

Cost Based Advertising

Ted Mitchell

Three Methods for Setting Advertising Budget

- Cost Based Advertising
- Competitive Based Advertising
- Customer Based Advertising

Cost Based Advertising

- Affordable Method
- Advertising to Sales Ratio
- Cost per thousand GRPs
- Average Return on Promotional Investment (Effort) ROMI

- Affordable method
 - Classic response to the Traditional Institutional Orientation



We should do some advertising too

method
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Yes!
As much as we can afford.



How much can we afford?

HOW MUCH CAN WE AFFORD?

Revenue R = PQ	\$200,000	
Cost of goods Sold, CoGS = VQ	110,000	
Gross Profit Margin	\$90,000	
Advertising, A	??????	
General Overhead, F	\$60,000	
Net Profit Margin, Z	\$18,000	

The budget tells us what the firm expects for revenues, costs, profits

Solve for Affordable Advertising

- Revenue - Total Costs = Profit
- $PQ - VQ - A - F = Z$
- Reorganize to Solve for A
- $A = PQ - VQ - F - Z$
- $A = \$200,000 - \$110,000 - \$60,000 - \$18,000$
- $A = \$16,000$

We know it all but the Advertising



Favorite Accountant

Solve for Affordable Advertising

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- $A = \$16,000$

To reach our target profit with our forecasted revenues and costs we can afford to spend \$16,000 on advertising



Favorite Accountant

What we can afford Method

- The assumption is that "Advertising is necessary, but we don't know why it is important or how to measure advertising effectiveness."
- Sales volumes are predicted without any knowledge that advertising causes sales

Advertising by The Normal Budget Percentage

Setting Advertising Budgets Based on the Advertising to Sales Ratio

Accountants love ratios with sales revenue in the denominator such as Markup, Return on Sales, Advertising to Sales, etc.

Advertising to Sales Ratio

- Fits nicely in the margin of the traditional income statement

Revenue	\$200,000	
Cost of goods Sold	110,000	
Gross Profit Margin	\$90,000	45%
Advertising	\$12,000	6%
General Overhead	\$60,000	30%
Net Profit Margin	\$18,000	9%

Everything as a percentage of sales

Advertising to Sales Ratio

- Use the advertising to sales ratio to provide a "flexible budget" and keeps or final goals in line if sales volumes fluctuate

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Everything as a percentage of sales

Accountants Love the Advertising to Sales Ratio as Means to control the Marketing Budget!



Favorite Accountant

Marketing is always trying to waste money on advertising

Accountants Love the Advertising to Sales Ratio as Means to control the Market:



Favorite Accountant

At the end of the year you must not have spent more than 6% of sales on advertising

Accountants Love the Advertising to Sales Ratio as Means to control the Market:



Favorite Accountant

To stay on budget when your sales drop, you must cut your advertising

Flip the Budget to Sales Ratio

- Advertising is a cost driver to accountants
- Advertising is a revenue driver to marketers!

How many sales do we get for the budget?

- \$20,000 in advertising cost is 6% of the \$333,333 in sales revenue
 - or
 - \$20,000 effort generated \$333,333
- Or \$16.67 in sales for every advertising dollar spent
Or 16.67% return on marketing investment

Return on Marketing Effort

Measured as

- Revenues
- Quantity Sold
- Leads Generated
- # of Customers Acquired
- **\$ Profit Contribution**

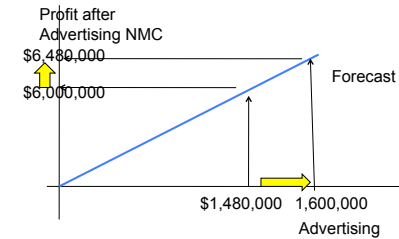
Setting Budget on the Average Return on MKT

