

Level the disclosure of non-financial information of the Brazilian companies participating in the integrated report pilot project

Nível da divulgação das informações não financeiras das empresas brasileiras participantes do projeto piloto de relato integrado

Nivel de divulgación de las informaciones no financieras de las empresas brasileñas participantes del proyecto piloto de reporting integrado

Aline Christina Teixeira*

Mestre em Ciências Contábeis (UFG), Goiânia/GO, Brasil

aline.teixeira06@gmail.com

<https://orcid.org/0000-0001-6086-4271> 

Ercilio Zanolli

Doutor em Ciências Contábeis (UNB)

Professor da Universidade Federal de Goiás (UFG),

Goiânia/GO, Brasil

zanolla@ufg.br

<https://orcid.org/0000-0002-7371-427X> 

Ilirio José Rech

Doutor em Contabilidade e Controladoria na FEA (USP)

Professor da Universidade Federal de Goiás (UFG), Goiânia/GO, Brasil

ilirio.jose@ufg.br

<https://orcid.org/0000-0001-7027-737X> 

Marcia Helena de Andrade Couto

Mestre em Ciências Contábeis (UFG)

Professora da Universidade Estadual de Goiás (UEG),

Jaraguá/GO, Brasil

marciahandrade@hotmail.com

<https://orcid.org/0000-0002-4970-9390> 

Primary contact address for correspondence*

R. Samambaia, s/n - Chácara Califórnia, CEP: 74001-970, Goiânia/GO, Brasil

Abstract

Integrated Reporting is one of the ways used to disclose financial and non-financial information to stakeholders. This study aimed to investigate the level of disclosure of non-financial information in the companies participating in the Pilot Project of the International Integrated Reporting Council (IIRC). Using the content analysis technique, from the KPIs presented in the International Integrated Reporting Framework, data from nine companies were analyzed in the period from 2013 to 2017. The results suggest that the non-financial information disclosure index, considering the set of the four capitals, was classified as unsatisfactory. In the individual analysis, natural capital and social and relationship capital presented satisfactory IDs. Intellectual capital, on the other hand, presented a disclosure index classified as unsatisfactory. As for human capital, it presented the average ID at the threshold of the division between satisfactory and unsatisfactory, but above the average of disclosure of the four capitals. This study contributes to the analysis of the Integrated Reporting disclosure index released in Brazil, mainly related to the level of disclosure of non-financial information disclosed in the reports, as well as its evolution during the pilot project to implement the international structure of integrated reporting. The research results show the lack of comparability and uniformity of the disclosed information, both with the periods of the same company, and when compared with other companies, demonstrating the need to improve the quality of the content and the disclosure of non-financial information disclosed by the companies.

Keywords: Integrated Reporting; Non-financial Capital; Voluntary Disclosure

Resumo

O Relato Integrado é uma das formas usadas para a divulgação de informações financeiras e não financeiras aos *stakeholders*. Este estudo teve por objetivo averiguar o nível de divulgação das informações não financeiras nas empresas participantes do Projeto Piloto do *International Integrated Reporting Council* (IIRC). Usando a técnica de análise de conteúdo, a partir dos KPIs apresentados na Estrutura Internacional do Relato

Integrado foram analisados os dados de nove empresas no período de 2013 a 2017. Os resultados sugerem que o índice de divulgação das informações não financeiras, considerando o conjunto dos quatro capitais, foi classificado como insatisfatório. Na análise individual, o capital natural e o capital social e de relacionamento apresentaram IDs satisfatórios. Já o capital intelectual apresentou índice de divulgação classificado como insatisfatório. Quanto ao capital humano, este apresentou a média do ID no limiar da divisão entre satisfatório e não satisfatório, mas acima da média de divulgação dos quatro capitais. O presente estudo contribui para a análise da do índice de divulgação dos Relatos Integrados divulgados no Brasil, principalmente relacionados ao nível de divulgação das informações não financeiras divulgadas nos relatórios, bem como de sua evolução na fase do projeto piloto de implantação da estrutura internacional de relato integrado. Os resultados da pesquisa evidenciam a falta de comparabilidade e uniformidade das informações divulgadas, tanto entre os períodos da mesma empresa, como quando comparado com as demais empresas, demonstrando necessidade de melhorar a qualidade do conteúdo e o *disclosure* de informações não financeiras divulgadas pelas empresas.

Palavras-chave: Relato Integrado; Capitais Não Financeiros; *Disclosure* Voluntário

Resumen

La información integrada es una de las formas utilizadas para divulgar información financiera y no financiera a las partes interesadas. Este estudio tuvo como objetivo investigar el nivel de divulgación de información no financiera en las empresas que participan en el Proyecto Piloto del Consejo Internacional de Informes Integrados (IIRC). Utilizando la técnica de análisis de contenido, de los KPI presentados en el Marco Internacional de Informes Integrados, los datos de nueve compañías se analizaron en el período de 2013 a 2017. Los resultados sugieren que el índice de divulgación de información no financiera, considerando el conjunto de las cuatro capitales, se clasificó como insatisfactorio. En el análisis individual, el capital natural y social y de relaciones presentó identificaciones satisfactorias. El capital intelectual, por otro lado, presentó un índice de divulgación clasificado como insatisfactorio. En cuanto al capital humano, presentó el ID promedio en el umbral de la división entre satisfactorio e insatisfactorio, pero por encima del promedio de divulgación de los cuatro capitales. Este estudio contribuye al análisis del índice de divulgación de informes integrados publicado en Brasil, principalmente relacionado con el nivel de divulgación de información no financiera divulgada en los informes, así como su evolución durante el proyecto piloto para implementar la estructura internacional de informes. integrado. Los resultados de la investigación muestran la falta de comparabilidad y uniformidad de la información divulgada, tanto entre los períodos de la misma empresa, como en comparación con otras empresas, lo que demuestra la necesidad de mejorar la calidad del contenido y la divulgación de información no financiera divulgada por las empresas.

Palabras clave: Reporting Integrado; Capitales no Financieros; Disclosure Voluntario

1 Introduction

Until the end of the 1980s, corporate reports were predominantly financial information. However, in the information era, companies inserted sustainability into the corporate scope, disseminating sustainability reports paired with accounting and financial reports (Carvalho, 2013; Jensen & Berg, 2012).

Organizations are required to justify their actions, corporate social responsibility practices and to disclose non-financial information according to the demands of stakeholders and, consequently, to ensure legitimacy. Thus, some organizations began to voluntarily disclose information through corporate reports, motivated by the expectation that this information influences the value of the organization (Daub, 2007; Oliveira et al., 2012; Seabra, 2015).

However, in the disclosure of sustainability reports and accounting and financial reports, there was a lack of harmonization of the information disclosed, with divergences between the financial and non-financial information of some companies. Such divergences resulted in negative effects on the communication purpose of the organizations (Eccles & Krzus, 2011; International Integrated Reporting Council [IIRC], 2011; Carvalho, 2013). These differences of information can be explained by the lack of communication and better systematization among the areas responsible for producing the reports.

Regarding this matter, Adams and Simnett (2011) and Carvalho (2013) found that the accounting reports followed parameters and concepts from the International Accounting Standard Board (IASB). As for sustainability reports, this practice was non-existent and there were no clear guidelines for their preparation.

Given this perspective of disharmony between the reports, Carvalho (2013) states that the sustainability report presented an exuberant picture of the organization's performance, which, on certain occasions, was contradicted by the liabilities (contingencies) disclosed in the financial reports. In the same vein, Michelon et al. (2018) state that, when compared to the data in the financial report, errors in sustainability reports are more likely to be made and are less likely to be discovered.

In an attempt to overcome such inconsistency, a coalition of regulatory bodies, investors, companies, accounting professionals and the International Integrated Reporting Council (IIRC) was formed, which

committed to analyzing and devising ways to reduce differences between the various reports. Thus, in 2013, the first version of the International Framework for Integrated Reporting was published. This structure contains the basic principles, fundamental concepts and content elements to guide the preparation and elaboration of the Integrated Report in a coherent and cohesive manner among the various reports required and disclosed by the companies (Carvalho & Kassai, 2014).

