



## Call for Papers

## European management research using Partial Least Squares Structural Equation Modeling (PLS-SEM)

The Guest Editors invited for this special issue are:

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The partial least squares structural equation modeling (PLS-SEM; e.g., Haenlein & Kaplan, 2004; Hair, Hult, Ringle, & Sarstedt, 2014; Reinartz, Haenlein, & Henseler, 2009) method has recently gained increasing attention, especially for the management information systems (Ringle, Sarstedt, & Straub, 2012), as well as in marketing (Hair, Sarstedt, Ringle, & Mena, 2012) and strategic management (Hair, Sarstedt, Pieper, & Ringle, 2012) disciplines, but also in accounting (Lee, Petter, Fayard, & Robinson, 2011), family business research (Sarstedt, Ringle, Smith, Reams, & Hair, 2014), operations management (Peng & Lai, 2012), and in organizational research (Sosik, Kahai, & Piovoso, 2009). The method is currently regarded as suitable and, to some extent, a favorable alternative to the more restrictive traditionally used CB-SEM method. Researchers and practitioners alike appreciate the various advantageous features of PLS-SEM. Methodological research has suggested a wide range of extensions that offer users more flexibility and even more proficient analyses. Among others, these advances include the consistent PLS algorithm (Dijkstra, 2014; Dijkstra & Henseler, 2012), the confirmatory tetrad analysis to empirically assess the measurement model type (i.e., formative or reflective; Gudergan, Ringle, Wende, & Will, 2008), approaches to analyze hierarchical component models (e.g., Becker, Klein, & Wetzels, 2012; Ciavolino & Nitti, 2013; Ringle et al., 2012; Wetzels, Odekerken-Schroder, & van Oppen, 2009; Wright, Campbell, Thatcher, & Roberts, 2012), such as circumplex models (Furrer, Tjemkes, & Henseler, 2012), mediator analysis (Castro & Roldán, 2013; Klarner, Sarstedt, Höck, & Ringle, 2013; Picón, Castro, & Roldán, 2014), PLS-SEM-specific data segmentation techniques (e.g., Becker, Rai, Ringle, & Völckner, 2013; Rigdon, Ringle, & Sarstedt, 2010; Rigdon, Ringle, Sarstedt, & Gudergan, 2011; Ringle, Sarstedt, & Schlittgen, 2014; Ringle, Sarstedt, Schlittgen, & Taylor, 2013; Sarstedt, 2008; Sarstedt, Becker, Ringle, & Schwaiger, 2011; Sarstedt & Ringle, 2010), the analysis of interaction effects (Cepeda, Martelo, Barroso, & Ortega, 2013; Henseler & Chin, 2010; Henseler & Fassott, 2010), nonlinear effects (Dijkstra & Henseler, 2011; Henseler, Fassott, Dijkstra, & Wilson, 2012; Rigdon et al., 2010), and multi-group analysis procedures (e.g., Rigdon et al., 2010; Sarstedt, Henseler, & Ringle, 2011).

Hair et al.'s (2012) recent review of PLS-SEM use in top-tier management journals shows that the method has gained increasing exposure. With a few exceptions (e.g., Furrer et al., 2012; Gudergan, Devinney, Richter, & Ellis, 2012; Haenlein & Kaplan, 2011; Klarner et al., 2013; Lew & Sinkovic, 2013), management researchers and practitioners' recognition of the method is still relatively limited given its usefulness. Advanced PLS-SEM techniques are specifically not broadly used in management research, which means that opportunities are overlooked to provide more profound analyses and conclusions by implementing the PLS-SEM method.

Given these developments, this *European Management Journal* special issue, which is devoted to PLS-SEM, aims to publish empirical manuscripts applying PLS-SEM as a suitable analysis method and that have strong implications for the management discipline in a European context. The following suggestions include (but are not limited to) possible PLS-SEM applications that will be suitable for this special issue:

- PLS-SEM studies addressing management topics such as the sources of competitive advantage, business strategy, organizational culture, leadership, organizational learning, knowledge management, international management, entrepreneurship and innovation, international business and cross-cultural studies, organization studies and business ethics
- The application and further development of the recently proposed consistent PLS algorithm (e.g., new goodness-of-fit criteria)
- Issues related to the estimation and assessment of formative and reflective measurement models
- Applying PLS-SEM to study mediating and moderating effects (including related issues such as modeling of non-linear effects), as well as a discussion of the subsequent conclusion in respect of management research and practice
- Uncovering unobserved heterogeneity and segmentation issues in PLS-SEM
- State-of-the-art PLS-SEM multi-group analyses (including related issues such as measurement model invariance testing) and their implications for management studies
- Modeling longitudinal data with PLS-SEM
- Building hierarchical model structures with PLS-SEM (second or higher order models) and their applications in management studies
- Using PLS-SEM to assess common method bias.

