

Revista de Contabilidade e Controladoria (Rc&C): Analysis of the First Five Years of Publication (2009-2013)

Abstract

In view of the journals' important role in the dissemination of scientific knowledge and the outstanding role of *stricto sensu* graduate programs in the maintenance of these communication vehicles in Brazil, including in Accounting, the objective in this research was to analyze the profile of the publications by the Revista de Contabilidade e Controladoria, a journal published by the Graduate Accounting Program at the Universidade Federal do Paraná, during the five years of its existence. To contribute to the state of the art of accounting research in Brazil, bibliometric analysis techniques were used in the research to outline the publication profile of the journal studied between 2009 and 2013, based on research published in journals with similar characteristics, emphasizing characteristics related to the composition, the authorships' institutional and geographical distribution, predominant themes and research lines, besides the main approaches used with regard to the research problem and the study objective. The obtained results underline different aspects observed in similar studies of journals maintained by graduate accounting programs, especially regarding the composition of authorships, institutions and more productive authors, thus adding robustness to the scenario that has been demonstrated about these vehicles' contribution to the evolution of accounting research in Brazil. In addition, the research presents peculiarities and specific information that is capable of revealing the profile of the most recent Brazilian accounting journal belonging to a *stricto sensu* graduate program.

Key words: Bibliometrics; Accounting Research; Revista de Contabilidade e Controladoria; Scientific Journals.

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1. Introduction

Scientific journals can be considered as the main instrument for scientific dissemination, because of its dissemination capacity in the academic context – especially for journals published on-line, due to the legitimacy granted to the research content because of the peer review, and due to the high level of maturing of this report, as the final phase of the scientific publication process. Consequently, the maintenance of scientific journals plays a decisive role in the evolution of science itself (Biojone, 2003; Batistella, Bonacim & Martins, 2008).

In Brazil, today, the *lato sensu* and *stricto sensu* graduate programs offered at higher education institutions are the main sources of scientific production published in the journals (Silva, Oliveira & Ribeiro, 2005), which is also true for the accounting area (Oliveira, 2002; Perdigão, Niyama & Santana, 2010). Different *stricto sensu* graduate programs in Accounting edit scientific journals. Nowadays, these programs maintain 14 active journals (Espejo, Azevedo, Trombelli & Voese, 2013). Among these scientific journals, the Revista de Contabilidade e Controladoria [RC&C], maintained by the Graduate Accounting Program at the Universidade Federal do Paraná [UFPR] is the most recent. Its first electronic publication took place in the first four months of 2009.

After five years of four-monthly and uninterrupted publication, it is relevant to analyze the articles in the fifteen issues of RC&C published so far, demonstrating the most recurring topics, themes and methodological aspects, as well as the authors and institutions that most contributed to the dissemination of new scientific studies through this journal, revealing its contribution to the disclosure of the state of the art of accounting research in Brazil. Thus, this research aims to answer the following questions: what are the characteristics of the articles published by the Revista de Contabilidade e Controladoria in the first five years of its existence?

This report presents the main characteristics of the articles published in RC&C between 2009 and 2013, particularly highlighting the following aspects: relation between number of authors and articles, authors and most recurring institutions, most addressed topics and research lines and most employed approaches in relation to the research problem and study objective. Through this research, the intent was to get to know the profile of this journal's publications in the course of its existence.

The 14 scientific journals published by *stricto sensu* graduate programs in Accounting in Brazil have already been investigated in bibliometric studies with the exclusive aim of presenting their publication profile. Among other studies, the Revista de Contabilidade e Finanças (Leite & Siqueira, 2007), Revista Contabilidade, Gestão e Governança (Perdigão *et al.*, 2010), Brazilian Business Review (Ribeiro, 2012), Revista de Contabilidade do Mestrado em Ciências Contábeis da Universidade Estadual do Rio de Janeiro (Souza, Silva, Araujo & Silva, 2012), Revista Contabilidade Vista & Revista (Ribeiro, 2013a), Revista Contemporânea de Contabilidade (Ribeiro, 2013b), and Revista de Contabilidade e Organizações (Ribeiro, 2013c) have been analyzed. Therefore, this research is important as it helps to compose the state of the art of the academic publications by the Brazilian *stricto sensu* graduate programs in Accounting.

2. Theoretical-Empirical Framework

To understand what bibliometrics is about, Vanti (2002) presents the definition by Spinak (1996), who considers bibliometrics as the study of the organization of scientific and technological sectors through bibliographic sources with a view to identifying their agents, relations and trends. In addition, according to Batistella *et al.* (2008, p. 89), bibliometrics can be defined as “the application of mathematical and statistical tools in the analysis of texts in general, including both scientific and non-scientific studies”.

According to Araújo (2006), although the term “bibliometrics” was created in the 1930's, it became popular through a paper published by Pritchard (1969), distancing this term from what was known as “statistical bibliography”. Bibliometrics is focused on the application of quantitative methods for the sake

of an objective assessment of the scientific production, as opposed to more discursive approaches, which is the case of statistical bibliography.

In line with Pritchard (1969), bibliometrics is applied to books and other communication forms. As highlighted in Pritchard (1969), initially, bibliometrics was more focused on measures related to books but, over time, its application has extended to other formats of bibliographic production, including, according to Araújo (2006), articles published in scientific journals.

As Araújo (2006) highlights, the bibliometric studies developed in Brazil are undertaken based on different perspectives, looking at specific scientific areas or topics within an area, the productivity of authors from a certain teaching institution, specific bibliometric themes like obsolescence, in view of research or the optimization of collections, or scientific journals from a specific area. In accounting, different types of bibliometric research have been developed and published in Brazil, focused on accounting itself and specific topics in this area, authors' productivity, analysis methods employed and publication profiles of certain scientific journals.

Examples of research on bibliometrics in accounting include Cardoso, Mendonça, Riccio and Sakata (2005), which explored the methodological characteristics and themes of the scientific publications in accounting in Brazilian journals that are highly assessed according to the Coordination for the Improvement of Higher Education Personnel – Capes, between 1990 and 2003; and the research by Avelar, Santos, Ribeiro and Oliveira (2012), which analyzed the research lines, methodological procedures and authorship compositions of nine Brazilian accounting journals between 2000 and 2009.

