<u>SECTION 2</u>: Manipulating Profit Variables: Merchandising for a Profit

Part 3: Expanded Profit and Loss Statement: Calculating the P & L Components

<u>Part 3: 3-5 Gross Margin and Part 3: 3-6 Contribution Margin</u>

Gross margin is the difference between net sales and total cost of goods sold (i.e., invoice cost + transportation + alterations - discounts). Remember, from this Section in *Part 2: 2-4*, the reader learned that gross margin dollars must be larger than the operating expense dollars in order for the retailer to make a profit. Thus, gross margin must cover both operating expenses and profit, or the store will incur a loss.

Since total cost of goods sold include invoice cost of goods, transportation, alterations and cash discounts, the following gross margin formula may be used for calculating gross margin on the expanded P & L Statement.

Gross Margin $ = Net Sales $ - (Invoice Cost of Goods $ +Transportation $ + Alterations $ - Cash Discount $)

As previously discussed, many different types of expenses must be classified in order for the retailer to itemize operating expenses. Some retailers use the *direct/indirect* method, and others classify the operating expenses as *variable/fixed*. It is common to see these methods with mixed metaphors as *controllable/direct* and *fixed/indirect*.

The term *"controllable"* denotes the calculation of a **controllable** or **contribution** margin. In other words, the retail managers, merchandisers and buyers attempt to control the dollar amount of operating expenses in their respective groups of stores, store, or department, in order to assure that there is enough gross margin to provide for the fixed/indirect expenses. Since fixed/indirect expenses cannot be changed with sales volume or activities of the store or the functions and activities of each department in the store, the dollar amount contributed to indirect expenses from the controllable/direct expense savings is very important to the retailer's bottom line.

Direct expenses are those expenses that can be directly attributed to the expenses for activities or functions of a specific store or department. These expenses can be somewhat controlled by the store or department manager or retail buyer. In other words, if the department was eliminated from the store, these expenses would not occur. For example, direct expenses could include salaries for personnel in that specific department, selling supplies such as packaging needed for doing business in that department, or advertising specific to that one department.

Direct expenses are also known as **controllable expenses** since these expenses are based on the sales volume and operating costs of one particular department. The department manager or buyer has the option to run or not to run an advertisement or to reduce the number of sales associates in the department, thus controlling expenses for the department. In other words, the department manager may decide to reduce or eliminate a function or activity of the department or may even add one if expense outlays permit.

Indirect expenses bear little or no relationship to the sales volume of one department or division of the store. **Indirect expenses** are costs that occur for operating the entire business and would continue if a particular department or division of the store were eliminated. For example, rent, building maintenance, building insurance, and management base salaries are expenses which do not fluctuate during the retail year. Since these expenses do not change for any selling season or period of inventory, they are known as **fixed expenses**.

Variable expenses are expenses that change with net sales volume and inventory, or even with the climatic season of the year. Examples of variable expenses include snow removal, grounds maintenance, heating and cooling expenses, receiving and marking room expenses, etc.

On the skeletal P & L Statement, the various types of expenses are a one line entry and are known as **total operating expenses**. However, on the Expanded P & L Statement, each type of expense becomes a one line entry. Therefore, direct expenses and indirect expenses are listed separately. With the separate listings, the savings on the controllable/direct expenses can be readily identified. Thus, the retailer is able to examine what types of operating costs contribute to the profit, or lack of profit, in the store. Additionally, the retailer can determine how to manipulate specific operating expenses in order to realize a more substantial bottom line.

In order to calculate the contribution or controllable margin, the retailer must first subtract the controllable/direct expenses from the gross margin. Then, the fixed/indirect expenses are subtracted from the resulting dollars to calculate the (net) operating profit.

The following formula is utilized to calculate Contribution Margin:

Contribution Margin $ = Gross Margin $ - Controllable/Direct Expense $

Problem: Using the figures below, calculate contribution margin dollars and percent.

Customer Returns & Allowances = $15,000.00	Gross Sales = $372,000.00
Employee Discounts = $3,000.00	Net Sales = $300,000.00
Markdowns = $45,000.00	Gross Margin = $139,500.00
Shrinkage = $9,000.00	Contribution Margin = $111,000.00
Invoice Cost of Goods = $161,500.00	Maintained Markup = $133,500.00
Transportation = $5,000.00	Alterations $3,000.00
Direct Operating Expenses = $28,500.00	Cash Discounts = $9,000.00
Indirect Operating Expenses = $87,000.00	(Net) Operating Profit = $24,000.00

Contribution Margin $ = Gross Margin $ - Controllable/Direct Expense $
= $139,500.00 - $28,500.00
= $111,000.00

Note that the contribution margin is large enough to cover the indirect expenses of $87,000.00. The retailer will thus make a profit.

When the fixed/indirect expenses are subtracted from the contribution margin, the retailer can then view the (net) operating profit for the store or department.

The following formula is used for calculating (net) operating profit:

Operating Profit $ = Contribution Margin $ - Indirect Expenses $

Problem: Using the figures above, calculate (net) operating profit dollars and percent.

Operating Profit $ = Contribution Margin $ - Indirect Expenses $
= $111,000.00 - $87,000.00
= $24,000.00

If the contribution margin is not calculated, the direct operating expenses are listed first as a line entry on the expanded P & L Statement. The indirect operating expenses are shown on the line directly before the (net) operating profit.

The subcomponents of operating expenses and their calculations, as well as contribution or controllable margin and (net) operating profit, may be reviewed in the following expanded P & L Statement.

Expanded P & L Statement

Component	Dollars ($)	Percent (%)
Gross Sales	**$372,000.00**	**124.00%**
- Customer Returns	$15,000.00	5.00%
- Employee Discounts	$3,000.00	1.00%
- Markdowns	$45,000.00	15.00%
- Shrinkage	$9,000.00	3.00%
= Net Sales	**$300,000.00**	**100.00%**
- Invoice Cost of Goods	$161,500.00	53.83%
- Transportation	$5,000.00	1.67%
= Maintained Markup	**$133,500.00**	**44.50%**
- Alterations	$3,000.00	1.00%
+ Cash Discounts	$9,000.00	3.00%
= Gross Margin	**$139,500.00**	**46.50%**
- Direct Expenses	$28,500.00	9.50%
= Contribution Margin	**$111,000.00**	**37.00%**
- Indirect Expenses	$87,000.00	29.00%
= (Net) Operating Profit	**$24,000.00**	**8.00%**

In summary, the expanded P & L Statement includes gross sales, reductions, net sales, invoice cost of goods, transportation, maintained markup, alterations, cash discounts, direct operating expenses, contribution margin, indirect expenses and (net) operating profit. Each of these components with subcomponents can be calculated in both dollars and percents. Moreover, percents are very useful to the retailer for comparisons across product classifications, departments, division, stores or store groups.

Based on the expanded P & L Statement, the retailer may also compare margins – gross margin, maintained markup, and contribution margin. Additionally, the initial markup can be calculated from information on the expanded statement. The P & L Statement is a merchandising tool that the retailer can use for analyzing store operations and solving everyday business problems.