For the improvement of the international structure, the IIRC created a Pilot Project with voluntary companies whose objective was to obtain feedback on the foundations of the structure and to improve their development and practical application. By preparing and disseminating reports according to the guidelines presented by the IIRC to companies, in addition to meeting the demands of their stakeholders, they contribute to the process of development and usefulness of the Integrated Report (IIRC, 2013c, 2014).

The companies participating in the Pilot Project are considered pioneers both in the implementation of corporate reports and in participating in the elaboration of the International Integrated Reporting Framework (IIRC, 2011). The process of implementing the Integrated Report took place in 2014, with the participation of twelve Brazilian companies (Kussaba, 2015; Maciel, 2015).

In this way, the study intends to investigate the changes and evolution in the disclosure of non-financial information using the International Integrated Reporting Framework. Thus, this research aims to answer the following question: What is the level of disclosure of non-financial information in the Integrated Report of Brazilian companies participating in the IIRC Pilot Project? In order to achieve the objective, the disclosure of non-financial information in the Integrated Report disclosed by the companies participating in the IIRC Pilot Project from 2013 to 2017 was analyzed.

Thus, during this period, the study makes it possible to: (i) verify the disclosure in the non-financial corporate reports - Integrated Report, defined according to the IIRC Structure, using content analysis and key performance indicators (KPIs) and disclosure indexes (ID) and, (ii) the analysis of the disclosure evolution, with the use of descriptive statistics and with the statistical verification of difference of the ID indicator averages. Thus, the study starts in 2013 to enable the analysis of the reports published before the IIRC Structure, since the first Integrated Reports were implemented and released in 2014, and it is limited to 2017 due to the period in which the data were collected.

The present study is based on the judgment-based disclosure category, known as Theory of Voluntary Disclosure (Salotti & Yamamoto, 2005), as the objective is to analyze the evolution and voluntary disclosure of non-financial information with the creation of the International Structure IIRC in corporate reporting.

It is noteworthy that the studies developed on the application of specific elements of the International Integrated Reporting Framework, such as the capital components of the reports, carried out by Nascimento et al. (2015), Silva et al. (2016), Cardoso et al. (2017a) e Cardoso et al. (2017) analyzed non-financial capital through the key performance indicators (KPIs). This study differs from previous studies by analyzing the evolution of the disclosure of non-financial information in corporate reports arising from the application of the International Integrated Reporting Framework. In addition, it is limited to analyzing exclusively the companies that make up the Integrated Reporting Pilot Project.

The results of the study provide evidence and discussions about the impact of the Integrated Reporting Conceptual Framework on the disclosure of non-financial information in corporate reports. Thus, the study seeks to contribute to the objectives and evaluation of the IIRC of the Integrated Report, specifically in relation to the dissemination and evolution of its content by the companies of the Pilot Project.

This study is divided into five parts, including the introduction. The second part presents the theoretical framework, the third part the description of the methodological procedures, the fourth part presents the presentation and analysis of the results and the fifth part presents the final considerations.

2 Theoretical Framework

2.1 Integrated Reporting as a form of Voluntary Disclosure

In the context that organizations are inserted in the market, voluntary disclosure starts to complement mandatory disclosure, and the evidence points to a balance between them (Bertomeu & Magee, 2015). The level of voluntary disclosure tends to be higher in organizations that have a commitment to sustainability. In this case, it can be seen as a way to guarantee the legitimacy of corporate activities and the positive development of the organization's image (Gray & Bebbington, 2000; Girão et al., 2017).

For Verrecchia (2001) there is no comprehensive or unified dissemination theory. However, Dye (2001) recognizes the existence of the theory, characterized exceptionally by game theory, based on the premise that administrators will only disclose favorable information about the company. Verrecchia (2001) categorized voluntary disclosure into three classes: association-based disclosure, judgment-based disclosure and efficiency-based disclosure. These classes can be verified with their description in Figure 1.

Disclosure Type	Description
Association-based disclosure	Related to the effects of disclosure on the agent's shares during the disclosure event, that is, the study of the impact of exogenous disclosure on market variables, mainly through the behavior of the share price.
Judgment-based disclosure	Related to the identification of the manager's decision reasons to disclose certain information focusing on the impact on the market in which the company is inserted. This category is considered an endogenous process, characterized by: adverse selection and presence of disclosure costs.
Efficiency-based disclosure	Related to the early (ex-ante) decision on efficient disclosure arrangements adopted in the absence of prior knowledge of the information, that is, the disclosure strategies are unconditionally preferred.

Figure 1: Classification of Voluntary Disclosure

Source: Based on the study by Verrecchia (2001).

National studies developed on voluntary disclosure, such as those by Cunha and Ribeiro (2006), Salotti and Yamamoto (2008), Murcia and Santos (2009), Silva et al. (2013), Novellini and Fregonesi (2013), Silva et al. (2015); Girão et al. (2017), adopt Verrecchia's (2001) contributions on the disclosure of corporate information.

The Integrated Report, being based on many subjective aspects, can be classified in the category of disclosure based on judgment. This is a way of disclosing corporate reports in order to explain to financial capital providers how the organization generates value over time, providing information in a monetary or narrative form. Because it is a comprehensive report, it becomes a reference for other corporate communications (IIRC, 2013; IIRC, 2014).

According to the IIRC (2014), in the International Structure the basic principles to be adopted in the preparation and presentation of the Integrated Report are: strategic focus and orientation for the future, information connectivity, relations with related parties, materiality, conciseness, reliability, completeness, consistency and comparability (IIRC, 2014).

The content elements are dependent on each other and cannot be mutually excluded, they are: organizational overview and external environment, governance, business model, risks and opportunities, strategy and resource allocation, performance, perspective and basis for presentation (IIRC, 2014). The fundamental concepts include the capital used in the business models and the creation of value over time (Cheng et al., 2014; Nascimento et al., 2015).

Capital is an organization's value reserves used in the production of goods or services, and can increase, decrease or transform according to the organization's activities and products (EY, 2014; IIRC, 2013, 2013b, 2014). It is improved, consumed, modified or otherwise affected by these activities.

In the International Structure, capitals are classified as: financial, manufactured, intellectual, human, social and relationship, and natural. They are independent of each other, but they interact and are related to the generation of value over time (IIRC, 2014). Figure 2 presents each capital highlighted in the international Integrated Reporting structure.

Type of Capital	Description
Financial Capital	Resources available for the of production of goods or provision of services, which can be obtained from different sources, for example, loans and grant capital or generated through operations or investments.
Manufactured Capital	Physical objects available in the organization for use in the production of goods and services, such as buildings, equipment and infrastructure.
Intellectual capital	Intangibles that create competitive advantage, encompassing intellectual properties, such as: patents, copyrights, software, information systems and others. It focuses on issues facing the future of the organization.
Human capital	Competent relationships and people's experience, involving the skills and motivations for innovation, including alignment and support for corporate governance, risk management and ethical values, the ability to develop and implement corporate strategy and the loyalty and motivation to lead, manage and train teams and qualify processes, products and services.
Social and Relationship Capital	Relations and institutions established with communities, related parties and other groups to improve individual and collective well-being,. It is revealed through some aspects as common values and behaviors and a social license for the organization to exercise its operational activity.
Natural Capital	Renewable and non-renewable environmental actions that provide a flow of products and services, interfering positively or negatively on natural capital, which includes water, land, minerals, forests, biodiversity and others.

Figure 2: Capitals of the Integrated Report

Source: IIRC (2013, 2014).

The IIRC's International Structure allows the organization's flexibility in preparing the Integrated Report and comparability with other reports. Thus, it does not establish methods for measuring and disseminating topics and it does not demand companies to follow the classification of capitals, it just theoretically supports the explanation of the organization's value generation (IIRC, 2013, 2014).

