ISSN:2229- 6247

Organizational Sustainability Perception According to the Global Reporting Initiative Indicators

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Abstract

Concerns about the sustainability of organizations lead debates and discussions in all contexts of society. Therefore, the objective of this study was to identify the use and perception of relevance of organizations regarding the key indicators proposed by the Global Reporting Initiative (GRI). A research with a mixed approach was carried out, employing multiple case studies. The investigation was conducted in three companies located in the mountainous region of the State of Rio Grande do Sul, Brazil, active in the fields of ink and information technology. The results showed that the methodology of indicators proposed by the GRI was not known to the organizations, whose guidelines are subsidized mainly from the economic dimension. However, they recognize the relevance of social aspects, although they do not generally integrate them as a decisive factor in their decision-making process. From an environmental perspective, the results pointed out that organizations consider it important under current legislation, especially in order to avoid pecuniary penalties or warnings.

Keywords: Sustainable Development. Environmental. Social. Economic.

1. INTRODUCTION

According to Stern (2006), since the 1980s, and mainly influenced by studies on climate change, environmental sustainability has been gaining a prominent place in large world organizations. However, such concern may arise from the existence of laws and norms that establish guidelines for the operation of organizations, whose noncompliance usually involves fines. Corroborating with these legal or social pressures, one has to consider that the concerns about the sustainable development of organizations are an important differential, since this factor helps attract new investors (DAVIS, 2006).

However, sustainability is a challenge for the development of society. This concept basically encompasses the harmony with the preservation of the environment in which the organization is inserted, seeking to meet current needs without compromising the needs of future generations (PEREIRA and SILVA, 2010). Regardless of the size of the company or economic segment, organizations are realizing that economic development and environmental sustainability have a mutual dependent relationship.

Organizations are also subject to change, since they are holders of economic, social and political power, with the potential to influence the surroundings where they operate. In this way, a corporate social responsibility represents a bridge between the company and the public with whom it interacts. However, there is a bias in the change of reaction of companies in front of traditional growth measures, where the isolated analysis of economic indicators is not sufficient, denoting the relevance of social and environmental aspects together (HART, 2007).

Then, the objective of the research was to identify the use and perception of relevance of organizations regarding the essential indicators proposed by the Global Reporting Initiative (GRI). Multiple case studies were carried out in companies operating in the informatics and industrial ink segments. In addition to this introduction, the study is composed of a review of the literature, which presents conceptual aspects related to sustainability

and GRI indicators. Afterwards, appear methodological procedures analysis and discussion of the results. Final considerations, which cover the limitations of the study and suggestions for future research, are addressed at the end.

2. LITERATURE REVIEW

2.1 Sustainability

Organizations have a fundamental role in the socioeconomic development of the region where they are inserted, providing shareholders with gains for maintenance and reinvestment. However, these are configured as basic elements for the promotion of social responsibility, due to its ethical and politically correct relationship, which must be linked to its established objectives, thus promoting sustainable development (ETHOS, 2008).

Thus, in view of the dimensions described in the forums on sustainability, the concept that actions towards sustainable development cannot only be a repetition of the past that has been consolidated in society, specifically with regard to questions about the future, disregarding the scarcity of available resources (MEADOWS et al., 1972).

In this sense, currently sustainability has been commented and applied in practically all the actions of the organizations, considering both environmentalist and social approaches (DOPPELT, 2012). According to Lele (1991), this fact has caused a lack of consensus regarding the term *sustainability* (MONTIBELLER, 2004).

However, one of the interpretations of sustainability considered controversial and critical, is related to its manipulative character, that is, commonly used as an artifice only to beautify the image of the company or to comply with legal requirements. For companies with a long-term vision, environmental sustainability is treated as a strategy to improve competitiveness (DONAIRE, 1995; BARBIERI, 2007).

In this study, it has been adopted the concept of sustainability defined by the Triplle Bottom Line (3BL), which encompasses three dimensions: (i) economic, which refers to the return and capital flow to the stakeholders and the economic impacts on the society; (ii) social, which deals with the impacts that the organization causes in the local and social systems, in which it is inserted, so that its indicators seek to portray the organization's relationship practices with society; (iii) environmental, related to the organization's performance in relation to biodiversity, environmental compliance and other issues (HARRIS, 2001; GRI, 2006).

