



The Quality of Integrated Reporting in The Public Utilities Sector: First Empirical Impressions

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Abstract. Corporate reporting has recently been changed by the globalization of economies, crises, the adoption of new legislative acts and the growing demand for information. This significant change is due also to the evolution of stakeholders' information needs, which are increasingly dedicated to non-financial information regarding, among other things, governance, strategy and environmental policy. Integrated reporting has been framed and developed in response to those changes. It aims to provide readers with a better understanding of the organization needed to create value over the short, medium, and long term, combining financial and non-financial information.

This paper aims to provide initial empirical considerations on the quality of the integrated reports (IRs) published by Public Utilities (PUs) attending the Pilot Programme (PP) and having a public sector ownership.

Keywords. *integrated report, accountability, public sector ownership*

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1. Introduction

The PP is a project promoted and managed by the International Integrated Reporting Council (IIRC), which is the body intended to publish and disseminate the best practices on integrated reporting worldwide.

The IR is a recent form of external communication that incorporates and combines financial and non-financial material information in order to support stakeholders in expressing their judgment on the organization's performance and its value creation (King, 2011; Porter & Kramer, 2011). The IIRC launched a Pilot Programme Business in October 2011. There are 104 companies participating in this project, each operating in different parts in the globe and working in diverse sectors such as finance, manufactory, services, etc.

As far as the IRs' content is concerned, the Framework enacted by the IIRC states that the IR is "[...] a concise communication about how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value

over the short, medium and long term" (IIRC, 2013; IIRC/EY, 2013).

The IR is intended as the final step of a process of integrated thinking designed to orient the organizations to be accountable and to legitimize their role by taking into consideration not only the maximization of profit but also the realization of appropriate extra-financial performances. From this perspective, integrated reporting seems to be an appropriate instrument to illustrate the management of public sector entities as well (IIRC, 2013).

As far as definition elements are concerned, it can be observed that PUs are used to furnish the public at large with essential services such as water, electricity, natural gas, telephone service, and more. The investigated PUs are managed or controlled (directly or indirectly) by public sector agencies. This feature can lead to further considerations on the governments' sensibility about financial and nonfinancial external communication being expressed.

The appropriateness of adopting the integrated reporting by PUs, oriented not only to optimize

their profit but also to pursue social aims and the relevancy of the sector, was the element addressed to opt for analyzing PUs attending the Pilot Program were.

Furthermore, PUs should present a high level of disclosure because they are naturally oriented to satisfy a wide range of information needs. This implies that their stakeholders are extremely careful with regards to the extra-financial performance, the realized outcome and the impact produced on the community.

The investigated sector is extremely relevant worldwide on a financial and non-financial basis. The combination of the above-mentioned factors determines that much PUs have been pioneers in the adoption of the most sophisticated techniques of non-financial information and often represent a benchmark for other companies.

The research method is based on content analysis of the 2012 annual reports published by the eleven selected companies.

This paper contributes to the development of the literature, providing scholars with evidence gathered from an empirical analysis of the first reports based on IIRC guidelines. It focuses on the elements that have been stressed in those reports, the qualitative characteristics and the definition of consolidated practices and techniques.

In order to pursue this objective, the layout of this paper is as follows: in the following section, the literature related to analyses similar to the one presented here is reviewed. In section three, the research design applied to the proposed qualitative analysis is described. In the fourth section, the findings and the empirical data from the research are illustrated. Lastly, conclusive observations, limits and proposals for future research are presented.

2. Literature Review

The IR is a recent model of non-financial external communication and management system (Eccles and Krzus, 2011). The idea to determine worldwide guidelines on integrated reporting was “formally” established in a period when the finan-

cial crisis exasperated the inability of financial information to meet stakeholders’ information needs (Lev, 2013). From this perspective, scholars proposed a communication approach oriented to include information on financial and non-financial performance prospective in the creation of value (Dumitru et al., 2013). According to this, the literature is quite limited on this specific issue (Porter, M. & Kramer, M. (2011; Eccles and Krzus, 2010; Churet and Eccles, 2014), even though the single items and aspects related to the adoption of the IIRC’s guidelines (materiality, stakeholder relationships, strategy, etc.) arise from long and well-known debates (GRI, 2013).

Furthermore, the IIRC’s Framework does not define a completely new model; it mostly starts from systemizing and combining perspectives, approaches, models and techniques already known to scholarship and practitioners. Specifically, many companies are trying to move from the technical requirements of the Global Reporting Initiative to the ones published by the IIRC (Painter-Morland, 2006).