Thus, in view of (i) the IIRC objectives (2013, 2014), corroborated by Cheng et al. (2014), Nascimento et al. (2015), EY (2014) that the Integrated Report seeks to provide value creation to the company over time, that (ii) the search to guarantee the legitimacy and positive development of the company's image (Gray & Bebbington, 2000; Girão et al., 2017), and (iii) the greater dissemination of positive aspects (Kussaba, 2015), the following research hypotheses are formulated:

H₁: The level of disclosure of non-financial information in the Brazilian companies that make up the IIRC Pilot Project can be considered at a satisfactory level.

2.2 Evolution of Integrated Reporting Studies

Studies on Integrated Reporting have grown in the academic environment in different perceptions, both nationally and internationally (Dumay et al., 2016). The study by Frias-Aceituno et al. (2013) demonstrated the influence exerted by the board's characteristics in relation to the integration of information in the reports. The results showed that the largest companies adopt broader, more objective and comparable instruments in the dissemination of information due to the generation of value and environmental and social impact.

The authors Jensen and Berg (2012) analyzed the similarities and discrepancies in the sustainability reports and integrated reports. The results pointed out the existence of differences in the reports, and the dissemination of the Integrated Report is influenced by the systems: financial, educational, labor and economic.

The study by Fragalli et al. (2014) identified the restrictions and potential that exist in the application of Integrated Reporting on a rural property. The results showed that the Integrated Reporting view considers the real concerns of the business model, however, they were unable to formally apply it to rural properties.

Kussaba (2015) analyzed how the companies Itaú Unibanco and Natura disclosed the content elements proposed by the Conceptual Framework for Integrated Reporting in the years 2013 and 2014. The results showed that there was an evolution in the process of generating information through Integrated Reporting in both companies, and they highlighted the presence of greater disclosure of positive aspects to the detriment of negative aspects.

Maciel (2015), on the other hand, analyzed the evolution of the concepts of Integrated Reporting, culminating in the dissemination in the IIRC Framework and the application in the reports of Brazilian companies participating in the IIRC Pilot Project in the years 2013 and 2014. The results showed that the companies do not explain clearly the process of generating value and the use of capital.

The study by Zaro (2015) sought to analyze the Brazilian companies participating in the IIRC Pilot Project regarding the disclosure of the content elements of the conceptual framework of the Integrated Report in 2013. The results suggest that the disclosure of information in the reports is limited to the requirements of the Global Reporting Initiative (GRI, 2015) and the need to qualify information in long-term management.

Since 2015 studies have started to emerge covering the non-financial capital suggested by the IIRC. Among the studies that stand out are the studies by Nascimento et al. (2015), Silva et al. (2016), Cardoso et al. (2017a), Cardoso et al. (2017) and Albuquerque et al. (2017). Nascimento et al. (2015) analyzed the level of adherence of the key performance indicators (KPIs) of non-financial capital described in the Integrated Report in Brazilian companies that are members of B3's New Market segment in 2012. The results show an unsatisfactory level of adherence to KPIs non-financial capital.

Silva et al. (2016) analyzed the disclosure of the capitals proposed in the Integrated Report from the perspective of coercive, normative and mimetic isomorphism of the publicly traded Brazilian companies listed on the B3 Stock Index with Differentiated Corporate Governance (IGCX) in the year 2014. The results indicate that the three types of isomorphism put pressure on voluntary disclosure in companies in relation to the capital presented by the IIRC.

Cardoso et al. (2017a) analyzed the levels of disclosure of the key performance indicators (KPIs) of natural capital proposed in the Integrated Report for companies that are part of the Corporate Sustainability Index (ISE) in the years 2013 to 2015. The results indicate that companies are concerned with disseminating information about sustainability and responsible use of natural resources.

Cardoso et al. (2017) analyzed the level of adherence of key performance indicators (KPIs) in capitals: human and financial presented in the Integrated Report of Brazilian banking institutions in the years 2015 and 2016. The results identified good levels of disclosure of related information in both capitals.

Albuquerque et al. (2017) analyzed the influence of Integrated Reporting on the financial indicators of Brazilian companies participating and not participating in the IIRC Pilot Project in the years 2010 to 2015. The results showed that the best financial indicators (third-party capital participation and profitability indexes) were presented by the Brazilian companies participating in the IIRC Pilot Project.

In the study by Nascimento et al. (2015) the results showed that only natural capital has a satisfactory level of adherence to KPIs. The other capitals, human, social and relationship and intellectual, presented an unsatisfactory level of adherence to KPIs. In the study by Silva et al. (2016) the results showed that non-financial capital had a good level of disclosure.

In the study by Cardoso et al. (2017a) the findings showed that natural capital has a satisfactory level of adherence to KPIs with reduced disclosure of information between 2013 and 2015. Human capital showed variability between the years 2015 and 2016, with a good level of disclosure of non-financial information.

Cortesi and Vena (2019) analyzed the effects of voluntary adoption of Integrated Reporting in 57 countries, over a 15-year period, with a sample of 636 companies. The results show that RI: i) improves disclosures and reduces information asymmetries; ii) increases the quality of reported earnings; iii) does not positively influence the relevance of the book value; iv) the benefits are decreasing; v) the economic structures and geography of the countries did not affect the results; and vi) there is no evidence of the relationship between the factors that influenced adoption and the benefits for companies.

Iredele (2019) examined the quality of the IRs of 20 companies in South Africa, from 2013 to 2017, and the findings show a significant relationship between the quality and duration of the IRs, the level of quality of the IRs varies due to profitability, board size, gender, and company size, and finally, it indicates that the extent of IR signals the level of report quality.

The present study differs from previous studies in that it analyzes not only the level of adherence, but also the evolution of the disclosure of non-financial information in corporate reports arising from the application of the International Integrated Reporting Framework. Thus, the second research hypothesis emerges:

H₂: There was an increase in the level of information disclosure in the Brazilian companies participating in the IIRC Pilot Project during the analysis period.

3 Methodology

To achieve the objective of the study of analyzing the level of disclosure of non-financial information in the Integrated Report, the Brazilian companies participating in the Pilot Project were selected from 2013 to 2017. For this purpose, the study initially considered the twelve Brazilian companies distributed in the most diverse activity segments, as shown in Figure 3. The Pilot Project has the function of contributing to the evolution of Integrated Reporting, and the participating companies are pioneers and proactive in the practice of disclosing non-financial information (IIRC, 2013b, 2013c; Maciel, 2015).

Company	Sector
AES Brasil	Power
BNDES	Banks
BRF S.A.	Food
CCR S.A.	Road concessions
CPFL Energia	Power
Fibria Celulose S.A.	Paper And Cellulose
Grupo Segurador BB e MAPFRE	Insurance
Itaú Unibanco	Banks
Natura	Personal articles
Petrobras S.A.	Fuel
Via Gutenberg	Consultancy
Votorantim	Industrial

Figure 3: Brazilian Companies Participating in the Pilot Project

Source: IIRC (2013 as quoted by Maciel, 2015).

The data were collected through the Sustainability Reports and Integrated Reporting published between 2013 and 2017 on the companies' websites. It is noteworthy that, as highlighted on the IIRC website, the 2014-2018 period was considered as the period of progress/overcoming. Thus, considering that in 2013 the International Framework for Integrated Reporting was approved, we decided to start the search for data from that year. However, the companies' 2018 reports were not yet available when the data was collected for this research. Thus, it was limited to the data up to the year 2017.

The consultation on the companies' websites verified the availability of the reports. However, the reports were not identified in all the analyzed years of 3 companies (AES Brasil, Grupo Segurador Banco do Brasil and Mapfre, and Via Gutenberg), and these, therefore, were excluded from the study. The final sample consists of nine companies.

To obtain the data used in the analysis of the KPIs, the content analysis technique was adopted. According to Vergara (2005), this methodology analyzes the data in order to identify what is being said about a given theme. Thus, the information disclosed in the reports was analyzed in order to identify the level of disclosure of the 34 KPIs referring to non-financial capital presented in the chapter "The Capitals" of the

conceptual framework of the Integrated Report prepared by IIRC (2013). The Key Indicators (KPIs) of Non-Financial Capitals used as a reference are shown in Figure 4.

