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QUANTITATIVE STUDIES IN ADMINISTRATION: COMPARATIVE ANALYSIS BETWEEN BRAZILIAN AND INTERNATIONAL PUBLICATIONS

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ABSTRACT

This article aims to identify research strategies focused on methodological procedures and presentation of results in national and international quantitative studies, in the administration area, within a framework of critical-comparative analysis, in the period between 2015 and 2019. To develop this study, an exploratory-descriptive research was carried out, with a qualitative and bibliographic approach. For the treatment of the data it was used the content analysis technique, by means of Iramutec software, based on the phases described by Bardin (1977). The results showed that there are significant differences in national and international publications that have been analyzed in terms of the research problem, hypothesis, used technique and presentation of results. It is considered that this article, although of an exploratory nature, has a theoretical and practical contribution as far as it is discussed part of the process concerning the procedures applied in the development of empirical research. Finally, as a suggestion for future studies, we indicate studies aimed at analyzing the appropriateness of the research instruments in relation to the object of study, technique, sample description and data collection method in management articles using the quantitative approach.

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INTRODUCTION

The research process in administration has been the subject of interest and concern of researchers, especially related to the use of several methods and their implications over the quality of the content (Bertero; Caldas & Wood, 1999). In this regard, Wood Jr and Souza (2019) showed and widely discussed the social relevance of the research in administration providing a discussion within international scope, which contributed to foment the debate in Brazil. These authors advocate for the need of a practical guidance of Brazilian research meaning the achievement of researches guided by theoretical and /or social and /or economical and/or technological relevance and by explicit search of scientific accuracy. So research in administration seems to be immersed in an important debate on the utility of academic knowledge produced, as well as its adequate replicability, from described results in published articles (Meyer, Van Witteloostuijn & Beugelsdijk, 2017; Cuervo Cazorra, Andersson, Brannen, Nielsen & Reuber, 2016; Aguinis, H., Cascio, Wf & Ramani, 2017). Articles recently published suggest the need of having results of replicable researches to improve the credibility and, mainly, its utility from methodological practices described. Studies like Falaster's, Ferreira's and Canela's (2016), along with 82

journal chief-editors revealed that the scientific contribution of the research in administration is one of the biggest factors to achieve a new article publication, while the section destined to methodological procedure is the one that usually shows more fragility or gaps, motivation its rejection. This discussion over the need of a bigger quality and scientific accuracy is present since the 1990's, as it was found in studies Bertero's, Caldas's and Wood's (1999) and, it still keeps itself current in Abdala Oliveira's, Azevedo's and Gonzalez's (2018). Also, it's still highlighted the concern with the lack of explicitness regarding the nature of the study object that grounds research problem, that is, if it is subjective, guided by the diversity of realities or, if it's objective, guided by observation of real events that come from measurement operation, regarding the method, techniques and care in the definition of procedures which have to guide the choices of research strategies in specific areas of administration field (Farias, 2013; Broilo, Silva, Frio, Olea & Nodari, 2015). So, these approaches emphasize that the understanding of these aspects is fundamental for the choice of adequate strategies to research operationalization. Discussions over the methods in administration research point that a quantitative approach has been a tendency in several studies (Cordeiro, Sanches, Cavalcante & Leite, 2014; Silva, Lopes & Braga Júnior, 2014; Madeira, Lopes, Giampaoli & Silveira,

2011; Farias, 2013) and they highlight essential aspects in this kind of research, just like the different techniques of data making and their possible statistic analysis and, yet, tendencies and contributions to knowledge advance. Despite the use of quantitative approach in administration research, inherently, the quantitative techniques to data analysis, Fates, Serra and Martins (2014), in a study carried out with administration programs recommended by CAPES (that stands for: Improving Coordination of Graduated People), verified that the level of proficiency of national researchers in statistic methods is smaller if compared to american researchers. Authors took as a reference the study of Shook et al. (2003), using the same questions, which versed about how competent the researcher considered himself/herself for the use of quantitative approach, from several related methods. Reinforces this result, Canon's approach (2012) as he portraits that sectary discussion between qualitative and quantitative techniques, weakened for years the vision of the research as a business subject to criteria of validation, objective and accurate, before the vision of the research much more as an art. This false dicotomy turned out that other professionals, like the economists and the statistics, ended up occupying, in practice, the space that many social scientists tended to quit. Considering the profile here outlined of the environment of the administration research, the current study has the aim to identify the research strategies focused on methodological procedures and results presentation in national and international quantitative studies, in administration area, inside a critical-comparative analysis chart, in a period between 2015 and 2019. Characterization of this comparative environment has a theoretical-pragmatic impact once it tends to stimulates the deepen of reflexion to be engaged by researchers in their studies outline, especially on the explanation of the research problem, data collection, concerning the structure of data collection and of its approach, as well as the kind of sampling used. And finally, also reflect on the presentation of analytic practices in a didactic way, even if the techniques used may be stronger. This study is organized in four other parts, besides this introduction, to know: literature review, methodological procedures; results and its respective analysis and conclusions, as well as study limitations and the path for future investigations.

