


Article

Bibliometric Analysis of the Literature on Measuring Techniques for Manipulating Financial Statements

Ioana Lavinia Safta ^{1,*}, Andrada-Ioana Sabău (Popa) ¹ and Neli Muntean ²

¹ Faculty of Economics and Business Management, Cluj-Napoca University Babes-Bolyai, 400591 Cluj-Napoca, Romania; ioana.safta@econ.ubbcluj.ro

² Faculty of Economic Engineering and Business, Technical University of Moldova, 2004 Chisinau, Moldova; neli.muntean@adm.utm.md

* Correspondence: lavinia_s15@yahoo.com

Abstract: Creative accounting has its background since early studies in 1975, until the present time. It continues to be a subject of great interest for the companies and interested parties. Thus, the current paper will aim to answer the following proposed research questions: 1. Which are the most used methods for detecting the manipulation of financial statements in the literature? 2. Which are the terms that are most frequently encountered in the literature associated with “creative accounting”? 3. Which are the journals that have the highest frequency of articles written on the topic “creative accounting”? 4. Over time, how did research evolve in the field of creative accounting? 5. Which countries are most preoccupied in publishing regarding this topic? To answer the research question 1, the models published in the literature for measuring manipulation techniques through creative accounting were reviewed and analyzed. For the remaining research questions, a bibliometric analysis for the publications in this area was performed. For collecting the sample, articles on this topic were selected from the international Web of Science database. Following this, a bibliometric analysis of the articles was performed, using the VOSviewer program. A total of 4045 publications on creative accounting were identified. Through the bibliometric analysis we have answered research question 2, by identifying the key words that have the closest proximity to creative accounting. To answer the remaining research questions, we identified the journals with the highest frequency of publication and the countries with the highest interest on the topic. It is especially important to evaluate the quality of this many research papers and to obtain valuable information.

Keywords: creative accounting; bibliometric analysis; financial statements; VOSviewer; detection models



Citation: Safta, Ioana Lavinia, Andrada-Ioana Sabău (Popa), and Neli Muntean. 2021. Bibliometric Analysis of the Literature on Measuring Techniques for Manipulating Financial Statements. *Risks* 9: 123. <https://doi.org/10.3390/risks9070123>

Academic Editor: Mogens Steffensen

Received: 26 April 2021

Accepted: 16 June 2021

Published: 1 July 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

For the conducted study, we chose to research a topic that is of interest both domestically and internationally. Through the literature we found many studies based on the companies that were on the verge of bankruptcy, using the concept for a long time. The accounting phenomenon occurs as a result of legislative gaps, which gives professionals the opportunity to “create” what they want to have in their financial statements. Previous studies show that the manipulation is done by those who prepare the financial statements. They can judge the situations by filtering the perception of the professional.

Once the professionals have a closer look on the financial statements, indicators can be calculated and red flags outlined in the case of financial fraud. The elements included in the financial statements, and those that can be manipulated, are incomes and expenses, part of the profit and loss account, assets and liabilities, and other elements such as equity; with these manipulations, a favorable image of the companies is presented (Achim and Borlea 2020).

Users of financial information pursue their own interests. Creative accounting gives those who prepare the financial statements the “freedom” to manipulate the numbers in

the way that their users want to see (Groşanu 2013). Watts and Zimmerman (1978, 1986, 1990) approach the concept in a positive manner, especially in the conducted work on the bankruptcy issue.

The current economic and technological context is considered to be a complex, insecure one, due to the impossibility to identify the interdependencies between the elements of the financial statements (Alazard and Sépari 2001). The economic environment is going from simple and slightly variable to a complex one under the sign of top technologies, becoming dynamic, complex, and increasingly difficult to control. These changes have led to the redefinition of companies' objectives, by setting the following new objectives that respond to current events: increasing quality, productivity, flexibility, and profit.

Economic companies need to have current financial information to carry out the activity and to meet the needs of shareholders, by maximizing profit, and to ensure a good approach in the activities undertaken, and to try to avoid the risks they face as much as possible. Exposing this information offers competitive advantages to companies in the market. Financial statements are used for both businesses and companies, and for users of financial information, such as managers, the state, suppliers, employees, customers, banks, potential investors, and shareholders. The main purpose of the information contained in the financial statements is to be intelligible to all who read them (Lau et al. 2013).

The economic and social environment of a company affects its strategy. These elements can be concretized in the following two concepts: culture and environment. There is ample evidence in the literature that these goals differ from country to country, and from culture to culture.

With the process of globalization, economic activity has been continuously developing, followed by the establishment of international economic relations, but this development of relations has led to inconsistencies in financial statements. To avoid such discrepancies, the European Union has implemented the standards international financial reporting system (IFRS) for all participating countries, as provided by the provisions Regulation (EC) No. 1.606/2002 of the European Parliament and of the Council of 19 July 2002. This implementation helps to standardize the financial statements. These are becoming comparable as follows: bi-accounting chain, profit and loss account, explanatory notes, etc.

The following five research questions were proposed to be answered for the current study:

Research question 1: which are the most used methods for detecting the manipulation of financial statements in the literature?

Research question 2: which are the terms that are most frequently encountered in the literature associated with "creative accounting"?

Research question 3: which are the journals that have the highest frequency of articles written on the topic "creative accounting"?

Research question 4: over time, how did research evolve in the field of creative accounting?

Research question 5: which countries are most preoccupied in publishing regarding this topic?

This paper follows the following organization: The literature review, in which the existing literature is presented, which refers both to the theoretical part and to the practical part of the manipulation detection models. The "Materials and Methods" section describes the working techniques and how to work with the data. The "Results and Discussions" present what we obtained from the research. In the end we focused on the "Conclusions", through these we tried to highlight what is most important, but we also drew the main research limits.

2. Literature Review

Creative accounting is not a new notion at all; this type of practice has been discussed since the Anglo-Saxon period. The concept is very complex and nuanced. In the literature, creative accounting is presented by almost all authors as having negative values on the economic environment, due to the fact that it helps the economic participants to manipulate