

## MBA12

### TALES OF BIG DATA SUCCESS: TWO EMPIRICAL STUDIES

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#### Abstract

This paper reports research procedures and findings of two empirical studies in developing and validating a Big Data success theory in the organizational context.

Upon a grounded theory-based literature review of 220 articles published in the AIS "Senior Scholars' Basket of Journals" over the period of twenty years of 2000-2020, Study 1 examines the concepts, topics, methodologies, and models/paradigms of the Big Data literature in the Information Systems (IS) discipline. The study extends the well-established D&M IS success model into the Big Data area, synthesizes theoretical perspectives and empirical findings of literature, identifies critical success factors and interrelationships, and develops a Big Data success theory in the organizational context.

Study 2 builds upon Study 1 and empirically validates the Big Data success theory in the organizational context. The study conducts a firm-level survey of Chinese organizations in a variety of industries. The enhanced variance-based partial least squares path modeling (PLS-PM) is used for data analysis. Both of the formative and reflective measurement models are estimated of the study. The study further examines overall fit, path coefficients, and coefficients of determination ( $R^2$ ) to assess the structural model. It is found that the psychometric properties of research variables and interrelationships encompassed in the theory are supported and adequately validated.

Based on empirical findings, the paper summarizes research opportunities and challenges of the Big Data success literature. The paper concludes with research implications, contributions, and limitations of the two studies.

### **Conference Track**

MIS and Business Analytics