LITERATURE REVISION

This topic shows a conceitual approach about scientific methodology, much more in a way to highlight the relevance of the methodological outline of research than in a way of its epistemological discussion.

Conceitual approach of scientific methodology: In 1979, Kerlinger reflected in his book about research methodology in social sciences the descriptive of how we can get to know the world, registering, initially, the access to knowledge derived from some source of authority, which means, that it is accepted as worth of credit, and then it shows the path to observation, in which the senses to getting and interpreting the information received from outside from individuals are used. However, Kelinger (1979) alerted about the fact that these procedures are not always guides of total confidence, once people are not good observers and many times they trust in information derived from demagogues. This way, Science was developed, in good measure, to offer a more confiable, method of understanding and knowledge, which is able to explain complex phenomena. The definition of scientific methodology, presented by Rajasekar, Philominathan and Chinnathambi (2013), highlights the systematic way of solving problems, which comprises a set of procedures in which researchers describe, explain and predict phenomena. The use of methodology is an important characterization resource, giving the research an appropriate shape by the use of methods and techniques to acquire the knowledge about the object of study (Ribeiro et al., 2013). Rajasekar, Philominathan and Chinnathambi (2013) make a criticism in their approach, showing that, for many times, before certain problems a method is chosen without the clarity of the spectrum involved in scientific research, which would give a nonconfiable outline as alerted by (Kelenger, 1979). Lima (2002) had already introduced this idea as he highlighted

that to a scientific study making, the methodological elements are fundamentally important, detailing the kind of study and, the universe and the analytic procedures of the research. More precisely, the research methodology is concerned about the explanation of the following questions: Why is a specific research done? How was a research problem formulated? Which hypothesis should be tested? Which variables operationalizes the problem and its hypothesis? What kind of data need to be collected? Which method (general strategies) need to be used? Which specific analysis technique is more appropriate to data dealing? (Kerlinger, 1979; Rajasekar, Philominathan & Chinnathambi, 2013). So, the building of a trustful knowledge supposes an intrinsic relationship of the research methodology and the research goals, which is also supposed the accuracy of the method definition, through its understanding, its debate and its improvement related to its relevance in a reality application, with methodological accuracy (Zappellini & Feuerschutte, 2015; Popper, 1993). However, even if this methodological process is confiable, its validation can only be checked from the clarity of its disclosure. Among the several classifications that may characterize the scientific research, one is related to the approach techniques of the investigated variables, identifying it as qualitative or as quantitative research (Gil, 2018; Martins & Theophilo, 2009). The quantitative research, opposing to qualitative research, uses standard means which aims measurement of variables about what Kerlinger (1979, p. 159-161) alerted to be Achilles' heel of behavioral research, making "necessary the use of certain number of items to measure the variable", with trustworthiness and validity, once measurement in behavioral sciences is much more complex than in natural sciences, for working, most of the times, with variables that are not directly observed and, in this sense, need to be operationalized to enable its measurement.

Additionally, Creswell (2010) reinforces, the need of the researcher presentation, in his/her quantitative research work, a discussion about the used variables, doing a kind of cross reference with questions or hypothesis of the research, which would be a useful procedure to give more clarity in propagation of the procedures utilized. Studies taken about the evolution of quantitative research suggest that its use has increased. Neiva (2015) shows that in the 1990's, about 15% of articles in social sciences, part of a sample of 308 articles, presented some quantification. Roman, Marchi and Erdmann (2012), from the mapping from 2007 to 2011 in the area of production administration, of a total of 486 articles selected in journals of these subjects, noted that 43,2% used quantitative methods. And finally, Broilo et al. (2015), examining the articles in Administration, published in journals in the period 2010-2014, showed that 48% of publications of articles used quantitative research, while 5% used a mixed approach (qualitative and quantitative). So, the tendency in the use of quantitative studies points to the relevance of reflection about the posture of researcher in being attentive to clear register of the used procedures in a way to subsidize new studies in this approach.

