Annotated Summary of:

Hise, Richard T., Myron Gable, J. Patrick Kelly, and James B. McDonald (1983), "Factors Affecting the Performance of Individual Chain Store Units: An Empirical Analysis." *Journal of Retailing* 59(2), 22–39.

Chapter 4: Multiple Regression Analysis
***Multivariate Data Analysis*, Sixth edition**
"The world's leading authority on applied multivariate data analysis based on number of citations, as reported by Google Scholar"

Multiple regression analysis is selected to evaluate the relative importance of eighteen variables suggested to have an impact on store performance. The independent variables fall into one of four categories: store manager, store characteristics, competition, and location. Moreover, each variable can be characterized as to its management controllability, time duration, and irreversibility. Separate regression equations are derived with three commonly used retail performance measures as the dependent variables: sales volume, contribution income, and return on assets. Although no hypotheses are provided for testing, results obtained from the study provide information on the types of variables that may be used in management's decision making in order to increase firm performance.

Given access to a sample of 132 outlets from a chain of mall retailers, the authors use a combination of forward, backward, and stepwise entry in the development of the three equations. In interpreting their findings, the authors examine standardized beta coefficients as an assessment of the relative impact of each variable on performance. The variables included in the study explain about half of the variation in the three performance measures as indicated by R^2 values of .60, .51, and .43 for sales volume, contribution income, and return on assets, respectively. Across the three regression equations, the variables affecting most strongly were inventory levels and fixed assets, manager's experience and years in that position, and number of employees. When examining the directions of the relationships, the authors are also able to generalize that these variables are more impactful when they are short-run in scope, controllable, and reversible. The application of multiple regression provides researchers with an objective means of relating a large set of possible factors to actual firm performance. From these findings managers are now able to assess the relative importance of these factors for use in developing and modifying managerial practices and strategies.