Although theoretical aspects point to the difficulty of the applicability of sustainability by companies, the Triple Bottom Line concept is inserted in a new approach on sustainability, with an expanded diffusion. The pertinence of this theme is verified, as well as the controversies flagged as to its validation in the economic, social and environmental perspectives regarding the performance of organizations (MACDONALD and NORMAN, 2007).

2.2 Sustainability Indicators and *Global Reporting Initiative (*Gri)

According to the Organization for Economic Co-operation and Development (OECD), the definition of an indicator corresponds to a parameter derived value that provides information, describes the state of a phenomenon (or environment or area) and is directly associated with another value considered as a reference (OECD, 2003). In this sense, among the different functions of the indicators, two stand out: minimizing the number of measures and parameters that provide a precise dimension of a situation and simplifying the communication process of the measurement results that are offered to the individuals (OECD, 2003).

The guidelines and set of GRI Global Reporting Initiative indicators provide credibility, legitimacy, timeliness and comparability of the economic, environmental and social performance of organizations (LEITE FILHO; PRATES; GUIMARÃES, 2009). According to Bellen (2005), the indication of the requirements for the necessary construction of a categorization of indicators with focus on sustainability includes the availability of data, results from the compilation of observable and measurable data, existence of available means for the construction and monitoring of indicators and acceptance of these internally within the organization.

The GRI listed indicators that are considered as relevant by stakeholders to support the decision making process. However, there was a split between key indicators, some identified as being of most interest and relevance by most stakeholders, and additional indicators, which relate to emerging practices or that address issues that may be relevant only to particular organizations (GRI, 2006).

For this study, we chose to consider only the 34 (thirty-four) essential indicators defined by the GRI guidelines, as well as the issuance of some type of report by the company that describes economic, social and environmental impacts (Triple Bottom Line), as shown in Table 1.

Thus, knowledge on such a set of indicators, even if incipient, maximizes the discussions about sustainability in organizations, not restricted to financial issues, but extended to the other dimensions of the Triple Bottom Line.

Table 1 – **Dimensions and descriptions of GRI Indicators**

DIMENSION		ASPECTS	INDICATORS
ECONOMIC		Economic Performance	1. Indicators of economic performance related to payment and financial implications to: capital providers and government; risks and opportunities related to climate change; or pension plans.
		Market presence	2. Indicators of expenses with suppliers and hiring of labor in the local market.
		Indirect economic impacts	3. Indicators of investments in infrastructure and services for public benefit.
ENVIRONMENTAL		Materials	4. Indicators relating to materials (use and recycling).
		Energy	5. Indicators related to energy (direct or indirect energy consumption).
		Water	6. Indicators related to water (extraction from fountain).
		Biodiversity	7. Indicators related to biodiversity (biodiversity index and impacts on areas owned or managed by the organization).
		Emissions, effluents and waste	8. Indicators related to emissions, effluents and waste.
		Products and services	9. Indicators related to environmental aspects of products and services (mitigation of environmental impacts and recovery of packaging).
		Conformity	10. Environmental conformity indicators (fines and penalties for environmental non-conformities).
		Transportation	11. Indicators related to transportation (impacts of transportation of goods and workers).
		General	12. Indicators relating to general environmental aspects (investment in environmental protection).
SOCIAL	Labor Practices	Employment	13. Employment indicators (number, turnover, diversity, benefits).
		Relationship between workers and governance	14. Indicators regarding relationship between workers and governance (scope of collective bargaining and collective notices).
		Health and safety at work	15. Indicators related to health and safety at work (absenteeism, lost days, deaths, prevention and health education programs).
		Training and education	16. Indicators related to training and education (hours of training for different functional categories).
		Diversity and equal opportunities	17. Indicators on diversity and equal opportunities (diversified composition in governance and professional categories, comparing wages of the two genders).
	Human rights	Practices relating to investment and procurement	18. Indicators on practices relating to investment and procurement (contracts with human rights clauses, evaluation of human rights providers).
		Non-discrimination	19. Indicators on non-discrimination (cases of discrimination and action taken).
		Freedom of association and collective negotiation	20. Indicators relating to freedom of association and collective negotiation (identification of risks to freedom of association or collective bargaining).
		Infant labor	21. Indicators related to the occurrence of infant labor (identification of risks of child labor).
		Forced or slave labor	22. Indicators related to forced or slave labor (identification of risks of slave labor).
		Safety	23. Indicators related to safety practices (existence of training or procedures for safety).
		Indigenous rights	24. Indigenous rights indicators (identification of cases of violation of indigenous rights).
	Society	Community	25. Community indicators (impacts of operations on communities).
		Corruption	26. Indicators on corruption (existence of evaluations, training and measures to prevent or combat corruption).
		Public policies	27. Indicators related to public policies (participation in the elaboration of public policies).
		Unfair competition	28. Indicators of unfair competition (occurrences of lawsuits).
		Laws and regulation	29. Indicators of compliance with laws and regulations (fines and penalties for non-compliance with laws and regulations).
	Product Responsibility	Customer health and safety	30. Indicators relating to customer health and safety (evaluation of product and service improvements in customer health and safety).
		Labeling of products and services	31. Indicators on the labeling of products and services (identification of information on products and services).
		Marketing communications	32. Indicators related to marketing communications (identification of practices adhering to standards, laws, codes and communication regulations).
		Conformity	33. Compliance indicators for products / services (proven customer complaints).
		Compliance	34. Indicators related to product / service compliance (fines related to the supply and use of products and services).