Quantitative approach in administration: According to Silva (2010), quantitative method had its origin in natural sciences and in positivism, which allowed researchers to study the phenomena that had nature knowledge as basis, through scientific method. This way, for a research to set with quantitative approach it is assumed that the object definition that induces the problem of research may be susceptible of theoretical cover, that enables its description and its specific goals in an objective and precise way (Silva & Simon, 2005). This idea is endorsed by Gabriel (2014), while highlighting that every research comes from a problem, which is valued by a literature review that may contribute with knowledge field through new articulations among variables, as well as with the mapping of new hypothesis. As commented previously, the kinds of variables involved in the studies, which are directly observable variables or concepts (constructs) to be operationalized by indicators or variables that may be directly observed, determine a bigger or smaller complexity of measurement, as data are of numeric nature, expressing different greatness, for example, from monetary values to behavior measures (Kerlinger, 1979; Silva, Lopes & Junior, 2014). At the same

time, it becomes a useful procedure to the reader presents a descriptive analysis of data to the variable used, indicating averages, standard deviations, response bias and the spectrum scores to these variables. (Creswell, 2010). Completing this approach, the study claims for clarity concerning the presentation of analysis techniques used for data treatment, whether they are univariate, bivariate and/or multivariate techniques, explaining the technique adherence to answers building to the study goals. The same way, it makes necessary to act concerning the verification tests of the study hypothesis, in their parametric or non-parametric approaches. However, in a precedent way to all this approach, the explanation concerning the sampling process, probabilistic or non probabilistic, is a priority in a sense to give confiability to implemented analysis decisions. Yet, the relevance of quantitative research withstands itself in a range of use of its results to the ones that runs for three quality criteria, which are: replicability, validity and reliability. In order for the research to be reproducible or replicable, it is ratified the relevance of detailed register of how data were collected, of sampling procedures, of procedures to variables measurement, of the data collect tool, of the shape of data collect and of variables analysis, so that other researchers get to follow the same steps before the intention of its research replication (Bryman & Bell, 2007).

Figure 1. Initial measurement model

Item	Check List
Research problem	Is it in the shape of a question? Did it come from the literature review? Does it allow the relation or relations among variables?
Variables	Are they identified? Is it possible to ascribe a casualty relation among them? Is there a dependence or interdependence among variables? Can they be operationalized? The relation among them allows the creation of hypothesis?
Hypothesis	Are they a product of literature review and research problem? Are they liable of test?
Survey type	Is it experimental? Which one? Is it non experimental? Which one?
Scales	What kind is it? How was it built? How was it validated?
Population and sample	Was the population characterized? How was it sampled? Sampling was probabilistic or non probabilistic ? How was sample calculated?
Collect data Plan	How were data collected? When were they collected?
Data analysis I	Which was the statistics computational package used and which was its version? How were data analysed ? Were data adherent to normal curve? Which test or tests were taken? How were missing data dealt? Were tests concerning to effect size, alpha value and sample size taken? How was descriptive statistics done and presented? Which tests were taken?
Data analysis II	Bivaried or multivaried analysis? Why? Which were the reference values (for example: statistics significance, Cronbach Alpha, etc) and why ere they used? Are schedules, charts, images an /or ilustrations correctly labeled ?
Results	Is there a brief explanation of results after presentation? Are results presented coherent with the techniques and methods used?

Source: Gabriel (2014)

Concerning research validity, Bryman & Bell (2007) shows it's necessary to comply with four types of validities: internal, which refers to the possibility of concluding that a relationship is casual (Cook & Campbell, 1979); external validity which determines that research results need to be valid and generalizable so that they can promote the interpretation of the findings in relevant practices (Tebes, 2000); ecological validity, that questions about the capability of research tools in seizing the conditions of daily life, values and attitudes of researchers the same way that are demonstrated in its natural environment (Cicourel, 1982); and measurement validity, which assures that an indicator or group of indicators, may be able to measure a concept, as previously commented (Bryman & Bell, 2007). Confiability is a criteria introduced by Peter (1979), as the degree wherewith measures are free of mistakes, providing consistence in the results, especially non sampling mistakes, for which we cannot evaluate the possible extension. In a general way, therefore, quantitative research demands the fulfillment of a set of premises concerning to measurement validity of this kind of approach, that is: a) content validity, which is defined by Ullrich et al. (2012), as being the capability of the research tool of getting the different faces of a theoretical construct; b) confiability (measured, for instance, by confirmatory analysis factorial) which evaluates the quality of research tool (Churchill, 1979), unidimensionality, which concerns to the presence of a latent trace or underlying construct to a set of measures (Anderson et al., 1987); and construct validity, that evaluates if a tool is adequate to measure what it proposed itself to measure (Churchill, 1992). Gabriel (2014) suggests a check list to the research taking in account the main points to be presented in a report of quantitative research. Figure 1 shows the proposed items, as well as the means of its verification so that the methodological research process may guarantee the fulfillment of measurement validity, confiability and adequate tool. Although these items are not a definitive proposal in search report making, as they don't intend to behold all aspects of the methodological procedures used in scientific publications, it expresses a minimum necessary construction to endow a quantitative approach article with conditions of its replicability.

