

Characteristics of the Production Published in the Revista de Educação e Pesquisa em Contabilidade Between 2007 and 2012

Abstract

The main goal of science is knowledge production. The academic production and dissemination of these research results represent relevant factors to trigger knowledge expansion. In this context, the goal in this paper was to explore the academic production of the *Revista de Educação e Pesquisa em Contabilidade* between 2007 and 2012. The theoretical framework for this study was based on the theory of Bibliometrics, social networks and other studies with similar foci. As regards the methodological part, this research was focused on bibliometric analysis and social network techniques, using descriptive statistics, in a universe of 106 identified papers. Through this study, the predominance of papers elaborated in partnership was identified (about 91%). The authors who stood out as the most productive were Aridélmo José Campanharo Teixeira and Gilberto de Andrade Martins, of whom the former displayed greater centrality of degree and betweenness. The University of São Paulo (USP) was the most productive Higher Education Institution (HEI) and stood out in the centralities of degree and betweenness. Among the 106 papers analyzed, the most discussed themes were: Teaching and Research, Transparency, International Accounting, Accounting Education, Accounting-Financial Statements, Management Accounting, Accounting History, Governmental Accounting, Capital Market and Controllership.

Key words: *Revista de Educação e Pesquisa em Contabilidade*; Academic production; Bibliometrics; Social network.

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1. Introduction

Publishing in scientific journals is fundamental to determine academic production. What will consolidate it as an important contribution to the evolution of knowledge, however, is whether it results in the emergency, encouragement and consolidation of research groups in different areas (Dantas, Silva, Santa & Vieira, 2011). In this context, the main objective of science is knowledge production, with academic production and the dissemination of research results as a relevant driver of knowledge expansion (Dias, Barbosa Neto & Cunha, 2011). The scientific production of a knowledge area reflects its state of the art and evolution. In this context, the importance of journals is highlighted, which play an outstanding role in terms of research quality, which in turn will contribute to the advancement of knowledge (Meli & Oliveira Neto, 2011).

In this context, it is highlighted that Accountancy in Brazil has developed over the years and has been strengthened through the efforts of authors who aim to analyze and unveil the problems and phenomena that happen in this area (Meli & Oliveira Neto, 2011). In this respect, the analysis techniques of Bibliometrics and Social Networks are essential to better understand the phenomena and characteristics of scientific production in Accounting in Brazil (Meli & Oliveira Neto, 2011).

As regards the academic journals in Accounting, the *Revista de Educação e Pesquisa em Contabilidade* (REPeC) is highlighted which, in the new classification by the Brazilian Qualis System, elaborated by the Coordination for the Improvement of Higher Education Personnel - Capes (2010-2012) and disseminated in 2013, was classified as B2 in the evaluation area Business Administration, Accountancy and Tourism (CAPES, 2013; REPeC, 2013). This publication started in 2007 and, until 2012, 106 papers had been published. The mission of this journal is to publish knowledge production in accounting and its objective is to disseminate the constructed accounting knowledge (REPeC, 2013).

The goal in this research is to explore what has been investigated and published in REPeC through bibliometric and social network analyses. This goal is justified as the role of the academy is to create and disseminate knowledge in society, with academic production as the origin of teaching and community services (Rowe & Bastos, 2010). This explains the importance of journals for scientific communication as well as for the assessment of the researchers (Oliveira, 2002).

It is highlighted that bibliometrics is an analytic tool that explores publications in books, reports and academic journals (Ferreira, 2011). In this research, observation and bibliometric techniques were focused on (Ramos-Rodríguez & Ruíz-Navarro, 2004), as well as social network analysis, in order to assess the relationship structure among the authors (Nerur, Rasheed & Natarajan, 2008), the HEI (Francisco, 2011) and between authors and HEI simultaneously, thus constituting a two-mode network (Guarido Filho & Machado-da-Silva, 2010).

Some studies have been performed that are similar to the present, that is, studies that were aimed at specifically investigating, mapping, exploring and/or analyzing academic journals in Accounting. These are: Leite Filho and Siqueira (2007), Barbosa, Echternacht, Ferreira and Lucena (2008), Batistella, Bonacim and Martins (2008), Espejo, Cruz, Lourenço, Antonovz & Almeida (2009), Perdigão, Niyama and Santana (2010), Brunozi Júnior *et al.* (2011), Dantas *et al.* (2011), Ribeiro (2012) and Souza, Silva, Araújo and Silva (2012). These investigations show that knowing the academic production stage of the accounting area in Brazilian journals is fundamental to encourage the area (Batistella, Bonacim & Martins, 2008).

This reveals the research question that guided this study: **What is the profile of the academic production in the *Revista de Educação e Pesquisa em Contabilidade* between 2007 and 2012?** Based on this question, the objective is to explore the academic production of the *Revista de Educação e Pesquisa em Contabilidade* between 2007 and 2012. This research is justified when considering that mapping and knowing what academic studies have been published in a certain area through systematic reviews is one of the ways to assess and reflect on these publications and the area in question (Cardoso, Neto, Riccio & Sakata, 2005). Therefore, this study will contribute to the development and disclosure of scientific research in Accountancy in Brazil (Silva & Ott, 2012), as inquiries can arise from the studies published in REPeC, mainly regarding the themes addressed here, contributing to encourage investigations in the area under analysis.

2. Bibliometrics, Social Network and Investigations in Accounting Journals

Bibliometrics was developed through the elaboration of empirical laws on the behavior of the literature (Egghe, 2005), which are frequently used in studies with this scope. These are: Bradford's Law, which emphasizes journals' productivity and, hence, their degree of relevance, which is a very important aspect; Lotka's Law, which highlights authors' scientific productivity, that is, the number of times each author is cited in other scientific studies, using a size-frequency distribution model in a set of investigations, disclosing aspects of co-authorship; and Zipf's Law, which counts the occurrences of words that appear in the scientific papers, like the key words most seen in the papers under research.

In addition to the bibliometric investigation, monitoring of co-authorship networks was also in this study (Ramos-Rodríguez & Ruíz-Navarro, 2004) to understand the links and connections between authors and their respective HEI. The network concept can help to understand processes of social interaction among the actors and knowledge production itself. In that sense, networks are a set of knots and their relations further interactions and social organizations in which information and knowledge are key elements of this process (Didriksson, 2003).

