
THE EFFECTS OF REGULATION ON SOCIAL AND ENVIRONMENTAL REPORTING

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Abstract

The last decade has been characterized by a strong push by institutions in the release of non-financial disclosures, with Directive 2014/95/EU and the Paris Agreements, where the former requires socio-environmental disclosure to be mandatory for certain companies, while the latter defines targets for the reduction of global warming. Socio-environmental communication is the primary means to convey information regarding one's achievements in decarbonization and greenhouse gas (GHG) emission reduction, which is why our study decided to explore the possible increase in non-financial disclosure released in integrated reports. In addition to this, based on the theory of institutions (Weber, 1922; Selznick, 1949; Parsons, 1990), in which regulating specific actions using rules leads to a process of homologation of the actors present.

Currently, the general idea of institutions is to improve socio-environmental communication by standardizing it. However, skepticism remains about the functionality of such a process, which can conceivably create problems. Thus, the main question remains, the regulatory process is useful to stimulate the release of socio-environmental information, but what are the real effects of this process in a context

where the external environment already forces the release of voluntary information?

Based on these issues, the study aims to analyze the real impact of the institutional intervention on social and environmental reporting. It makes use of established institutionalist and neo-institutionalist theories; Weber (1922) stresses the duality between the usefulness of standards and the depersonalization of actors, which Parsons (1990) also emphasizes through isomorphism. From this assumption, we can infer that there is a renewed interest in socio-environmental issues and a possible process of homologation of the actors involved, so our first research questions will be:

RQ1: Has an interest in socio-environmental issues grown?

RQ2: Has there been a process of standardization of actors?

On the other hand, Selznick (1949) emphasizes the destructive effects of external interventions, with the recent development of theory placing importance on leadership. For this reason, this study also tries to analyze the qualitative effects of the process:

RQ3: What effect has this had on the quality of information?

The study focuses on the oil & gas sector, analyzing the integrated reports of four European companies from 2011 to 2019, purged of the economic-financial part, with a content analysis on the integrated reports, divided into several methodologies. The first part of the analysis is descriptive and analyses the frequency of specific keywords to ascertain the actual increase of interest of companies in these issues; then analysis was made on the preferences of companies in the use of keywords to highlight a homologation trend, and finally, an analysis on the N-gram network to analyze the direction of the use of keywords in financial statements. Subsequently, to strengthen the evidence of the descriptive analysis, an inferential analysis was carried out, using the same methodology for each hypothesis made; this analysis is known as late semantic analysis (LSA). This analysis succeeds in transforming the documents into a projected point on a Cartesian plane; the projected points show the semantic content of the document; for this reason, the closer the points are to each other, the more similar the documents are. The first analysis compares firms as a sector by projecting reports on the plane for years; we added several documents dealing with the climate issue (dictionaries). The second analysis investigates a possible homologation process by comparing individual company reports on the floor each year. In the last phase, we analyzed a potential increase in quality. To do so, we used a study by the University of Zurich, in collaboration with the Google research center, which undertakes to evaluate all documents dealing with socio-environmental issues by giving them a negative or positive bias according to their content, then we turned them into points and compared them with the financial statements of our companies. Given the considerable amount of projected documents, we used quantities derived from the LSA. To be precise, we

used the cosine between our documents and those extracted from the cluster; the cosine can take a value between 0 and 1, and the closer it is to unity, the more quality there is in the communication released; we also carried out keyword analysis, using the average distance between the points, trying to determine a possible negative trend for a particular topic.

The first result that is highlighted by our analysis is the growth of socio-environmental information in the financial statements; this trivial result becomes interesting as we notice an exponential growth in the years 2014/2015/2016 that then decreases in the following years; this is also corroborated by the inferential analysis in which the reports concerned are very similar to dictionaries. We can also exclude a homologation process as there is a different trend in the use of keywords by the companies. Moreover, the LSA analysis shows a substantial difference between the reports of the groups under investigation. From the qualitative point of view, we can detect a slight increase in quality, both seen by the groupings of words through the N-gram network, in which we compare the first and the last year, and there is a substantial difference in approach. The cosine measurement also increases over the years, for each topic slightly, except for one company which still had higher average values than the others.

This research relates the effects of institutional impetus in the release of non-financial disclosures, drawing on institutional and neo-institutional theories for the first time. By analyzing a sector that was already releasing a lot of disclosures voluntarily and showing that this process of institutionalization of disclosures did not lead to a homogenization of results, although to a progressive increase in quality.

From a theoretical point of view, the research attempts to analyze the effects of the work of institutions on social and environmental communication. The problem that arises is making all communication similar and not making the reader able to distinguish good from bad (Akerlof, 1970). At the moment, making only the communication mandatory, leaving the mode of communication voluntary, still makes the social will of companies recognizable. But what will a future tightening lead to? Is it essential to standardize communication in all its forms?

It remains possible that the results obtained are unrelated to institutional pressure as, in this study, we did not take into account the stress of institutional investors that could have had a positive effect on the quality of disclosure, and we did not take into account the lack of a framework for the release of such disclosure that reinforces the voluntary part to the detriment of the mandatory one. In addition, the work takes into account an industry that is strongly influenced by non-financial disclosure and large companies. Given these specific characteristics, the study should also be extended to companies that are not industry leaders and operate in sectors with less pressure.

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