

### **Announcement:**

The European Marketing Academy (EMAC) and the International Journal of Research in Marketing (IJRM) are pleased to announce the winner of the **2021 Jan-Benedict E.M. Steenkamp Award for Long-Term Impact:**

***An empirical comparison of the efficacy of covariance-based and variance-based SEM*** (IJRM, Pages 332-344, Vol 26 (4) 2009

by

**Werner Reinartz** (University of Cologne, Germany), **Michael Haenlein** (ESCP Business School, France), and **Jörg Henseler** (University of Twente, The Netherlands)

#### **Abstract:**

*Variance-based SEM, also known under the term partial least squares (PLS) analysis, is an approach that has gained increasing interest among marketing researchers in recent years. During the last 25 years, more than 30 articles have been published in leading marketing journals that have applied this approach instead of the more traditional alternative of covariance-based SEM (CBSEM). However, although an analysis of these previous publications shows that there seems to be at least an implicit agreement about the factors that should drive the choice between PLS analysis and CBSEM, no research has until now empirically compared the performance of these approaches given a set of different conditions. Our study addresses this open question by conducting a large-scale Monte-Carlo simulation. We show that justifying the choice of PLS due to a lack of assumptions regarding indicator distribution and measurement scale is often inappropriate, as CBSEM proves extremely robust with respect to violations of its underlying distributional assumptions. Additionally, CBSEM clearly outperforms PLS in terms of parameter consistency and is preferable in terms of parameter accuracy as long as the sample size exceeds a certain threshold (250 observations). Nevertheless, PLS analysis should be preferred when the emphasis is on prediction and theory development, as the statistical power of PLS is always larger than or equal to that of CBSEM; already, 100 observations can be sufficient to achieve acceptable levels of statistical power given a certain quality of the measurement model.*

#### **Selection Procedure**

The Jan-Benedict E.M. Steenkamp Award for Long-Term Impact is given annually to papers published in IJRM in recognition of their exceptional contributions to academic marketing research by demonstrating long-term impact.

A 4-member Award Committee, formed by the IJRM Editor-in-Chief (PK Kannan) and Co-Editor (Iris W. Hung), managed the nomination and selection procedure. For 2020, the committee was composed of Praveen Kopalle, chairperson (Dartmouth College, USA), Ujwal Kayande (Melbourne Business School, Australia), Sharon Ng (Nanyang Technological University, Singapore), and Alina Sorescu (Texas A&M University, USA).

The selection procedure for this award is as follows:

1. All papers published in IJRM 10 to 15 years prior to the year the award is being presented are eligible. Thus, for the 2021 Jan-Benedict E.M. Steenkamp Award, 181 papers published in the years 2006 through 2011 were eligible. (Papers published within this time frame that have already won this award or are (co)authored by Jan-Benedict Steenkamp and/or by the current IJRM Editor-in-Chief were not eligible.) Nominations were invited from EMAC members and IJRM Editorial Board members. This year, the Award Committee received nominations for 76 papers. These nominated papers comprised the first ballot for the first round of voting



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open only to the Members of the IJRM Editorial Board (who could vote for up to 5 papers; self-voting was not allowed.) The eleven (11) papers that received the most votes in the first round made up the ballot for the second and final round of voting in which the Editorial Board could choose only 1 paper. (This year there were 11 instead of 10 papers due to a tie for the 10<sup>th</sup> place.)

2. After receiving the votes, the Award Committee deliberated on the winning paper guided by the following criteria: (1) the votes received from the IJRM Editorial Board from the two rounds of voting, (2) its ISI and Google Scholar citations, and (3) its quality, as assessed by the committee's in-depth reading. There can be two winners in exceptional cases (not more than once every 3 years on average).

### *Statement from the Award Committee*

During the past two decades, there has been a renewed interest among researchers to use partial least squares analysis (PLS). However, prior research has not evaluated the relative performance of covariance-based structural equation modeling (CBSEM) and PLS approaches per a set of key characteristics such as sample size, number of indicators per construct, distributional assumptions etc. An interesting and important question is whether we can arrive at a set of rules that researchers may use in their choice of CBSEM versus PLS. The paper by **Reinartz, Haenlein, and Henseler** explores this issue and examines whether each of the approaches converge to a proper solution, the degree of parameter accuracy between the approaches, the relative importance of the different design factors on parameter accuracy, statistical power etc.

The authors conduct a set of Monte Carlo simulations based on 240 scenarios defined by a full factorial design of four design factors. The results suggest that the statistical power of PLS is always larger than or equal to that of maximum likelihood-based CBSEM. Further, their simulations show that PLS can be a very good methodological choice if sample size is low. Finally, their results indicate that CBSEM is actually extremely robust to violations of its underlying distributional assumptions.

This paper led by a clear margin by receiving the most votes of the IJRM Editorial Board and was approved unanimously by the award committee. In addition, the evidence of its impact is highlighted by 1039 Web of Science and 2320 Google Scholar citations, which makes it the best cited paper among all the initial round award nominees and shows its consistent use by scholars to decide which method to use.

We congratulate the authors for receiving this award.

*The 2021 Award Committee:*

Praveen Kopalle, chairperson, Ujwal Kayande, Sharon Ng, and Alina Sorescu