Every manuscript submitted to this special issue needs to provide a clear theoretical and conceptual contribution to management practice in Europe, in addition to any potential methodological contribution. All submissions will be subject to the EMJ's usual double-blind peer-review process and should respect the journal's general publication guidelines. All submissions should be submitted electronically to <http://ees.elsevier.com/emj/> until September 30, 2015.

The *European Management Journal (EMJ)* is a generalist, academic review covering all fields of management including, but not limited to, business ethics, business strategy, entrepreneurship and innovation, information systems, international business and cross-cultural studies, marketing, organization studies and general management, as well as supply chain and operations management. EMJ aims to present the latest thinking and research on major management topics in the form of articles that meet high academic quality standards, while still being accessible to non-specialists. Interdisciplinary research and cross-functional issues are particularly favored. The journal takes a broad view of business and management, and encourages submissions from other disciplines if they contribute significantly to problems that managers and researchers face.

## Publication schedule

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## References

- Becker, J.-M., Klein, K., & Wetzels, M. (2012) Hierarchical latent variable models in PLS-SEM: Guidelines for using reflective-formative type models. *Long Range Planning* **45**, 359–394.
- Becker, J.-M., Rai, A., Ringle, C. M., & Völckner, F. (2013) Discovering unobserved heterogeneity in structural equation models to avert validity threats. *MIS Quarterly* **37**, 665–694.
- Castro, I., & Roldán, J. L. (2013) A mediation model between dimensions of social capital. *International Business Review* **22**, 1034–1050.
- Cepeda, G., Martelo, S., Barroso, C., & Ortega, J. (2013) Integrating organizational capabilities to increase customer value: A triple interaction effect. In H. Abdi, et al. (Eds.), *New Perspectives in Partial Least Squares and Related Methods* (Vol. 56, pp. 283–293). *Springer Proceedings in Mathematics & Statistics*.
- Ciavolino, E., & Nitti, M. (2013) Using the hybrid two-step estimation approach for the identification of second-order latent variable models. *Journal of Applied Statistics* **40**, 508–526.
- Dijkstra, T. K. (2014) PLS' Janus Face – Response to Professor Rigdon's 'Rethinking Partial Least Squares Modeling: In praise of simple methods. *Long Range Planning* in press, online available.
- Dijkstra, T. K., & Henseler, J. (2011) Linear indices in nonlinear structural equation models: Best fitting proper indices and other composites. *Quality & Quantity* **45**, 1505–1518.
- Dijkstra, T. K., & Henseler, J. (2012) *Consistent and asymptotically normal PLS estimators for linear structural equations*. In RU Groningen Working Paper. <<http://www.rug.nl/staff/t.k.dijkstra/Dijkstra-Henseler-PLSc-linear.pdf>>.
- Furrer, O., Tjemkes, B., & Henseler, J. (2012) A model of response strategies in strategic alliances: A PLS analysis of a circumplex structure. *Long Range Planning* **45**, 424–450.
- Gudergan, S. P., Devinney, T. M., Richter, N. F., & Ellis, S. (2012) Strategic implications for (non-equity) alliance performance. *Long Range Planning* **45**, 451–476.
- Gudergan, S. P., Ringle, C. M., Wende, S., & Will, A. (2008) Confirmatory tetrad analysis in PLS path modeling. *Journal of Business Research* **61**, 1238–1249.
- Haenlein, M., & Kaplan, A. M. (2004) A beginner's guide to partial least squares analysis. *Understanding Statistics* **3**, 283–297.
- Haenlein, M., & Kaplan, A. M. (2011) The influence of observed heterogeneity on path coefficient significance: Technology acceptance within the marketing discipline. *Journal of Marketing Theory and Practice* **19**, 153–168.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014) *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage, Thousand Oaks, CA.
- Hair, J. F., Sarstedt, M., Pieper, T. M., & Ringle, C. M. (2012) The use of partial least squares structural equation modeling in strategic management research: A review of past practices and recommendations for future applications. *Long Range Planning* **45**, 320–340.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012) An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science* **40**, 414–433.