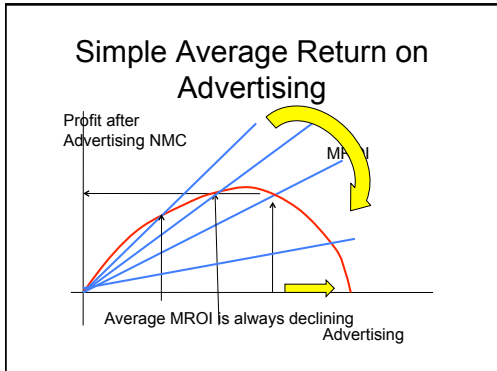
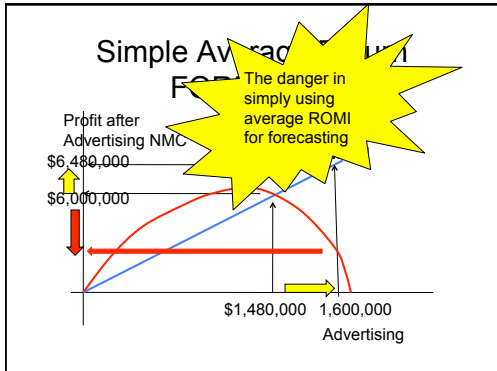
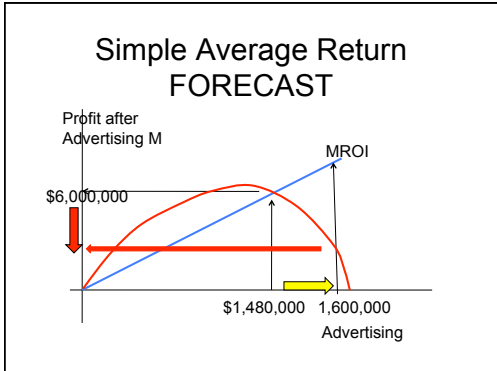
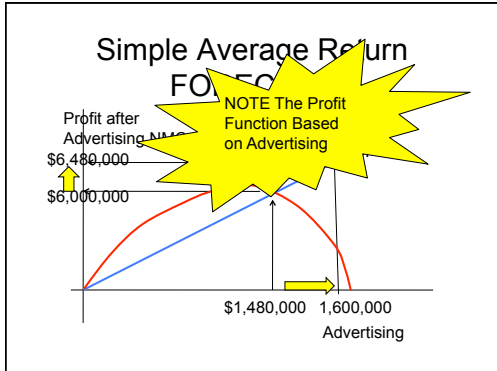
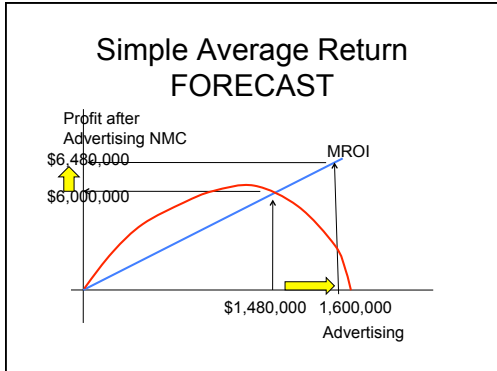
	Period 2	Forecast for Period 3		
Quantity Sold	110,000		12,000	1,000
\$ markup	\$68		\$68	\$68
Gross profit	\$7,480,000		\$816,000	\$68,000
Advertising	\$1,480,000	+120,000 1,600,000	\$1,600,000	
Marketing Contribution	\$6,000,000		\$6,240,000	
ROMI or ROME	405%	405%	390%	390%

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Simple Average Return FORECAST





- Advertising Increases Units Sold

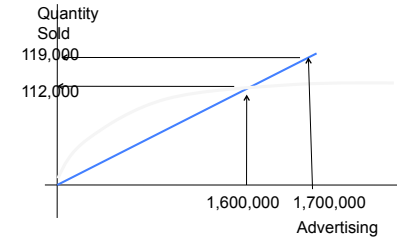
Average Volume Driver Rates Are Dangerous

	Period 1	Period 2		Forecast Period3
Quantity Sold		112,000		
\$ markup		\$68		
Gross profit		\$7,616,000		
Advertising		\$1,600,000	+\$100,000	
Net Marketing Contribution		\$6,016,000		
# of Units sold per \$1,000 of advertising		$112,000/1,600 = 70 \text{ units per } \$1,000$		

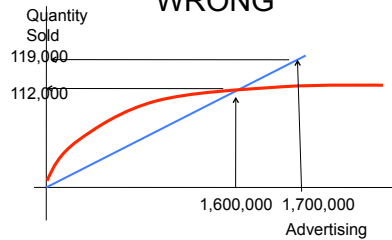
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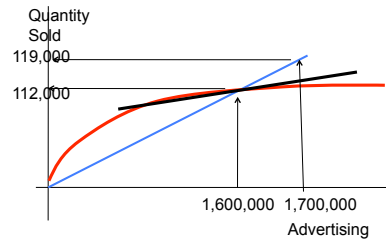
Simple Average Return FORECAST



Simple Average Return FORECAST IS PROBABLY WRONG



Marginal Return

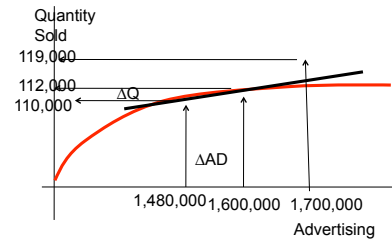


Why do I want you to look at the last two periods?

