Green Jobs in multinational companies - an initial network and content analysis

PIWOWAR-SULEJ K.[1,*], FERASSO M.[2] and SULICH A.[1]

[1] Wroclaw University of Economics and Business, Komandorska 118/120, 53-345 Wroclaw (Poland)

[2] Community University of Chapeco Region, Servidao Anjo da Guarda, 295D, B. Efapi, Chapeco/SC (Brazil)

*corresponding author:
e-mail: katarzyna.piwowar-sulej@ue.wroc.pl

Abstract

Several current research studies on green jobs focus mostly on rural areas and analyze this problem in the context of Circular Economy or specific industries. However, the context of multinational companies is still uncovered. This study aims at mapping the field by relating the Green Jobs in multinational companies in the business/ management literature. The research method used in this paper is network analysis based on the results obtained from the Dimensions database, totaling 67 documents. Findings revealed that this research area is at its birth stage and proved the need for advancing the field. The avenues for future research are addressed.

Keywords: Green jobs, multinational companies, network analysis, environmental management, green human resource management.

1. Introduction

The Green Jobs (GJ) are inclusive and decent workplaces dedicated to protecting ecosystems and biodiversity by reducing energy, materials, and water consumption through high-efficiency strategies: de-carbonize the economy and minimize or avoid the generation of all forms of waste and pollution. Additionally, UNEP (2008) defined the specific industries for GJ development, which are: agriculture, manufacturing, research and development, administrative and service activities.

Due to their nature, GJ still cause more discussion about their definition and companies' industries and characteristics, therefore, in this initial study on multinational companies (MNC) and GJ, we aim at unfolding how these themes are related in business management literature (Piwowar-Sulej, 2021; Sulich and Rutkowska-Podołowska, 2017).

2. Research Design

2.1. Data collection

We collected data from the Dimensions database. This database was chosen to achieve a greater number of papers and allow capturing the big picture in the business management field related to the key terms under search.

In the Dimensions, we searched by "green job" and "multinational company" terms, full-text data, and limited to papers only, without period limitation. This procedure allowed the retrieval of 82 papers, whose meta-data was downloaded. After a careful inspection, we identified 15 OECD reports that were excluded from analyses and the sample totaled 67 papers.

2.2. Data analysis

The data was analyzed in two ways. The quantitative data allowed the identification of main fields and the evolution of publications per year and the identification of top five sources of publications and top five authors according to the number of publications (n>1). These quantitative data analyses followed the procedures adopted by Ferasso and Cherobim (2017).

For the network analysis, the procedures of Ferasso et al. (2020) were adopted. The Dimensions' csv format file was used as input for the VOS Viewer. The threshold applied to this dataset was the minimum number of documents by an author: 1. The next step was the bibliographic coupling analysis, according to the following procedures: a) unit of analysis: documents, b) full counting method, c) a minimum number of citations of a document: 0, totaling 67 documents. The results are shown in Figure 1. The quantitative data and co-citations network were used for content analysis as presented in the next section.

3. Findings

The quantitative data from Dimensions reported the evolution of papers per year: 2011: 3 papers; 2012: 8; 2013: 8; 2014: 5; 2015: 10; 2016: 7; 2017: 2; 2018: 5; 2019: 12 and 2020: 9. These numbers proved the scarcity of papers relating to both research topics GJ and MNC. The top-5 sources of publication are *Sustainability* (4 papers); *Renewable and Sustainable Energy Reviews* (3); *Journal of Business Ethics* (2); *Evergreen* (2) and *The International*

Journal of Human Resource Management (2). The top-5 authors in several publications are S. Sharpe (2 publications, 1 citation); Cristina Martinez-Fernandez (2, 1); A. Hassanpoor (2, 0); A. Navehebrahim (2, 0); and D.W.S. Renwick (2, 470).

Renwick is one of the most recognizable authors in the area of green HRM. He published an article (Renwick et al., 2013) which is the most cited in the research sample population (470 citations). It's worth mentioning that content analysis of the most cited articles revealed that they are not strictly devoted to the problem of GJ in MNC. This publication presents, in one sentence, that MNC are more and more environmentally aware in adopting green HRM, as MNC are the largest emitters of pollutants trying to improve their image in the eyes of job candidates.

One of the five above-presented authors (Renwick) comes from the United Kingdom. This country is also the most represented one as far as the number of publications is concerned (8 articles). Other countries that are assigned to more than 1 article, according to the available data in Dimensions, are the United States, India, South Korea, and Spain.

The most cited authors are Renwick – with 470 citations, Redmann – receiving also 470 citations, and Maguire – with the result of 380 citations received (for the publication mentioned above). The most cited authors usually have a great number of cooperating scientists, as seen in the network of bibliographic coupling (Figure 1).
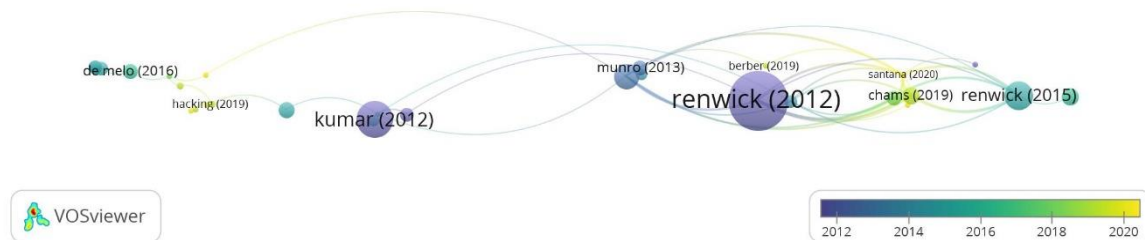

Figure 1. Bibliographic coupling results

4. Conclusions

As this study showed, apart from few pieces of research dedicated to studying GJ in association with MNC, there is a growing number of publications that include such phrases as GJ and MNC. They mostly came from West European countries and the USA giving the field for development to scientists from other regions.

The authors who cooperate get a higher number of citations which can serve as a guide for other researchers. Thus, the contribution of this research is the identification of seminal authors that are relating both research topics and the later researchers who followed their predecessors in the field.

The most crucial finding is that, although the number of publications seems to be high (67 publications), many of the articles (including the most cited) are not strictly connected with the analyzed topic. This proves that both the network analysis should be followed by in-depth content analysis and the analyzed topic needs further development. We recommend future research that could explore the role of GJ in the context of MNC.

References

Ferasso, M., Beliaeva, T., Kraus, S., Clauss, T., and Ribeiro-Soriano, D. (2020), Circular economy business models: The state of research and avenues ahead, *Business Strategy and the Environment*, **29(8)**, 3006-3024.

Ferasso, M., and Cherobim, A. P. M. S. (2017), Bibliometric analysis of international researches on innovation metrics, International *Journal of Bibliometrics in Business and Management*, **1**, 26-51.

Piwowar-Sulej, K. (2021), Human resources development as an element of sustainable HRM – with the focus on production engineers, *Journal of Cleaner Production*, **278**, 124008.

Renwick, D. W., Redman, T., and Maguire, S. (2013), Green Human Resource Management: A Review and Research Agenda*, *International Journal of Management Reviews*, **15(1)**, 1–14.

Sulich, A., and Rutkowska-Podołowska, M. (2017), Green jobs and changes in modern economy on the labour market, In R. Borowiecki and J. Kaczmarek (Eds.), *The propensity to changes in the competitive and innovative economic environment: processes - structures - concepts* (pp. 87–94), Kraków.

UNEP (2008), Green jobs: towards decent work in a sustainable, low-carbon world (Report), https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_158733.pdf.