**---------------------------------------------------------------------------------------------------------------------NOTE TO THE INSTRUCTOR**

*The House* is based on spreadsheet analysis. This electronic text is based on *Microsoft Office* and integrates word processing *(Microsoft Word)* and spreadsheet analysis *(Excel).* In many cases, your students might find it helpful if you devote some time to reviewing the basic methodology of spreadsheet analysis and how to set up the basic commands to manipulate data in rows and columns.

*The House* is presented in five phases which increase in sophistication and follow the content of the first fourteen chapters of *Retailing* (7th edition) by Dunne, Lusch and Carver. In phase one the student is acquainted with a basic return on asset model. They must manipulate sales and variable operating and fixed operating costs to arrive at net profit. Then the net profit margin (net profit/net sales) is multiplied by asset turnover (net sales/total assets) to arrive at return on assets (net profit/total assets).

During phase two of *The House* the student is introduced to some determinants of net sales. They are shown that traffic (i.e. the number of people or households who visit the store annually) is equal to market coverage times penetration level times average shopping frequency.

Next the students are introduced to the concept of closure. The closure rate is a measure of how well retailers do in converting traffic into customers. It measures the percent of the people who visit the store that purchase something. When traffic is multiplied by closure the result is the number of transactions in a year. Finally they learn that net sales is equal to transactions multiplied by average transaction size. The problems the students are presented in this phase allow them to manipulate these determinants of sales in order to examine the impact on the financial performance of the store. This is possible because the variables in phase two are added to the basic model presented in phase one.

In phase three we introduce two additional variables to the model that help the student understand location decisions. We assume that the trade area of the store is a circle that surrounds the store with the store at the center. The radius of this circle we refer to as the trade radius. When the student computes the area of the circle they get the square miles in the trade area. This area is then multiplied by the population density (people or households per square mile) of the trade area to obtain market coverage. With this knowledge the student is able to manipulate the size of the trade area to assess the impact on the financial performance of the store. This is possible because these new variables are added to those which are used to build the spreadsheet models in phases one and two. In short, the phase three spreadsheet model incorporates the prior two models into a more sophisticated model of store performance.

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In phase four we show the student how to develop a six-month merchandise budget using spreadsheet analysis. They are instructed how to develop this budget using different dollar stock

planning methods such as the stock-to-sales method, the basic stock method, and the percentage variation method.

Finally in phase five some additional refinements are made to help the student better understand the typical transaction in a store. We introduce the student to the idea that the average transaction size in the store is equal to the average number of items purchased multiplied by average item price. This allows the student to see how variations in the average number of items purchased and the price point of these items can influence net sales and thus profit performance of the store. These new variables are also linked to the variables introduced in phases one, two, and three.

The instructor is encouraged to add to the questions presented for each of the 28 exercises. Many questions of a "what-if" nature are good for classroom discussion. For example, ask the students to determine what would happen if certain parameters in the different models presented in the phases would change. Students find it very educational to experience first hand the impact of a change in average transaction size, market coverage, traffic, trade radius, variable operating and fixed operating costs. The instructor might also have the students graph the financial performance of the store under different scenarios. For example, the student could be asked to plot net profit margin, asset turnover, and return on assets under the different scenarios that are simulated in each exercise. This can help the student visualize the impact better and can also provide a good platform for classroom discussion. The *Excel* spreadsheet software program has convenient and easy-to-use graphing options.