- Henseler, J., & Chin, W. W. (2010) A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling. *Structural Equation Modeling* **17**, 82–109.
- Henseler, J., & Fassott, G. (2010) Testing moderating effects in PLS path models: An illustration of available procedures. In V. Esposito Vinzi, W. W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of Partial Least Squares: Concepts, Methods and Applications* (Vol. 2, pp. 713–735). *Springer Handbooks of Computational Statistics Series*. Springer, Heidelberg, Dordrecht, London, New York.
- Henseler, J., Fassott, G., Dijkstra, T. K., & Wilson, B. (2012) Analyzing quadratic effects of formative constructs by means of variance-based structural equation modelling. *European Journal of Information Systems* **21**, 99–112.
- Klarner, P., Sarstedt, M., Höck, M., & Ringle, C. M. (2013) Disentangling the effects of team competences, team adaptability, and client communication on the performance of management consulting teams. *Long Range Planning* **46**, 258–286.
- Lee, L., Pettey, S., Fayard, D., & Robinson, S. (2011) On the use of partial least squares path modeling in accounting research. *International Journal of Accounting Information Systems* **12**, 305–328.
- Lew, Y. K., & Sinkovic, R. R. (2013) Crossing borders and industry sectors: Behavioral governance in strategic alliances and product innovation for competitive advantage. *Long Range Planning*.
- Peng, D. X., & Lai, F. (2012) Using partial least squares in operations management research: A practical guideline and summary of past research. *Journal of Operations Management* **30**, 467–480.
- Picón, A., Castro, I., & Roldán, J. L. (2014) The relationship between satisfaction and loyalty: A mediator analysis. *Journal of Business Research* **67**, 746–751.
- Reinartz, W. J., Haenlein, M., & Henseler, J. (2009) An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of Research in Marketing* **26**, 332–344.
- Rigdon, E. E., Ringle, C. M., & Sarstedt, M. (2010) Structural modeling of heterogeneous data with partial least squares. In N. K. Malhotra (Ed.), *Review of Marketing Research* (Vol. 7, pp. 255–296). Sharpe, Armonk.
- Rigdon, E. E., Ringle, C. M., Sarstedt, M., & Gudergan, S. P. (2011) Assessing heterogeneity in customer satisfaction studies: Across industry similarities and within industry differences. *Advances in International Marketing* **22**, 169–194.
- Ringle, C. M., Sarstedt, M., & Schlittgen, R. (2014) Genetic algorithm segmentation in partial least squares structural equation modeling. *OR Spectrum* **36**, 251–276.
- Ringle, C. M., Sarstedt, M., Schlittgen, R., & Taylor, C. R. (2013) PLS path modeling and evolutionary segmentation. *Journal of Business Research* **66**, 1318–1324.
- Ringle, C. M., Sarstedt, M., & Straub, D. W. (2012) A critical look at the use of PLS-SEM in MIS quarterly. *MIS Quarterly* **36**, iii–xiv.
- Sarstedt, M. (2008) A review of recent approaches for capturing heterogeneity in partial least squares path modelling. *Journal of Modelling in Management* **3**, 140–161.
- Sarstedt, M., Becker, J.-M., Ringle, C. M., & Schwaiger, M. (2011) Uncovering and treating unobserved heterogeneity with FIMIX-PLS: Which model selection criterion provides an appropriate number of segments? *Schmalenbach Business Review* **63**, 34–62.
- Sarstedt, M., Henseler, J., & Ringle, C. M. (2011) Multi-group analysis in Partial Least Squares (PLS) path modeling: Alternative methods and empirical results. *Advances in International Marketing* **22**, 195–218.
- Sarstedt, M., & Ringle, C. M. (2010) Treating unobserved heterogeneity in PLS path modelling: A comparison of FIMIX-PLS with different data analysis strategies. *Journal of Applied Statistics* **37**, 1299–1318.
- Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014) Partial Least Squares Structural Equation Modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy* **5**, 105–115.

- Sosik, J. J., Kahai, S. S., & Piovoso, M. J. (2009) Silver bullet or voodoo statistics? A primer for using the Partial Least Squares data analytic technique in group and organization research. *Group & Organization Management* **34**, 5–36.
- Wetzels, M., Odekerken-Schroder, G., & van Oppen, C. (2009) Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly* **33**, 177–195.
- Wright, R. T., Campbell, D. E., Thatcher, J. B., & Roberts, N. (2012) Operationalizing multidimensional constructs in structural equation modeling: Recommendations for IS research. *Communications of the Association for Information Systems* **30**.