

Research methods in management: advances and applications

Introduction

Methodology should not be seen as a static and boring section that lands somewhere in a piece of empirical research as a kind of mandatory duty that most researchers slightly adapt from previous work without enthusiasm. Actually, the methodology section has a lot to tell about the nature of each research project, which is inserted in a determined context and history. More than a set of procedures, rules or techniques, methodology embodies the interests, values and principles of researchers. It reveals a worldview, what reality and knowledge production means for a given group sharing the very same ontology and epistemology (Pozzebon, 2018). If theory could be seen as the soul of a piece of research, methodology could be seen as its body, with eyes, ears, hands and a beating heart.

Because we see methodology as something that is alive, we claim it represents the way we relate to the world. This is why this special issue seeks to push our readers to discover innovative methodological approaches that might be applied to the management field. It is a bridge between grounded empirical material and new theories and understandings. Although most methodological articles are preoccupied with rigor and precision, we are looking for imagination and creative thinking. In line with Alvesson and Karreman's (2011, Preface) recent book on "mystery as a method", the set of articles that form this special issue aim at emphasizing "how empirical studies can be used to come up with unexpected ideas and lines of thinking" and "to inspire less predictable and more exciting theoretical work triggering by empirical material" therefore offering inspiration.

In the next section, we introduce 12 articles that put forward advances and new applications in terms of methodological approaches, most of them in form of essays. We present four qualitative articles, six quantitative articles and two that present a mixed-method approach.

The articles of this special issue

The first qualitative article, written by Bispo and Gherardi (2019), proposes a provoking approach called "embodied practice-based research". The authors are inspired by the assumption that researcher's cognition cannot be separated from his/her perception and its capacity to affect and be affected by humans and non-humans, research data included. From their perspective, when trying to understand



organizational phenomena, researchers do not only “touch” empirical data, but “become” them. This means that data interpretation is not limited to researchers’ cognitive skills, but to their capacity to be “bodily” able to engage in an effective manner in research practices. Instead of a traditional perspective where qualitative method relies on a set of technical procedures that guide the researcher, the “embodied practice-based research” sees research work as a “style of doing”, where perception and affection are actions. Data is a verb and the research is a process of becoming-with-data. This essay offers an alternative understanding of organizational qualitative research drawing attention to the possibilities of researchers to perform the phenomenon – becoming-with – as a methodological competency.

The second qualitative article proposes a reflection about the contribution of phenomenography to the organizational studies, particularly in terms of theorizing from the agents’ collective consciousness. This collective work, written by five co-authors – [da Rocha-Pinto, Jardim, Broman, Guimaraes, and Trevia \(2019\)](#) – is a theoretical essay that sees the phenomenographic method, together with the practice perspective, as an approach that enables mapping, identifying, describing and relating all the different ways by which an organization, in each one of its structuring dimensions, is effectively experienced. This article emphasizes that some aspects – like the phenomenographic interview – form an alternative and promising theoretical approach to analyze the entanglement between action and the material dimension that constitutes organizational practices.

The third qualitative article, written by [Parente and Federo \(2019\)](#), proposes a critical reflection on the use of qualitative comparative analysis (QCA) as a research method for understanding the complexity of organizational phenomena. The authors present three arguments regarding the use of QCA for management research. First, they discuss the need to assume configurational theories in order to build and empirically test a causal model of interest. Second, they explain how three principles of causal complexity are assumed during the process of conducting QCA-based studies. Third, they elaborate on the importance of case knowledge when selecting the data for the analysis and when interpreting the results. The authors are faithful to the “spirit of the neo-configurational approach”, contending that the three previous arguments are necessary, nonetheless each one is insufficient to ensure a QCA research design.

The last qualitative article explores the realm of “interviewing”. Written by [Nascimento and Steinbruch \(2019\)](#), the article emphasizes the central and often neglected role of transcription. The authors recall us that, in qualitative research, interviews represent a recurrent data collection method, which must be first transcribed for the empirical data to be analyzed. Therefore, most papers report that “the interviews were transcribed”, without presenting further details about the nature of such transcription. By emphasizing the relevance of disclosing the methodological procedures adopted in the transcription, the authors call our attention to concepts of naturalized and denaturalized transcription, the relevance of adopting transcription norms and the need for reflexivity in conducting transcriptions – elements that must be explained in research reports in order to improve the methodological quality.