The social network can also be understood as a set of people, institutions or organizations that, due to shared affinities, share work and/or information for example and, through these links, build and rebuild a social structure (Tomaél & Marteleto, 2006). Sebastián (1999, p. 309) deepens this concept and brings it into the field of scientific research as follows "[...] modality of cooperation networks and [which] are defined by the associated of research groups to accomplish joint studies, generally through Research and Development projects".

To analyze a social network, its structure needs to be understood, as well as the relations that compose it. The main structural property of the network is its density, which according to Gnyawali and Madhavan (2001) can be understood through the extent of the interconnection among the actors, that is, the greater the interconnection, the greater the density. With regard to the relations, the cohesion among the actors is the most representative indicator. Centrality and density measures (Cruz, Espejo, Costa & Almeida, 2011) are some of the main structural properties of a network.

Among the centralities, the degree, closeness and betweenness centralities are highlighted (Meli & Oliveira Neto, 2011). The degree centrality is defined by the number of adjacent links an actor has with others in a network (Wasserman & Faust, 1994), permitting an assessment of the actors' local activity. The closeness centrality is a function of the proximity or distance between an actor and all others in a network. The perceived idea in the analysis of this indicator is that an author with a high level of closeness centrality is in better conditions to rapidly interact with all others (Hanneman & Riddle, 2005; Scott, 2000; Wasserman & Faust, 1994).

The betweenness centrality assesses the dependence of non-adjacent actor on others who act as a kind of bridge to put their interaction in practice (Freeman, 1992). In this case, the higher the degree of betweenness centrality, the greater the probability that an actor will control others who depend on him to put the interaction in practice. Like in most social networks, in knowledge networks, cohesion is one of the main analytic elements. Hence, in the collective behavior of actors in the same group, cohesion serves as the base for group solidarity and identity.

The literature review identified some bibliometric and/or social network studies specifically performed in journals, that is, which have explored collections of specific accounting journals.

Leite Filho and Siqueira (2007) described and analyzed the main bibliometric characteristics of the *Revista Contabilidade & Finanças* (USP) between 1999 and 2006. The results the authors identified indicated that, in that period, male authors were predominant; cooperation between two authors (47%) was the most frequent form of authorship among the studies; 76% of the authors published only once in the journal: in the bibliographic references, the authors emphasized books (40%); followed by papers in journals (23%); signs of endogamy were found with most authors affiliated with USP. Also, the statistical tests suggested that the distribution of authorship followed patterns from the Bibliometric theory (Lotka's Law).

Barbosa *et al.* (2008) analyzed the papers published in the *Revista Brasileira de Contabilidade* between 2003 and 2006 through a bibliometric application. They found a decline in the number of papers published, besides a constant publication of papers published by a sole author. The presence of 72% of male authors was highlighted, as well as 35% of authors with a Master's degree. The analysis of the references revealed the limited consultation of international sources and that the amount of sources consulted has been increasing across the study period. Finally, the researchers found that much remains to be discussed for the RBC to play an outstanding role in the accounting academy.

Batistella *et al.* (2008) investigated the stage of the academic production in accounting through the mapping of two journals: *Revista de Contabilidade & Finanças* (FEA-USP) and *Revista Base* (Unisinos). The results the researchers observed suggested that, with regard to the "form" criterion, the general performance of the *Revista de Contabilidade & Finanças* (FEA-USP) is considered "good", while that of the *Revista Base* (Unisinos) is median. Also, a greater concentration of authors was observed in the publications of the *Revista de Contabilidade & Finanças* (FEA-USP) (recurrence) in relation to the *Revista Base* (Unisinos). Otávio Ribeiro de Medeiros was the author who published most in *Revista de Contabilidade & Finanças* and Ilse Maria Beuren in *Revista Base*.

Espejo, Cruz, Lourenço *et al.* (2009) analyzed the thematic and methodological trends in publications in *Accounting, Organizations & Society* (AOS), in *Revista de Contabilidade & Finanças* (RCF) and in *The Accounting Review* (TAR) between 2003 and 2007. The results the authors found suggested the predominance of the theme external users. In AOS and TAR, an upward trend was found in the theme internal users. The authors perceived higher frequencies of the economic rationality approach, although with a downward trend. The behavioral and institutional research approaches were growing. The most productive authors were responsible for 14.1% of the scientific production analyzed. Only 2.6% of the authors published in more than one journal.

Perdigão, Niyama and Santana (2010) analyzed the characteristics of the journal *Contabilidade, Gestão e Governança* between 1998 and 2009. The authors found a predominance of authors who worked in partnership; the diverse origins of the authors; the mean number of references per article, corresponding to 22.05 citations; and the theme Management Accounting, which stood out in the investigations under analysis. The authors also evidence the following themes: International Accounting, related to the harmonization of accounting standards; Social and Environmental Accounting; Tax Accounting; and Corporate Governance.

Brunozi Júnior *et al.* (2011) analyzed the distribution, methodological characteristics, evolution and themes in the scientific publications in the USP *Revista de Contabilidade & Finanças* between 1989 and 2009. The assessment of the journal indicated the concentration of authors affiliated with the USP, mainly faculty holding a Ph.D. As from 2003, the authors observed the participation of other entities in the publications. The journal displayed an evolution over the years, with a distinction of themes proposed in the papers. In this context, most studies are related to Finance and Accounting (29%); Accounting Teaching and Knowledge (13%); Classical Accounting and Accounting Theory (12%); Information Systems, Communication and Disclosure (11%). When considering the diversified methodological proposals in the studies, regarding the ends, the endogamy of descriptive studies is observed, mainly concerning the initial years of the journal. Regarding the means, between 1989 and 2002, a concentration of bibliographic and documentary studies was observed. The scenario differs between 2003 and 2009, when empirical studies were predominant.

Dantas *et al.* (2011) assessed the evolution in the standard of scientific production in accounting in Brazil and in the United States between 2001 and 2008, using the benchmarks of the journals: *Revista de Contabilidade e Finanças* (RCF) and *The Accounting Review* (TAR). The tests the authors applied revealed that, for most of the parameters analyzed, the premises that the characteristics of the production in RCF are equivalent to those in TAR or significantly evolved between 2001 and 2008 were not confirmed, approximating the parameters of the North American journal. Dantas *et al.* (2011) highlight that the Brazilian accounting researchers need to understand some questions, focused on the fact that the Brazilian

scientific communication patterns differs from the international pattern. This can help to explain the fact that the Brazilian accounting production is hardly (or not) included in international journals.