The innovative idea consists in combining and disclosing the impact of financial and non-financial multiple capitals (Eccles and Krzus, 2010) without dividing them into separate and autonomous categories (King, 2011; Dumitru et al., 2013; Eccles et al., 2010).

IRs are primarily oriented towards capital lenders. This does not imply that IRs cannot satisfy the information needs required by the primary audience of mission driven entities, such as PUs (Bartocci and Picciaia, 2013). Today there is even a set of case studies dedicated to the adoption of IIRC’s guidelines by PUs (Parrot, 2012; Mio and Fusan, 2013; King and Roberts, 2013).

In the analysis of the content of the IRs, the reasons organizations decide to prepare an IR and apply the IIRC’s guidelines must be taken into consideration.

It could be the case that companies decide to apply the IIRC’s requirements only (or essentially) to declare this compliance and achieve greater credibility in the community by adopting generally accepted standards and practices (Dillard et al., 2004; Di Maggio and Powell, 1983). Some

pioneering studies conclude that, based on the neo-institutional theory, current IRs are characterized by a high level of isomorphism and cosmetic behaviors (Wild and Van, 2014) and that IRs are often not consistent with the generally accepted guidelines (Alcrl, 2013).

On the other hand, there are studies that find a relationship between the practice of long-term oriented investor base (Serafeim, 2012), and financial performance (Churet et al, 2014). Even though there is no evidence that IR supports economic decisions, these studies confer a “substantive” role to the integrated reporting and thinking. A body of literature has already provided similar results, referring to sustainability disclosure and performance (Churet et al., 2014; Dhaliwal, et al., 2011). Some authors focused their research on the analysis of sustainability reports published by PUs (Boschee, 2005; Beretta and Bozzolan, 2004). In this context, Boschee (2005) shows that PUs are firms characterized by a high level of disclosure. Similarly, Beretta and Bozzolan (2004), using content analysis, note that PUs have a significant depth of disclosure. Aureli and Salvatori (2012) also using content analysis, investigate risk disclosure included in the sustainability reports of the Italian PUs listed on the the Italian Stock Exchange.

3. Research Design

In the following section, the methods used, the sample choice and the model to describe performance keywords are presented.

3.1 The Methods Used and Sample Choice

On the basis of these premises, the aim of this paper is to explore the quality of IR, in terms of its interpretation of specific elements related by their essential characteristics. Specifically, we explore the relationship between the content and the length of reports and the usefulness of some crucial words. In other words, we explore the level of accountability of IRs in the PUs participating in the IIRC’s Pilot Programme business network which have public ownership. Doing so, our aim is to establish an understanding of the most im-

portant trends of current integrated reporting practices for these companies.

The sample chosen is composed by eleven companies located in various countries, including Canada, New Zealand, Brazil, Germany, South Africa, Italy, Russian Federation and Netherlands (Table 1). These companies belong to different sectors such as electricity, oil and gas producers and transportation services.

Table 1

The cluster under investigation

NAME	COUNTRY	SECTOR
Port Metro Vancouver	Canada	Port
New Zealand Post	New Zealand	Postal services
AES Brazil	Brazil	Utilities
EnBW Energie Baden-Württemberg AG	Germany	Electricity
Coega Development Corporation	South Africa	Government
Enel S.p.A.	Italy	Electricity
eni S.p.A.	Italy	Oil & gas producers
Flughafen München GmbH	Germany	Transportation services
Rosneft	Russian Federation	Oil & gas producers
N.V. Luchthaven Schiphol	Netherlands	Transportation services
Transnet	South Africa	Transportation services

Some companies, such as Terna, Enagas and CPFL Energia, which are part of the Pilot Programme, have been excluded because their annual reports are published only in their native languages. For this reason, the applied methodology would not have produced consistent information.

The structure of the IRs is consistent with IIRC guidelines even though the analyzed reports are naturally heterogeneous.