The first quantitative article was written by [Albuquerque, Demo, Alfinito, and Rozzett \(2019\)](#). Based on the assertion that standard factor analysis is not always applied correctly mainly due to the misuse of ordinal data as interval data, the authors present and apply the Bayesian Factor Analysis for Mixed Data (i.e. a combination of interval, ordinal or ratio variables and also in the presence of prior information such as past studies or information

gathered from the experience of specialists) for the construction of scales. The method was used to analyze the Customer Relationship Management Scale for the Business-to-Consumer Market with a sample of 910 subjects, and the decisions made during the analysis were explained.

The second quantitative article deals with insider econometrics (IE) and it was written by [Teodorovicz, Cabral, and Lazzarini \(2019\)](#). With “inside” information not publicly available along with the deployment of rigorous and state-of-the-art, “econometrics” can benefit both researchers interested in advancing theories and practitioners interested in advancing their practice, this is the core of the IE study definition. From the organization’s point of view, an IE study is valuable when it provides a specialized consulting activity capable of producing some managerial insight either to enhance performance associated with some objective defined by the organization itself or to answer a question the organization is interested. The IE study is presented in nine phases with the role of the subjects (researcher, focal insider, organization, and other insiders), and the research questions to be developed in each stage.

[Hair and Fávero \(2019\)](#) are the authors of a reflection about multilevel modeling for panel data. The authors introduce the concept of “nested data structures” and run, as one example, a model in order to investigate if there is variability in the performance throughout time between students within the same school, and between those from different schools. In addition, if yes, there are certain student (i.e. gender) and school characteristics (i.e. professors’ years of teaching experience, for each school) that explain this variability. A total of 15 schools volunteered to provide data on their 610 students’ school performance over the last four years. The possibility of including explanatory variables that correspond to the different levels in the fixed and random effects components enables us to establish and examine new research objectives and interesting constructs.

Four authors – [Hair, Gabriel, Da Silva, and Braga \(2019\)](#) – contribute with the fourth quantitative article of this especial issue, presenting the fundamental aspects for the development and validation (D&V) of attitudes’ measurement scale, as well as its practical aspects, which are not deeply explored in books and manuals. They present four D&V stages: literature review or interviews with experts; theoretical or face validation; semantic validation or validation with possible respondents; and statistical validation, especially exploratory factor analysis.

The fifth quantitative article was written by [Motta \(2019\)](#), who argues that researchers in different fields within business administration often estimate models with a log-transformed dependent variable. Failure to account for adjustments for heteroskedasticity and normality of residuals may lead to biased estimates of the conditional mean and the slope on its original scale. Among the several models used to correct the issues of coefficient biasedness and heteroskedasticity in log-linear models, we find the Poisson pseudo-maximum likelihood. The purpose of this paper is to draw from the applied micro econometric literature stances in favor of fitting Poisson regression with robust standard errors rather than the OLS linear regression of a log-transformed dependent variable, applying both models in a health expenditure dataset to show the main differences.

[Fredriksson and De Oliveira \(2019\)](#) seek to evaluate impact with a method called “difference-in-differences” (DiD). Their purpose is to present the DiD method in an accessible language to a broad research audience from a variety of management-related fields. Based on a combination of before-after and treatment-control group comparisons, the method has an intuitive appeal and has been widely used in

economics, public policy, health research, management and other fields. It starts with an intuitive explanation, goes through the main assumptions and the regression specification, and covers the use of several robustness methods. Recurrent examples from the literature are used to illustrate the different concepts.

