#.WwscJEgvzDc. Acesso: em 26 mai. 2018.

BRASIL. **Lei 6404/76**: Sociedades por Ações. 1976. Disponível em: http://www.planalto.gov.br/ccivil_03/Leis/L6404consol.htm. Acesso em: 10 jun. 2018.

BRUNDTLAND. **Relatório da Comissão Mundial sobre Meio Ambiente e Desenvolvimento**. Departamento de Assuntos Econômicos e Sociais das Nações Unidas – DESA, 1999. Disponível em: http://www.un.org/documents/ga/res/42/ares42-187.htm. Acesso em: 19 jan. 2019.

CARROLL, Archie, BUCHHOLTZ, Ann K. *Business and society: ethics and stakeholder management*. 4 ed. Cincinnati. Ohio: South-Western College Publishing, 1999. 750 p.

CERETTA, P. S.; BARBA, F. G.; CASARIN, F.; KRUEL, M.; MILANI, B. **Desempenho financeiro e a questão dos investimentos sócioambientais**. RGSA – Revista de Gestão Social e Ambiental, set./dez, 2009.

CHAVES, M. P. S. R. **Desenvolvimento sustentável**. Universidade Federal do Amazonas - UFAM. Manaus, 2004.

CPC. **PRONUNCIAMENTO TÉCNICO CPC 09**: Demonstração do Valor Adicionado, 2018. Disponível em: http://www.cpc.org.br/CPC/Documentos-Emitidos/Pronunciamentos/Pronunciamento?Id=40. Acesso em: 10 jun. 2018.

ELKINGTON, J. *Cannibals with forks: the triple botton line of 21st century business*. Oxford: Capstone, 2000.

FREY, M.R.; SILVEIRA FILHO, U. S. **Análise das ações sociais das empresas detentoras do Selo IBASE/Betinho – 2000**. Revista Contabilidade Vista & Revista, vol. 14, n 2, ago, 2003.

GEISSDOERFER, M; SAVAGET, P; BOCKEN, N.M.P; HULTINK, E.J. *The Circular Economy – A new sustainability paradigm?* Journal of Cleaner Production.vol.143, p. 757-768. 2017

GIL, A. C. **Como elaborar projetos de pesquisa**. 4 ed. São Paulo: Atlas, 2008.

GRI. **História da GRI**. 2018. Disponível em: https://www.globalreporting.org/information/about-gri/gri-history/Pages/GRI's%20history.aspx. Acesso em: 19 mai. 2018.

GRIFFIN, J. J.; MAHON, J. F. *The corporate social performance and corporate financial performance debate: twenty-five years of incomparable research.* Business and Society: Chicago, 1997

HOLLIDAY, C.; SCHMIDHEINY, S.; WATTS, P. **Cumprindo o prometido**: casos de sucesso de desenvolvimento sustentável. Rio de Janeiro: Campos, 2002.

IBASE. **Balanço social, dez anos**: o desafio da transparência. Rio de Janeiro: IBASE, 2008.

IBASE. **Definição de Balanço Social**. 2018. Disponível em: http://ibase.br/pt/balanco-social. Acesso em: 10 dez. 2018.

JACOBI, P. **Educação ambiental, cidadania e sustentabilidade**. Cadernos de Pesquisa. São Paulo: Autores Associados, n. 118, p. 189 – 205, mar. 2003.

KITAHARA, J. R. **Responsabilidade social e desempenho financeiro das empresas**: um estudo empírico utilizando o balanço social padrão IBASE. USP, São Paulo, 2007. Dissertação (Mestrado em Administração) – Universidade de São Paulo - USP.

LUCENA, S. L.; TRAVASSOS, S. K. M. **Análise comparativa dos relatórios de sustentabilidade do *Global Reporting Initiative* com ênfase nas empresas de capital aberto com atuação no Brasil**. Revista Eletrônica de Ciências, p. 69 – 82, 2009.

MARTINS, E. **EBITDA**: o que é isso? IOB – Informações Objetivas, Temática Contábil e Balanços. São Paulo: Boletim IOB, 1998.

MARTINS, E.; GELBCKE, E. R.; SANTOS, A.; IUDÍCIBUS, S. **Manual de contabilidade societária**. FIPECAFI, 2. ed. São Paulo: Atlas, 2013.

MARTINS, M. K. **Responsabilidade social na Empresa Brasileira de Correios e Telegráfos Diretoria Regional de Santa Catarina**: um estudo do clima organizacional e do Balanço

Social na percepção dos *stakeholders* internos. Biguaçu, 2007. Dissertação (Mestrado em Organizações e Sociedade) – Universidade do Vale do Itajaí.