Ribeiro (2012) investigated the scientific production in the journal *Brazilian Business Review* between 2004 and 2011. The main results the author identified were: predominance of papers in partnership; the authors Valcemiro Nossa, Ariovaldo dos Santos and Otávio Ribeiro de Medeiros are the most productive; Lopes, A. B. and Porter, M. E. were the most cited researchers; and the University of São Paulo was the HEI that most published papers. A betweenness centrality was verified in the co-authorship as well as in the HEI. And the most frequent themes in eight years of analysis were: Finance, Capital Market, Marketing, Organization and Business and Accounting and Auditing. The author concluded that, despite being a new journal in the academy, through its collection, the *Brazilian Business Review* already pictures the universe of scientific production.

Souza *et al.* (2012) analyzed the characteristics of the papers published in the *Revista de Contabilidade do Mestrado em Ciências Contábeis* at the *Universidade do Estado do Rio de Janeiro* (UERJ) between 2003 and 2011. The authors considered the following results: 115 papers were published during the period under analysis and male faculty members with a Ph.D. degree were the predominant authors. In addition, they observed that UERJ and the *Universidade Federal de Santa Catarina* (UFSC) were the institutions with the largest number of authors who had published papers, and that the author with the largest number of publications in the journal was Vicente M. Ripoll Feliu. They also found the predominance of qualitative papers with Brazilian references and that the main themes of the papers are: Management Accounting and Financial Accounting. They also observed that the authors in this journals tend to publish with a large number of partnerships, a fact that suggests that the papers result from the sharing of experiences among the authors and that publications by authors who hold less than a Ph.D. degree have not gained space in this journal.

Therefore, studies that use bibliometric techniques to analyze journals are increasingly common (Francisco, 2011). REPeC has recently discussed these analysis techniques in some studies: Martins (2007), Demuner, Dias, Silva and Pelissari (2008), Olak, Slomski and Alves (2008), Espejo, Cruz, Walter, & Gassner (2009), Coelho, Soutes and Martins (2010), Cabral, Siqueira and Siqueira-Batista (2011) and Freitas, Pacheco, Karolkiewicz & Sillas (2012). No studies have been published, however, about what has been investigated and published in REPeC itself. Hence that is the main objective in this study.

3. Methodological Procedures

The aim in this research was to explore the academic production in the *Revista de Educação e Pesquisa em Contabilidade* between 2007 and 2012. Therefore, the bibliometric analysis technique was used, which offers tools to measure the scientific publications, which include books, conference proceedings and papers in scientific journals (Moreira, Riccio & Sakata, 2007).

Bibliometrics is an analytic tool to study publications in books, reports and papers (Ferreira, 2011) in order to quantify, analyze and assess scientific intellectual production (Ramos-Rodríguez & Ruíz-Navarro, 2004), synthesizing it (Chambers, 2004), and is appropriate for the study objective. The use of bibliometric analysis is justified because it is able to cover an extended time period, helping to identify important information in academic journals (Nerur, Rasheed & Natarajan, 2008), such as bibliographic grouping and key word analysis (Francisco, 2011).

Besides bibliometrics, the procedures also involved the investigation of network analyses, more specifically co-authorships (Ramos-Rodríguez & Ruíz-Navarro, 2004; Nerur, Rasheed & Natarajan, 2008) and HEI (Gonzalo, O. M., Hernández, A; Hernández C. & Mendes, C., 2009; Francisco, 2011), with a view to a better understanding of their respective connections. Social network analysis is used to study how the social bonds among the actors in a given network can affect the performance of an entity (Balestrin, Verschoore & Reyes Junior, 2010).

Thus, this procedure is justified, considering that scientific knowledge is socially constructed (Rossoni, Hocayen-da-Silva & Júnior, 2008; Guarido Filho, Machado-da-Silva & Gonçalves, 2009), influenced by researchers and their peers, who structurally compose the network of relations among the HEI (Rossoni, Hocayen-da-Silva & Júnior, 2008).

This study is characterized as a descriptive research, as it presents the observation, classification, analysis and interpretation of the 106 papers published in REPeC. The quantitative approach is due to the use of quantification to treat the data, with the help of descriptive statistical techniques (Richardson & Peres, 1989).

Data collection was developed through a documentary research, which is justified because it selects, organizes, treats and interprets gross and disperse information (Beuren & Longaray, 2003). The documentary research sought information from all papers through the website <http://www.repec.org.br/index.php/repec/issue/archive> of the Revista de Educação e Pesquisa em Contabilidade.

The research universe consisted of 106 papers (Figure 1), published between 2007 and 2012. All 106 papers were marked. This marking involved the identification of the component elements of this paper (key words, authorship, HEI, main body) and which helped to answer the research question in this study. Next, a structure of tables and matrices was constructed to better measure the study indicators.