METHODOLOGICAL ASPECTS

This study adopted a documental analysis as investigation process, which was preceded of a bibliometric procedure of exploratory character to selection of documental cases for analysis, which is detailed hereafter. This way, according to Gil (2008), this kind of approach seeks describing the characteristics of a population, phenomenon or an experience, offering bigger familiarity with the problem and it usually involves bibliographic making. In this sense, we emphasize that as far as investigation procedures, national and international articles were identified in the last 5 years, which used quantitative research approach. Therefore we adopted the following criteria:

A selection of articles in national journals, from Capes Journal Portal, with the highest rank among Brazilian magazines in evaluation area named "Public and companies administration, accounting sciences and tourism". This portal portrays intellectual production of maturing and doctoring programs of all knowledge areas through a journal rank in which there was intellectual production publication of researchers linked to these programs (Da Silva, de Benedicto & Longo, 2019). This way, four journals were identified with A2 rank, in which articles were selected, in data base of each of these journals, from the following key-word: "quantitative approach". To international publications, it was chosen data base Web of Science (WoS) for being a data base that indexes just the most cited journals of each area. Besides that, considering the classification of researched journals, it was selected only the ones with impact factors in minimum extract 3.5. It is observed that such indicator refers to a metric applied to evaluate, through quotes received, scientific magazines from all the world (Colepicolo, 2015). Key-word used was "quantitative approach", with the choices of categories "management", "business" and "public administration".

So, 25 articles were selected, 12 national journals and 13 international journals. These articles were extracted from for national and six international journals, respectively, as pictured in Figure 2.

Figure 2. National and international journals researched

National journals	Qualis
Brazilian Business Review (BBR)	A2
Revista de Administração Contemporânea (RAC).	A2
Revista de Administração de Empresas (RAE)	A2
Revista de Administração Pública (RAP)	A2
International journals	Impact fator
Business Strategy and the Environment	6.381
Family Business Review	6.188
Journal of Organizational Behavior	5.0
Journal of Business Venturing	6.333
International Small Business Journal: Researching Entrepreneurship	3.706
Strategic Management Journal	5.572

Source: research data

Data treatment were taken from the following phases: 1) pre analysis, 2) material exploration and 3) data treatment, inference and result interpretation (Bardin, 1977). In pre analysis, selected articles were examined aiming to identify if publications made explicit contents concerning procedures and research techniques with quantitative approach. In material exploration phase *corpus* was constituted with sections of methodological procedures and results discussion. Next, texts were systematized in command lines separated to national and international articles. Later, texts were processed generating outputs which were compared in parallel, according to each command line.

Figure 2. Elements of research framework

CATEGORIAS	AUTORES
Study goal	Broilo, Silva, Frio, Olea and Nodari (2015) Farias (2013) Gabriel (2014) Silva & Simon (2005)
Research problem	Broilo, Silva, Frio, Olea and Nodari (2015) Farias (2013) Gabriel (2014) Kerlinger (1979) Popper, (1993) Rajasekar, Philominathan and Chinnathambi (2013) Silva and Simon (2005) Zappellini and Feuerschütte (2015)
Hypothesis	Creswell (2010) Gabriel (2014) Kerlinger (1979) Rajasekar, Philominathan and Chinnathambi (2013)
goals	Gabriel (2014) Popper (1993) Silva e Simon, (2005) Zappellini and Feuerschütte (2015)
Research instrument	Bryman and Bell (2007)
sample	Bryman and Bell (2007) Gabriel (2014)
Data collect procedure	Broilo, Silva, Frio, Olea and Nodari (2015) Farias (2013) Kerlinger (1979) Rajasekar, Philominathan and Chinnathambi (2013)
Technique used	Broilo, Silva, Frio, Olea and Nodari (2015) Creswell (2010) Farias (2013) Kerlinger (1979) Rajasekar, Philominathan and Chinnathambi (2013)
Results presentation	Gabriel (2014) Tebes (2000)