- In order to estimate Marginal Rates!!

	Period 1, P1	Period 2, P2	$\Delta = (P2 - P1)$	$\Delta/P1$	Elasticities wrt AD
Quantity Sold, Q	110,000	112,000	2,000	1.82%	0.22
Dollar Markup, D	\$68.00	\$68.00	0		
Gross Profit, G	\$7,480,000	\$7,616,000	136,000	1.82%	
Advertising, AD	\$1,480,000	\$1,600,000	120,000	8.11%	
Profit Contribution from Marketing Effort					
M	\$6,000,000	\$6,016,000	16,000	1.08%	
Return on Marketing Effort					
ROME= M/AD	4.05	3.76	-0.29		

Marginal Return $\Delta Q/\Delta AD$



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Profit Contribution from Marketing					
M	\$6,000,000	\$6,016,000	16,000	1.08%	
Return on Marketing Effort					
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Calculating Advertising Elasticity

- Advertising Elasticity
- A one percentage change in advertising causes a predictable change in quantity sold.

Calculating Advertising Elasticity

- Advertising Elasticity
- (Percentage change in Quantity sold) / (Percentage change in Advertising)
- $\% \Delta Q / \% \Delta AD =$
- $((Q_2 - Q_1) / Q_1) \div ((AD_2 - AD_1) / AD_1)$

Calculating Advertising Elasticity

- $\% \Delta Q / \% \Delta AD =$
- $((Q_2 - Q_1) / Q_1) \div ((AD_2 - AD_1) / AD_1)$
- $= (110,000 - 112,000) / 110,000 \div (1,600,000 - 1,480,000) / 1,480,000$
- $= (2,000 / 110,000) \div (120,000 / 1,480,000)$
- $\% \Delta Q / \% \Delta AD = 1.82\% / 8.11\%$
- $\% \Delta Q / \% \Delta AD = 0.22$

Using Advertising Elasticity

- $E_{qAD} = \frac{\% \Delta Q}{\% \Delta AD} = 0.22$
- **If you increase the advertising expense by 1%, then you increase sales by 0.22%**
- **Always less than or equal to 1**
- $E_{qAD} \leq 1$

Sample problem

- You are planning to increase your advertising budget by 1% and your advertising elasticity is $E_{qAD} = 0.25$, then what is the percentage increase in sales volume that you will expect?
- $\% \Delta Q = E_{qAD} \times \% \Delta AD$
- $\% \Delta Q = 0.25 \times 1 = 0.25\%$

Using AD Elasticity to Forecast Sales

- We want to increase Advertising by \$100,000 in period 3 from the current level of \$1,600,000. The Advertising elasticity is $E_{qAD} = 0.22$ between period 2 and period 1.
- How many more units will be sold?
- $100,000/1,600,000 = 6.25\%$ increase in advertising
- $\% \Delta Q = 0.22 \times 6.25 = 1.375\%$
- Additional Units = $0.01375 \times 112,000$
- Additional Units = 1,540

Using Breakeven to Check Forecast

- Increase advertising by \$100,000 how many more units do I have to sell to breakeven? My \$ Markup is \$68.
- $BEQ = \text{Proposed Fixed Cost} / \$ \text{ markup}$
- $BEQ = \$100,000 / \$68 = 1,471 \text{ units}$

Using Breakeven to Check

- Increase advertising by \$100,000 how many more units do I have to sell to breakeven?
- $BEQ = \text{Proposed Fixed Cost} / \$ \text{ markup}$
- $BEQ = \$100,000 / \$68 = 1,471 \text{ units}$

Use Marginal Changes

- Advertising Elasticity 0.22 predicts
- 1,540 Additional Units
- Breakeven for \$100,000 in Advertising
- $BEQ = \$100,000 / \$68 = 1,471 \text{ units}$
- **Close Call!!!**

- Managers Use the Breakeven Analysis as a check for

“DOAbility”