As to specific topics in the accounting area, among the different bibliometric studies undertaken in Brazil, investigations on auditing (Oliveira & Carvalho, 2008), controllership (Peleias, Wahlmann, Parisi & Antunes, 2010), accounting and environmental costs (Grzebieluckas, Campos & Selig, 2012), costs (Machado, Silva & Beuren, 2012) and accounting expertise (Taveira, Medeiros, Camara & Martins, 2013) can be mentioned. In addition, studies can be found that focused on the use of certain analysis techniques in accounting research, such as the verification by Macedo, Casa Nova and Almeida (2009), which analyzed research in accounting and business administration that used data envelopment analysis [DEA], and the research by Alves (2011) about research that employed the content analysis technique.

Concerning Brazilian research focused on the authorship composition in accounting publications, the research by Leite (2008) is highlighted which, based on the Revista Contabilidade e Finanças, Revista UnB Contábil, the annals of the Encontro Anpad, and the annals of the Congresso USP de Controladoria e Contabilidade, investigated the authorship composition, authors' gender, academic affiliation, most productive authors and compliance with Lotka's Law in accounting research published in these publication vehicles.

Concerning the bibliometric studies focused on Brazilian accounting journals, initially, those studies are highlighted that aimed to identify characteristics of journals promoted by *stricto sensu* accounting graduate programs in the area. The main information related to these studies and the information present in all reports published – all related to the authorship profile – are displayed in Table 1.

Apart from the data demonstrated, the articles listed in Table 1 present different information related to the authorship composition. Articles (1), (3), (5), (6) and (7) indicate the percentage of authors with a single publication in the journals, with all journals analyzed showing more than 75.9% of authors in this situation. It should be highlighted that the percentage mentioned refers to the analysis developed in article (1).

Also about the authorships, articles (1), (3), (4), (5), (6) and (7) present the list of the most productive authors in each scientific journals, while articles (1) and (2) provide the distribution of authorships per region in Brazil, demonstrating the concentration of authors in the Southeast. In addition, article (2) presents the distribution of authors per unit of the federation, underlining the great contribution from the state of origin (in this case the Federal District), besides the states of São Paulo and Santa Catarina. Concerning the authors' level of instruction, articles (2) and (3) present this information, demonstrating that more than 40% of the authors identified belong to researchers with a Ph.D. as the highest academic degree.

Table 1

Information about the authorship composition in bibliometric studies published in Brazilian accounting journals published by *stricto sensu* graduate programs

n°	Authors	Journal	Analysis period
(1)	Leite e Siqueira (2007)	Revista Contabilidade e Finanças [RCF]	1999-2006
(2)	Perdigão <i>et al.</i> (2010)	Contabilidade, Gestão e Governança [CGG]	1998-2009
(3)	Ribeiro (2012)	<i>Brazilian Business Review</i> [BBR]	2004-2011
(4)	Souza <i>et al.</i> (2012)	Revista de Contabilidade do Mestrado em Ciências Contábeis da Universidade Estadual do Rio de Janeiro [RCMCC-UERJ]	2003-2011
(5)	Ribeiro (2013a)	Contabilidade Vista & Revista [CV&R]	2008-2012
(6)	Ribeiro (2013b)	Revista Contemporânea de Contabilidade [RCC]	2004-2012
(7)	Ribeiro (2013c)	Revista de Contabilidade e Organizações [RCO]	2007-2012

n°	Mean authors per article	% articles with 1 author	% articles with 2 authors	% articles with 3 authors	% articles with more than 3 authors	% authors from the institution of origin
(1)	1.92	33.10%	45.52%	17.93%	3.45%	47.09%
(2)	2.12	41.18%	24.84%	19.61%	14.38%	14.81%
(3)	2.46	12.40%	41.86%	29.46%	16.28%	8.37%
(4)	3.00	8.70%	40.87%	23.48%	26.96%	10.19%
(5)	3.04	4.17%	25.00%	33.33%	37.50%	10.00%
(6)	2.74	10.53%	33.08%	30.83%	25.56%	12.44%
(7)	2.96	6.15%	29.23%	33.08%	31.54%	12.32%

Source: elaborated by the author

In addition, the presentation of methodological design maps in the articles published in the investigated journals should be highlighted. In that sense, articles (3), (4), (5) and (6) stand out, which present the number of articles with a qualitative or quantitative approach. Based on the presented results, it was observed that the qualitative approach is predominant only in RCMCC-UERJ (68.7%), while articles that mainly adopt a quantitative approach predominate in the other journals investigated, especially BBR (80.6%).

The existence of bibliometric studies based on other journals that receive accounting research should be mentioned. Ribeiro (2013d) developed a bibliometric research based on the *Revista de Educação e Pesquisa em Contabilidade* [REPEC], similar to the studies (3), (5), (6) and (7), considering the period between 2007 and 2012. The research results revealed 2.88 articles per author, the predominance of articles with two authors (31.13%), the high concentration of authors with a single article published in the journal (84.77%), the predominance of quantitative over qualitative articles (71.7%), besides the mapping of the most productive authors.

The *Revista Enfoque – Reflexão Contábil* was also considered in a bibliometric research, considering the period from 1990 till 2011. The results by Araujo, Santana, Araujo and Oliveira (2013) revealed an average 2.1 authors per article, a predominance of male authors (77.5%), with M.Sc. as the highest degree (23.8%), mainly located in journal's state of origin (Paraná, 39%), with Management Accounting as the main study area (26.5%).

In the Brazilian scientific literature, some studies contrast the scientific production published in scientific journals, such as Batistella *et al.* (2008), involving RCF and *Revista Base*; the study by Dantas, Silva, Santana & Vieira (2011), which compares the standards of RCF with the North American journal *The Accounting Review* (TAR), and the study by Oliveira, Santana, Araujo and Araújo (2012), which compares the publication standards of the *Revista Ambiente Contábil*, *Revista Sociedade*, *Contabilidade e Gestão* and *Revista Contabilidade e Controladoria*. The latter presents the distribution of authors per gender, academic affiliation, degree and geographical distribution, besides identifying the main topics discussed in the publications between 2009 and 2011.

In that sense, this research aims to present, specifically and considering a larger time period, the profile of articles published in RC&C, adding up to the list of studies developed in journals affiliated with *stricto sensu* graduate programs in accounting in Brazil, considering different foci employed in similar studies, as mentioned in the course of this theoretical framework. The methodological course followed is detailed in the specific methods topic.

3. Methods

Research with a quantitative approach of the problem (Richardson, 2008) and descriptive with regard to its objectives. The bibliometric analysis technique was adopted to reveal the publication profile of the journal under analysis. This technique is part of the bibliographic research strategy adopted (Martins & Theóphilo, 2007).

Therefore, all issues available on the website of the journal RC&C were considered, equivalent to the period from 2009 till 2013. Details on the journal's publications are displayed in Table 2.