Source: elaborated by authors

Data treatment was done through the application of Content Analysis technique that, according to Bardin (1977), is constituted of a set of

communication analysis techniques aiming the description of messages content which provides indicators making, quantitative or not, allowing achievement of knowleges inference. This treatment, taken with software help IRAMUTEQ (*Interface de R pour les analyses multidimensionnelles de textes et de questionnaires*), developed in the modality *open source* produced in an automated waywords analysis and grouping, through the Downward Hierarchical Classification (DHC) method, according to occurrences frequency and words meaning in text *corpus* and dividing in classes and categories according to similarity among the themes found. However, we have to register that quantitative algorithm of statistics analysis taken by the software does not mischaracterize the essentially qualitative nature of data, which are analysed under the theory of perspective and subjective interpretation of researchers. In a way to make apparent the distinctive categories of empiric theoretical *framework* of researches, then a reference chart of these categories was created based on authors selected in this study according to Figure 3. It is observed that although some characteristics were pointed of existing categories on research framework, his study restrains itself to evidence existing categories in the set of analysed articles.

ANALYSIS AND DISCUSSION OF THE RESULTS IMPROVEMENT

To instruct discussion and results, this section was divided in two parts, the first one is about a joint analysis of articles, segmented just as to its origin, that is, national and international, while the second one focus the identity of each article as to the following categories: study object, research problem, hypothesis, goals, research instrument, sample, collect procedure, technique used, theoretical model, scale, result presentation and conclusions. This way, from study systematization in *Iramuteg*, the general *corpus* of publications, was made up of 12 texts, separated in 276 text segments (st's), in national publications and 13 texts, separated in 605 st's, in international publications. In national articles, 9677 occurrences emerged (words, shapes or vocables), 1863 are distinct words and 941 with only one occurrence. Within international ones, 21369 occurrences were revealed (words, shapes or vacables), 2864 are distinct words and 1325 with only one occurrence. National articles had an utilization of 214 st's (77,54%), while the international ones had an utilization of 474 st's (78,35%), meeting minimum parameters of 75% of text utilization (Camargo & Justo, 2013). These percentage of utilization in respective texts segments show similarity of content in the interior of each segment analysed. The content analysed in national articles, generated class 1 with 46,26% (99st) and class 2 with 53,74% (115st) and the international ones generated class 1 with 43,67 % (207st), class 2 with 28,9% (137st), class 3 with 13,5% (64st) and class 4 with 13,92% (66st). These classes conduct the latent categories existing in the set of content, which will be collated with theoretical categories previously raised. To reach a better view of classes, Figure 2 and 3 show dendrograms formed thorough Downward Hierarchical Classification (DHC). Figures 3 and 4 are formed with words of each generated class from the qui-square test, which evaluates evocations that presented similar vocabulary among themselves and different vocabulary of other classes. These results reproduce the orientation given by Bardin (2011) to content analysis, to know: mutual exclusion, homogeneity, pertinence, objectivity, loyalty and productivity, with will guide the constitution of the category.

Categories highlighted in the study: From these results and based on the categories previously presented on Figure 2, classes were named, generated in the analytical process of *Iramuteg*, which are made by the frequency of words and its respective belonging to a same context. In this sense, national publications were divided in 2 *subcorpus* (A,B). To *subcorpus* (A), composed by class 1, it was called "characterization", which contains evocations correspondent to "research instrument", "sample description", "study object", "procedure od data collection" categories. To *subcorpus* (B),