Table 2

Keywords

Fundamental Concept	Keyword			Weight
The Capitals				
Financial Capital	Cash	Profit	Fund	4,2
Manufactured Capital	Equipment	Ability	Asset	4,2
Human Capital	Employee	Train	Productivity	4,2
Intellectual Capital	Research	Knowledge	Brand	4,2
Social Capital	Stakeholder	Society	Trust	4,2
Natural Capital	Environment	Sustainable	Impact	4,2
The Business Model	Input	Convert	Product	10,4
Value Creation	Convert	Growth	Enable	10,4
Guiding Principles				
Strategic Focus and Future Orientation	Vision	Direction	Resource	6,3
Connectivity of Information	Link	Network	Between	10,4
Stakeholder Responsiveness	Accountable	Responsible	Engage	10,4
Materiality and Conciseness	Issue	Important	Focus	10,4
Reliability and Completeness	Assurance	Include	Boundary	10,4
Consistency and Comparability	Benchmark	Basis	Principle	6,3

We chose content analysis as a way to address the research question. This technique is used according to the qualitative methodology. Document analysis has been carried out to search for the keywords relevant to express a judgment on the quality of the IRs published on the companies' websites.

Content analysis is a method of codifying the text (or content). It is considered "a research technique for making replicable and valid inferences from data according to their context" (Krippendorff, 1980). To implement this technique, we have chosen to use the online program "write-word writers" with the aim of reducing human errors.

3.2 The Model for Investigating the Quality of Integrated Reporting

The research design can be divided in two phases: the first one can be described in the following four steps:

1. Identifying fundamental concepts
2. Identifying keywords
3. Assigning weight to fundamental concepts

4. Searching for the keywords in the reports, implementing a qualitative approach of content analysis

The second one is to individuate the report's mark in order to evaluate the keywords' performance.

With the aim to study the topic chosen, it seemed suitable to identify a context of analysis that was already well established in the literature. In fact, we identify fundamental concepts starting from the analysis of the Albert Luthuli Centre for Yearbook 2013 (Serafeim, 2012). These fundamental concepts are extracted from the Consultation Draft (Churet and Eccles, 2014) of the international IR Framework and based on the study of previous literature (IIRC, 2013; IIRC/EY, 2013; GRI, 2013; Krippendorff, 1980). The research takes into account the quality of IRs published in 2013, evaluating their compliance with the content of the Consultation Draft. In the end, we chose fourteen fundamental concepts. For every fundamental concept we chose three keywords, identifying a list of forty-two keywords. The third step of our analysis was the identification of a certain weight for every fundamental concept. The total weight is one hundred (Table 2).

In applying the chosen methodology, we searched for the keywords in the reports with the help of an online programmer (fourth step).

Every relevant keyword was considered in its various grammatical forms (adjective, adverb and preposition, etc.).

In the second phase, we defined the report's mark in order to evaluate the keyword's performance. Before determining a mark for every keyword, we decided to adjust the number of words in the reports (Formula 1). As a last step we used an equation to determine a report's mark (Formula 2). (Serafeim (2012).

4. Analysis

4.1 First Phase

During the first phase of the analysis we identified two types of fundamental concepts thanks to the Consultation Draft of the international IR Framework (and thus the capitals and guiding principles).

In the IR framework, the capitals comprise financial, manufactured, intellectual, human, social, relationship and natural elements that an organization uses and effects. Capitals are included in the framework as a benchmark for ensuring that groups consider all the forms of capital they use or effect and because they can be considered as part of the theoretical underpinning for the concept of value.

Fundamental concepts are the organization's business model and the creation of value. The first can be considered the system of inputs, business activities, outputs and outcomes that aim to create value over the short, medium and long term. The second lies at the central and most important part of the report.

The following fundamental concepts are basic guidelines, informing the content of an integrated report and demonstrating how information is explained. In this context, strategic focus and future orientation are related to society's ability to create value in the short, medium and long term. Connectivity of information explores the relationship and dependencies between the organization's components that create value over time.

Stakeholder responsiveness describes the quality of the relationship between companies and their key stakeholders. Materiality and conciseness mean that the report can be short and offer concise information. Reliability and completeness indicate that the report needs to include both positive and negative information. Consistency and comparability mean that the IR report has to give information comparable to the same information in the other companies. Lastly, using the online program, we searched for the keywords and assigned a certain weight to each one.

4.2 Second Phase

Considering that the reports have different lengths (number of words), we chose to use a simple equation (Formula 1) to adjust the number of words by marking out keywords. This enabled us to have a better comparison. In this way, we have obtained a keyword-adjusted value. Starting from the analysis of the Albert Luthuli Centre for Yearbook 2013 (Alcrl, 2013), the research uses the report with the least number of words as a benchmark, adjusting the number of words in the other investigated reports in order to normalize their length. In this way, the keyword chosen was directly comparable to a keyword mark in other reports.

