

## **Reporting Sustainability by Using the Multicriteria Logistic Biplot: The case of Spain and Portugal**

*Purificación Vicente-Galindo*<sup>1</sup>, *Teresa Noronha*<sup>2</sup>, *Eric Vaz*<sup>3</sup>, *Enrique Vicente Galindo*<sup>4</sup>

<sup>1</sup>purivic@yahoo.com, Department of Statistics, University of Salamanca.

<sup>2</sup>mtvaz@ualg.pt, Faculty of Economics, and CIEO, University of the Algarve, Portugal.

<sup>3</sup>evaz@geography.ryerson.ca, Department of Geography, Ryerson University, Toronto, Canada.

<sup>4</sup>kvg78a@hotmail.com, Department of Statistics, University of Salamanca.

This work suggests a new methodology capable of accessing in detail the contribution of companies to countries' sustainability related to economic performance. The concept of sustainability has been brought up in several debates, leading to a clearer understanding of its progress in recent decades. The most adequate indicators to achieve a unique value to define sustainability have been identified. However, specific behaviors of economic agents such as exist in particularly large organizations, have rarely been exposed and evaluated regarding their positive or negative contribution to the increase of sustainability throughout the world. This paper proposes an integrated approach incorporating an evaluation of the positive and negative contributions to sustainability by means of a logistic biplot application. This allows the creation of a summarized index that combines all single sustainability indicators. These synthetic indices allow the positioning of each of the companies in a geometric representation for an original exploration of the sustainability paradigm. The supplied method permits accessing and evaluating information concerning specific behaviors of economic agents such as big companies. In our paper, we have followed the engagements towards sustainability of big corporations, individually or as groups, across the different activity sectors in Portugal and Spain.

**Keywords:** Logistic Biplot, Global Reporting Initiative (GRI), Sustainability.