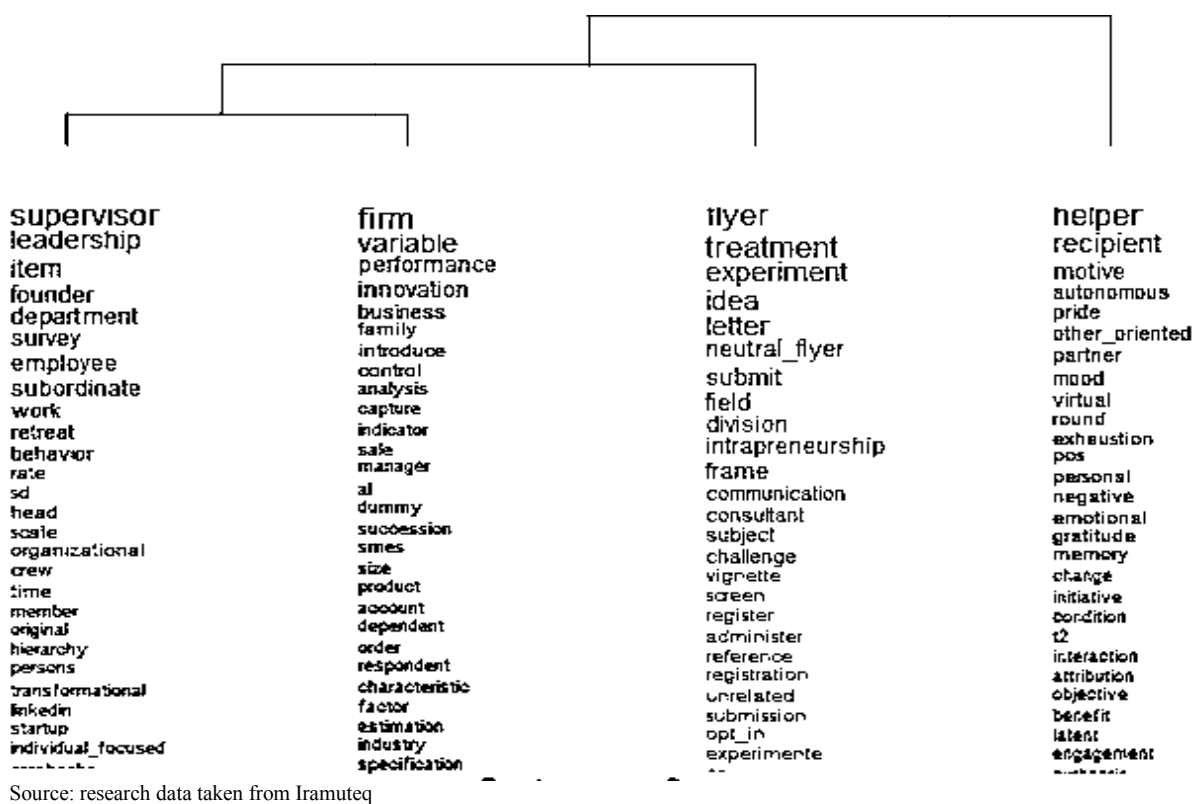
composed by class 2, it was called “instrumentalization”, which contains evocations correspondent to “technique used”, “empiric theoretical model of research”, “ scale” categories, according to illustration in Picture 3.

Articles analysis: To better understand the articles, contents can be illustrated by results Factorial Analysis of Correspondency (FAC) of national and international publications. This method generates Cartesian plans which are formed based in two measureparameters:



Source: research data taken from Iramuteq

Figure 3. Dendrogram of national publications

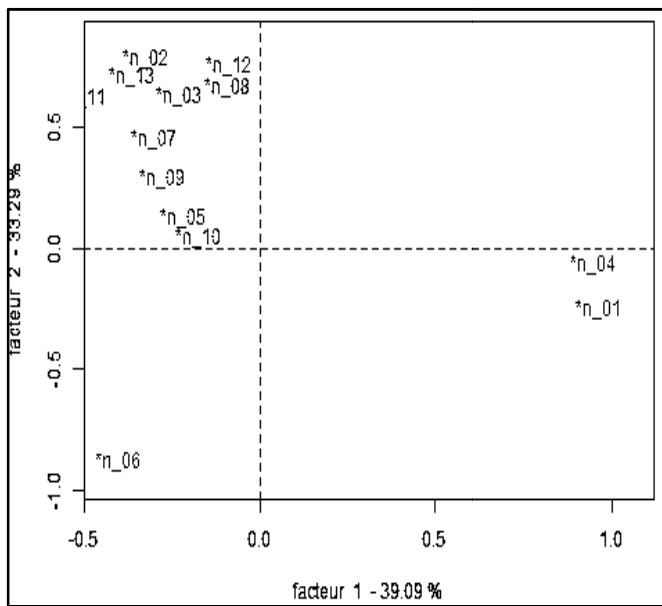


Source: research data taken from Iramuteq

Figure 4. Dendrogram of national publications

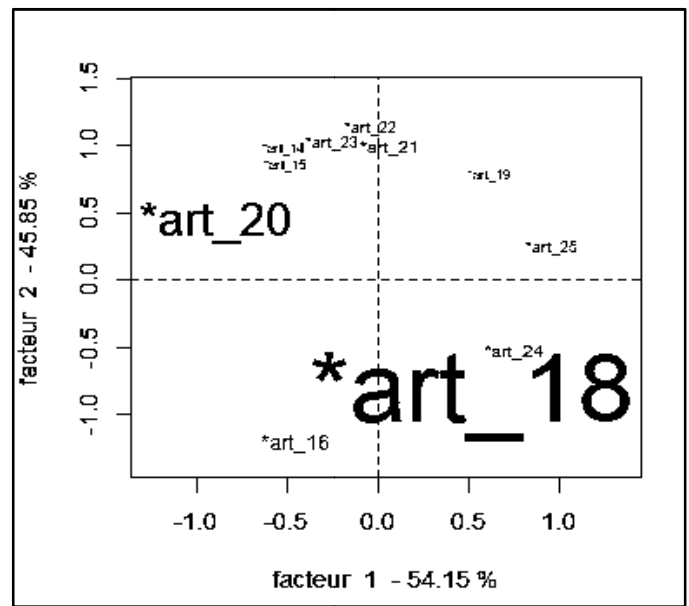
In international publications, from the same analysis criteria, two *subcorpus* emerged (A and B). *Subcorpus* (A), composed by classes 1,2 and 3, called “characterization” contain evocations correspondent to “ presentation of technique” and “sample description” categories. Finally, *subcorpus* (B), composed by class 4, called “operationalization”, in which contents related to “technique procedures” prevails, according to what can be observed in Picture 4.