Formula 1:

$$\frac{\text{Min ob Kw}}{\text{Max ob TotWordR}} \times \text{Min ob TotWordR}$$

Where:

Min ob Kw: number of minimum observation for every keyword in every report

Max obTotWordR: maximum number of total words in the report

Min obTotWordR: minimum number of total words in the report

Then we used an equation, based on the analysis of the Albert Luthuli centre for Yearbook 2013 (Alcrl, 2013), to determine a report's mark for keywords (Formula 2). In our research, the mark calculated can be considered the performance in terms of the measurement instrument. This performance is expressed as a percentage out of one hundred.

Formula 2:

$$\frac{\text{Adj value Kw} - \text{Min Adj value Kw}}{\text{Max Adj value Kw}} \times W \text{ Kw}$$

Where:

Adj value KW: adjusted value for keyword (formula 1)

Min Adj value Kw: minimum adjusted value keyword

Max Adj value Kw: maximum adjusted value keyword

To better explain the process, we provide the following example. In the Port Metro Vancouver (number of words 453), keywords related to the cash measurement point were observed 59 times. In order to calculate the number of Port Metro Vancouver report keywords on equal terms with the other report we performed the following calculation: $(59/453) \times 4,2$.

On the basis of the Consultation Draft of the international IR Framework and according to the analysis of the Albert Luthuli Centre for Yearbook 2013 (Alcrl (2013), which underlines the importance of conciseness in integrated reports, we started from the total number of words in the reports. For practical reasons we compared the adjusted and not-adjusted value, and we chose to consider the adjusted value (Figure 1).

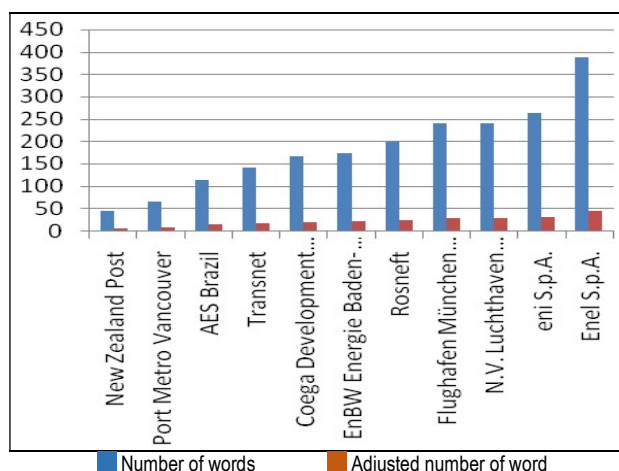


Figure 1: The total number of words in the report: adjusted value vs. not-adjusted value

Another step was the outlining of the report's mark—first for keywords and then for the total mark of every report. Then, considering the importance of conciseness in integrated reporting, we compared the total keyword marks to the total adjusted number in the report.

The relationship between the number of words for report and total marks (adjusted measurement) suggests a relationship between the number of words and the performance of companies report under investigation measuring as marks.

The following figure shows the total number of words in every report and the total mark adjusted in order to explore the performance of companies' reports. Companies that have public ownership are not able to respect the principle of conciseness; in other words, they are unable to report many important concepts in few words (Figure 2).

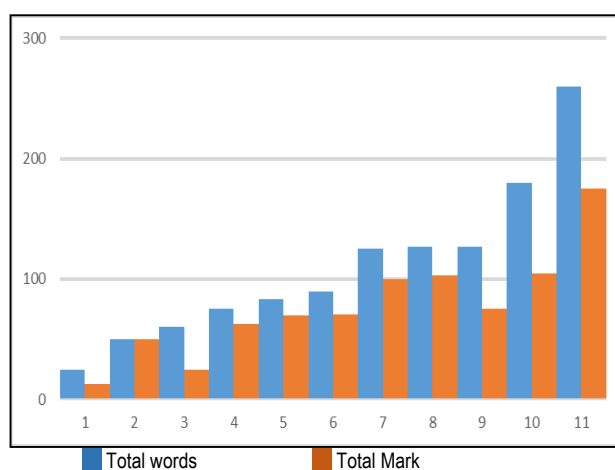


Figure 2: The total words vs. total mark

The other parts of the analysis include investigating the performance, or mark, for each keyword. The following figure (Figure 3) illustrates that the chosen keyword has different marks as far as there are different stretching areas. Thanks to this assumption, it is possible to identify different disclosure stretching areas in the analyzed reports (Figure 3).