RC&C, maintained by the Graduate Accountancy Program at Universidade Federal do Paraná, is a three-monthly open-access journal available free of charge, which can be accessed on a specific website (www.ser.ufpr.br/rcc). The journal aims to permit the dissemination of scientific, theoretical and empirical studies in Accounting, Controllership and Finance, which can contribute to the evolution of accountancy (RC&C, 2014).

In 2013, it was classified by CAPES as B3 in the area of Business Administration, Accountancy and Tourism (CAPES, 2014b). Initially, the editors of RC&C were professors Lauro Brito de Almeida and Luiz Panhoca, who led the journal until the middle of 2010. Then, the editors were professors Ademir Clemente and Romualdo Douglas Colauto and, since the start of 2013, professor Jorge Eduardo Scarpin has been responsible for editing the journal (RC&C, 2014).

Table 2

RC&C – fascicles, articles and pages per year of publication

Year	Fascicles	Articles	Number of pages
2009	3	16	251
2010	3	17	350
2011	3	18	312
2012	3	24	423
2013	3	24	433
Total	15	99	1,769

Source: elaborated by the author

To express the profile of the articles published in the scientific journal, the following characteristics were selected, based on the correlated literature highlighted in the theoretical-empirical framework: (i) composition of authorships per article and year, with the average number of authors per article and fascicle; (ii) distribution of authorships per institution, state of the federation, geographical region and highest degree, and identification of most productive authors; (iii) identification of most discussed topics and main research areas in the articles published; (iv) clarification of approaches with regard to the most used research problem and study objective in the scientific research published.

For the collection, treatment and analysis of the data collected from all journal fascicles available electronically, the software *Microsoft Excel*®, *Sphinx Survey*® Edition Léxica version 5.1.0.7, and *Wordle.net*®, the latter two used to support the bibliometric treatment, analysis and demonstration described in item (iii).

4. Analysis and Discussion of the Results

The analysis and discussion of the results presented in this section follows the characteristics of the bibliometric study presented in the methods section. Hence, this section is presented in four parts, starting with the composition of the authorships.

4.1 Composition of Authorships

In this topic, which presents the composition of authorships per article and year, with the mean number of authors per article and fascicle. Table 3 shows these data, inspired on the format displayed in Perdigão *et al.* (2010).

As noted in Table 3, there is a predominance of joint publications (92.9%), since only 7.07% of the articles were written by a single author. In that perspective, this percentage of articles with a single author is more similar to that observed in the journals RCMCC-UERJ and RCO, in contrast with the larger share of articles with a single author found in the journals RCF and CGG, as demonstrated in Table 1.

In a more detailed sense, it is observed that the authorship compositions with four, two and three researchers predominate (29.3%, 28.3% and 27.3%, respectively). Considering a distribution of this composition among articles with one author, two authors, three authors or more than three authors, it is observed that the most recurring composition refers to articles with more than three authors (37.5%), a fact that was only observed in CV&R among the studies listed in Table 1.

Table 3

RC&C – authorship composition

Quantity of authors per article	2009	2010	2011	2012	2013	General
One author	1	2	2	1	1	7
Two authors	2	5	5	6	10	28
Three authors	6	5	5	8	3	27
Four authors	5	4	6	6	8	29
Five authors	1	1	0	3	2	7
Six authors	1	0	0	0	0	1
Total articles	16	17	18	24	24	99
Total de authors / year	54	48	51	76	72	301
Mean authors per article	3.4	2.8	2.8	3.2	3	3.0
Total fascicles/year	3	3	3	3	3	15
Mean authors per fascicle	18.0	16.0	17.0	25.3	24	20.1

Source: elaborated by the author

Considering the index between the total number of authors and the total number of articles, the mean number of three authors per article coincides with that of RCMCC-UERJ. According to Table 1, approximate results were observed in RCO, CV&R and RCC.

4.2 Identification of Authors

In this topic, the distribution of authorships per institution, state of the federation, geographical region and highest degree is presented, besides the identification of the most productive authors in the journal under study. Figure 1 initially shows the institutions with the largest number of authorships in the scientific journal analyzed.

Based on Figure 1, it is observed that the Universidade Federal de Minas Gerais [UFMG] is the institution with the largest number of authorships (10.63%), followed by UFPR, the institution that maintains the scientific journal (8.97%). The presence of UFMG as the institution with the largest number of authorships was not observed in any similar study based on Brazilian accounting journals, considering those publications that presented these details. The institution stood out among the most productive in the journals CV&R (second place), which it edits, RCC (third) and RCO (seventh).

The presence of UFPR as the second institution with the largest number of authorships underlines the trend observed in related studies on the presence of the responsible institution among the most productive in the journal, which is more similar to that observed in BBR (edited by FUCAPE Business School) and CV&R (edited by UFMG), but not as acutely as observed in the journals affiliated with the University of São Paulo (edited by the University of São Paulo [USP]), namely RCF and RCO, besides the journals RCC (edited by Universidade Federal de Santa Catarina [UFSC]) and RCMCC-UERJ (edited by Universidade do Estado do Rio de Janeiro [UERJ]), in which the maintaining institution showed the largest number of authorships. Nevertheless, it should be highlighted that the share of UFPR authorships in the total number only surpasses that observed in the journal BBR (8.37%), while the remaining institutions present a share of more than 10% in their own journal, as presented in Table 1.

