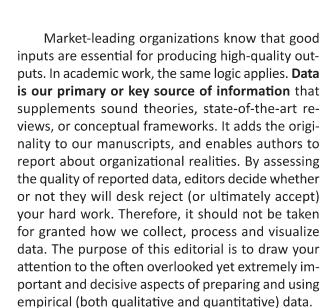# FROM THE EDITORS: THE IMPORTANCE OF DATA IN RESEARCH – BEST PRACTICES REGARDING DATA COLLECTION, PROCESSING AND VISUALIZATION

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Market-leading organizations know that good inputs are essential for producing high-quality outputs. In academic work, the same logic applies. **Data is our primary or key source of information** that supplements sound theories, state-of-the-art reviews, or conceptual frameworks. It adds the originality to our manuscripts, and enables authors to report about organizational realities. By assessing the quality of reported data, editors decide whether or not they will desk reject (or ultimately accept) your hard work. Therefore, it should not be taken for granted how we collect, process and visualize data. The purpose of this editorial is to draw your attention to the often overlooked yet extremely important and decisive aspects of preparing and using empirical (both qualitative and quantitative) data.

Different data collection processes may be applied depending upon your research question(s). However, scholars should be aware of some of the best and/or well-accepted (recommended) practices. For instance, although cross-sectional designs are most common, we should try to avoid to collect data at a single point in time. Such research design does not allow us to make causal inferences; we can only hypothesize about correlational relationships or make inferential comparisons. Longitudinal data is favorable, yet often unreachable. However, the least what can authors do to try to increase the rigor in data collection is to **have a time-lagged study** (i.e., to measure dependent variable at Time 2, while independent variable is examined at Time 1) or to **use retrospective measures** (see Miller, Cardinal, & Glick, 1997).

Another common methodological fallacy is to have single-source data. Yes, you can run different post-hoc tests for common method bias, but it will never be as good as **having multi-source data**. If the latter is not possible, try to **run a multi-study research**, or at least **make the same respondent to engage in your research twice**. This would mean that the same person will assess both independent and dependent variables, yet at different time points. Such a research design would probably put constraints on the choice of potential outcome variables. However, if you, for instance, would still like to report about work performance as an outcome, a viable option would be to **use meta-perceptions** of how survey respondents are seen by others (Hernaus, Černe, & Škerlavaj, 2021; Schooman & Mayer, 2008).

Data processing means that you have a plethora of different data analysis methods at your disposal. Which one(s) you will apply mostly depends upon your research question. Similar to the corporate world logic, where different strategies require different organizational designs (Galbraith, 2001), you need to **match your research question with the appropriate data analysis method(s) and techniques**. To give an example, if you want to determine which job characteristics are critical for being more creative and innovative, a necessary condition analysis (Dul, 2016; Hauff et al., 2021) should be applied. However, if you are interested in determining which one(s) are dominant antecedents of innovative work behavior, a relative weight analysis would be more appropriate (Tonindanel & LeBreton, 2011; Hakanen, Bakker, & Turunen, 2021). Furthermore, if you search for job characteristics' profiles that might enable higher levels of employees' creativity and innovation, qualitative comparative analysis (Cangialosi, Battistelli, & Odoardi, 2021; Rihoux & Ragin, 2008) would be

the method to consider. The icing on the cake would be to **apply triangulation**, that is, using multiple methods or techniques to conduct your research. You may want to consider combining qualitative (e.g., experiments or interviews) with quantitative (e.g., survey) within the mixed-methods study, or even apply merged methods (Gobo et al., 2021).

Finally, not less important is how you visualize your data. Recently, data visualization has gained the momentum, thus highlighting the well-known adage "The form follows the function" (Jean-Baptiste Lamarck). Although the content is more important, you should be able to provide a high-quality follow-up, that is, to **communicate appropriately the results, insights and conclusions made through different visuals** (i.e., tables, graphs, figures, etc.). Good visualization methods will make your life easier, and enable you not only to explain, but also to explore and understand your data better (Healy, 2019). However, be aware that it requires attention and time to understand the context for the need to communicate (i.e., to whom you communicate, what you audience need to know, and how you will communicate; Nussbaumer Knaflic, 2015).

Volume 11, Number 2 of the Dynamic Relationships Management Journal (DRMJ) consists of seven papers, representing a mixture of theoretical (conceptual or review), methodological and empirical studies. A wide array of relevant topics are covered, thus offering to our readership a diverse set of insights from the field of management.

The first paper, written by Nikolina Dragičević, Amadeja Lamovšek and Saša Batistič deals with a hot topic of **managerial ambidexterity** that **serves as a microfoundation of dynamic organizational capabilities within the world of digital transformation**. This conceptual paper derived from a thorough systematic review offers an integrated framework of thus far unrelated perspectives. In addition, it yields sound multilevel propositions for future research on digital sensing, digital seizing, and digital transformation capability.