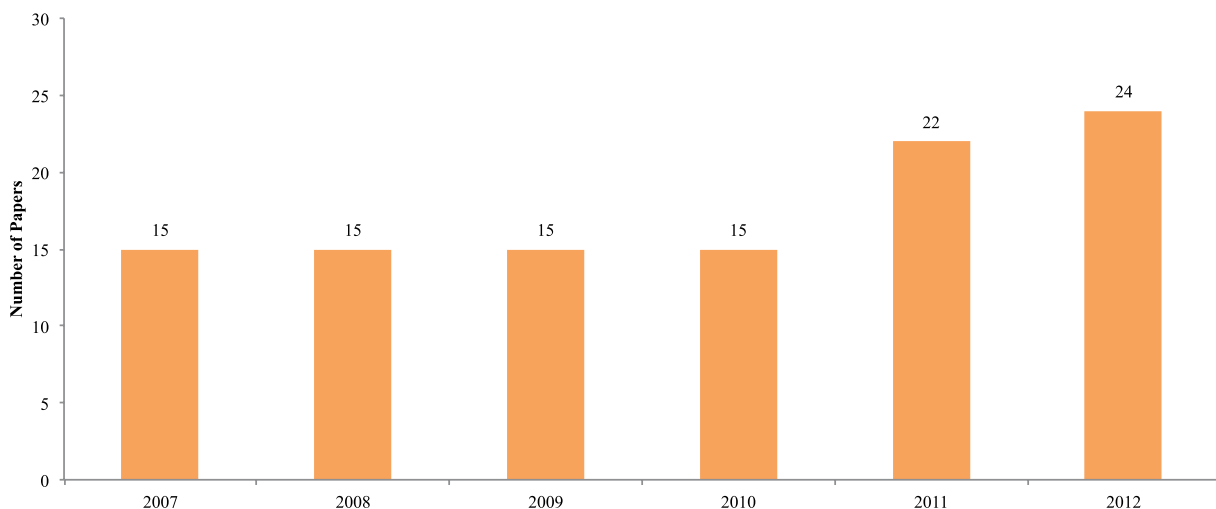


Figure 1. Papers published in REPeC between 2007 and 2012

Source: Research data

Thus, the following indicators were analyzed: (I) characteristics of authorship; (II) authors with largest production; (III) HEI with largest production; (IV) co-authorship networks; (V) social network of the HEI; (VI) frequency of key words; (VII) themes addressed; and (VIII) research approaches and methods. These indicators were calculated and collected, using the software UCINET 6 for Windows, Microsoft Excel 2007 and Wordle.net, the latter to calculate the frequency of the key words.

4. Analysis and Discussion of the Results

The goal in this chapter was to elaborate the bibliometric and social network analysis of the 106 papers published in REPeC.

4.1 Authorship characteristics

Figure 2 shows the authorship characteristics of the 106 papers identified in REPEc.

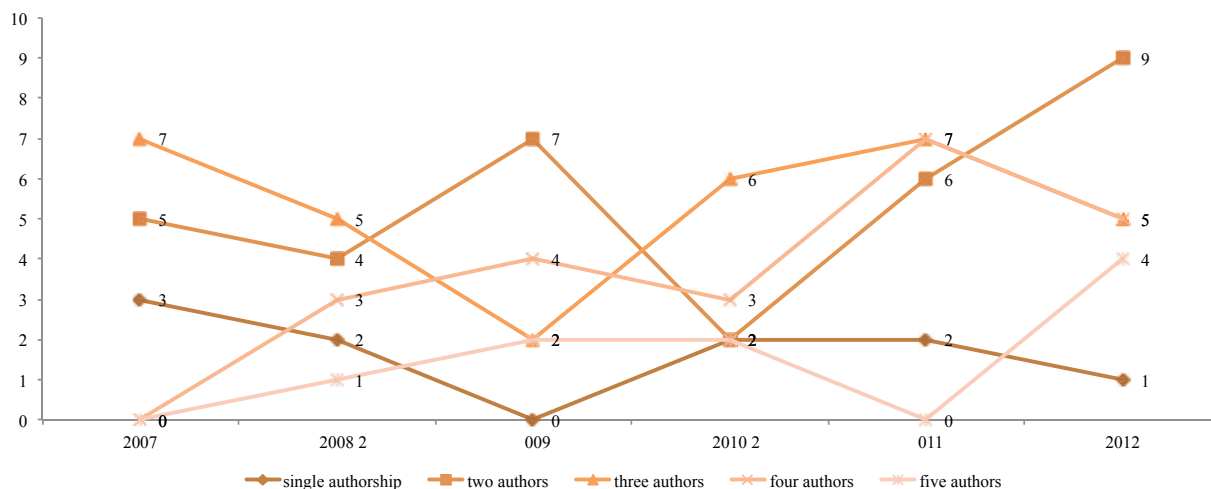


Figure 2. Authorship of the papers

Source: Research data

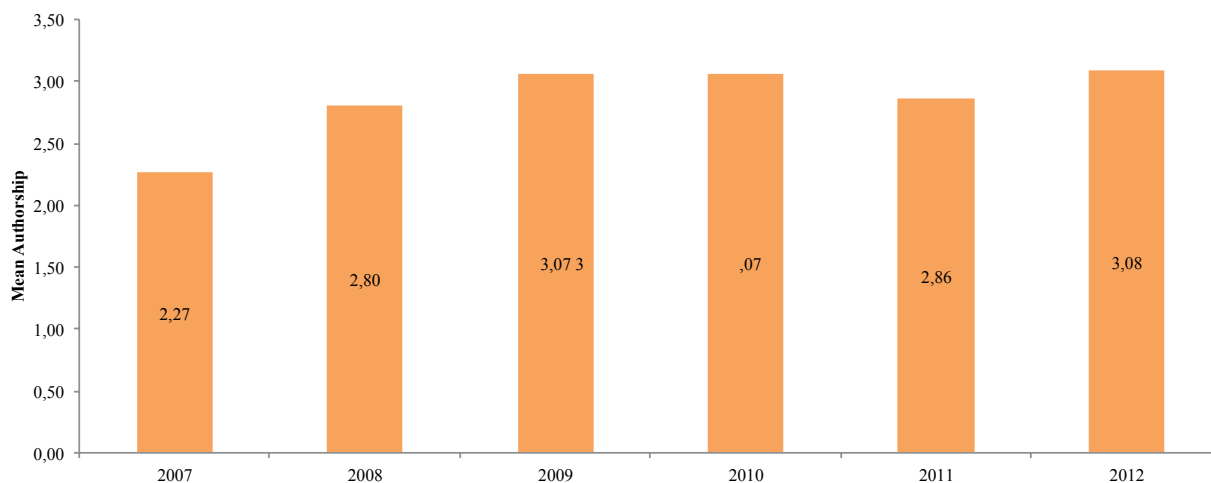


Figure 3. Mean authorship

Source: Research data

The analysis of Figure 2 reveals that 90.57% of the publications were elaborated in partnership, mainly between two and three authors (31.13% and 30.19% concomitantly). Figure 3 supports the data in Figure 2 by showing an increase in the mean number of authors per paper, which peaked in 2012 with 3.08 researchers per article. In this context, in similar investigations by Leite Filho and Siqueira (2007), Ribeiro (2012) and Souza *et al.* (2012), the authors also perceived the predominance of partnerships between the authors in their respective studies.

4.2 Authors with greatest production

Figure 4 shows the most productive authors in the six years of REPeC under study.

