



## Quick Reference for Key Category Management Calculations

### Average Price

- Reflects the average product price in retail stores REGARDLESS of merchandising activity (displays, features, temporary price reductions).
- In other words, average price includes both non-promoted sales and promoted sales (if any) during the time period.
- Calculation:

$$\frac{\text{Total Dollars}}{\text{Total Units}}$$

- Example: 10,000 units of Product X sold during a time period, during which 8,000 units were sold at regular (or everyday) price of \$1.89 and 2,000 units were sold on promotion at \$1.39, then the average price for Product X is \$1.79...  $(8,000 * \$1.89) + (2,000 * \$1.39) = \$17,900$  total dollar sales divided by 10,000 total units = \$1.79

### Contribution to Margin (CTM)

- Expresses a given product's contribution to the overall category's (or segment's) margin based on the product's share of sales and specific margin.
- Calculation:

$$\% \text{ of Sales for Product} \times \text{Product's Margin} \%$$

### Days of Supply

- Estimates how long the inventory holding power will last before selling out based on the average sales velocity for a given product
- Calculation:

$$\frac{\text{Full Shelf Unit Inventory}}{\text{Unit Movement per Week}} \times 7$$

- Example: For Product X, if the shelf holds 10 units and on average, Product X sells 35 units per week, then Days of Supply for Product X is 2 days...  $(10 / 35) * 7 = 2$

## Fair Share Opportunity Gap

- Identifies the dollar value for a retailer if they were able to achieve overall fair share of market in an underdeveloped category.
- Calculation:

Retailer's Point Gap \* Value of 1 Share Point

Where...

Retailer's Point Gap = (Retailer's overall ACV market share MINUS the retailer's market share for a specific category)

And..

Value of 1 Share Point = (Total market's category dollars DIVIDED by 100)

- Example: Retailer X's category dollars are \$20M and the overall market's category dollars are \$100M, then Retailer X's category dollar share is 20%. Further, Retailer X has an overall 25% ACV market share. The category gap is therefore 5 points (25% - 20%) and the value of one share point in the overall market is \$1M (\$100M / 100points). So the opportunity gap value is \$5M (\$1M per point TIMES 5 points gap)

## Gross Margin

- Difference between retail price and the cost of goods sold
- Also known as gross profit
- Several ways to calculate, including:

Retail Price – Cost  
Gross Profit Dollars

Retail Dollars x Margin %  
Gross Profit Dollars

Units Sold – Gross Profit per Unit  
Gross Profit Dollars

## Gross Margin Return on Investment (GMROI)

- Shows relationship between total dollar operating profits and the average inventory investment (at full retail) by combining profitability and sales-to-stock measures
- Several ways to calculate, including:

Gross Margin  
Inventory Cost (at full retail \$)

$$\frac{\text{Margin \%}}{100 - \text{Margin \%}} \times \text{Turns}$$

- Example: If the gross margin dollars is \$100 and the inventory dollars at full retail is \$60, then the GMROI is \$1.33...  $\$100/\$75 = \$1.33$
- NOTE: The difference between GMROI and GMROII (Gross margin return on INVENTORY investment) is that the inventory cost in GMROI is at full retail while the inventory cost in GMROII is at cost.

### Gross Margin Return on Inventory Investment (GMROII)

- Shows relationship between total dollar operating profits and the average inventory investment (at cost) by combining profitability and sales-to-stock measures
- Several ways to calculate, including:

$$\frac{\text{Gross Margin}}{\text{Inventory Cost (at cost)}}$$

- Example: If the gross margin dollars is \$100 and the inventory dollars at cost is \$40, then the GMROII is \$2.00...  $\$100/\$50 = \$2.00$
- NOTE: The difference between GMROII and GMROI (Gross margin return on investment) is that the inventory cost in GMROII is at cost while the inventory cost in GMROI is at full retail.

### Gross Profit

- Difference between retail price and the cost of goods sold
- Also known as gross margin
- Several ways to calculate, including:

$$\frac{\text{Retail Price} - \text{Cost}}{\text{Gross Profit Dollars}}$$

$$\frac{\text{Retail Dollars} \times \text{Margin \%}}{\text{Gross Profit Dollars}}$$

$$\frac{\text{Units Sold} - \text{Gross Profit per Unit}}{\text{Gross Profit Dollars}}$$

### Inventory Turns

- The ratio of units sold vs. unit inventory in stock
- Calculation:

$$\frac{\text{Annual Unit Sales}}{\text{Inventory Units to Fill Shelf}}$$

- Example: If the shelf holds 50 units and over the course of the year 2,000 units were sold, this would equal 40 Inventory Turns...  $2,000 / 50 = 40$