proximity and distance. The first one refers to how similar articles are, while the second one is about differences found, both related to categories previously cited. This process generated the pictures, based on codes assigned to selected articles. Figure4, shows the FAC related to national publications. Figure 5 shows results correspondent to international publications.



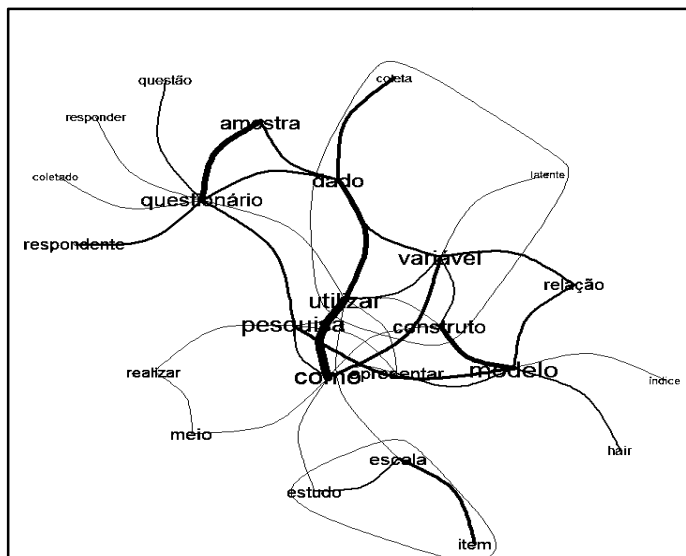
Source: research data taken from Iramuteq

Figure 4. Dendrogram of national publications



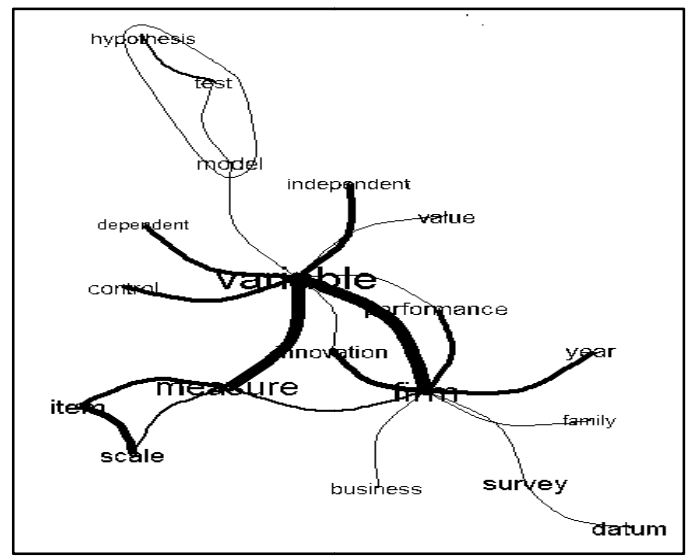
Source: research data taken from Iramuteq

Figure 5. FACof national publications



Source: data from research taken from Iramuteq

Figure 6. likeness in national publications



Source: data from research taken from Iramuteq

Figure 7. likeness in national publications

National publications, in investigative basis, present the study goals, the hypothesis raised and research problem. However, concerning the goals, it was verified that some do not do a division between general specific objectives in an explicit way. In international publications, despite the presentation of objectives, they are not described in a direct way, so the effort is more centered on hypothesis detailing, which answers in part the proposition of Ciribelli (2003) as pointing that one of the aspects that methodology needs to explain is related to hypothesis. In parallel, from FAC it was highlighted that of the 12 national articles analysed, only three of them presented the research instrument use in a detailed way, while in the 13 international publications, five articles provided a detailed description of instruments used in researches. Of the 25 articles analysed, national and international, 17 articles did not detail the instrument of research, suggesting fragility in this approach. This situation contradicts orientation found in Rajasekar, Philominathan and Chinnathambi (2013), which shows that the description of procedures used in research is a fundamental element to researcher work achievement. Concerning to the presentation of data analysis techniques, in the period of 2015 to 2019, it stands out that national publications show more diversity, comparatively to the set of international articles here observed, which are: modeling of structural equations, logistics regression, descriptive analysis, linear regression,