1. Natural Capital	3. Social and Relationship Capital
1.1 Recycled waste	3.1 Ranking of "Excellent place to work"
1.2 Investment in environmental protection	3.2 Number of volunteers
1.3 Energy consumption by energy source	3.3 "Social investment" (spent on philanthropy)
1.4 Amount of waste	3.4 Involvement in social actions
1.5 Environmental accidents	3.5 Involvement in cultural projects
1.6 CO2 emissions	3.6 Customer satisfaction index
1.7 Animals purchased for testing	3.7 Provision for social projects
2. Human capital	3.8 Labor claims
2.1 Number of employees	4. Intellectual capital
2.2 Diversity	4.1 Number of patent applications filed
2.3 Total investment in training	4.2 Money spent on R&D
2.4 Employees in corporate e-learning	4.3 Number of tests with the new technology
2.5 Average training days per employee	4.4 Brand recognition
2.6 Middle Ages	4.5 Number of new products developed
2.7 Result of research with collaborators	4.6 Expenditure on organizational development change
2.8 Accidents per million hours of work	4.7 Expenses with software development for internal systems
2.9 Absenteeism rate	4.8 Sales generated by products originating from R&D
2.10 Dismissal rate	
2.11 Minimum wage ratio	

Figure 4: Key Indicators (KPIs) of Non-Financial Capital

Source: IIRC (2013)

To identify the information related to the KPIs used by the content analysis technique, words and synonyms related to the indicators were adopted. The adopted words were selected based on the terms of the KPIs in Figure 5, from the analyzed literature and based on the study by Nascimento et al. (2015). Based on the content analysis, the Disclosure Index (ID) was estimated according to the level of adherence for each KPI. According to Lemos et al. (2009) the ID is obtained through the quotient between the total of items disclosed by the analyzed companies and the sum of the total of the items that constitute the checklist.

$$IDi = \sum_{j=1}^n \frac{e_j}{e}$$

Figure 5: Disclosure Index

Source: Lemos, Rodrigues e Ariza (2009)

Where:

IDi → Company Disclosure Index i.

e_j → Dichotomous variable, assuming value 0, if indicator j is absent and assuming value 1, if indicator j is released.

e → Maximum number of elements analyzed.

In this study, IDs are calculated in three situations: i) in the KPIs of each capital, which are: natural capital, human capital, social and relationship capital, intellectual capital; ii) in the total of the KPIs of each capital; iii) and in the sum of all non-financial capital KPIs per company. The ID result varies between 0 and 1. The classification of the disclosure levels is shown in Figure 6.

Levels	ID	Classification
01	0.75 a 1.0	Good
02	0.50 a 0.75	Satisfactory
03	0.25 a 0.50	Unsatisfactory
04	0.00 a 0.25	Bad

Figure 6: Classification of Disclosure Levels Considered in the Disclosure Index Result

Source: Nascimento et al. (2015)

The classification of the ID was performed subjectively, based on the study by Nascimento et al. (2015). Thus, the sample was segregated into quartiles, defining the extremes as the best and the worst level. Thus, the first quartile was considered a good level of disclosure and the fourth quartile was considered a bad level of disclosure.

4 Data Analysis

To achieve the objective of the study, through the KPIs that make up the four capitals, natural, human, social and relationship and intellectual, the disclosure index (ID) was determined for analysis of adherence and its evolution. Table 1 presents the IDs of non-financial information related to natural capital by KPI and per year, as well as the annual average of all KPIs and the average of each KPI in the period from 2013 to 2017.

Table 1:
Disclosure Levels of Natural Capital KPIs

Key Performance Indicators (KPI)	2013	2014	2015	2016	2017	ID Médio
	ID	ID	ID	ID	ID	
Recycled waste	0.78	0.44	0.56	0.89	0.89	0.71
Investment in environmental protection	0.67	0.56	0.56	0.67	0.56	0.60
Energy consumption by energy source	0.44	0.44	0.22	0.67	0.56	0.47
Amount of waste	0.56	0.44	0.78	0.89	0.89	0.71
Environmental accidents	0.56	0.33	0.33	0.56	0.44	0.44
CO2 emissions	0.56	0.78	0.78	0.78	0.78	0.73
Animals purchased for testing	0.11	-	-	0.11	0.11	0.07
Average ID	0.52	0.43	0.46	0.65	0.60	0.53
Normality Test (Shapiro-Wilk) / Significance		0.93	0.58	0.90	0.34	
t Test: 2014-2015 / 2016-2017 / Significance			0.06			

Source: Research data.

The average level of disclosure of KPIs in natural capital is classified as satisfactory, corroborating the findings of Cardoso et al. (2017a). The KPIs with the highest adherence were CO2 emissions, recycled waste and amount of waste. It is observed that the CO2 Emissions KPI is the only one that has remained over the years, contrary to the findings of Cardoso et al. (2017a), which point to a growth trend for this indicator.

However, in general, natural capital showed an evolution in disclosure between the years 2014-2015 and 2016-2017, according to the t test (0.06). It is observed that this trend can be seen in relation to the general average of the IDs of each year, regardless of the statistical test. In the 2014-2015 period the average behaved within disclosure levels considered to be unsatisfactory and in the 2016-2017 period with average satisfactory levels.

The KPI animals purchased for testing has a lower degree of disclosure and is only evident in 2013, 2016 and 2017, disclosed only by the company Natura. Such results corroborate the findings of Nascimento et al. (2015) and Cardoso et al. (2017a). However, considering the sector in which the sample companies operate, the low disclosure of this KPI does not mean that companies may be withholding or neglecting such information.

Analytically, it is observed that the companies that most disclosed, on average, non-financial information about natural capital were BRF, Petrobras and Natura, respectively, with 80%, 77% and 66% adherence to KPIs in the reports. Natura was the company that most disclosed in the years 2013, 2016 and 2017, with 100% adherence to KPIs. BRF was the company that most disclosed in 2014, with 85.71% of adherence to KPIs, and in 2015 it was Petrobras with 85.71% of adherence to KPIs.

It is observed with these data that the disclosures are not uniform from one period to the next, even within the same company, which impairs the comparability of the information. The lack of uniformity corroborates the claims of Michelon et al. (2018) that companies can use sustainability reports to both report a problem and the solution to that problem, thus justifying the lack of uniformity between periods.

Following the analysis of the disclosure of types of non-financial capital, Table 2 presents the levels of disclosure of information related to human capital in the period from 2013 to 2017.

The average level of disclosure of human capital KPIs can be classified, based on the methodology used, as unsatisfactory. However, in the same way as natural capital, there is a trend of evolution in the period, as suggested by the significance of the t test, also confirmed with the level of disclosure in 2014-2015 and in 2016-2017, which went from unsatisfactory to satisfactory, on average. The results found contradict the findings of Silva et al. (2016), which point to a good level of disclosure, disregarding the low performance of KPIs "average training days per employee" and "average age".

It is noteworthy that the KPI "average training days per employee" was not disclosed by the companies. One of the probable reasons for explaining the absence is the fact that most companies presented this indicator in the format of hours and not in the format of days. The plausible explanation for the situation is that the reports are in line with the GRI indicators (2015) and the companies disclosed the "average number of training hours per year per employee, broken down by gender and job category".

The "average age" KPI was released only by Fibria in the years 2013 and 2014. Thus, the results on these two KPIs, Average training days per employee and Average age, contrast the results pointed out by Nascimento et al. (2015), who, in their study, concluded that these indicators are well publicized.