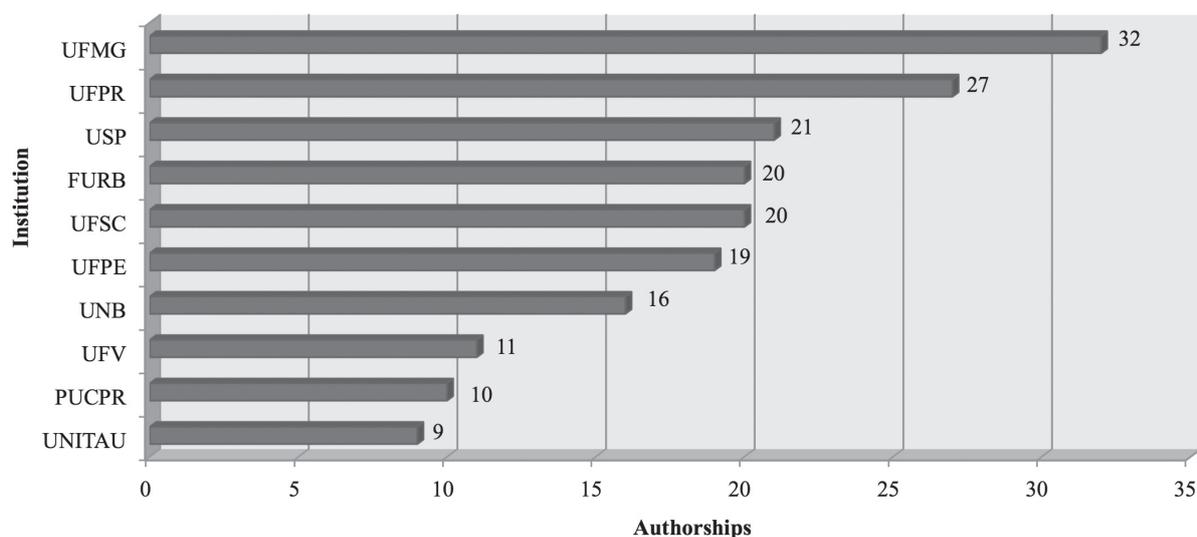


Figure 1. RC&C – 10 institutions with largest number of authorships

Source: elaborated by the author

In RC&C, USP shows the third highest number of authorships per institution, without repeating the predominance observed in the journals BBR, CV&R and REPEC, besides the above mentioned RCF and RCO. Nevertheless, the institution continues among the main three in this aspect, similar to the other journals that identify this information (RCC and RCMCC-UERJ).

Next are the Universidade Regional de Blumenau [FURB], UFSC, Universidade Federal de Pernambuco [UFPE], Universidade de Brasília [UNB], Universidade Federal de Viçosa [UFV], Pontifícia Universidade Católica do Paraná [PUCPR] and Universidade de Taubaté [UNITAU]. It is observed that, among the ten institutions that stand out in this sense and concentrate 61.5% of all journal authorships, only PUCPR is a private institution, while the remainder are federal (six), municipal (two) and state-owned public institutions (one).

All authorships (301) are distributed among 58 higher education institutions, with eight authorships from the Universidade de Caxias do Sul [UCS], five institutions with six authorships, one with five (Universidade Estadual do Oeste do Paraná [UNIOESTE]), four institutions with four authorships, six with three authorships, eight with two authorships and 23 with only one authorship. Considering the distribution of authorships per state of the federation, Table 4 displays the results of the analysis.

The predominance of the state of Minas Gerais [MG] in the composition of authorships for the journal studied (17.6%) can be observed in Table 4, in line with what was observed based on the higher education institutions. The presence of the state that houses the journal, in this case Paraná [PR] (16.6%), among the most productive was also observed in the research undertaken for the journal CGG. Other similar highlights were the state of Santa Catarina [SC] and São Paulo [SP].

Table 4

RC&C – composition of authorships per state of the federation

State of the Federation	Number of authorships
MG	53
PR	50
SC	50
SP	38
PE	22
RS	19
DF	16
CE	13
RJ	12
ES	7
PB	6
BA	4
GO	3
PI	1
Total	294

Source: elaborated by the author

As regards the distribution of authorships per geographical region, this can be better represented as shown in Figure 2.

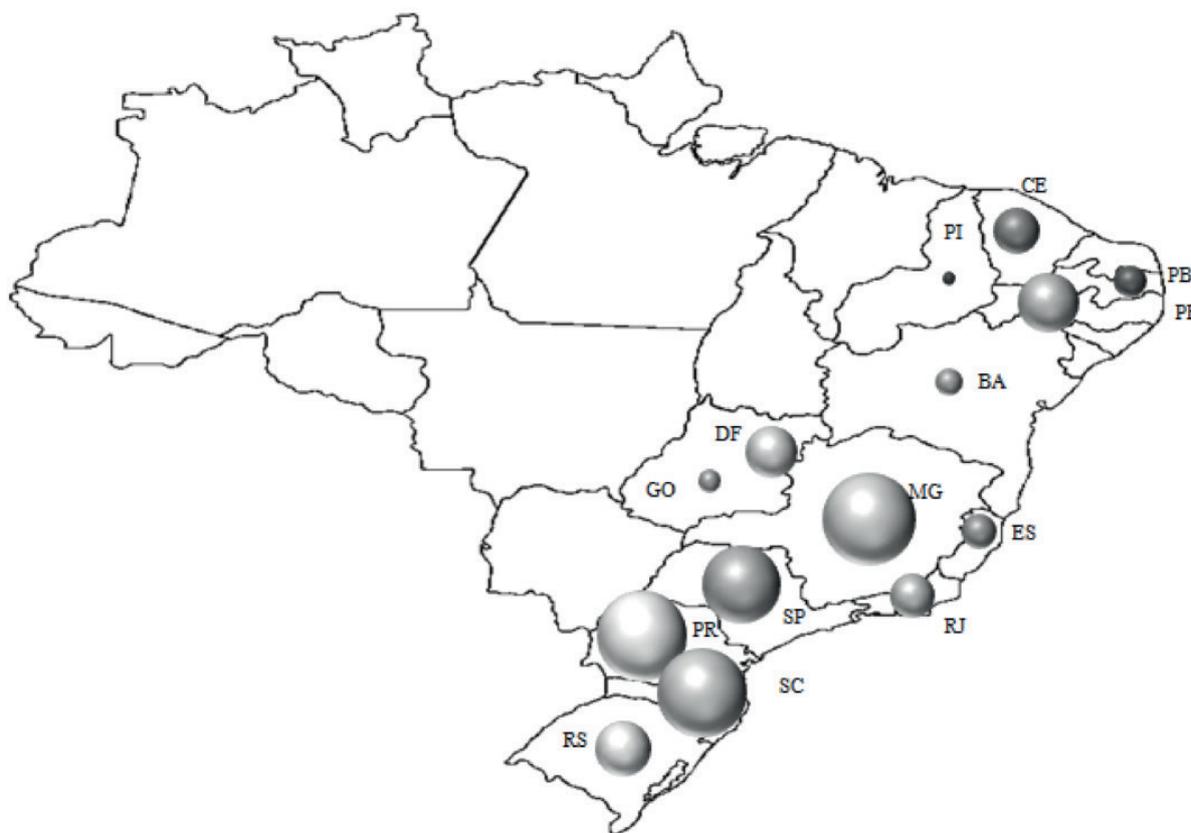


Figure 2. RC&C – geographical distribution of authorships

Source: information collected by the author, map model by Santos (2012)

As observed in Figure 2, the large majority of the authorships is concentrated in the South (39.5%) and Southeast (36.5%), that is, more than $\frac{3}{4}$ of all authorships originate in these Brazilian geographical regions. Next come the Northeast (15.3%) and the Central-West (6.3%). It is highlighted that no authorship was identified affiliated with a Northern institution. The outstanding role of the Southeast is also observed in the surveys undertaken in the journals RCF (66.67%) and CGG (38.89%), besides the highlight of authorships in the same geographical region where the journal is located, which was also the case for the journal CGG (24.08%).