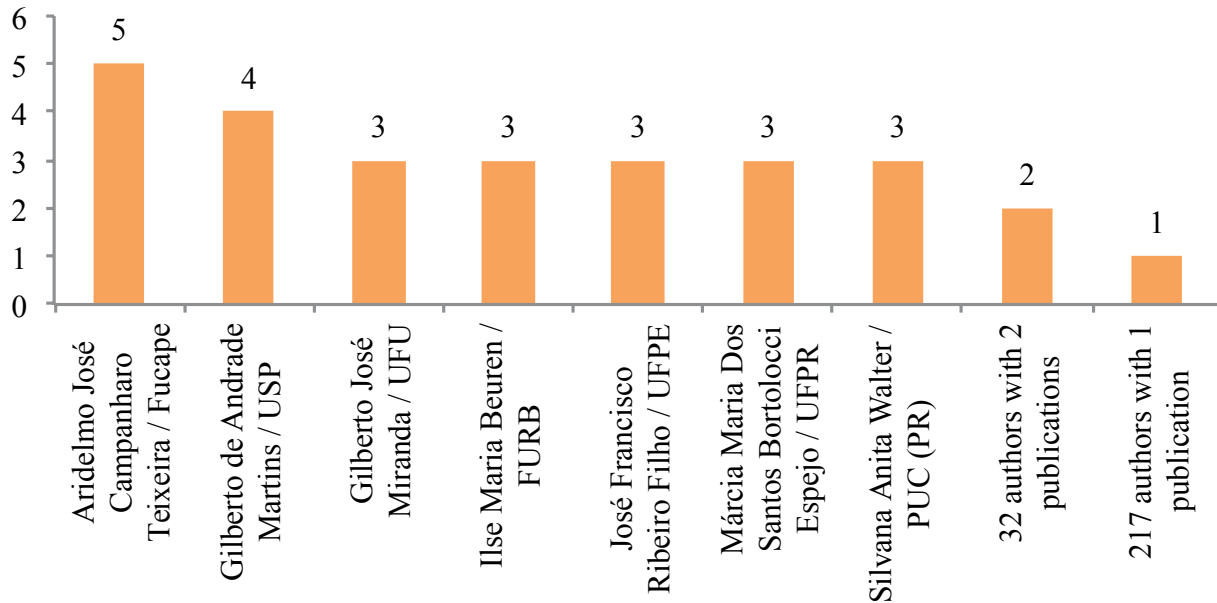


Figure 4. Authors with greatest production

Source: Research data

Figure 4 highlights Aridelmo José Campanharo Teixeira as the most productive research in REPeC, with five papers published. Next comes Gilberto de Andrade Martins, who published four times in the six years under analysis. The authors Gilberto José Miranda, Ilse Maria Beuren, José Francisco Ribeiro Filho, Márcia Maria dos Santos Bortolocci Espejo and Silvana Anita Walter have each published three papers.

The same analysis of Figure 4 reveals that 32 authors published two papers, while the large majority of 217 authors published only once, equivalent to 84.77%, which means that 15.23% of the authors published more than one paper. This result is in line with the study by Espejo, Cruz, Lourenço *et al.* (2009), observing that the most productive authors were responsible for 14.1% of the academic production under analysis. A similar fact was observed in the research by Leite Filho and Siqueira (2007), who found that 76% of the authors published only once. It is relevant to mention Lotka's Law here, which evidences authors' scientific productivity, that is, few authors publish a lot and many publish little (Egghe, 2005).

4.3 HEI with greatest production

Figure 5 highlights the 11 most productive HEI in the six years of REPEC under study.

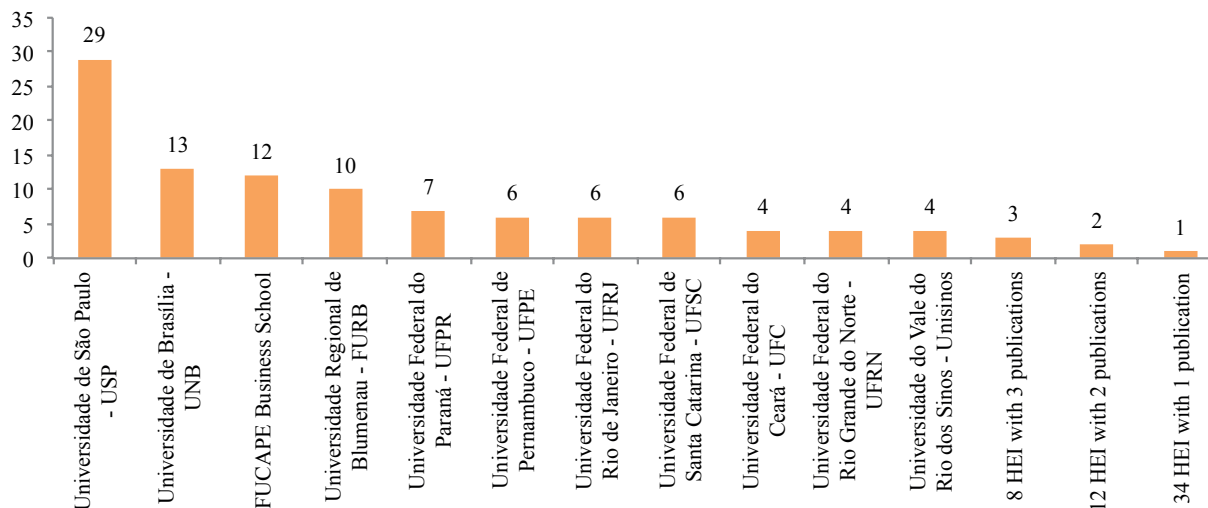


Figure 5. Most productive HEI

Source: Research data

The analysis of Figure 5 shows that the University of São Paulo was the most productive HEI in this study, with 29 manuscripts published. Next comes the University of Brasília with 13 publications. In this context, the publications by Leite Filho and Siqueira (2007), Brunozi Júnior *et al.* (2011), Ribeiro (2012) and Souza *et al.* (2012) are emphasized, which also highlight USP as the most productive USP in their respective studies.

Other HEI are highlighted in Figure 5: a FUCAPE *Business School* (which published 12 papers); *Universidade Regional de Blumenau* (FURB), with 10 papers published; *Universidade Federal do Paraná* (UFPR) (seven publications); *Universidade Federal de Pernambuco* (UFPE), *Universidade Federal do Rio de Janeiro* (UFRJ) and *Universidade Federal de Santa Catarina* (UFSC), with six publications each; and *Universidade Federal do Ceará* (UFC), *Universidade Federal do Rio Grande do Norte* (UFRN) and *Universidade Federal do Vale do Rio dos Sinos* (Unisinos), with four papers published each. This information are in accordance with Figure 4 as, five out of seven of the most productive authors represented the most productive HEI: USP, FUCAPE, FURB, UFPR and UFPE.