exploratory factorial analysis and quantile regression. While in international articles, modeling of structural equation techniques and regression techniques prevail. However, it was verified that national publications present description in a more detailed way, while international publications concentrate themselves on description and analyses of results. Approach found in national articles is closer to Bryman's and Bell's (2007) proposition concerning to replicability. In relation to sample presentation and description, it was verified that in national publications, 3 articles presented in a more detailed way the process of sample analysis. In international publications of basis analysed, of 13 articles, 6 of them detailed the sample choice process. This way, we can observe that international publications, in terms of sample detailing, line up more to Bryman's & Bell's (2007) propositions, when it exposes the need of clear presentation of procedures adopted to sample selection. In relation to results disclosure, national publications revealed certain fragility on the deepening of its interaction with the theory presented, while in international publications this interaction is more present, highlighting theoretical gaps to be addressed in future researches. This way, international publications line up more to what was pointed by Tebes (2000) about the need of a clear presentation and interpretation of gotten results. Yet, likeness analysis done in the set of selected articles, made it possible to identify a differentiated pattern

on studies approach between national and international researchers, by the connexion among the words on the textual *corpus* of each set, which highlights common vacables and their meanings (Marchand & Ratinaud, 2012). Thus, findings of this process, showed on Picture 5, revealed a centrality in relation to sample categories, study presentation, technique used and research instrument in national publications. It was verified, for instance, that the word 'research' is used in the description of the research goal, having its utmosts associated to the questionnaire, model, scale and data collection, at confirms what was exposed in the analysis of the factorial plan presented on Figure 6. In international publications (Figure7) it was observed a centrality of terms "variables" and " measurement", having in their utmosts, the words "hypothesis", "measurement", "dependent and independent", which holds an approach centered on study results. Based on what was exposed, national publications highlight a proeminence in the approach of procedures used in the study, a tendency pointed by Ribeiro et al. (2013) as dealing with how imperative it is that researches show adequate shapping, in terms of methods and techniques, which results may be consistente and reliable (Peter, 1979), and enlarging the possibility of replication on studies (Zappellini & Feuerschutte 2015). International publications, here examined, suggest a better struration based on hypothesis description, variables identification, measurement strategy and results detailing (Tebes, 2000). National and international approaches can be seen like complementary, that is, the national ones with bigger diversification potencial of investigation processes and international ones with biggeradvances potencial of theoretical border. If on one hand centrality of international studies tend to potentialize advance on theoretical border, on the other hand, the possibility of studies replication is weakened by restrictions on approach of research procedures. The same way, if on one hand centrality of national studies tend to contribute to replication and diversification of methodologic researchprocedures, on the other hand, they weaken its contribution to theoretical border advance.

FINAL CONSIDERATIONS

Form the goal that was proposed in this article, which aimed to identify research strategies with focus on methodologic procedures and presentation of results in national and international studies, in Administration area, inside a frame of critic-comparative analysis, in the period between 2015 and 2019, it was possible to identify significant difereces concerning national and international production. In this optics, it was identified that, when it comes to techniques used to data analysis, there is a detailing prevalence of techniques used in national publications. This aspectgives these publications a better targeting to replicability, once this kind of approach shows present to the researcher all necessary resources to study replicability, which meets Bryman and Bell's(2007) propositions. Although this detailing is not verified in international publications, the way analysis and result descriptions are presented, give these publications a better contribution to theoretical field advance. As important as instrumentalization, which includes techniques of analysis used, the goals, the hypothesis,research problem and textual descriptive, are also relevant to a total understanding of paths and study results (Silva &Simon, 2005). In this sense, potentialities highlighted in each set of articles, suggest that to comply with this premise, it is assumed approaches complementarity, once each of them shows a differntiated centrality pattern.

Thinking about scientific accuracy and studies contribution, this confrontation between national and international publications, must be analysed in the view of its contribution to studies replication and theoretical border advance. So, in this sense, national studies contribute to replication, diversity and formation in methodologic, while international studies direct to theoretical field advance. As study limitations, we register the fact that analysis is circumscribed to 25 articles found in 10 journals. This way, it is recommended sample enlargement for future studies, that will enable a bigger knowledge coverage about methodologic strategies used in quantitative studies in

the área of Administration. Finally, it's considered advisable the continuity of comparative studies with emphasis in selection research outline, especially before interdisciplinary phenomena in a way to consolidade learning from highlighted experiences.

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