Table 2:
Disclosure Levels of Human Capital KPIs

Key Performance Indicators (KPI)	2013	2014	2015	2016	2017	ID
	ID	ID	ID	ID	ID	Médio
Number of employees	1.00	0.89	0.78	1.00	0.78	0.89
Diversity	0.89	0.89	0.78	1.00	1.00	0.91
Total investment in training	0.56	0.44	0.56	0.78	0.44	0.56
Employees in corporate e-learning	0.44	0.56	0.22	0.78	0.56	0.51
Average training days per employee	-	-	-	-	-	-
Middle Ages	0.11	0.11	-	-	-	0.04
Result of research with collaborators	0.44	0.56	0.44	0.33	0.33	0.42
Accidents per million hours of work	0.44	0.44	0.22	0.56	0.44	0.42
Absenteeism rate	0.56	0.56	0.44	0.78	0.89	0.64
Dismissal rate	0.44	0.67	0.44	0.56	0.78	0.58
Minimum wage ratio	0.33	0.22	0.22	0.33	0.22	0.27
Average disclosure	0.47	0.48	0.37	0.56	0.49	0.48
Normality Test (Shapiro-Wilk) / Significance		0.94	0.56	0.97	0.90	
t Test: 2014-2015 / 2016-2017 / Significance			0.07			

Source: Research data

The diversity KPI has the highest level of dissemination, corroborating in a way the study by Nascimento et al. (2015), in which this KPI is the second most publicized. The growth in the adherence of indicators in 2016 coincides with that shown in the study by Cardoso et al. (2017).

The companies that most disclosed information about human capital were BRF and CPFL, respectively, with 70.91% and 61.82% adherence to KPIs in the reports. In 2013, BRF and Natura were the companies that disclosed the most, with 81.82% adherence to KPIs. In 2014, BRF, CPFL and Itaú Unibanco were the companies that most disclosed, with 72.73% adherence to KPIs. In 2015, BRF was the company that most disclosed, with 81.82% adherence to KPIs. In 2016, BRF and Natura were the companies that disclosed the most, with 72.73% adherence to KPIs. In 2017, Petrobras was the company that most disclosed, with 72.73% adherence to KPIs.

The third non-financial capital to be analyzed is social and relationship capital. The information disclosure indexes for this capital are shown in Table 3 for the period from 2013 to 2017.

Table 3:
Disclosure Levels of Social Capital and Relationship KPIs

Key Performance Indicators (KPI)	2013	2014	2015	2016	2017	ID
	ID	ID	ID	ID	ID	Médio
Ranking of "Excellent place to work"	0.33	0.22	0.11	0.11	0.11	0.18
Number of volunteers	0.11	-	0.11	0.33	0.44	0.20
"Social investment" (spent on philanthropy)	1.00	0.89	0.78	0.89	0.89	0.89
Involvement in social actions	1.00	1.00	1.00	1.00	1.00	1.00
Involvement in cultural projects	0.78	0.56	0.56	0.56	0.33	0.56
Customer satisfaction index	0.44	0.56	0.78	0.67	0.44	0.58
Provision for social projects	0.67	0.56	0.56	0.89	0.56	0.64
Labor claims	0.44	0.44	0.11	0.33	0.44	0.36
Average disclosure	0.60	0.53	0.50	0.60	0.53	0.55
Normality Test (Shapiro-Wilk) / Significance		0.96	0.82	0.96	0.84	
t Test: 2014-2015 / 2016-2017 / Significance			1.00			

Source: Research data

The average level of disclosure of key indicators in social and relationship capital is classified, based on the methodology used, as satisfactory. The most disclosed KPIs are involvement in social actions, 100% of the companies in the period, and social investment (money spent on philanthropy) disclosed by all companies in 2013, with an average of 0.89 in the period. These results are in line with the findings of Silva et al. (2016) who found a good level of disclosure in non-financial capital in this type of capital.

The results of the *Student t* test do not reject the null hypothesis that there is no difference in the average between the periods analyzed. This allows us to state that there was no evolution in the level of disclosure of this capital in the analyzed period. Such a result, in this indicator, contradicts the IIRC's expectations of considering the 2014-2018 period as a period of progress.

The labor claims KPIs and ranking of excellent place to work showed a significant drop in 2015. However, these indicators showed a growth trend in 2016 and 2017. These results can be derived from the effect of the use of sustainability reports by companies to create legitimacy in the market, as identified by Michelon et al. (2018).

The companies that most disclosed information on social and relationship capital were Natura and CPFL, respectively, with 67.50% and 62.50% adherence to KPIs. In 2013, CPFL and Natura were the companies that most disclosed KPIs, around 87.50%. In 2014, CPFL is the company that most disclosed, with

75% adherence to KPIs. In 2015, Natura and Petrobras were the companies that most disclosed KPIs, with around 62.50%. In 2016, Itaú Unibanco was the company that most disclosed, with 87.50% adherence to KPIs. In 2017, BRF was the company that most disclosed, with 75% adherence to KPIs.

Finally, Table 4 presents the levels of disclosure of non-financial information on intellectual capital by KPI in the period from 2013 to 2017.

Table 4:
Disclosure Levels of Intellectual Capital KPIs

Key Performance Indicators (KPI)	2013	2014	2015	2016	2017	ID
	ID	ID	ID	ID	ID	Médio
Number of patent applications filed	0.22	0.22	0.22	0.22	0.33	0.24
Money spent on R&D	0.78	0.89	0.78	0.67	0.56	0.73
Number of tests with the new technology	0.22	0.33	0.11	0.11	-	0.16
Brand recognition	0.67	0.78	0.78	0.67	0.67	0.71
Number of new products developed	0.44	0.56	0.33	0.44	0.44	0.44
Expenses on organizational development change	-	-	-	-	-	-
Expenses with software development for internal systems	0.11	0.11	0.11	0.11	-	0.09
Sales generated by products originating from R&D	0.11	0.11	0.11	0.11	-	0.09
Average disclosure	0.32	0.38	0.31	0.29	0.25	0.31
Normality Test (Shapiro-Wilk) / Significance		0.83	0.06	0.87	0.15	
t Test: 2014-2015 / 2016-2017 / Significance			0.13			

Source: Research data

The average level of disclosure of intellectual capital KPIs, based on the adopted methodology, is classified as unsatisfactory. The KPIs “money spent on R&D” and “brand recognition” are the KPIs, in this type of capital, which present the highest levels of disclosure in the reports. Regarding the evolution of the disclosure of KPIs, it is verified, due to the non-rejection of the null hypothesis of the average test, that they are not statistically different and, consequently, the average level of disclosure in the years 2014-2015 and 2016-2017 remains the same.

The KPI expenses with software development for internal systems is disclosed only by Itaú Unibanco. The KPI expenses with the change in organizational development is not disclosed by the companies. It should be noted that in the reports, companies report on changes in organizational development, but do not disclose the cost incurred in the changes, which does not meet what is recommended by the integrated report. These results differ from the findings of Silva et al. (2016).

Natura and Petrobras are the companies that most disclosed information about intellectual capital, about 48% and 40% of average adherence to KPIs, respectively. In 2013, Votorantim is the company that most disclosed, with 62.50% adherence to KPIs. In 2014, Itaú Unibanco is the company with the highest adherence to KPIs, with around 62.50%. In 2015, Natura is the company that most disclosed, with 50% adherence to KPIs. In 2016, Natura and Petrobras are the companies that most disclosed, adhering 50% to KPIs. In 2017, Natura is the company that most disclosed, adhering in 50% to KPIs.

In order to have an idea of the level of disclosure of non-financial capital from company to company, Table 5 presents the ID of each company, as well as their classification within the adopted methodology.