The analysis of the same Figure 5 shows that four out of 11 most productive HEI are located in the South of Brazil (FURB, UFPR, UFSC and Unisinos), three in the Southeast (USP, FUCAPE and UFRJ), three in the Northeast (UFPE, UFC and UFRN) and one in the Central-West (UnB).

In short, 31 institutions published between two and 29 papers, while 34 HEI published only once, equivalent to 52.31%.

4.4 Co-authorship networks

Departing from the premise that scientific knowledge is socially developed, through cooperation among the actors involved in the process (Freitas *et al.*, 2012), Figures 6 and 7 display the co-authorship networks of the 256 authors involved in six years of research. Figure 6 shows the co-authorship network with degree centrality and Figure 7 with betweenness centrality.

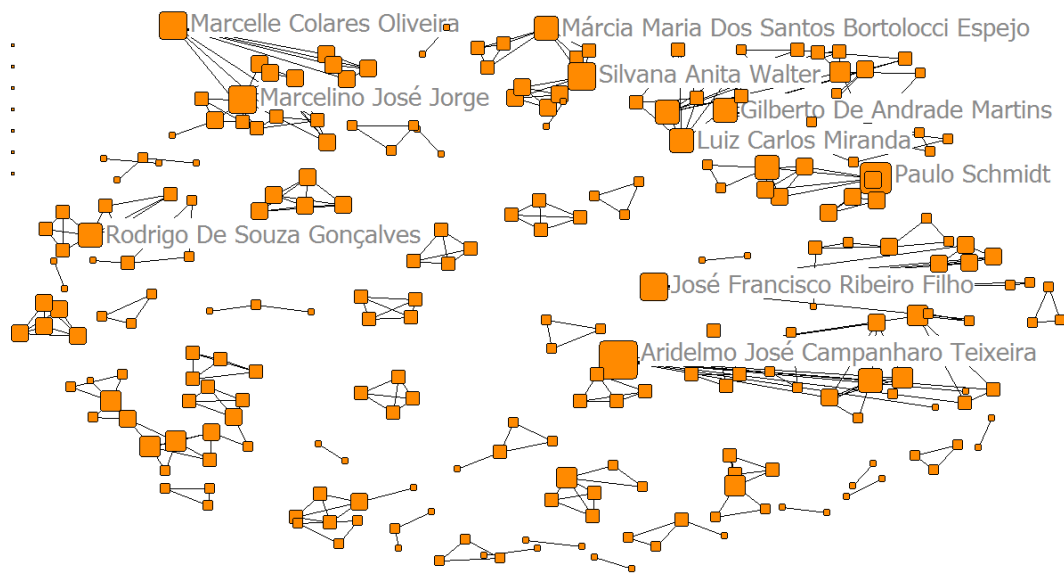


Figure 6. Co-authorship network (degree)

Source. Research data

As verified in Figure 6, the authors' social network shows a low level of interaction, that is, a low level of centralization. This result is supported by the total density of the group, corresponding to 0.0108, which means that the network is responsible for 1.08% of all relations. This scenario does not show the ideal for co-authorship networks, as the groups are isolated, without actors to lay bridges between them. These actors would be responsible for non-redundant knowledge exchange between the groups. The studies by Francisco (2011) and Ribeiro (2012) about co-authorship networks support the information displayed in Figure 6, as little interaction among the actors involved was observed in their respective studies.

The analysis of the authors who stand out in the network in Figure 6 reveals the importance of some, such as Teixeira, Ribeiro Filho, Schmidt, Miranda, Martins, Walter, Espejo, Gonçalves, Jorge and Oliveira. These authors possess a high level of degree centrality, which indicates a larger number of relations in the network, that is, these are the authors that are most demanded or who most look for partners to produce and publish papers in REPeC, including Teixeira, Martins, Ribeiro Filho, Espejo and Walter as the most productive authors in this study.

The analysis of the betweenness centrality in Figure 7 reveals the dispersion of the network, as few actors represent this measure – the major part is located in its main component. The authors Teixeira, Lusto, Santos, Murcia, Beuren and Sousa are mainly responsible for the information exchange in the network.

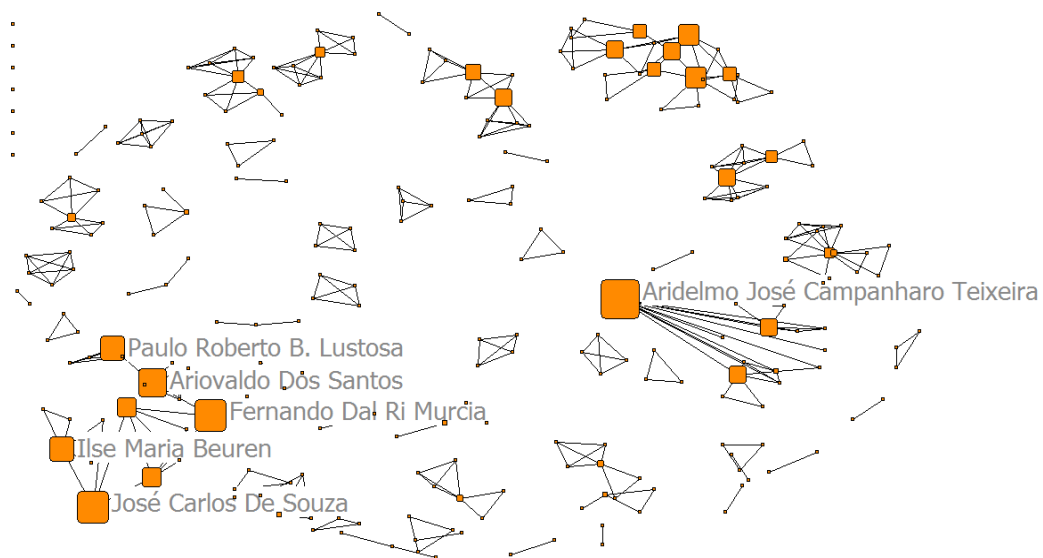


Figure 7. Co-authorship network (betweenness)

Source: Research data

It is interesting to highlight that the author Aridélmo José Campanharo Teixeira is not only the most productive (Figure 4), but also possesses a high degree centrality and a high betweenness centrality in this study.