In addition, it was observed that seven authorships (2.3%) are international, five from Portugal, one from Spain and one from the United States. This percentage is higher than that found in the journal CGG (1.85%), but lower than that found in RCF (10.73%).

As regards the most frequent authors in the journal studied, 256 different authors were observed for 301 authorships. Ilse Maria Beuren, Jacqueline Veneroso Alves da Cunha and Marcos Antonio de Souza were the researchers that most published articles in RC&C, with three publications each. It should be highlighted that the first author mentioned was also highlighted in the studies about the journals RCF, RCMCC-UERJ, CV&R, RCC, RCO and REPEC. The third author cited was also highlighted in the analysis of the journals CV&R and RCO, while the second author had not been mentioned in similar studies.

Thirty-nine authors published twice and 214 authors only once. In general, 83.6% of the authors published only once in RC&C, while 16.41% published two or more articles. This structure is coherent with similar studies. The smallest percentage of authors with a single publication was found in RCF (75.9%) and the largest in RCC (86.8%).

As regards the highest degree of the 256 authors who published scientific articles in RC&C, Figure 3 summarizes the resulting profile, displaying the degree and the number of authors, respectively.

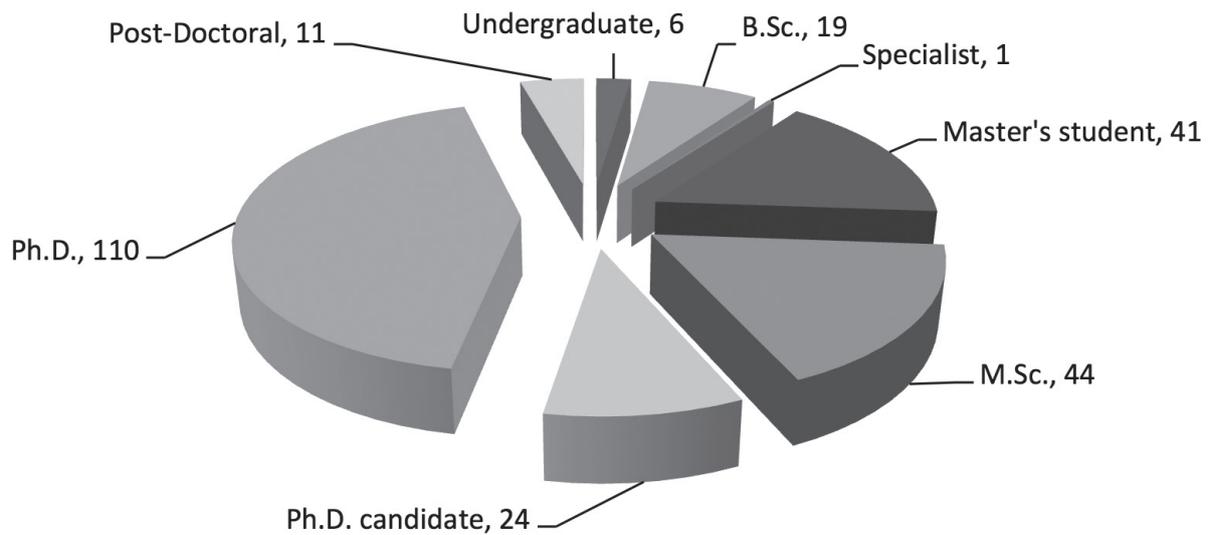


Figure 3. RC&C – highest degree of authors

Source: elaborated by the author

The analysis of the results obtained for this item shows that 43% of the existing authorships relate to researchers who hold a Ph.D., similar to the results of the bibliometric analyses of the journals CGG (42.9%) and BBR (45.7%). In comparison with the results for these journals, a larger share of researchers with a post-doctoral degree was observed in RC&C (4.3%, against 2.2% in CGG and 1.8% in BBR), a larger share of Ph.D. candidates (9.4%, against 5.2% in CGG and 7.4% in BBR), a larger share of B.Sc.'s and Bachelor degree students (7.4% and 2.3%, respectively, against 3.7% and 0.6% in CGG, and 3.4% and 0.3% in BBR) and a smaller share of specialists (0.4%, against 4% in CGG and 2.1% in BBR).

In addition, in the articles studied, the authors' graduation area was explored. The main areas are shown in Figure 4.

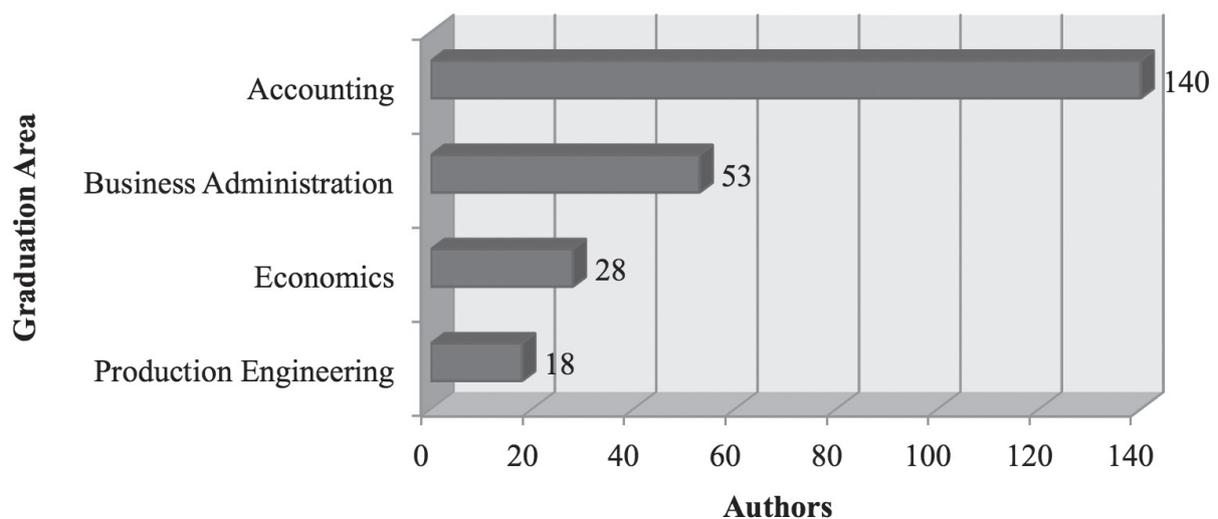


Figure 4. RC&C – authors' main graduation areas

Source: elaborated by the author

Based on the information collected and presented in Figure 4, it is observed that 54.7% of the 256 authors have Accounting as their main graduation area, followed by Business Administration (20.7%), Economics (10.9%) and Production Engineering (7%). In addition, authors were identified who graduated in Nursing, Management, Education and other Engineering areas (3 authorships each), besides Linguistics, Public Health, Agribusiness, Information Systems and Physics (one authorship each). This shows that researchers from 13 distinct areas have already published in RC&C.