Complementary to the previous quantitative and quantitative articles, [Kirschbaum \(2019\)](#) proposes an article dealing with network analysis. The purpose of the paper is threefold. First, it brings evidence of the emergence and prominence of the social capital approach over other alternative approaches within the network analysis in management studies. Second, it portrays the historical evolution of network analysis, with emphasis on the major empirical and methodological breakthroughs that led to the emphasis on social capital. Third, it recovers the major criticism against the network analysis mainstream, while highlighting how its responses addressed this criticism.

Finally, the last article of this special issue was written by [Sinay, Sinay, Carter, and Martins \(2019\)](#) and is a reflection about Garfield's algorithm. Under the metrics included in Garfield's algorithm, the works of male scholars who are primarily affiliated to highly developed countries where English is the official language tend to appear on the top of scholarly searches. As the works presented first are more likely to be read and cited than those presented at the end of the result list, the circular argument is that scholars that work in wealthier environments are likely to be given exceeding visibility by search engines, such as Web of Science, Google Scholar and Scopus. The paper focuses on summarizing the history and the logic behind Garfield's algorithm, and on presenting and discussing conditions that should be included in it so to surpass current restraints and to democratize the scientific discourse.

We wish you all a good reading!

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References

- Albuquerque, P., Demo, G., Alfinito, S., & Rozzett, K. (2019). Bayesian factor analysis for mixed data on management studies. *RAUSP Management Journal*. Advance online publication.
- Alvesson, M., & Kärreman, D. (2011). *Qualitative research and theory development – mystery as method*, London, United Kingdom: Sage.
- Bispo, M. D. S., & Gherardi, S. (2019). Flesh-and-blood knowing: Interpreting qualitative data through embodied practice-based research. *RAUSP Management Journal*. Advance online publication. <https://doi.org/10.1108/RAUSP-04-2019-0066>
- da Rocha-Pinto, S. R., Jardim, L. S., Broman, S. L. D. S., Guimaraes, M. I. P., & Trevia, C. F. (2019). The phenomenography's contribution to the organizational studies. *RAUSP Management Journal*. Advance online publication. <https://doi.org/10.1108/RAUSP-05-2019-0085>
- Fredriksson, A., & De Oliveira, G. M. (2019). Impact evaluation with difference-in-differences. Advance online publication. <https://doi.org/10.1108/RAUSP-05-2019-0112>
- Hair, J. F. Jr, & Fávero, L. P. (2019). Multilevel modeling for panel data: Concepts and applications in business management.

- Hair, J. F., Jr, Gabriel, M. L., Da Silva, D., & Braga, S. Jr, (2019). Development and validation of attitudes' measurement scale: Fundamental and practical aspects. *RAUSP Management Journal*. Advance online publication. <https://doi.org/10.1108/RAUSP-05-2019-0098>
- Kirschbaum, C. (2019). Network analysis: emergence, criticism and recent trends.
- Motta, V. (2019). Estimating poisson pseudo-maximum-likelihood rather than log-linear model of a log-transformed dependent variable. *RAUSP Management Journal*, Advance online publication. <https://doi.org/10.1108/RAUSP-05-2019-0110>
- Nascimento, L. D S., & Steinbruch, F. K. (2019). The interviews were transcribed, but how? Reflections on management research. *RAUSP Management Journal*. Advance online publication. <https://doi.org/10.1108/RAUSP-05-2019-0092>
- Parente, T. C., & Federo, R. (2019). Qualitative comparative analysis: A configurational approach in management research. *RAUSP Management Journal*. Advance online publication. <https://doi.org/10.1108/RAUSP-05-2019-0089>
- Pozzebon, M. (2018). From aseptic distance to passionate engagement: Reflections about the place and value of participatory inquiry. *RAUSP Management Journal*, 53, 280–284.
- Sinay, L., Sinay, M. C. F. D., Carter, R. W. (B.), & Martins, A. (2019). Reflections about Garfield's algorithm. *RAUSP Management Journal*. Advance online publication. <https://doi.org/10.1108/RAUSP-05-2019-0079>
- Teodorovicz, T., Cabral, S., & Lazzarini, S. (2019). Insider econometrics: A guide to management scholar. *RAUSP Management Journal*. Advance online publication. <https://doi.org/10.1108/RAUSP-05-2019-0116>