Table 5:
Disclosure Level of Non-Financial Capital of Companies Participating in the Pilot Project

Companies	2013	2014	2015	2016	2017	Average ID	Classification
	ID	ID	ID	ID	ID		
BNDES		0.38	0.38	0.38	0.41	0.37	Unsatisfactory
BRF	0.62	0.59	0.62	0.56	0.56	0.59	Satisfactory
CCR	0.18	0.18	0.29	0.53	0.32	0.30	Unsatisfactory
CPFL	0.56	0.65	0.50	0.53	0.44	0.54	Satisfactory
Fibria	0.50	0.59	0.50	0.38	0.35	0.46	Unsatisfactory
Itaú Unibanco	0.26	0.53	0.32	0.50	0.44	0.41	Unsatisfactory
Natura	0.79	0.29	0.32	0.74	0.65	0.56	Satisfactory
Petrobras	0.47	0.53	0.50	0.56	0.59	0.53	Satisfactory
Votorantim	0.62	0.38	0.21	0.53	0.44	0.44	Unsatisfactory
Average disclosure	0.48	0.46	0.41	0.52	0.47	0.47	Unsatisfactory

Source: Research data

In general, the average level of disclosure of companies is characterized as unsatisfactory. It appears that 44% of the companies have satisfactory disclosure levels (BRF, CPFL, Natura, Petrobras) and 56% have unsatisfactory disclosure levels (BNDES, CCR, Fibria, Itaú Unibanco and Votorantim). BRF, CPFL, Natura and Petrobras are the companies that most disclose non-financial information in their reports, however none has disclosed all KPIs. It is noteworthy that Itaú Unibanco and CCR show a growth trend in terms of disclosure,

and Itaú Unibanco, in 2013, does not have any KPI related to natural capital and, in other years, there was progress in adherence.

When analyzing the evolution of the disclosure levels of non-financial capital KPIs, it appears that, in general, companies have not improved their disclosure levels. However, it is noteworthy that Natura and Votorantim show visible evolution in natural and human capital between the years 2014-2015 and 2016-2017, in line with what was expected by the IIRC.

In order to be able to analyze the research hypotheses comprehensively in the sample and, consequently, the research objective, Table 6 presents an overview of the levels of disclosure of non-financial capital by the sample companies.

Table 6:
Disclosure Levels of Non-Financial Capital

Non-Financial Capital	2013	2014	2015	2016	2017	Average ID	Classification	Average <i>t</i> Test
	ID	ID	ID	ID	ID			Meaningfulness
Natural Capital	0.52	0.43	0.46	0.65	0.60	0.53	Satisfactory	Yes
Human capital	0.47	0.48	0.37	0.55	0.49	0.47	Unsatisfactory	Yes
Social and Relationship Capital	0.60	0.53	0.50	0.60	0.53	0.55	Satisfactory	No
Intellectual capital	0.32	0.38	0.31	0.29	0.25	0.31	Unsatisfactory	No
Average disclosure	0.48	0.45	0.41	0.52	0.47	0.46	Unsatisfactory	

Source: Research data. Average difference *t* test performed between the years 2014-2015 and 2016-2017.

Based on the results in Table 6, it appears that, in terms of the 4 types of non-financial capital, the disclosure levels of companies, based on the methodology adopted, can be classified as unsatisfactory. Thus, in general terms, hypothesis H1 that the level of disclosure of non-financial information in the sample companies can be considered satisfactory is rejected.

However, it appears that the natural and social and relationship capital have levels of disclosure considered satisfactory. In this case, for these two capitals, the research hypothesis that the level of disclosure of non-financial information in the sample companies can be considered satisfactory is accepted. However, for other capitals, the hypothesis is rejected.

Regarding the evolution of the disclosure of non-financial information by companies, according to the test of difference in averages, it appears that the results can be considered inconclusive. As can be seen in Table 6, the averages of natural and human capital, statistically, showed differences in averages. Thus, for these two capitals, hypothesis H2 should not be rejected as there was an increase in the level of disclosure of information in the Brazilian companies in the sample during the research analysis period. However, for the other capitals, H2 is rejected, since the average test represents that, statistically, the sample does not have different averages in the analyzed period.

In 2014 and 2015, natural capital showed a decrease in the disclosure of all KPIs in relation to 2013, being similar to the result found in the study by Cardoso et al. (2017a). The natural, human and social and relationship capital, on the other hand, is the largest dissemination of KPIs in 2016 and intellectual capital is in 2014. It is noteworthy that the findings from these periods are in line with the level of disclosure of non financial capitals found in the study by Silva et al. (2016).

In relation to the IIRC's expectation that the disclosure of an international integrated reporting structure would result in greater disclosure of non-financial capital, the results of the present research show that there was no significant improvement. In spite of the capitals for which there was an evolution in the disclosure indexes, it is not possible to affirm that the improvement verified in some companies and in the natural and human capitals is the result of the International Integrated Reporting Structure. It is important to highlight that in 2014, when the first reports based on the International Integrated Reporting Framework were released, there was a reduction in the disclosure of KPIs in all capitals.

Such results may represent the subjectivity with which each preparer/company has dealt with the issue of disclosing the Integrated Reporting KPIs. As a consequence, there is a lack of uniformity and comparability, both in companies over the years and between companies, as identified by Carvalho (2013). Despite the efforts of the coalition group to create the International Integrated Reporting Framework and the creation of the Pilot Project, the results suggest that the insights received during the project and assimilated by the preparers/companies were insufficient to improve the process of disclosing the suggested KPIs in Integrated Reporting.

5 Final Considerations

The objective of the study was to analyze the disclosure of non-financial information in the Integrated Report released by the companies participating in the IIRC Pilot Project. For this purpose, the integrated reports of nine companies in the period from 2013 to 2017 were analyzed. Through content analysis, IDs were calculated to estimate the level of disclosure of 34 KPIs of non-financial information capitals.

This study contributes to the analysis of the Integrated Reporting disclosure index released in Brazil, mainly related to the level of disclosure of non-financial information disclosed in the reports, as well as its evolution in the phase of overcoming adherence to the international integrated reporting structure.

The results suggest that the index of disclosure of non-financial information, considering the set of the four capitals, was classified as unsatisfactory, rejecting hypothesis H1 of the study. In the individual analysis, natural capital and social and relationship capital presented satisfactory IDs. Intellectual capital, on the other hand, presented a disclosure index classified as unsatisfactory. As for human capital, it presented the average ID at the threshold of the division between satisfactory and unsatisfactory, but above the average of disclosure of the four capitals.

Even for the IDs considered satisfactory, when analyzing the evolution of disclosures, considering that it is a pilot plan for learning disclosure, divergent oscillations between capitals were verified. All disclosure rates decreased in the last analyzed period (2017). However, based on the average test, it was found that the IDs of human capital and natural capital showed differences in averages between the initial and final years, with evidence of growth. However, considering that the other capitals did not show statistically significant differences in averages. Thus, the confirmation of hypothesis H2 became inconclusive for the analyzed sample.

Corroborating the Theory of Voluntary Disclosure, it was found that the disclosure of non-financial information is treated as an endogenous fact, in which management makes the decision to disclose information according to their preferences or needs (Salotti & Yamamoto, 2005; Verrecchia, 2001). In addition, as stated by Michelon et al. (2018), such results may derive from deficient internal reporting systems or from companies' lack of trust in damage or reputation benefits arising from the disclosure of non-financial capital information.

In the analysis of the individual results of the companies, it was found that few KPIs were disclosed by all companies. In addition, none of the companies in the sample had an average above satisfactory. The one that achieved the best disclosure index (BRF) did not exceed 60% on average in the analyzed periods. These results suggest that the companies participating in the pilot project found it difficult to meet the recommendations of the basic structure of the IIRC.

Thus, it is imprudent to state that there was an evolution in the levels of non-financial information after the creation of the International Integrated Reporting Structure, both due to the lack of cohesion and the lack of comparability identified by the fluctuation in the levels of disclosure. Such results may derive from the increased discretionary power of managers over the content of non-financial information disclosed in the reports. Among the hypotheses that can be suggested as justifications for not achieving the objective of the IIRC pilot project is the lack of obligation, which leads preparers/companies to "select" the information disclosed in the reports over the years.

The results found also suggest a lack of uniformity and comparability of the information contained in the integrated report. Contrasting the arguments of Cortesi and Vena (2019), these findings represent that there is an increase in information asymmetry, since the external user is less able to identify the company's situation. Such results may be related to the non-mandatory disclosure.

