Measuring Corporate Transparency in Sustainability Reporting

TREO Talk Paper

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Abstract

Corporations play a central role in sustainability, as their operations have major ramifications on the ecological, social, and economic contexts in which they operate. These operations need to be transparent to all stakeholders so that meaningful reporting could be easily accessed and understood by stakeholders. Indeed, transparency is an important measure of the effectiveness of corporate sustainability reporting (Kaptein et al., 2003). Bushman et al. (2003) defined transparency as the availability of firm-related information to the public, which is external to the organization. The most influential media outlets for firms to report their sustainability efforts include annual reports, social media, and websites. While several researchers have studied measures for corporate transparency (e.g. Delmas et al., 2010; Eldomiaty, 2005), broad-based quantitative approaches grounded in automated text-analysis have not yet attracted much attention. The key objective of this research is to develop a measure of corporate transparency in sustainability reporting and a related methodological approach to examining the sustainability reporting practices of organizations.

The first step in the proposed research is to build a dictionary of keywords in a systematic way through text analytics of a corpus of sustainability-rich documents compiled from different sources such as seminal articles, authoritative subject-specific books, social media, websites, and sustainability-specific reports of companies. The quality of the corpus is then evaluated both analytically and with the help of subject experts. The probability distribution of terms in the sustainability dictionary relative to the original corpus documents, will serve as a basis for developing an entropy-based measure of transparency in the sustainability reporting of businesses (Cover and Thomas, 1991). More specifically, we define a transparency score of a corporate report as the cross entropy between the probability distribution of sustainability terms in the dictionary and sustainability terms in a corporate report. Besides helping to compare reporting across groups of organizations within a specific industry sector, the measure will also help determine which information media are effective indicators of corporate transparency and which are not. The broader aim of this research is to influence improvements in transparency in sustainability reports and in communicating related information to stakeholders, in turn enhancing a corporation's sustainability strategies and related progress.