4.5 Social network of the HEI

Figures 8 and 9 show the networks of the 65 HEI, with Figure 8 displaying their degree centrality and Figure 9 their betweenness centrality. Besides these figures, Figure 10 is also highlighted, showing a two-mode network (Latapy, Magnien & Del Vecchio, 2008), jointly evidencing the original data from the authors and the HEI's networks.

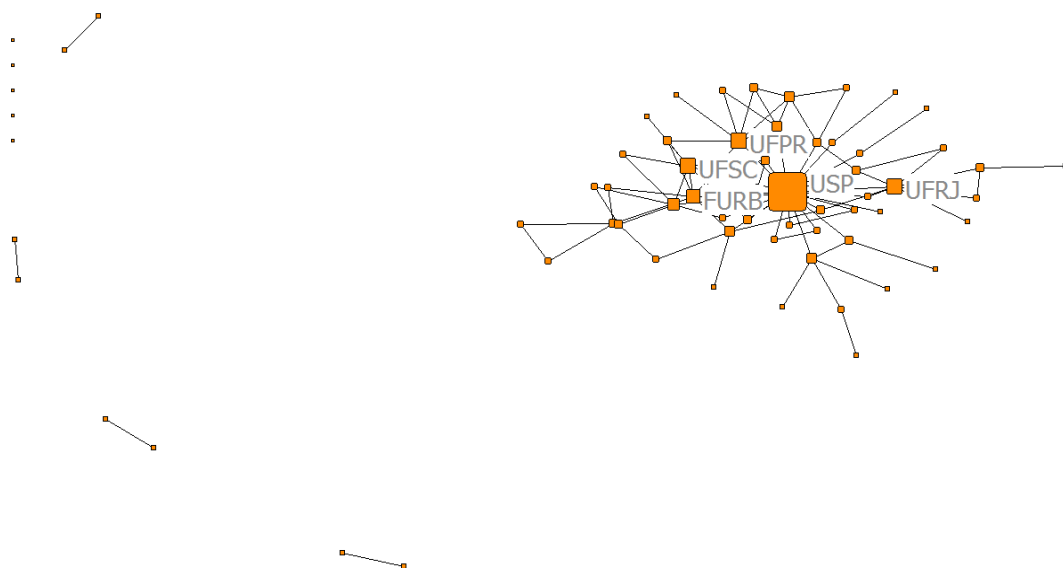


Figure 8. Social network of HEI (degree)

Source: Research data

Figure 8 reveals the five most central HEI in this study in terms of degree centrality – USP, UFRJ, UFPR, UFSC and FURB, some of which were also responsible for the greatest production in the six years under study. The same figure shows their centrality, as confirmed by their density, corresponding to 0.049, which means that only 4.90% of the relations are happening. Nevertheless, this degree density is higher than in the co-authorship network. This is justified by the limited number of HEI identified and involved in this research, resulting in greater interaction among them.

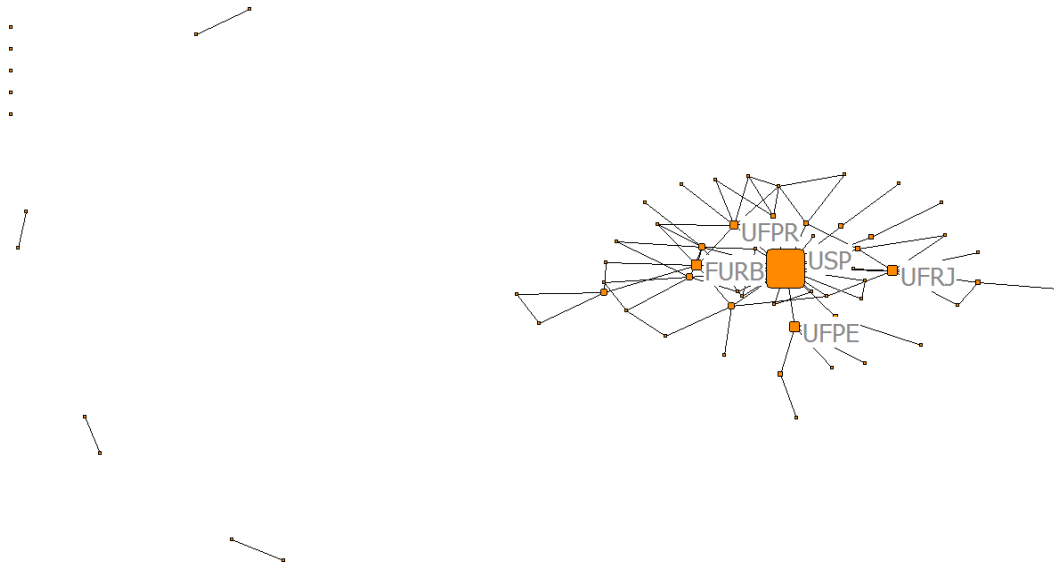


Figure 9. Social network of HEI (betweenness)

Source: Research data

It is known that the betweenness centrality is defined as an actor's position in the network, so as to act as a mediator among other actors, that is, the actor (HEI) links up with various others that are not directly linked, which means that the actor is considered as a means to reach several other actors (Hanneman & Riddle, 2005). Figure 9 highlights the five HEI with the highest betweenness centrality in this study: USP, UFRJ, UFPE, FURB and UFPR. Among them, USP, UFRJ, FURB and UFPR stood out, which not only possess the highest degree centrality, but also figure among the 11 HEI that most produced papers in this study (Figure 5).

4.7. Themes addressed

Table 1 lists the 45 themes addressed in the 106 papers investigated in this study.