The lack of obligation, flexibility and subjectivity allowed for the preparation of the Integrated Report favors the opportunism of the manager. As this is a voluntary disclosure report, this situation may be similar to the "parabolic scandal", where, in a television broadcast leaked in 1994, the then Ambassador Rubens Ricupero, Minister of Finance of Brazil, stated: "I have no qualms; from that which is good we profit on, that which is bad we hide" (Guerra, 2016). Thus, considering the opportunistic aspects of managers and the hypotheses raised, it is possible that in companies that which was stated by the former Finance Minister also happens, with an adaptation: "that which is good is 'disclosed', that which is bad is 'omitted'".

Finally, it should be noted that the results of this study cannot be generalized, as they refer only to a specific sample of companies participating in the IIRC Pilot Project. These results, however, are relevant and have the potential for discussion and contribution both to the Pilot Project and to improve companies' disclosure.

It is recommended for future studies to verify, by comparing the various reports and information made public, if there is evidence that companies are omitting information due to its quality (that which is good is 'disclosed', that which is bad is 'omitted'). In addition, it is suggested to analyze the value relevance of non-financial information for companies that adhered to the Integrated Report.

References

- Albuquerque, J. R., Miranda, L. C., Rodriguês, R. N., & Sampaio, Y. S. B. (2017). Influência da divulgação do relato integrado nos indicadores econômico-financeiros: uma análise comparativa do desempenho de empresas participantes e não participantes do Projeto Piloto do IIRC no Brasil. *Revista de Contabilidade da UFBA*, 11(3), pp. 189–211. DOI : <http://dx.doi.org/10.9771/rc-ufba.v11i3.23831>
- Adams, S., & Simnett, R. (2011). Integrated Reporting: An Opportunity for Australia's Not-for-Profit Sector. *Australian Accounting Review*, 21(3), pp. 292–301. DOI: <http://dx.doi.org/10.1111/j.1835-2561.2011.00143.x>

- Bertomeu, J., & Magee, R. P. (2015). Mandatory disclosure and asymmetry in financial reporting. *Journal of Accounting and Economics*, 59(2–3), pp. 284–299. DOI: <https://doi.org/10.1016/j.jacceco.2014.08.007>
- Cardoso, C., Silva, L. M., & Silva, R. P. A. (2017). Relato integrado: Divulgação dos Capitais Humano e Financeiro em instituições bancárias sob a ótica da Teoria da Sinalização. *Anais do Congresso Brasileiro de Custos*, Florianópolis, SC, Brasil, 24.
- Cardoso, C., Silva, R. P. A., Alves, I. J. B. da R., & Oliveira, K. P. S. de. (2017a). Indicadores de Capital Natural das empresas listadas na BM&FBovespa pertencentes ao Índice de Sustentabilidade Empresarial (ISE): uma evidência desde o Relato integrado. *Anais do Congresso Brasileiro de Custos*, Florianópolis, SC, Brasil, 24.
- Carvalho, L. N. (2013). Relatórios empresariais: *Ideia Sustentável*, 33. Recuperado em 15 de maio de 2018 de <http://www.ideiasustentavel.com.br/relatorios-empresariais-uma-agenda-que-se-renova/>.
- Carvalho, L. N., & Kassai, J. R. (2014). A Nova Revolução Contábil Relato Integrado. *Revista Fipecafi*, 1, pp. 21–34.
- Cheng, M., Green, W., Conradie, P., Konishi, N., & Romi, A. (2014). The International Integrated Reporting Framework: Key Issues and Future Research Opportunities. *Journal of International Financial Management & Accounting*, 25. DOI: <https://doi.org/10.1111/jifm.12015>
- Cortesi, A., & Vena, L. (2019). Disclosure quality under Integrated Reporting: A value relevance approach. *Journal of Cleaner Production*, 220, 745–755. DOI: <https://doi.org/10.1016/j.jclepro.2019.02.155>
- Cunha, J. V. A., & Ribeiro, M. S. (2006). Divulgação Voluntária de Informações de Natureza Social: um estudo nas empresas brasileiras. *Anais do Encontro do ANPAD*, Salvador, BA, Brasil, 30.
- Daub, C. H. (2007). Assessing the quality of sustainability reporting: an alternative methodological approach. *Journal of Cleaner Production*, 15(1), pp. 75–85. DOI: <https://doi.org/10.1016/j.jclepro.2005.08.013>
- Dumay, J., Bernardi, C., Guthrie, J., & Demartini, P. (2016). Integrated reporting: A structured literature review. *Accounting Forum*, 40(3), pp. 166–185. DOI: <https://doi.org/10.1016/j.accfor.2016.06.001>
- Dye, R. A. (2001). An evaluation of “essays on disclosure” and the disclosure literature in accounting. *Journal of Accounting and Economics*, 32(1–3), pp. 181–235. DOI: [https://doi.org/10.1016/S0165-4101\(01\)00024-6](https://doi.org/10.1016/S0165-4101(01)00024-6)
- Eccles, R. G., & Krzus, M. P. (2011). *Relatório único: divulgação integrada para uma estratégia sustentável*. São Paulo: Saint Paul Editora.
- EY (2014). Relato Integrado: pensamento estratégico e valor compartilhado. Recuperado 10 de junho de 2018, de [https://www.ey.com/Publication/vwLUAssets/Relato_Integrado_2014/\\$FILE/RelatoIntegrado_WEB.pdf](https://www.ey.com/Publication/vwLUAssets/Relato_Integrado_2014/$FILE/RelatoIntegrado_WEB.pdf).
- Fragalli, A. C., Panhoca, L., González, A. D., Almeida, L. B. de, & Costa, M. C. (2014). Relato Integrado de uma propriedade agrícola: um estudo de caso com base no Framework do International Integrated Reporting Council (IIRC). *Anais do Congresso Brasileiro de Custos*, Natal, RN, Brasil, 21.
- Frias-Aceituno, J. V., Rodriguez-Ariza, L., & Garcia-Sanchez, I. M. (2013). The role of the board in the dissemination of integrated corporate social reporting. *Corporate Social Responsibility and Environmental Management*, 20(4), pp.219–233. DOI: <https://doi.org/10.1002/csr.1294>
- Girão, L. P. A. P., Silva, G. C. P., & Silva, G. S. (2017). Disclosure Voluntário Via Redes Sociais das Empresas Listadas no IBrX100. *Anais do Congresso USP Controladoria e Contabilidade*, São Paulo, SP, Brasil, 17.
- Gray, R., & Bebbington, J. (2000). Environmental accounting, managerialism and sustainability: Is the planet safe in the hands of business and accounting? *Advances in Environmental Accounting and Management*, 1, pp. 1–44. DOI: [https://doi.org/10.1016/S1479-3598\(00\)01004-9](https://doi.org/10.1016/S1479-3598(00)01004-9)
- GRI - Global Reporting Initiative. (2015). *G4 Diretrizes para relato de sustentabilidade: princípios para relato e conteúdo padrão*. Amsterdam: GRI.

Guerra, R. (2016). 'Escândalo da Parabólica' derrubou o ministro da Fazenda Rubens Ricupero. Acervo O Globo. Recuperado 20 de abril de 2018, de <https://acervo.oglobo.globo.com/em-destaque/escandalo-da-parabolica-derrubou-ministro-da-fazenda-rubens-ricupero-18904564>.