### Level of Discount

- The amount of discount for a given product vs. everyday pricing for that product, expressed as a percentage.
- Calculation:

$$\frac{(\text{Non-Promoted Price} - \text{Promoted Price})}{\text{Non-Promoted Price}} \times 100$$

- Example: If Product X's everyday price is \$5.45 and a retailer had Product X on promotion for \$4.70, then the level of discount is 13.8%...  $((\$5.45 - \$4.70) / \$5.45) * 100 = 13.8\%$

### Margin (same as Profit)

- Expressed as dollars or percent
- Can also be expressed as Margin Dollars per Unit (aka "Penny Profit")
- Calculation:

$$\frac{\text{Retail Price} - \text{Cost}}{\text{Retail Price}}$$

- Example: If Product X's everyday price is \$5.00 and its cost to the retailer was \$4.25, then the margin is 15%...  $((\$5.00 - \$4.25) / \$5.00)$

### Markup

- Difference between merchandise costs and retail selling price.
- Calculation:

$$\text{Retail Price} - \text{Cost}$$

- Example: If Product X's everyday price is \$5.00 and its cost to the retailer was \$4.25, then the markup is \$0.75...  $(\$5.00 - \$4.25)$

### Net Profit

- Equals gross profit minus retail operating expenses

### Net Profit Before Taxes

- Profit earned after all costs have been deducted

### Net Profit Margin

- Performance measure based on a retailer's net profit and net sales
- It is equal to net profit divided by net sales

### Net Sales

- Revenues received by a retailer during a given time period after deducting customer returns, markdowns, and employee discounts

### Net Worth

- Retailer's assets minus its liabilities

### Non-Promoted Price

- Reflects the average product price in retail stores when NO merchandising (displays, features, temporary price reductions) was in effect.
- Calculation:

$$\frac{\text{Total Non-Promoted Dollars}}{\text{Total Non-Promoted Units}}$$

### P&L Equation

Gross Sales  
**minus** Returns & Discounts  
**equals** Net Sales  
**minus** Cost of Goods Sold (COGS)  
**equals** Gross Profit  
**minus** Operating Expenses  
**equals** Earning before Income Tax  
**minus** Income Tax  
**equals** Net Income or Loss

### Price Index

- Helps us understand one price vs. another
- For example, a retailer's price of Product X indexed against the overall market's price for Product X
- Calculation:

$$\frac{\text{Product's Price in Geography 1}}{\text{Product's Price in Geography 2}} \times 100$$

- Example: If Product X's at Retailer Y is \$17.77 and the same product's price at Competitor Z is \$16.27, then the Retailer Y's price index vs. the Competitor Z is 109...  $(\$17.77/\$16.27)*100 = 109...$  or 9% higher than Competitor Z.

### Profit (same as Margin)

- Expressed as dollars or percent
- Can also be expressed as Margin Dollars per Unit (aka “Penny Profit)
- Calculation:

$$\frac{\text{Retail Price} - \text{Cost}}{\text{Retail Price}}$$

### Promoted Price

- Reflects the average product price in retail stores when ANY merchandising (displays, features, temporary price reductions) was in effect.
- Calculation:

$$\frac{\text{Total Promoted Dollars}}{\text{Total Promoted Units}}$$

### Return on Net Assets (RONA)

- Measures fixed asset productivity and is more inclusive than GMROI because RONA looks at net inventory costs which includes payment terms, etc. versus GMROI which looks at gross inventory costs.
- Calculation:

$$\frac{\text{Operating Income}}{\text{Net Assets}}$$

Where...

Operating Income = Gross Margin – Operating Expenses

Net Assets = Inventory + Property, Equipment, etc.

## Additional financial resources (definitions from Investopedia.com):

- **Annual Report**
  - An annual publication that public corporations must provide to shareholders to describe their operations and financial conditions. The front part of the report often contains an impressive combination of graphics, photos and an accompanying narrative, all of which chronicle the company's activities over the past year. The back part of the report contains detailed financial and operational information.
- **Profit & Loss (P&L) Statement**
  - A financial statement that summarizes the revenues, costs and expenses incurred during a specific period of time - usually a fiscal quarter or year. These records provide information that shows the ability of a company to generate profit by increasing revenue and reducing costs. The P&L statement is also known as a "statement of profit and loss", an "income statement" or an "income and expense statement".
- **Balance Sheet**
  - A financial statement that summarizes a company's assets, liabilities and shareholders' equity at a specific point in time. These three balance sheet segments give investors an idea as to what the company owns and owes, as well as the amount invested by the shareholders.
- **10-K**
  - A comprehensive summary report of a company's performance that must be submitted annually to the Securities and Exchange Commission. Typically, the 10-K contains much more detail than the annual report. It includes information such as company history, organizational structure, equity, holdings, earnings per share, subsidiaries, etc.