Table 1

Themes addressed

Themes/Year	2007	2008	2009	2010	2011	2012	Total	%
Teaching and Research	1	1	3		3	2	10	9.43
Disclosure (Transparency)		2	2	2		1	7	6.60
International Accounting				1	2	4	7	6.60
Accounting Education	1			3	1		5	4.72
Financial Statements	2	1				2	5	4.72
Management Accounting	1	1			2	1	5	4.72
Accounting History				1	3	1	5	4.72
Governmental Accounting	1		1	1		1	4	3.77
Capital Market			1			3	4	3.77
Controllership	1		1		1		3	2.83
Higher Education		1	1				2	1.89
Financial Institutions	1					1	2	1.89
Social Balance Sheet	1				1		2	1.89
Organizational Performance	1		1				2	1.89
Risk Analysis	1				1		2	1.89
Accountability	1	1					2	1.89
Third Sector		2					2	1.89
Corporate Governance		1			1		2	1.89
Environmental Management		1				1	2	1.89
Intellectual Capital			2				2	1.89
Strategy				1	1		2	1.89
Cost Accounting				1		1	2	1.89
Social Accountability				1		1	2	1.89
Economic-Financial Indicators				1		1	2	1.89
Ethics					1	1	2	1.89
Accounting Professional		1				1	2	1.89
Corporate Growth	1						1	0.94
Social Accounting	1						1	0.94
Accounting Principles	1						1	0.94
ISE (corporate sustainability index)		1					1	0.94
Auditing		1					1	0.94
Intangible Assets		1					1	0.94
Accounting Conservatism			1				1	0.94
Information Technology			1				1	0.94
Introductory Accounting			1				1	0.94
Sports Organizations				1			1	0.94
Value Gains				1			1	0.94
Public Management				1			1	0.94
Organizational Planning					1		1	0.94
SPED (Public bookkeeping system)					1		1	0.94
Accounting Organizations					1		1	0.94
Expertise					1		1	0.94
Equity Control					1		1	0.94
Entrepreneurism						1	1	0.94
Accounting Theory						1	1	0.94
Total	15	15	15	15	22	24	106	100.00

Source: Research data

Table 1 evidences that the authors in this study most frequently discussed the following themes: Teaching and Research, Disclosure (transparency), International Accounting, Accounting Education, Financial Statements, Management Accounting, Accounting History, Governmental Accounting, Capital Market and Controllership. The studies by Perdigão, Niyama and Santana (2010), Brunozi Júnior *et al.* (2011) and Ribeiro (2012) partially confirm this information.

As regards the theme Teaching and Research, the most used approach was bibliometric research in congress and journal papers. The most frequent congresses in this theme were ANPAD, USP Congress of Controllership and Accounting and ANPCONT.

The themes Disclosure and International Accounting are important themes in the Brazilian and international context (Perdigão, Niyama & Santana, 2010) and REPeC is an accounting journal that, by publishing studies on these themes, helps to disseminate knowledge on the topics, encouraging the growth of these themes in accounting, are evidenced in the corporate and academic environments (Perdigão, Niyama & Santana, 2010). This relates to the fact that Disclosure is considered one of the most important corporate governance principles, as well as a mechanism responsible for encouraging international accounting performance in organizations (Szüster, Szüster & Szüster, 2005), especially publicly traded organizations (Santos & Costa, 2008).

The theme Financial Statements is highlighted, together with International Accounting, and why not include Disclosure as well, as the consolidated statements can be considered landmarks of the international accounting harmonization, evidencing financial information with further Disclosure (Ikuno, Niyama, Santana & Botelho, 2012), mitigating the investors' risks when applying their capital in organizations that adopt these best practices (Oliveira & Lemes, 2011).

It is significant to highlight that the most discussed themes, displayed in Table 1, are in accordance with the most visualized key words in Figure 11, showing a strong relation between these indicators analyzed in this study and Zipf's Law (Egghe, 2005).

It should also be kept in mind, however, that the following themes were published only once in this study: Corporate Growth, Social Accounting, Accounting Principles, Corporate Sustainability Index (ISE), Auditing, Intangible Asset, Accounting Conservatism, Information Technology, Introductory Accounting, Sports Organizations, Value Gains, Public Management, Organizational Planning, Digital Public Bookkeeping System (SPED), Accounting Organizations, Expertise, Equity Control, Entrepreneurism and Accounting Theory.

4.8. Research approaches and methods

Finally, Figures 12 and 13 simultaneously show the approaches and the data collection and analysis techniques applied in the 106 papers investigated in this study.

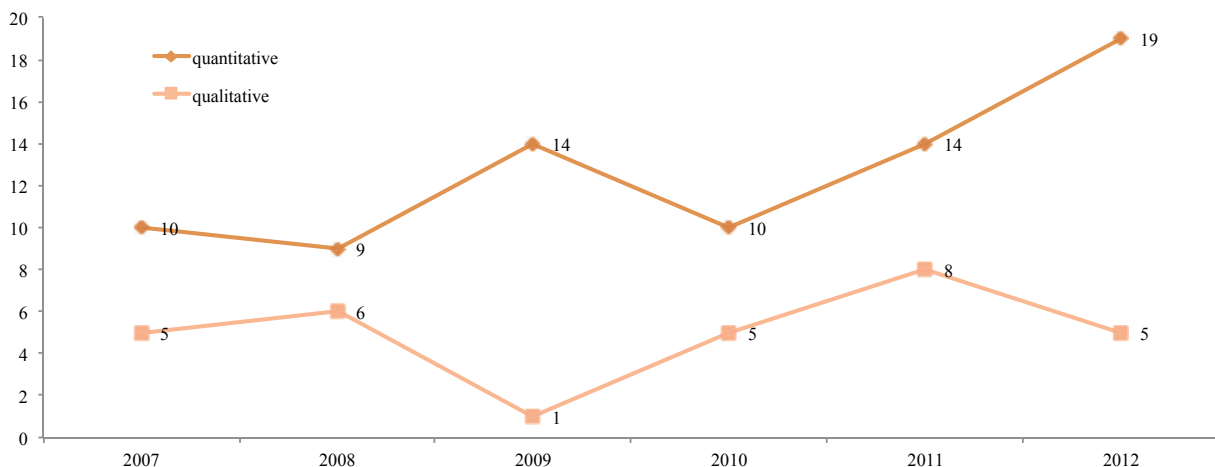


Figure 12. Research approaches

Source: Research data

demic context. It is highlighted that these study findings will contribute to the emergence, dissemination and optimization of the investigated themes in the Brazilian academic literature, furthering, *a posteriori*, the possibility that research groups will be emerged and improved with a view to better reflections on these themes.

In conclusion, in general, the collection of the *Revista de Educação e Pesquisa em Contabilidade* reflects the universe of academic production in accounting, thus helping to develop, disseminate and socialize the area through scientific papers published in the Brazilian academic literature.

The improvement of the research methods applied in this study is considered as a limiting factor, such as the optimization of the quantitative data approach through the use of multivariate data analysis for example, which could provide the information disclosed here, particularly the bibliometric data. Hence, an optimization of bibliometric analysis techniques is suggested. Another suggestion refers to the improvement of network analysis, addressing closeness centrality and the authors' knots and links in an individual and consolidated perspective. Also, content analysis of the 45 themes identified and disseminated in this study is suggested.

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