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PLS-SEM in Information Systems Research: A Comprehensive Methodological Reference

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Abstract

The partial least squares-structural equation modelling (PLS-SEM) has become a key approach for validating the conceptual models across many disciplines in general, and the Information Systems (IS) in specific. This is guided through the assessment of the measurement and structural models. Several research articles were carried out to provide an extensive coverage of the usage and application of PLS-SEM. These articles were mainly concentrated on providing guidelines of how to use PLS-SEM in terms of reflective and formative measures, measurement and structural models, and the steps for analyzing a particular conceptual model. Nevertheless, there are several steps and procedures that precede the evaluation of the measurement and structural models. The understanding of these steps and procedures is very important for many IS scholars, Ph.D. and Master students who are always struggling to find a comprehensive reference that could guide them through their research journey. Hence, the main contribution of this study is to build a comprehensive methodological guideline of how the PLS-SEM approach can be employed in the context of IS adoption and acceptance, starting from the research design stage till the assessment of the measurement and structural models. This study may serve as a comprehensive reference for formulating the methodology in the IS adoption and acceptance related studies in the case of PLS-SEM employment

Keywords: PLS-SEM; Information systems; Methodology; Guidelines

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