The second paper, prepared by Emil Knezović, Hakan Ath, Kerim Lojo and Ognjen Riđić, is an empirical piece that contributes with interesting insights about the role of human resource management and organizational behavior antecedents of the intention to quit. Specifically, they applied structural equation modelling to **analyze and largely confirm direct (i.e., supportive HR practices), mediation (i.e., affective commitment) moderation (i.e., supervisor support) effects on employee retention** within the understudied research context of Bosnia and Herzegovina.

The third one, authored by Mihály Görög, is a reflective paper that offers an overview and invites the reader to reconsider their strategy and approaches to conducting the management research. With an intention to engage, and not to offer recipes, the author **offered a useful interpretation of deductive and inductive reasoning** that is necessary to apply when crafting our research. What we particularly welcome is that the authors reminds us how important the role of logic in research is.

Melita Balas Rant wrote about the implications of ego development on the quality of leader-member exchange relationships. By bringing the neo-Piagetian school of adult (ego) development into management discourse, the author offered both theoretical insights and empirical evidence about **how the evolution of the interpretation schemes of the act of giving between the leader and follower evolve across the levels of ego development**.

The fifth contribution to this Volume has been made by Ibrahim Hamza and Sarolta Tóvölgyi, who addressed **the influential role of gamification as a behavioral modeling tool on organizational behavioral change**. Their empirical results drawn from a cross-sectional sample of 62 employees provided a preliminary evidence that employees who practiced gamification reported to be more engaged and satisfied, although remained at the same performance level as their colleagues who did not practice gamification at the workplace. Expressed differently, embedding game element into work activities adds a fun layer to organizational reality.

The sixth paper, written by Mojca Marc and Nina Ponikvar, is a qualitative study that illustrates how organizations can make their societal impact more visible. By using the social return on investment (SROI) as an evaluation approach, they showed that **financial impact of the Incredible Years parenting program has tremendous positive benefits**, both for children and other stakeholders involved.

Last but not the least, the seventh paper, prepared by Naira Fayaz, Sujata Khandai, Ivan Zupic and Avneet Kaur represents **a thorough 30-year bibliometric and thematic analysis of women entrepreneurship**. By applying a diverse set of bibliographic methods, supplemented with thematic analysis, the authors not only enriched readers with a comprehensive quantitative review of this globally relevant issue, yet identified emerging topics that should bring this stream of research to the next level.

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REFERENCES

Dul, J. (2016). Necessary condition analysis (NCA): Logic and methodology of "Necessary but not sufficient" causality. *Organizational Research Methods, 19*(1), 10-52.

Galbraith, J. R. (2001). *Designing Organizations: An Executive Guide to Strategy, Structure, and Process Revised*. San Francisco: Pfeiffer.

Gobo, G., Fielding, N. G., La Rocca, G., & van der Vaart, W. (2021). *Merged Methods: A Rationale for Full Integration*. Thousand Oaks: Sage Publications.

Hakanen, J. J., Bakker, A. B., & Turunen, J. (2021). The relative importance of various job resources for work engagement: A concurrent and follow-up dominance analysis. *Business Research Quarterly*, https://doi.org/10.1177/23409444211012419

Hauff, S., Guerci, M., Dul, J., & van Rhee, H. (2021). Exploring necessary conditions in HRM research: Fundamental issues and methodological implications. *Human Resource Management Journal*, *31*(1), 18-36.

Healy, K. (2019). *Data Visualization: A Practical Introduction*. New Jersey: Princeton University Press.

Hernaus, T., Černe, M., & Škerlavaj, M. (2021). The interplay between relational job design and cross-training in predicting employee job/task citizenship performance. *Human Resource Development Quarterly*, *32*(4), 625-646.

Miller, C. C., Cardinal, L. B., & Glick, W. H. (1997). Retrospective reports in organizational research: A reexamination of recent evidence. *Academy of Management Journal*, *40*(1), 189-204.

Nussbaumer Knaflic, C. (2015). *Storytelling with data: A data visualization guide for business professionals*. Hoboken: Wiley.

Rihoux, B., & Ragin, C. C. , eds. (2008). *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques*. Thousand Oaks: Sage Publications.

Schoorman, F. D., & Mayer, R. C. (2008). The value of common perspectives in self-reported appraisals: You get what you ask for. *Organizational Research Methods*, *11*(1), 148-159.

Tonidandel, S., & LeBreton, J. M. (2011). Relative importance analysis: A useful supplement to regression analysis. *Journal of Business and Psychology*, *26*(1), 1-9.