Source: adapted from GRI (2006).

3. METHOD

The study is classified as exploratory, since it aims to broaden a global positioning about the concept studied (GIL, 2010). The research strategy adopted was the case study, since it deals with an empirical investigation about a certain phenomenon, seeking its contextualization and real applicability (YIN, 2015). In the data collection, quantitative and qualitative tools were used together, since according to Reich and Benbasat (1996), for a case study it is necessary that the same data be analyzed in different ways, thus enabling the triangulation of sources (YIN, 2015).

For the analysis of the planning and strategic direction that the organizations use, a semi-structured interview was carried out with executives. Simultaneously with the interview, the respondents' use and perception of relevance regarding the essential indicators proposed by the GRI were verified in a structured questionnaire format. Thus, on a dichotomous scale (yes / no) the respondent signaled the use of the organization in relation to each indicator and, through a five-point Likert scale, according to the degree of relevance, expressed perception of the importance of the indicators. To analyze the data, it was applied content analysis in the qualitative step and univariate statistical in the quantitative stage.

The survey was carried out in February 2017, in three companies located in the Serrana Region of the State of Rio Grande do Sul, Brazil, two of them in the IT business and one active in the industrial paints segment. Table 2 summarizes the main characteristics of the companies studied.

Table 2 – **Characteristics of companies of study**

Company	Type of Business	Size	Years in business	Number of Customers
A	Industrial Ink	Medium	30	250
B	Information Technology	Small	8	3,000
C	Information Technology	Small	20	15,000

Source: research results (2017).

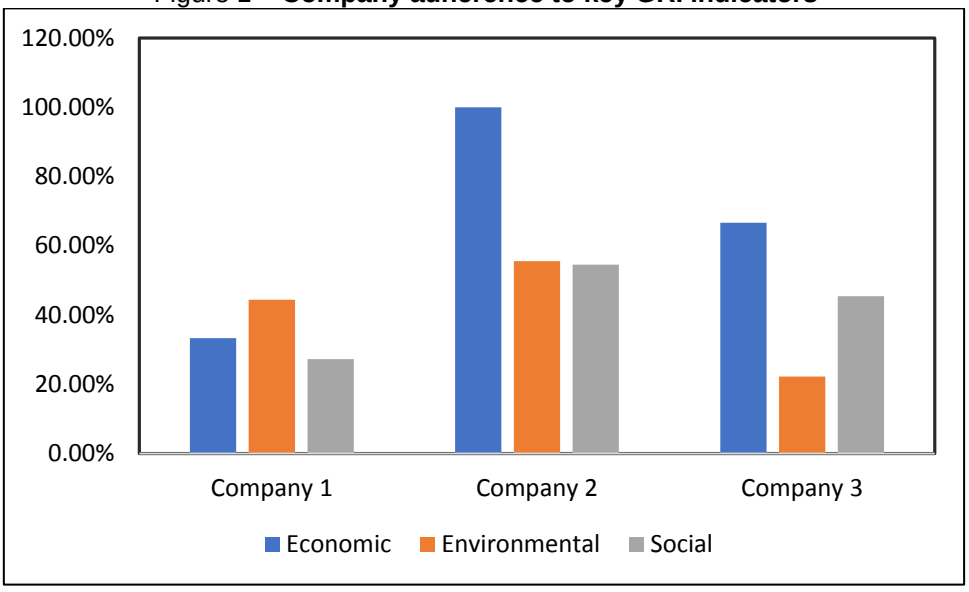
All companies are considered as references in the markets in which they operate and have an organized management system, whose actions are carried out with a view to the long-term sustainability of the enterprise. These aspects justify the choice of study objects, since all are in the phase of implementation of an efficient strategic planning, so that the control and monitoring of their results occur through indicators.