MEIRELLES NETO, J.; SOARES, S. V. SOUSA, G. R.; LANZARIN, J.; PFITSCHER, E. D. **Balanço Social**: um estudo de caso em uma instituição financeira. 1 st *South American Congress on Social and Environmental Accounting Research*, 2009.

NBR16001. **A ABNT NBR 16001 – Responsabilidade social – Sistema da gestão: requisitos**. Rio de Janeiro, 2004. Disponível em: http://www.inmetro.gov.br/qualidade/responsabilidade_social/referencias.asp. Acesso em: 19 jan. 2019

OLIVEIRA, J. A. P. **Uma avaliação dos Balanços Sociais das 500 maiores**. RAE–Eletrônica, v. 4, n. 1, Art. 2, jan./jul, 2005.

PEREIRA, D. B.; SILVA, R. N. S. **Análise da utilização dos indicadores essenciais da GRI nos Relatórios de Sustentabilidade das empresas brasileiras.** Sociedade, Contabilidade e Gestão. Rio de Janeiro, v. 3, n. 2, jul./dez, 2008.

PINTO A. L.; RIBEIRO, M. S. **Balanço Social**: avaliação de informações fornecidas por empresas industriais situadas no estado de Santa Catarina. Revista Contabilidade & Finanças. vol.15, no.36. São Paulo, 2004.

REIS, C. N.; MEDEIROS, L. E. **Responsabilidade social das empresas e Balanço Social**: meios propulsores do desenvolvimento econômico e social. 1. ed. São Paulo: Atlas, 2007.

RIOS, A.; JACQUES, E. H. **Balanço Social**: sua importância para as organizações. Comunidade de Administração, 2011. Disponível em: http://www.administradores.com.br/artigos/marketing/balanco-social-sua-importancia-para-as-organizacoes/59152/. Acesso em: 25 mai. 2018.

SIMMONS Jr, J.; CRITTENDEN, V.; SCHLEGELMILCH, B. (2018). *The Global Reporting Initiative: do application levels matter?,* Social Responsibility Journal, Vol. 14 No. 3, pp. 527-541

SOARES, S. V.; LANZARIN, J.; PFITSCHER, E. D. **Investimentos sociais e ambientais de uma instituição financeira**: evidenciação por meio de Balanço Social. RC&C. Revista de Contabilidade e Controladoria, p. 57 – 77, 2011.

SUCUPIRA, J. A. **Ética nas empresas e balanço social**. In: SILVA, C. A. T.; FREIRE, F. S. Balanço social: teoria e prática. São Paulo: Atlas, 2001.

TAIAROL, S. M; RAIMUNDINI S. L.; BEHR A. **Indicadores sociais internos e a geração de valor adicionado**: uma análise da relação do Balanço Social e da Demonstração do Valor Adicionado em bancos brasileiros. REUNIR – Revista de Administração, Ciências Contábeis e Sustentabilidade, 2011.

VASCONCELOS, Y. L. **EBITDA**: redescoberta do potencial informativo dos indicadores absolutos. Revista do Conselho Regional do Rio Grande do Sul. Porto Alegre, 2001.

VITAL, J. T.; CAVALCANTI, M. M.; DALLÓ, S.; MORITZ, G. O.; COSTA, A. M. A **Influência da Participação no Índice de Sustentabilidade Empresarial (ISE) no Desempenho Financeiro das Empresas**. Revista de Ciências da Administração, Florianópolis: 2009. Disponível em: <https://periodicos.ufsc.br/index.php/adm/article/view/2175-8077.2009v11n24p11/12615>. Acesso em: 25 fev. 2019. doi: https://doi.org/10.5007/2175-8077.2009v11n24p11.

ATTACHMENT 1 – COMPANIES CHOSEN FOR THE SURVEY

- CIA ENERGETICA DE BRASILIA – CEB
- CIA ESTADUAL DE DISTRIBUIÇÃO DE ENERGIA ELÉTRICA - CEEE-D
- CIA ESTADUAL GERAÇÃO E TRANSMISSÃO DE ENERGIA ELÉTRICA - CEEE-GT
- CIA ENERGÉTICA DE MINAS GERAIS – CEMIG
- CIA ENERGETICA DE SAO PAULO - CESP
- CIA PARANAENSE DE ENERGIA - COPEL
- CIA TRANSMISSÃO ENERGIA ELÉTRICA PAULISTA – CTEEP
- CGT BRASIL
- EDP - ENERGIAS DO BRASIL S.A.
- ELEKTRO - ELETRICIDADE E SERVICOS S.A.
- ENERGISA S.A.
- ENGIE BRASIL ENERGIA S.A.
- LIGHT S.A.
- TRANSMISSORA ALIANÇA DE ENERGIA ELÉTRICA S.A.