

Five Important Ratios

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5 Important Ratios

- ROI = Return on Investment
- Mp = Percentage Markup on Price
- ROS = Return on Sales (Net Profit Margin)
- MROS = Marketing's Return on Sales
- ROME = Return on Marketing Effort

Ratios Take \$ Information from the Basic Operating Statement

- Sales Revenue = R
- Gross Profit Contribution = G
- Total Promotional Expense = T
- Marketing Contribution = M
- Net Operating Profit = Z

Ratios!!!

- Ratios are much more powerful descriptions of the Firm's Performance than the raw dollar values in the Firm's Operating Statement!

5 Important Ratios

- ROI = Return on Investment = Z/A
- Mp = Percentage Markup on Price = $(P-V)/P$
- ROS = Return on Sales = Z/R
- MROS = Marketing Return on Sales = M/R
- ROME = Profit/Marketing Expense = M/T

ROI

A Classic Measure of Profitability

Classic Measures of Profitability

- Not Just Dollar Profit but a Profit Ratio!
- Return on Investment (Total Assets) Ratio
- $ROI = \text{Operating Profit} / \text{Total Assets}$

ROI is important because it decomposes into two parts

- $ROI = (\text{Net Profit Margin}) \times (\text{Asset Turnover})$

- Both Parts Reflect Marketing's Role in the Business
- 1) Net Profit Margin or Return on Sales (ROS)
- 2) Asset Turnover (Inventory Turns)

ROI is important because it decomposes into two parts

- $ROI = (\text{ROS}) \times (\text{Asset Turnover})$
- Return on Sales (ROS) is a measure of how much of the Sales Revenue is converted into Profit
- $ROS = \text{Net Profit} / \text{Sales Revenue}$

ROI is important because it decomposes into two parts

$$ROI = (\text{ROS}) \times (\text{Asset Turnover})$$

Asset or Investment Turnover is a measure of how actively the investment is being used
 $\text{Asset Turnover} = \text{Sales Revenue} / \text{Assets}$

ROI is important because it decomposes into two parts

- $ROI = (\text{ROS}) \times (\text{Asset Turnover})$
- Often called
- $ROI = (\text{Return on Sales}) \times (\text{Turns})$
- $ROI = (\text{Net Profit} / \text{Revenue}) \times (\text{Revenue} / \text{Assets})$
- $ROI = (Z/R) \times (R/A) = Z/A$

Marketing is the Key to Revenues

- Need a top line if you are to have a bottom line.

ROI = (Operating Profit / Revenue) x (Revenue / Assets)

Marketing has the crucial role in Revenue

(For a discussion of Marketing Productivity, Return on Net Worth, and Return on Marketing Investment see Mitchell pages 17 and 54)

Profit Margin or Return on Sales (ROS)

A popular business ratio

ROS

- Return on Sales measures the efficiency of the business at converting revenues into shareholder profits.

ROS

Profit or Operating Margin =
Net Profit or Operating Income / Revenue

- $ROS = \text{Net Profit Margin} = Z/R$

Return on Sales

- **Important** because
- 1) Used in many cost based pricing formulas
- 2) Used as a measure of the firm's efficiency at converting revenues into shareholder wealth

Markup or the Gross Profit Margin

A crucial operating ratio

- Markup is the ratio that measures the efficiency of the firm at converting the sales revenue due the production and delivery of products into the Profits needed to pay for the rest of the firm's operations.

Ratios as Measures of Marketing Profitability

- Markup Percentage or Contribution Ratio
= Gross Profit Contribution / Revenue
- Or
- Unit Contribution / Selling Price

Ratios as Measures of Marketing Profitability

- **Markup** Percent or Unit Contribution Ratio
- = Gross Profit Contribution / Revenue
- or
- = (Price - Variable Cost)/Price = **(P-V)/P**

Markup on Price

- **Important** because
- 1) Used in cost based pricing formula
- 2) Measure of Operating Efficiency
- 3) Used in many marketing calculations

Both Markup and ROS Ratios are
Very, Very Important!

- Markup and ROS always show up on the firm's operating statement!

Operating Income Statement

Quantity	Q	10,000 units		
Price	P	\$120		
Revenue	R	\$1,200,000		
Commissions	c	\$12	10%	Commission rate
Packaging	g	\$2		
Direct materials& labor	d	\$66		
Unit Variable Cost	V	\$80	67%	
Total Variable Cost	TVC	\$800,000		
Unit Profit	P-V	\$40	33%	Markup
Gross Profit Contribution	G	\$400,000	33%	Contribution Ratio
Advertising Expense	Ad	\$150,000	1.25%	Advertising to Sales
Fixed Overhead & Admin	F	\$200,000	1.67%	
Operating Income	Z	\$50,000	0.42%	Profit Margin

$Z = PQ - VQ - A - F$

Operating Income Statement

Quantity	Q	10,000 units		
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Unit Contribution Margin	M	\$40	33%	Markup
Total Contribution Margin	TC	\$400,000	33%	Contribution Ratio
Period Marketing Expenses	A	\$150,000	1.25%	Advertising to Sales
Fixed Overhead & Admin	F	\$200,000	1.67%	
Operating Income	Z	\$50,000	0.42%	Profit Margin

$Z = PQ - VQ - A - F$

**Marketing's Return on Sales
MROS**

A very important ratio for measuring
Marketing's efficiency

Simple Operating Statement

Quantity sold Q in units	100,000
Revenue	8,000,000
Total Variable Cost	2,500,000
Gross Profit Margin	5,500,000
Total Promotion Expense	3,000,000
Profit after Promotion, ZAP or Marketing Contribution, M	2,500,000
Research & Development	600,000
Net Profit Z	1,900,000

**Don't Forget The Marketing
Contribution Equation**

Profit after Promotion Expense (ZAP) or
Marketing Contribution (M)

$M = PQ - VQ - T$

Where

M = Marketing Contribution
P = Price per unit
V = Variable Cost per unit
Q = Quantity of units sold
T = Total marketing expenses e.g., advertising, sales salaries

MROS Better Efficiency Ratio

- MROS = Profit after Promotion/ Revenue
- or
- MROS = Marketing's Contribution/Revenue

- Looks like ROS but does not have the long term research and general administrative costs in the ratio.

Marketing's Return on Sales

- **MROS is Important** because
- It is a better measure of marketing's efficiency at converting current efforts into profits than ROS

Marketing Productivity ROME page 17 A Profit to Budget Ratio

Profit/Expense Ratio

- Marketing Productivity = (Marketing Contribution) / (Total Promotion Budget)
- Marketing's Productivity = ROME = M / T

Marketing Productivity ROME = M/T

- Ratio is tracked from period to period to look for improvements or problems in the productivity of the marketing department
- Ratio is often used a guideline to discuss the change in revenue to be expected from a change in Promotion Budget

Other Measures of Marketing Productivity

- Dollar Sales per Dollar of Marketing Expense
- Units Sold per \$1000 in Promotion Expense
Or
- Quantity Sold / Total Promotion Expense (in thousands of dollars)
Or
- Quantity per thousand = $(Q \times \$1000) / T$
(Useful in the simulation game)

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- There are hundreds of different ratios used by different managers
- In different industries and professions they are called different things
- In this course we will concentrate on only a few important ratios!

Remember 5 Important Ratios

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- ROS = Return on Sales (Net Profit Margin)
- MROS = Marketing's Return on Sales
- ROME = M/T Ratio = Market Productivity p.17

Any Questions?