4. RESULTS AND DISCUSSION

4.1 Quantitative Step

The results showed that, among the companies analyzed, Company B has a greater degree of adherence to the essential indicators of GRI and that, under the generic approach, the economic dimension consists of the one that companies are more adept. Figure 1 shows the use of such indicators by the companies analyzed considering the three dimensions of sustainability.

Figure 1 – **Company adherence to key GRI indicators**



Source: research results (2017).

It can be seen that even without knowledge of GRI methodology, some indicators already used by organizations are part of this model, where it was possible to verify that the dimension with the highest percentage of adherence is the economic one (66.67%). This dimension includes traditional financial indicators, such as return on investments, profit, billing among others. This finding is similar to the ones obtained by Widener (2006) and Beuren and Marcelo (2016), who point out that the economic dimension consists of the one that will guide all the activities of the company and will boost the applicability of the other dimensions.

In the study carried out by Carvalho and Siqueira (2008) it was also observed that the lower level of adherence to social and environmental indicators are justified by the lack of adequate and useful information, so that companies do not meet certain requirements just by not knowing them. On the other hand, in the scope of the relevance of the dimensions of sustainability, we have the results shown in Table 3.

Table 3 – **Relevance of sustainability dimensions**

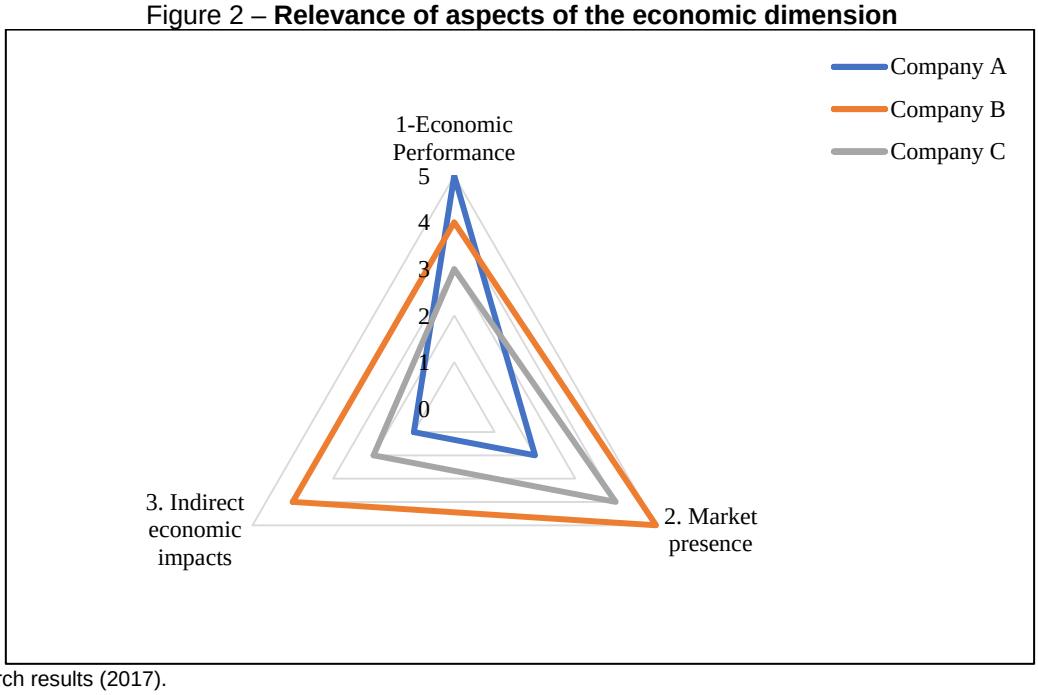
Dimension	Company A	Company B	Company C	Mean
Economic	2,67	4,33	3,00	3,33
Environment	3,33	3,11	2,56	3,00
Social	3,36	3,56	3,31	3,41
Mean	**3,12**	**3,67**	**2,96**	**3,25**

Source: research results (2017).

