

COST ALLOCATION METHODS FOR OVERHEAD

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INTRODUCTION

Let's look at cost allocation methods for overhead (operating expenses). Cost allocation may not be the most exciting of topics, but it is critical for pro forma financial modeling in your organization.

This presentation contains three (3) options for overhead cost allocation:

1. Percent of Revenue
2. Percent of Cost of Goods
3. Amount per Unit

Given that every industry and each company is unique, the presentation is intended to provide general guidance.

DEFINITIONS & ASSUMPTIONS

- **Pro Forma Model:** Profit & Loss Statement (P&L) developed on a per deal basis, for a product line, or for a line of business (see Appendix A for example)
- **General Overhead:** Operational expenses accounted for below contribution margin used to arrive at operating margin (EBITDA); by definition, this excludes sales overhead and acquisition costs
- **Revenue:** It is assumed the predominant revenue stream for the company is monthly recurring (subscription) revenue and referred to as “MRR” herein

METHOD #1: PERCENT OF REVENUE

Formula:

$(\text{Overhead Expense} \div \text{Recurring Revenue}) = \text{Percent MRR Cost Allocation}$

- Easily calculated, only requiring total company overhead expenses and recurring revenue
- Best applied using actuals for embedded customer base by product line or line of business
- Good to understand for a quick “back of the napkin” estimate of operating margin
- Not ideal for new deal evaluation, as it will over allocate costs to deals with a relative higher price and under allocate costs to deals with a relative lower price (see Appendix B for example)

METHOD #2: PERCENT OF COST OF GOODS

Formula:

$(\text{Overhead Expense} \div \text{Product Cost}) = \text{Percent COGS Cost Allocation}$

- Easily calculated, only requiring total company overhead expenses and product cost; ideally applied using fixed COGS
- Best used with new deal review, as it will not over allocate nor under allocate costs (see Appendix C for example and comparison to Method #1)

Note: Forward-looking cost allocation should be used for new deals (vs. current actuals); the average quote to cash cycle is required for the appropriate forecasted future month

- May ignore differences by product line or line of business; if that level of detail is not readily available, additional allocation work will be required

METHOD #3: AMOUNT PER UNIT

Formula:

$(\text{Overhead Expense} \div \text{Billed Units}) = \text{Per Unit Cost Allocation}$

- Easily calculated, only requiring the total company overhead expenses and billed units

Note: When using forward-looking cost allocation, forecasted billed units is recommended vs. capacity; a business plan would use capacity in conjunction with forecast (for headcount planning, etc.), but capacity is not ideal for pro forma analysis

- Good to understand for a total cost per unit (COGS + Overhead)
- Useful for allocating a sub-set of expenses a company identifies as components of Service Assurance (e.g., operations/call center, field maintenance personnel, etc.)

SUMMARY

- Each method has benefits and limitations depending how it is being applied
- For financial modeling, it would be prudent to have each method available
- A hybrid calculation employing multiple methods may be ideal
For example, using Per Unit for Service Assurance Expenses and Percent COGS for net remaining Operational Expenses

ABOUT US

At **Profitable Growth Solutions**, we are dedicated to empowering our clients with innovative financial strategies that drive sustainable growth.

We strive to be the catalyst that transforms financial challenges into opportunities. From startups to established enterprises, we want our clients to achieve financial success and enduring growth.

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APPENDICES



APPENDIX A: Pro Forma P&L

Below is an example of a (very) simple pro forma Profit & Loss Statement

Pro Forma P&L Model	
	Monthly Recurring Revenue (MRR)
LESS:	Cost of Goods Sold (COGS)
	Gross Margin (Gross Profit)
LESS:	Cost of Sales (Acquisition Cost)
	Contribution Margin (Deal Margin)
LESS:	Overhead (Operating Expense)
	Operating Margin (EBITDA)

APPENDIX B: Percent of MRR Example

- Scenario: The same solution is sold at two different price points
- Cost of Sales = \$150.00 per Solution + (MRR x 5%)
- Percent MRR Cost Allocation = 20%

Item Description	Solution A	Solution B
Recurring Revenue	\$1,050.00	\$950.00
Cost of Goods Sold	(\$250.00)	(\$250.00)
Gross Margin	\$800.00	\$700.00
Cost of Sales	(\$202.50)	(\$197.50)
Contribution Margin	\$597.50	\$502.50
Overhead Expense	(\$210.00)	(\$190.00)
Operating Margin	\$387.50	\$312.50

APPENDIX C: Percent of COGS Example

- Scenario: The same solution is sold at two different price points
- Cost of Sales = \$150.00 per Solution + (MRR x 5%)
- Percent MRR Cost Allocation = 20% | Percent COGS Cost Allocation = 80%

	Percent MRR Allocation		Percent COGS Allocation	
Item Description	Solution A	Solution B	Solution A	Solution B
Recurring Revenue	\$1,050.00	\$950.00	\$1,050.00	\$950.00
Cost of Goods Sold	(\$250.00)	(\$250.00)	(\$250.00)	(\$250.00)
Gross Margin	\$800.00	\$700.00	\$800.00	\$700.00
Cost of Sales	(\$202.50)	(\$197.50)	(\$202.50)	(\$197.50)
Contribution Margin	\$597.50	\$502.50	\$597.50	\$502.50
Overhead Expense	(\$210.00)	(\$190.00)	(\$200.00)	(\$200.00)
Operating Margin	\$387.50	\$312.50	\$397.50	\$302.50

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