4.3 Research Themes and Areas

In this topic, the most addressed themes and main research areas in the articles published are discussed. To identify the most addressed themes in the articles published in RC&C, the keywords from each research published in the journal were collected, concentrated in a *Microsoft Excel* database and then treated from different perspectives.

Initially, the most mentioned keywords were identified, considering the full terms delimited by the authors. As a result, it was verified that the keyword “corporate governance” was the most mentioned with seven cases. Next came the word “accounting” with five cases, followed by “performance” and “IFRS” with four. It is highlighted that 276 different keywords occurred in the articles published by RC&C, out of a total of 341 keywords.

Next, the keywords were explored in further detail, distinguished the most frequent words in the keywords, so as to refine the clarification of the most addressed themes. The set of keywords was treated using *Microsoft Excel*. With the support of the online software *Wordle.net* (<http://www.wordle.net/>), a representation of this set of words was elaborated in the shape of a mosaic (or cloud), similar to Ribeiro (2012, 2013a, 2013b, 2013c, 2013d). The result of this treatment of the keywords, focused on the frequency of these words, is displayed in Figure 5.



Figure 5. RC&C – most frequent words among the keywords

Source: elaborated by the author

As can be observed in Figure 5, the word “accounting” is the most frequent among the keywords (20 cases), followed by the adjective “accounting” in singular (14), “management” (9), “performance” (8), the adjective “accounting” in plural (8), “corporate” (7), “governance” (7), “sector” (7), “costs” (6), “disclosure” (6), “environmental” (6) and “financial” (6), which were the most frequent words. It is highlighted that, differently from the earlier analysis, in which the keyword “corporate governance” was the most mentioned, this analysis considers each word inserted in the keyword individually, which in this case separates the word “governance” from the word “corporate”.

In addition, the results reveal words with common roots (accounting in the substantive and adjective forms for example). Compiling them would provide a more synthetic picture of the frequency of words inserted in the keywords. For this analysis, the software *Sphinx Survey*® was used for support, in which the words with common roots were analyzed (based on sequences of four common characters). The result of this analysis with the most frequent words is displayed in Table 5. The words that were compiled based on the roots are displayed starting with the character #.

Table 5

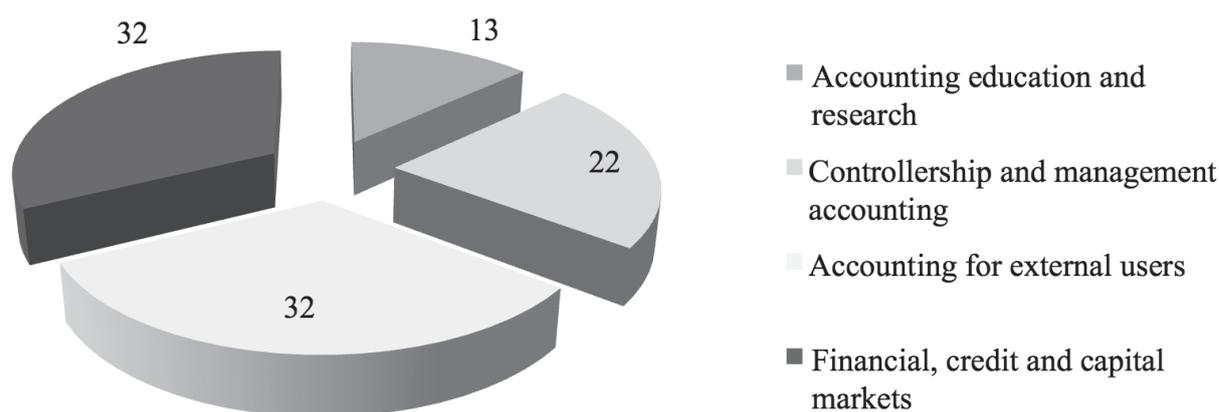
RC&C – most frequent words among keywords after treatment of roots

Word	Quantity	Word	Quantity
#Accounting	42	#Institutional	8
#Finance	17	#Capital	7
Management	14	Corporate	7
#Information	12	Governance	7
#Cost	9	Sector	7
#Environmental	9	Disclosure	6
Performance	8	#Social	6
#Company	8		

Source: elaborated by the author

This shows that the main terms are related to accounting, finance, management, information, cost, environment, performance, company and institution in the analysis displayed in Table 5. These are the strongest themes in the articles published in RC&C, based on the keywords defined by the authors.

As regards the research areas addressed in the articles published in the journal, they were categorized according to the research areas that exist in the Graduate Accounting Program at USP (University of São Paulo School of Economics, Business Administration and Accounting [FEAUSP], 2014), the main Brazilian program in this area according to CAPES (CAPES, 2014a). The results obtained are shown in Figure 6.


Figure 6. RC&C – research areas of articles published

Source: elaborated by the author

Based on Figure 6, it is observed that the research areas “Accounting for External Users” and “Financial, Credit and Capital Markets” were the most addressed (32.3% each). Next, the research area that stands out is “Controllership and Management Accounting” (22.2%), followed by “Accounting Education and Research” (13.2%).

4.4 Approaches of the Research Problem and Study Objective

This topic intends to clarify the most used approaches in the scientific studies published, more specifically with regard to the research problem and the study objective (Cooper & Schindler, 2003; Richardson, 2008). Therefore, all articles published in RC&C were analyzed, mainly on the authors' methodological considerations. Concerning the research problem, articles were identified that are considered quantitative, qualitative or both at the same time. Initially, the identification of three theoretical essays is highlighted, with are not considered in the analyses, including the results presented in Figure 7.

Based on Figure 7, it is observed that the quantitative approach predominates in the research published in RC&C (60.4%), as observed earlier in the journals BBR (80.6%), RCC (74.2%), RCO (62.4%) and REPEC (71.7%). Thus, only RCMCC-UERJ publishes mainly qualitative articles (68.7%).