It is observed that although the social aspect was not considered the most applied in the companies, it is the one perceived as most important (3.41), followed by the economic (3.33) and then environmental (3.00) dimension. However, in the results obtained by Dias (2006), Carvalho (2007) and Castro, Siqueira and Silva Macedo (2011), the social dimension presented the worst performance in the indicators analysis.

Analyzing the dimensions individually, that is, considering their internal aspects and indicators, it is verified that the economic performance has the highest average of relevance and the indirect economic impacts have the lowest average of relevance. These findings can be explained by the interpretation made by the respondents as to their meaning and consequent relevance, since the economic dimension represents strategic information for organizational sustainability (CARVALHO; SIQUEIRA, 2008). Figure 2 shows the companies' perception of these aspects.

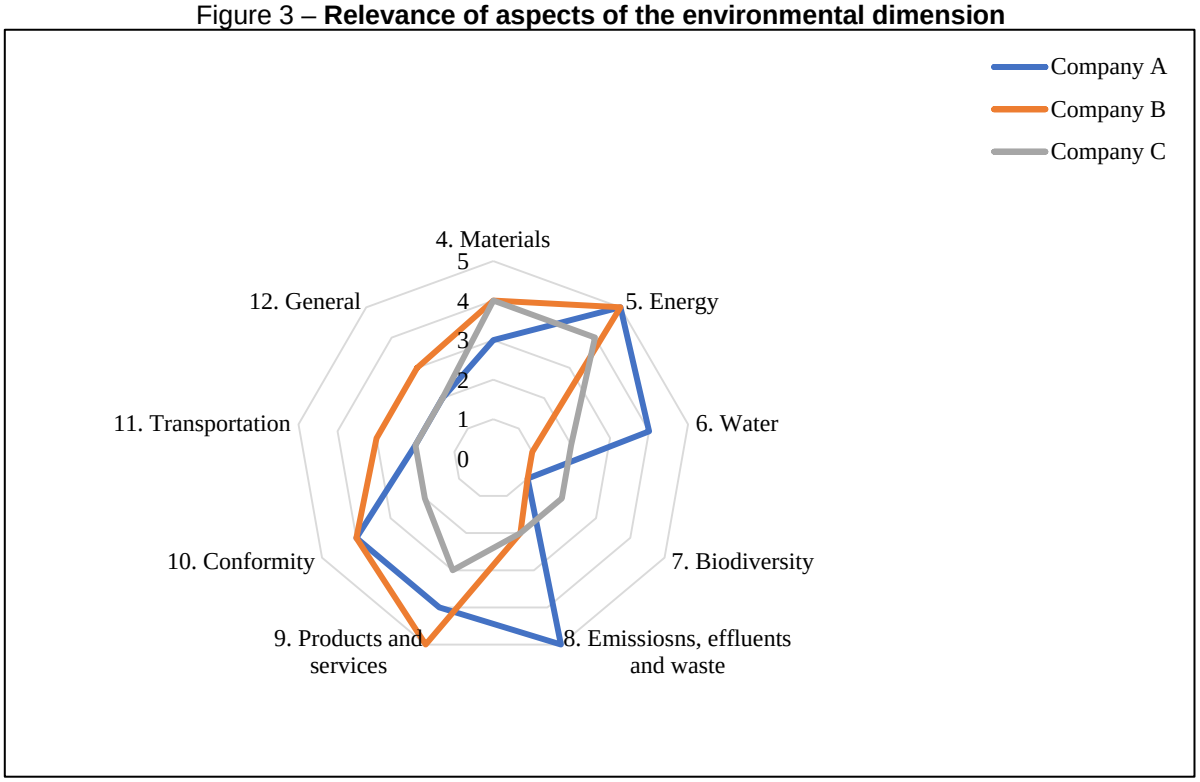
Figure 2 – **Relevance of aspects of the economic dimension**



Source: research results (2017).