IIRC - International Integrated Reporting Council. (2011). *Towards integrated reporting: communicating value in the 21st Century*. Recuperado 1 de junho de 2018, de http://integratedreporting.org/wp-content/uploads/2011/09/IR-Discussion-Paper-2011_spreads.pdf

IIRC - International Integrated Reporting Council. (2013). *Capitals background paper for IR* Recuperado 5 de maio de 2018 de <http://integratedreporting.org/wp-content/uploads/2013/03/IR-Background-Paper-Capitals.pdf>

IIRC - International Integrated Reporting Council. (2013b). *Value creation: background paper for IR* Recuperado 9 de maio de 2018 de <http://integratedreporting.org/wp-content/uploads/2013/08/Background-Paper-Value-Creation.pdf>

IIRC - International Integrated Reporting Council. (2013c). *IIRC Pilot Programme Business Network*. Recuperado 2 de junho de 2018, de <http://integratedreporting.org/wp-content/uploads/2013/11/IIRC-Pilot-Programme-Business-Network-backgrounder-October-2013.pdf>

IIRC - International Integrated Reporting Council. (2014). *A Estrutura Internacional para Relato Integrado*. Recuperado 20 de abril de 2018, de <http://integratedreporting.org/wp-content/uploads/2015/03/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-Portugese-final-1.pdf>

Iredele, O. O. (2019). Examining the association between quality of integrated reports and corporate characteristics. *Heliyon*, 5(7). DOI: <https://doi.org/10.1016/j.heliyon.2019.e01932>

Jensen, J. C., & Berg, N. (2012). Determinants of Traditional Sustainability Reporting Versus Integrated Reporting. An Institutional Approach. *Business Strategy and the Environment*, 21(5), pp. 299–316. DOI: <https://doi.org/10.1002/bse.740>

Kussaba, C. T. (2015). *Análise dos elementos de conteúdo do relato integrado: Itaú Unibanco e Natura - 2013 e 2014*. Dissertação de Mestrado. Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, São Paulo, SP, Brasil.

Lemos, K. M., Rodrigues, L. L., & Ariza, L. R. (2009). Determinantes do nível de divulgação de informação sobre instrumentos derivados. Evidência empírica no mercado de capitais português. *Revista de Estudos Politécnicos*, VII(12), pp. 145–175.

Maciel, P. A. (2015). *Relato Integrado: Análise da evolução da estrutura conceitual e sua aplicação nos relatórios das empresas no Brasil*. Dissertação de Mestrado. Faculdade de Administração e Ciências Contábeis, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brasil.

Michelon, G., Patten, D. M., & Romi, A. M. (2018). Creating Legitimacy for Sustainability Assurance Practices: Evidence from Sustainability Restatements. *European Accounting Review*, 28(2), 395–422. DOI: <https://doi.org/10.1080/09638180.2018.1469424>

Murcia, F. D., & Santos, A. (2009). Fatores determinantes do nível de disclosure voluntário das companhias abertas no Brasil. *REPEC - Revista de Educação e Pesquisa em Contabilidade*, 3(2), pp.72–95. DOI: <https://doi.org/10.17524/repec.v3i2.68>

Nascimento, M. C., Rodrigues, R. N., Araújo, J. G., & Prazeres, R. V. dos. (2015). Relato Integrado: Uma Análise do Nível de Aderência das Empresas do Novo Mercado aos Indicadores-Chave (KPIs) dos Capitais Não Financeiros. *Anais do Congresso USP Controladoria e Contabilidade*, São Paulo, SP, Brasil, 15.

Novelini, C. P., & Fregonesi, M. S. F. A. (2013). Análise da divulgação de informações sobre investimentos sociais por empresas que se declaram socialmente responsáveis. *Revista de Contabilidade e Organizações*, 7(17), pp. 85–97. DOI: <https://doi.org/10.11606/rco.v7i17.56695>

Oliveira, M. C., Araújo Junior, J. F., Oliveira, O. V., & Ponte, V. M. R. (2012). Disclosure social de empresas brasileiras e britânicas à luz da Teoria Institucional. *Advances in Scientific and Applied Accounting*, 5(1), pp. 2–26.

Salotti, B. M., & Yamamoto, M. M. (2005). Ensaio Sobre a Teoria da Divulgação. *Brazilian Business Review*, 2(1), pp. 53–70.

Salotti, B. M., & Yamamoto, M. M. (2008). Divulgação voluntária da demonstração dos fluxos de caixa no mercado de capitais Brasileiro. *Revista Contabilidade & Finanças*, 19(48), pp. 37–49. DOI: <http://dx.doi.org/10.1590/S1519-70772008000300004>

Seabra, L. (2015) Ser sustentável é melhor que remediar. Valor Econômico. Recuperado em 10 de maio de 2018 de <https://www.valor.com.br/financas/4372454/ser-sustentavel-e-melhor-que-remediar>.

Silva, D. S. de C., Oliveira, M. C., & Gomes, C. A. S. (2016). Relato Integrado: Divulgação dos Capitais segundo o Isomorfismo Institucional. *Anais do Encontro da ANPAD*, Costa do Sauípe, BA, Brasil, 40.

Silva, T. A. da, Slewinski, E., Sanches, S. L. R., & Moraes, R. D. O. (2015). Teoria da Divulgação na Perspectiva da Economia da Informação: Possibilidade de Novos Estudos? *Anais do Congresso USP Controladoria e Contabilidade*, São Paulo, SP, Brasil, 15.

Silva, T. L. da, Alberton, L., & Vicente, E. F. R. (2013). Práticas de Disclosure Voluntário das Empresas do Setor Elétrico: Uma Análise a Partir do Modelo de Murcia. *Revista Catarinense da Ciência Contábil*, 12(35), pp. 48–62. DOI: <http://dx.doi.org/10.16930/2237-7662/rccc.v12n35p48-62>

Vergara, S. C. (2005). *Método de Pesquisa em Administração*. São Paulo: Atlas.

Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32(1–3), pp. 97–180. DOI: [https://doi.org/10.1016/S0165-4101\(01\)00025-8](https://doi.org/10.1016/S0165-4101(01)00025-8)

Zaro, E. S. (2015) *Análise comparativa de relatos integrados das empresas brasileiras a luz da estrutura conceitual*. Dissertação de Mestrado. Universidade Federal de Santa Catarina, Florianópolis, SC, Brasil.

NOTES

ACKNOWLEDGMENT

We thank the Graduate Program in Accounting Sciences (PPGCONT/UFG) for the opportunity to develop the study during the master's degree.

AUTHORITY CONTRIBUTION

Conception and elaboration of the manuscript: A.C. Teixeira, M. H. A. Couto, E. Zanolla

Data collection: A.C. Teixeira, M. H. A. Couto

Data analysis: A.C. Teixeira, I. J. Rech, M. H. A. Couto

Discussion of results: A.C. Teixeira, M. H. A. Couto, E. Zanolla, I. J. Rech

Review and approval: I A.C. Teixeira, M. H. A. Couto, E. Zanolla, I. J. Rech

SEARCH DATA SET

The data set that supports the results of this study is not publicly available.

FINANCING

Not applicable.

CONSENT TO USE IMAGE

Not applicable.

APPROVAL OF THE RESEARCH ETHICS COMMITTEE

Not applicable.

CONFLICT OF INTERESTS

Not applicable.

USE LICENSE

Copyrights for articles published in this journal are the author's, with first publication rights for the journal. Due to appearing in this Public Access Magazine, the articles are free to use, with their own attributions, in educational, professional and public management applications. The magazine adopted the [Creative Commons Attribution 4.0 International license - CC BY NC ND](https://creativecommons.org/licenses/by-nc-nd/4.0/). This license allows accessing, downloading (downloading), copying, printing, sharing, reusing and distributing the articles provided that the source is acknowledged, attributing the due authorship credits. In such cases, no permission is required from the authors

or editors. Authors are authorized to assume additional contracts separately, for non-exclusive distribution of the version of the work published in this journal (eg, publishing in institutional repository or a book chapter).

PUBLISHER

Federal University of Santa Catarina. Accounting Sciences Course and Postgraduate Program in Accounting. Publication on the [UFSC Journal Portal](#). The ideas expressed in this article are the responsibility of their authors, and do not necessarily represent the opinion of the editors or the university.

EDITORS

Carlos Eduardo Facin Lavarda and Suliani Rover

HISTORIC

Received on: 23/03/2019 – Peer reviewed on: 06/05/2020 – Reformulated on: 09/06/2020 – Recommended for publication on: 15/10/2020 – Published on: 15/01/2021