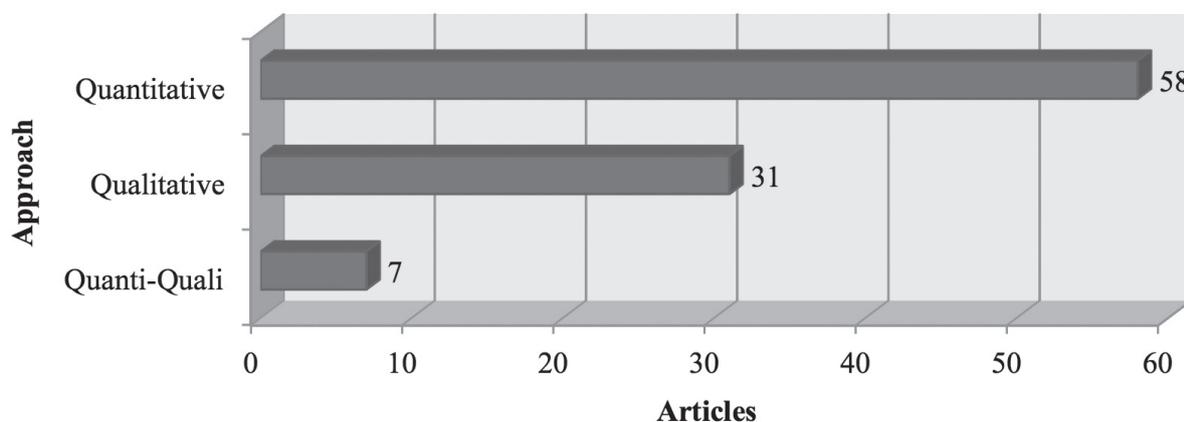


Figure 7. RC&C – approaches related to the problem

Source: elaborated by the author

As regards the approach of the study objective, the descriptive approach was the most employed (55.2%), followed by the exploratory (21.8%), descriptive and exploratory (16.7%) and explanatory approach (6.3%).

5. Conclusions

The aim in this research was to outline the profile of the publications in the course of the five years of its existence. Therefore, a bibliographic study was undertaken, using bibliometric analysis techniques, addressing characteristics identified in related studies and making comparisons with results obtained in similar studies developed based on Brazilian journals maintained by *stricto sensu* graduate programs in the area.

A large part of the results presented in this research is in line with what was observed in similar research in the journals mentioned. The similar results obtained with regard to the participation pattern of a single author per article, index between total authors and total articles, the high participation of the institution that maintains the journal in the composition of authorships, the outstanding place of USP among the most productive institutions, the high participation of authors located in the maintaining state, in Santa Catarina and São Paulo, the outstanding role of the Southeast in scientific productivity, the large number of authors with a single publication and holding a Ph.D. as the highest academic degree and the predominance of quantitative studies are elements that enhance the robustness of the evidence collected in related research, thus supporting the composition of the state of the art of Accounting research in Brazil.

On the other hand, specific characteristics of RC&C were identified, such as the predominant authorship composition with three authors, the outstanding productivity of UFMG, of the state of Minas Gerais and the South, besides the greater participation of scholars holding a post-doctoral degree, Ph.D. candidates, B.Sc.'s and B.Sc. students in the compositions of authorships in comparison with other Brazilian accounting journals.

In combination with the other characteristics observed, such as the predominance of accounting researchers in the publications, the emphasis on themes like accounting, finance, management, environment and performance, the emphasis on research in the areas accounting for external users and financial, credit and capital markets, and the high frequency of research with a descriptive approach, the items mentioned can help to compose the identity of the *Revista de Contabilidade e Controladoria*, the most recent accounting journal affiliated with a *stricto sensu* graduate program.

Despite the limitation of focusing on a single scientific journal ranked as B3 according to CAPES, this research can contribute to the composition of the state of the art of accounting research in Brazil. Therefore, further research is suggested, using bibliometric analysis techniques, based on accounting journals maintained by *stricto sensu* graduate programs that have not been exclusively targeted yet in this kind of research, such as the *Revista Universo Contábil* (edited by FURB), *Revista Base* (edited by Universidade do Vale do Rio dos Sinos [UNISINOS]) and *Revista de Informação Contábil* (edited by UFPE), which could at first provide a more robust image of the contemporary scenario of Brazilian accounting research, creating possibilities for new studies that compare those journals with other groups of Brazilian or international journals. In addition, future studies could consider the analysis of epistemological and methodological dimensions in the scientific studies published.

6. References

- Alves, M. T. V. D. (2011). Análise de conteúdo: sua aplicação nas publicações de contabilidade. *Revista Universo Contábil*, 7(3), pp.146-166.
- Araujo, C. A. (2006). Bibliometria: evolução histórica e questões atuais. *Em Questão*, 12(1), pp. 11-32.
- Araujo, J. D. C. de, Santana, C. M., Araujo, L. M. de, Neto, & Oliveira, D. T. (2013). Revista Enfoque – Reflexão Contábil: uma análise das publicações. *Revista Eletrônica do Alto Vale do Itajaí*, 2(1), pp. 44-54.
- Avelar, E. A., Santos, T. S., Ribeiro, L. M. P. & Oliveira, C. C. de (2012). Pesquisa em contabilidade: uma análise dos estudos empíricos publicados em periódicos nacionais entre 2000 e 2009. *Revista Universo Contábil*, 8(3), pp.6-23.
- Batistella, F. D., Bonacim, C. A. G. & Martins, G. A. (2008). Contrastando as produções da Revista Contabilidade & Finanças (FEA-USP) e Revista Base (UNISINOS). *Revista de Educação e Pesquisa em Contabilidade*, 2(3), pp. 84-101.
- Biojone, M. R. (2003). *Os periódicos científicos na comunicação da ciência*. São Paulo: FAPESP.
- Cardoso, R. L., Mendonça, O. R. M., Neto, Riccio, E. L. & Sakata, M. C. G. (2005). Pesquisa científica em contabilidade entre 1990 e 2003. *Revista de Administração de Empresas*, 45(2), pp. 34-45.
- Cooper, D. R. & Schindler, P. S. (2003). *Métodos de pesquisa em administração* (7ª ed.). Porto Alegre: Bookman.
- Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (2014a). *Cursos recomendados e reconhecidos*. Retrieved on 14 January, 2014 from <http://www.capes.gov.br/cursos-recomendados>.
- Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (2014b). *Qualis Capes*. Retrieved on 14 January, 2014 from <http://qualis.capes.gov.br>.