It should be noted that Company A is practically concerned only with economic performance, denoting an outdated view. In turn, Company C considers the importance of market presence to be superior to economic performance, while Company B presents a more balanced perception. Consequently, aspects of the environmental dimension are shown in Figure 3.

Figure 3 – **Relevance of aspects of the environmental dimension**



Source: research results (2017).

It is important to note that energy-related indicators are perceived to be more important, since it is a factor that directly influences operational results and competitiveness, and can be measured and controlled with short-term actions (MARTINS et al. 1980). The indicators related to water and emissions, effluent and waste are the aspects that have the highest levels of standard deviation among the organizations surveyed. This reflects the greater level of relevance of Company A to these two aspects, since it is a chemical industry and has the need to carry out the disposal of its waste, unlike other companies. In turn, the aspects that make up the social dimension have their relevance shown in Figure 4.

Figure 4 – **Relevance of aspects of the social dimension**

Source: research results (2017).

It is observed that indicators related to the human rights aspect consist of those considered more relevant by companies, corresponding to an average of 3.67. It can be inferred from these results that companies are really concerned about compliance with the current laws on the employability of workers. Accordingly, there is compliance with item XXXIII of article 7 of the Federal Constitution combined with item V of article 27 of Law No. 8666/93, which requires companies not to employ minors under eighteen (18) years of age to work night shift, in dangerous or unhealthy places, and under sixteen (16) years of age in any work, except as an apprentice from 14 (fourteen) years. This fact refers to the condition of human rights in Brazil, since it expresses all concern with child, slave and unhealthy work.

It is noteworthy that in addition to the concerns about the labor practices of the companies surveyed, there are concerns about the attributes related to transparency in their appropriate actions related to their target customers. Companies seek to follow current standards to market their services and products. In the case of Companies B and C, all commercial actions are regulated by ANATEL Regulatory Agency, whose commercial procedures also follow Law No. 8.078, dated September 11, 1990, which provides protection rights to final consumers.

Thus, despite the efforts made by the GRI to stipulate a path to be followed for the use of sustainability indicators (CARVALHO and SIQUEIRA, 2008), the companies surveyed do not know its methodology and, therefore, do not orient their actions towards GRI. In addition, the indicators that are used are sometimes part of the role proposed by the GRI. However, because the focus of the organizations surveyed is based on economic and financial sustainability, practical actions are taken according to the needs and development of the organization. Despite the fact that issues related to social and environmental aspects are perceived with relevance, it is not possible to evidence a pro-sustainability activism (ESTEVES, 2014).

4.2 Qualitative Step

In order to explain in depth the results obtained in the quantitative stage, an interview was conducted with the executives of the companies studied, whose objective was to identify the management system adopted and its position regarding sustainable development, based on the management model and GRI core indicators.

As regards the structuring of strategic planning, with the involvement of employees, the definition of goals and objectives, as well as their monitoring, it was verified that in Company A, it has been implemented since ten years ago with the help of an external consulting firm. The participants involved hold leadership positions in the organization and are actors considered essential for the achievement of the results. Also, after setting goals and targets, strategic planning is presented to all company employees at a specific event. As for the monitoring of the strategic planning indicators, monthly meetings are held when managers of each area present the results and the necessary adjustments are discussed.

In Company B it was verified that there is no formalized strategic planning. As a consequence, employees are not involved in the decision making process toward the targets. Basically, the main element that drives the organization's plans is revenue. That is, depending on the amount of available revenue, actions are defined. Regarding the strategic indicators of the organization, the main one is the search for the balance of revenues and expenses. The company signaled that by 2020, there is the intention of hiring a consultancy to assist in the implementation of a management model with greater robustness.

In turn, there is no formal strategic planning in Company C either. Since its foundation, planning has been intrinsically based on the tacit knowledge of the founders and there is no employee involvement for future direction and plans. Its main strategic indicator is based on the balance between expenses and revenues. However, due to the growth and prospects, the company hired in 2017 a consultancy that will assist in the change and transition of this process.