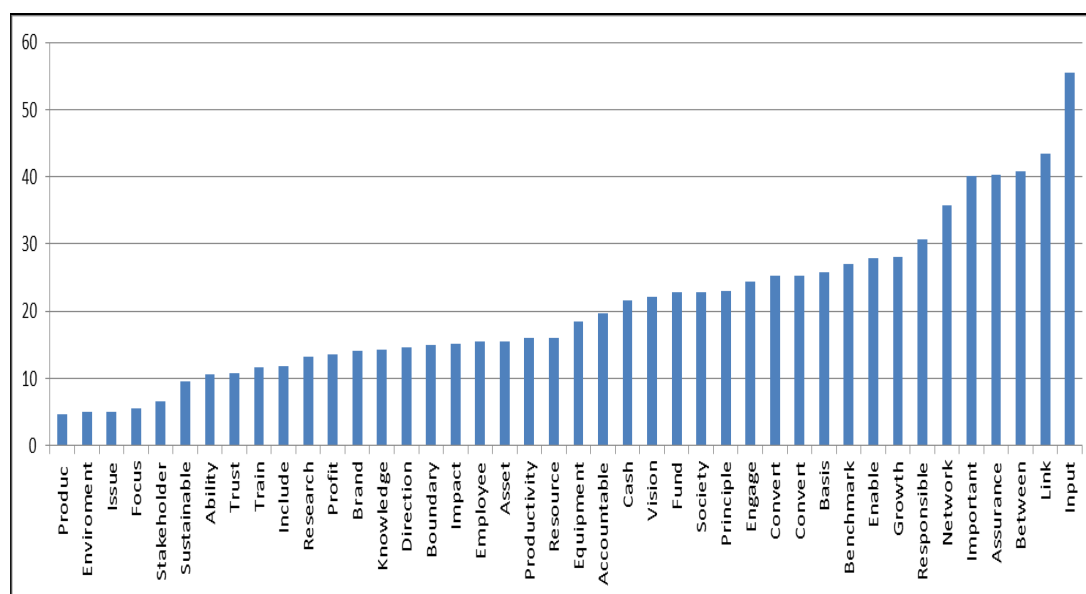


Figure 3: Keywords performance

In line with the previous literature review, the analysis of keyword performance shows that keywords such as stakeholder, sustainable and accountable are inconsistent with regard to guideline principles and accountability standards; their marks are fewer than other words' marks. Otherwise words like between, link and input seem to have the best performance and disclosure stretching area.

5. Discussion and Conclusions

The research report concludes by offering a view about one important topic: the quality of communication in the IR considering PUs attending the Pilot Programme (PP) and having a public sector ownership.

In our study, we explored the relationship between the content and the length of reports and the use of some keywords within them. In other words, we explored the level of accountability of IR for companies under investigation.

Our first consideration regards the length of the IR. The results of the analysis show that there is a relationship between the report length and the adjusted total marks. That correlation, in line with previous research (Di Maggio and Powell, 1983), shows that these companies are not able to re-

spect the principle of conciseness. In other words, they are not able to report many important concepts in few words.

Our second consideration regards the performance or mark for every keyword, with the aim of identifying more disclosure-stretching areas in the reports (Dumitru et al, 2013; Di Maggio and Powell, 1983).

The results show that keywords that have been used in corporate reports for a comparatively long time (such as cash, equipment, principle, productivity, fund and resource) have marks included in the mark average. This could be due to a relatively high level of consensus in the corporate reports.

The words that have the lowest marks are product, environment, issue, focus, stakeholder and sustainable. Taking these results and the characteristics of the sector into consideration implies a high level of incoherency.

Otherwise, the words input, link, between, assurance, important and network have the highest results. This shows openness to relationships with the outside. That is, a symbolic adaptation to new ways and communication systems.

The analysis of keyword performance shows that several keywords such as stakeholder, sustainable and accountable can be considered inconsistent

with regards to guideline principles and accountability standards. In fact, their marks are rather low.

According to previous literature, the analysis does not show strong discrepancies in marks between different fundamental concepts.

This research highlights some limitations. Firstly, it has been conducted only on one annual report. In order to comprehend the development of the practice it is necessary to repeat the research on an annual basis for a longer period, using the

same keywords to determine the level of change for every mark.

At the same time, the study could add or include other fundamental concepts.

Lastly, this investigation used only two fundamental concepts. It would be appropriate, in order to express an exhaustive judgment on the quality of the investigated IRs, to explore other fundamental concepts as continent elements, preparation and presentation.

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