- Dantas, J. A., Silva, C. T., Santana, C. M. & Vieira, E. T. (2011). Padrões de comunicação científica em contabilidade: um comparativo entre a Revista Contabilidade e Finanças e a *The Accounting Review*. *Revista Contemporânea de Contabilidade*, 8(16), pp. 11-36.
- Espejo, M. M. S. B., Azevedo, S. U., Trombelli, R. O. & Voese, S. B. (2013). O mercado acadêmico contábil brasileiro: uma análise do cenário a partir das práticas de publicação e avaliação por pares. *Revista Universo Contábil*, 9(4), pp. 6-28.
- Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo. Pós Graduação em Contabilidade. *Linhas de Pesquisa*. Retrieved on 14 January, 2014 from <http://www.fea.usp.br/conteudo.php?i=217>.
- Grzebieluckas, C., Campos, L. M. S. & Selig, P. M. (2012). Contabilidade e custos ambientais: um levantamento da produção científica no período de 1996 a 2007. *Produção*, 22(2), pp. 322-332.
- Leite, G. A., Filho (2008). Padrões de produtividade de autores em periódicos e congressos na área de contabilidade no Brasil: um estudo bibliométrico. *Revista de Administração Contemporânea*, 12(2), pp. 533-554.
- Leite, G. A., Filho & Siqueira, R. L. (2007). Revista Contabilidade & Finanças USP: uma análise bibliométrica de 1999 a 2006. *Revista de Informação Contábil*, 1(1), pp. 38-52.
- Macedo, M. A. S., Casa Nova, S. P. C. & Almeida, K. (2009). Mapeamento e análise bibliométrica da utilização da análise envoltória de dados (DEA) em estudos em contabilidade e administração. *Contabilidade, Gestão e Governança*, 12(3), pp. 87-101.
- Machado, D. G., Silva, T. P. & Beuren, I. M. (2012). Produção científica de custos: análise das publicações em periódicos nacionais de contabilidade sob a perspectiva das redes sociais e da bibliometria. *Contabilidade, Gestão e Governança*, 15(3), pp. 3-16.
- Martins, G. A., & Theóphilo, C. R. (2007). *Metodologia da investigação científica para ciências sociais aplicadas*. São Paulo: Atlas.
- Oliveira, D. T., Santana, C. M., Araujo, L. M., Neto & Araújo, J. D. C. (2012). Pesquisa em contabilidade no Brasil: estudo bibliométrico de três periódicos. *Revista Eletrônica do Alto Vale de Itajaí*, 1(2), pp. 65-75.
- Oliveira, M. S. (2002). Análise dos periódicos brasileiros de contabilidade. *Revista Contabilidade & Finanças*, 13(29), pp. 68-86.
- Oliveira, R. R. & Carvalho, V. S. de (2008). A produção científica sobre auditoria: um estudo bibliométrico a partir do caderno de indicadores da CAPES no período de 2004 a 2006. *Pensar Contábil*, 10(42), pp. 12-21.
- Peleias, I. R., Wahlmann, G. C., Parisi, C. & Antunes, M. T. P. (2010). Dez anos de pesquisa científica em controladoria no Brasil (1997-2006). *Revista de Administração e Inovação*, 7(1), pp.193-217.
- Perdigão, L. Z., Niyama, J. K. & Santana, C. M. (2010). Contabilidade, Gestão e Governança: análise de doze anos de publicação (1998 a 2009). *Contabilidade, Gestão & Governança*, 13(3), pp. 3-16.
- Pritchard, A. (1969). Statistical bibliography or bibliometrics? *Journal of Documentation*, 25(4), pp. 348-349.
- Revista de Contabilidade e Controladoria. Universidade Federal do Paraná. Programa de Pós-Graduação em Contabilidade. Curitiba: UFPR. Retrieved on 14 January, 2014 from <http://www.ser.ufpr.br/rcc>.
- Ribeiro, H. C. M. (2012). Brazilian Business Review: um estudo sob a ótica da bibliometria e da rede social de 2004 a 2011. *Revista de Gestão, Finanças e Contabilidade*, 2(3), pp. 86-104.
- Ribeiro, H. C. M. (2013a, novembro). Estado da arte da Revista Contabilidade Vista & Revista: uma análise da produção acadêmica de 2008 a 2012. *Anais do Encontro de Ensino e Pesquisa em Administração e Contabilidade*, Brasília, DF, Brasil, 4.

- Ribeiro, H. C. M. (2013b). Revista Contemporânea de Contabilidade: uma análise do perfil da produção acadêmica durante o período de 2004 a 2012. *Revista Contemporânea de Contabilidade*, 10(20), pp. 3-28.
- Ribeiro, H. C. M. (2013c). Revista de Contabilidade e Organizações: uma análise bibliométrica e de redes sociais de 2007 a 2012. *Revista Iberoamericana de Contabilidad de Gestión*, 11(22), pp. 1-18.
- Ribeiro, H. C. M. (2013d). Características da produção veiculada na Revista de Educação e Pesquisa em Contabilidade no período de 2007 a 2012. *Revista de Educação e Pesquisa em Contabilidade*, 7(4), pp. 424-443.
- Richardson, R. J. (2008). *Pesquisa social: métodos e técnicas* (3ª ed.). São Paulo: Atlas.
- Santos, A. O. dos (2012). Como criar um gráfico com mapa do Brasil no Excel. *Guia do Excel*. Retrieved on 14 January, 2014 from <http://guiadoexcel.com.br/grafico-mapa-do-brasil>.
- Silva, A. C. B., Oliveira, E. & Ribeiro, J. F., Filho. (2005). Revista Contabilidade & Finanças – USP: uma comparação entre os períodos 1989/2001 e 2001/2004. *Revista Contabilidade & Finanças*, 16(39), pp. 20-32.
- Souza, F. J. V., Silva, M. C., Araujo, A. O. & Silva, J. D. G. (2012). Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ: uma análise de oito anos de publicação (2003 a 2011). *REUNIR – Revista de Administração, Contabilidade e Sustentabilidade*, 2(3), pp. 69-85.
- Spinak, E. (1996). *Diccionario enciclopedico de bibliometría, cienciometría e informetría*. Caracas: UNESCO.
- Taveira, L. D. B., Medeiros, A. W., Camara, R. P. B. & Martins, J. D. M. (2013). Uma análise bibliométrica dos artigos científicos em perícia contábil publicados entre os anos de 1999 e 2012. *Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ*, 18(2), pp. 49 -64.
- Vanti, N. A. P. (2002). Da bibliometria à webometria: uma exploração conceitual dos mecanismos utilizados para medir o registro da informação e a difusão do conhecimento. *Ciência da Informação*, 31(2), pp. 152-162.