When asked about the sustainability theme and GRI indicators, Company A stated that because it is classified as a chemical industry, it ends up complying with a series of requirements and legislation. This makes the business currently understood as sustainable, where one of the complex factors is related to the level of toxicity of certain raw materials. Despite this fact, the company never developed toxic final product. Regarding the GRI, the company was not familiar with that nomenclature or the format of the essential indicators presented.

Company B mentioned that it is accompanying the issue of environmental sustainability, mainly in the appeal made by mass media. However, in the composition of their products there are heavy materials that cannot be discarded in the environment. To do this, it has partnered with the city government that collects the electronic waste and performs the necessary disposal. Regarding the essential indicators of the GRI, company management was not acquainted with the nomenclature.

In Company C it was possible to visualize that the theme of environmental sustainability, at the moment, is not part of the actions of the organization. Basically there is compliance with specific legislation, because according to the organization, all companies are required to comply with current legislation. As for the term GRI and its essential indicators, the company did not know its nomenclature or structure.

It was possible to highlight that the theme of environmental sustainability in the surveyed organizations is related to compliance with current legislation, as this is the predominant factor for their operations. However, in Company A it is highlighted that the pro-activity for environmental sustainability issues generate costs, which the client does not perceive as a competitive advantage. This perspective is in line with the authors Donaire (1995) and Barbieri (2007).

Another consideration in the interviews is that government agencies could act strategically, creating policies that benefit companies that have this environmental zeal and at the same time oversee and carry out the purge of those that are not complying with the established requirements. This need has already been cited by the author Quintas (2005), which addresses that from the moment Government defines its position, it is at the same time deciding which companies will be meeting or not the pre-established requirements, that is, which companies will get benefits and which will respond for damages to the environmental resources.

5. FINAL CONSIDERATIONS

The objective of the research was to identify the use and perception of relevance of organizations regarding the key indicators proposed by the Global Reporting Initiative (GRI). The results showed that this methodology was not known in the companies surveyed. Thus, its dimensions, aspects and indicators are not present in the management system, and consequently are not considered for decision making. However, the relevance of the sustainability theme makes the organizations observe the current legislation and, in a way, monitor certain elements that are part of the methodology.

As a limitation of the study, we recognize the impossibility of generalizing the empirical findings. Thus, for future research it is recommended the application of a survey with companies of specific segments, in order to compare the perceptions of the managers from the field of activity in which the organization operates. It is also suggested to replicate this study in distinct states, in order to verify if geographic and cultural aspects interfere in the use and perception of the indicators. It would also be possible to extend such a study within a productive chain, making it possible to analyze whether GRI indicators promote systemic competitiveness.

REFERENCES

BARBIERI, J. C. (2007). Organizações inovadoras sustentáveis. **Caderno de Inovação**, v. 3, p. 5-9.

BELLEN, H. M. V. (2005). **Indicadores de sustentabilidade: uma análise comparativa.** São Paulo: FGV.

BEUREN, I. M.; MARCELLO, I. E. (2016). Relação da Importância dos Recursos Estratégicos com as Medidas de Desempenho em Empresas Brasileiras. **Revista Ibero-Americana de Estratégia**, v. 15, n. 1, p. 65.

CARVALHO, F. M. (2007). **Análise da Utilização dos Indicadores Essenciais da Global Reporting Initiative nos Relatórios Sociais em Empresas Latino-Americanas**. 2007. Dissertação (Mestrado em Ciências Contábeis) - FACC/UFRJ, Rio de Janeiro.

CARVALHO, F. M.; SIQUEIRA, J. R. M. (2008). Análise da utilização dos Indicadores Essenciais da Global Reporting Initiative nos relatórios sociais de empresas latino-americanas. **Pensar Contábil**, v. 9, n. 38.

CASTRO, F. A. R. (2008). **Análise da Utilização dos Indicadores Essenciais da Versão "G3", da Global Reporting Initiative, nos Relatórios de Sustentabilidade das Empresas do Setor de Energia Elétrica Sul Americanas**. Dissertação de Mestrado em Ciências Contábeis, Universidade Federal do Rio de Janeiro, Rio de Janeiro: UFRJ.

DAVIS, M. (2006). **City of Quartz:** Excavating the Future in Los Angeles (New Edition). Verso Books.

