



### **Annotated Summary of:**

**Hughes, Marie Adele, R. Leon Price, and Daniel W. Marrs (1986), “Linking Theory Construction and Theory Testing: Models with Multiple Indicators of Latent Variables.” *Academy of Management Review* 11(1): 128–44.**

### **Chapter 10: Structural Equation Modeling – An Introduction *Multivariate Data Analysis*, Sixth edition**

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The authors present a description and illustration of the use of structural equation modeling as a tool for integrating theory construction and testing. Data from a previous study is used to confirm a hypothesized measurement model comprised of relationships among latent construct variables and their indicators. The measurement model is tested using confirmatory factor analysis. The authors then specify and estimate a structural model consisting of the relationships among three latent constructs. From this study, the authors demonstrate a technique that allows for empirical tests of theoretical relationships.

To illustrate the applicability of structural equation modeling for the testing of theory, the authors use a sample of 114 respondents from a previous study. In the first phase of the analysis, the authors use confirmatory factor analysis to assess the internal consistency and discriminant validity of the hypothesized model structure containing 14 indicators. In this example, findings from the confirmatory factor analysis are also used to refine the measurement model. The structural model consists of two exogenous variables (knowledge of job enrichment and attitude toward management) predicting a single endogenous variable (attitude toward job enrichment).

The final model provides an adequate fit for the model, as was indicated by the goodness-of-fit statistics. In all, the technique allows the authors to confirm the hypothesized measurement model and theoretical relationships. Through the use of multiple indicators of multiple, operationally defined latent variables, the measurement and structural model provides a direct means for testing scientific theory.

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