DE CASTRO, F. A. R.; DE SIQUEIRA, J. R. M.; DA SILVA MACEDO, M. A. (2011). Análise da utilização dos indicadores essenciais da versão "g3", da Global Reporting Initiative, nos relatórios de sustentabilidade das empresas do setor de energia elétrico sul americano. **Revista de Informação Contábil**, v. 4, n. 4, p. 83-102.

DIAS, L. N. S. (2006) **Análise da utilização dos indicadores do Global Reporting Initiative nos relatórios sociais em empresas brasileiras**. Dissertação de Mestrado. Universidade Federal do Rio de Janeiro, Rio de Janeiro.

DONAIRE, D. (1995). **Gestão ambiental na empresa**. São Paulo: Atlas.

DOPPELT, B. (2012). **The Power of Sustainable Thinking:" How to Create a Positive Future for the Climate, the Planet, Your Organization and Your Life***"*. Routledge.

ESTEVES, H. P. (2014). Ativismo normativo na aplicação constitucional do desenvolvimento sustentável. **Revista de Direito Econômico e Socioambiental**, Curitiba, v. 5, n. 1, p. 91-109.

ETHOS. (2016). **O que é responsabilidade social empresarial**. 2008. Disponível em: < http://www.ethos.org.br/DesktopDefault.aspx?TabID=3344&Alias=Ethos&Lang=pt-BR >. Acesso em 13

GIL, A. C. (2010). **Métodos e técnicas de pesquisa social.** São Paulo: Atlas.

GRI, Global Reporting Initiative. (2006). **Diretrizes para relatório de sustentabilidade**. São Paulo: Global Reporting Initiative.

HARRIS, J. (2001). **A survey of sustainable development:** Social and economic dimensions. Island Press.

HART, S. L. (2007). **Capitalism at the Crossoads:** Aligning Business, Earth, and Humanity. Pearson Prentice Hall.

LEITE FILHO, G. A.; PRATES, L. A.; GUIMARÃES, T. N. (2009). Níveis de evidenciação dos relatórios de sustentabilidade das empresas brasileiras a+ do global reporting initiative (GRI) no ano de 2007. **Associação Nacional de Pós-Graduação e Pesquisa em Administração**, v. 33.

LELE, S. M. (1991). Sustainable development: a critical review. **World Development**, v. 19, n. 6, p. 607-621.

MACDONALD, C.; NORMAN, W. (2007). Rescuing the baby from the triple-bottom-line bathwater: a reply to Pava. **Business Ethics Quarterly**, v. 17, n. 01, p. 111-114.

MARTINS, E. et al. (1980). **Contabilidade de custos**. São Paulo: Atlas.

MEADOWS, D. H. et al. (1972). **The limits to growth: a report to the club of Rome.** New York: Universe Books.

MONTIBELLER, G. (2004). **O Mito do Desenvolvimento Sustentável**: meio ambiente e custos sociais no moderno sistema produtor de mercadorias. 2ª. ed. Florianópolis: Ed. da UFSC.

NOSSA, V. (2002). **Disclosure ambiental:** uma análise do conteúdo dos relatórios ambientais de empresas do setor de papel e celulose em nível internacional. 2002. Tese de Doutorado. Universidade de São Paulo, São Paulo.

OECD – Organization for Economic Co-operation and Development (2003). **OECD Environmental Indicators**: Development, Measurement and Use.

PEREIRA, D. B.; SILVA, R. N. S. (2010). Análise da utilização dos indicadores essenciais da GRI nos relatórios de sustentabilidade das empresas brasileiras. **Sociedade, Contabilidade e Gestão**, v. 3, n. 2.

REICH, B. H.; BENBASAT, I. (1996). the linkage between business and information technology objectives. **MIS Quarterly**, p. 55-81.

STERN, N. (2006). **Relatório Stern:** Aspectos Econômicos das Alterações Climáticas. The Stern Report, Governo do Reino Unido.

QUINTAS, J. S. (2005). **Introdução à gestão ambiental pública**. IBAMA.

WIDENER, S. K. (2006). Associations between strategic resource importance and performance measure use: The impact on firm performance. **Management Accounting Research**, v. 17, n. 4, p. 433-457.

YIN, R. K. (2015). **Estudo de Caso**: Planejamento e Métodos. São Paulo: Bookman.