

NetComm Supplemental NMC and Breakeven exercise

NetComm serves a market with one million small businesses. Its market share is 30 percent, average revenue per customer \$250 per year, average contribution margin 70 percent, marketing expenses \$10 million per year, and operating expenses \$35 million. The business has assets of \$50 million (20 percent accounts receivable, 10 percent cash, and 70 percent fixed equipment).

- A.** Compute NetComm's net profit by systematically building from customer volume to net profit
1. What is NetComm's "volume" of customers?
 2. What is NetComm's average margin per customer?
 3. What is NetComm's total contribution?
 4. What is NetComm's NMC?
 5. What is NetComm's Net Profit?
 6. Create a simple income statement for NetComm highlighting Gross Contribution Margin, NMC, and Net Profit (NIBIT)
- B.** Now for a new question. Please do not refer to your answers to part A as you respond to this next question. NetComm has spent the last 5 years developing a new product offering spending in that time more than \$2 million in R&D costs. It now comes time to decide to "go"/"no go" on the project. Anticipated retooling and reengineering costs to launch the new product are estimated at \$3.5 million. Marketing expenses that will be incurred to make the launch happen are estimated at \$2 million. The estimated contribution margin for the new offering is expected to be inline with and largely equivalent to current averages for NetComm's existing offerings (70%). However, the beauty of the plan is that it will tap an entirely new target market that is expected, in total, to generate \$330 million per year in overall market demand. Two new salespeople will need to be added to service this new market with the new NetComm offering. They will each be paid \$60,000 per year plus a 3 percent commission on all sales. Average revenue per customer in this new market is expected to be \$350.
1. What is Netcomm's margin net of variable marketing expenses (the relevant margin we should use for marketing breakeven analysis)?
 2. Based on that margin, what is NetComm's expected margin per customer in dollars?
 3. What are the total relevant fixed costs associated with the project?
 4. How many "units" (customers) do we need to sell (have) in order to breakeven?
 5. At what dollar volume in sales will NetComm breakeven on the new project?
 6. What is their anticipated breakeven market share of in this new market (that is...how big does their share of this new market need to be in order to breakeven on the project)?
 7. NetComm wants to know how many customers they will have to create in order to generate at least \$1,000,000 in profitability?
 8. Corporate management requires all projects to generate at least 10% profit margins. What dollar volume in sales will NetComm need to hit in order to generate a 10% profit margin on the project?
 9. Would you "go" on the project or "no go" on the project? Why?

SOLUTIONS on the next page. Please do not go forward until you have worked the problems above then check your work.

NetComm Solutions

A NetComm serves a market with one million small businesses. Its market share is 30 percent, average revenue per customer \$250 per year, average contribution margin 70 percent, marketing expenses \$10 million per year, and operating expenses \$35 million. The business has assets of \$50 million (20 percent accounts receivable, 10 percent cash, and 70 percent fixed equipment).

A. Compute NetComm's net profit by systematically building from customer volume to net profit

1. What is NetComm's "volume" of customers? **$1\text{m} \times 30\% = 300,000$**
2. What is NetComm's average margin per customer? **$\$250 \times 70\% = \175**
3. What is NetComm's total contributions? **$300,000 \times \$175 = \$52,500,000$**
4. What is NetComm's NMC? **$\$52,500,000 - 10,000,000 = \42.5m**
5. What is NetComm's Net Profit? **$\$42.5\text{m} - \$35\text{m} = \$7.5\text{m}$**
6. Create a simple income statement for NetComm highlighting Gross Contribution Margin, NMC, and Net Profit (NIBIT)

B. Now for a new question. Please do not refer to your answers to part A as you respond to this next question. NetComm has spent the last 5 years developing a new product offering spending in that time more than \$2 million in R&D costs. It now comes time to decide to "go"/"no go" on the project. Anticipated retooling and reengineering costs to launch the new product are estimated at \$3.5 million. Marketing expenses that will be incurred to make the launch happen are estimated at \$2 million. The estimated contribution margin for the new offering is expected to be inline with and largely equivalent to current averages for NetComm's existing offerings (70%). However, the beauty of the plan is that it will tap an entirely new target market that is expected, in total, to generate \$330 million per year in overall market demand. Two new salespeople will need to be added to service this new market with the new NetComm offering. They will each be paid \$60,000 per year plus a 3 percent commission on all sales. Average revenue per customer in this new market is expected to be \$350.

1. What is NetComm's contribution margin as a percentage after accounting for (or netting out) variable marketing expenses, such as commissions (this is the relevant contribution margin % we should use for marketing breakeven analysis)? **$.70 - .03 = .67$**
2. Based on that margin, what is NetComm's expected margin per customer in dollars?
 $\$350 \times 67\% = \234.50
3. What are the total relevant fixed costs associated with the project? **$\$5,620,000$**
4. How many "units" (customers) do we need to sell (have) in order to breakeven?
 $\$5,620,000 / \$234.50 = 23,966$
5. At what dollar volume in sales will NetComm breakeven on the new project? Total fixed costs of the project/margin = **$\$5,620,000 / .67 = \$8,388,059.70$**
6. What is their anticipated breakeven market share of in this new market (that is...how big does their share of this new market need to be in order to breakeven on the project)?
 $\$8,388,060 / \$330,000,000 = 2.5\%$ breakeven marketshare
7. NetComm wants to know how many customers they will have to create in order to generate at least \$1,000,000 in profitability?
 $= \$5,620,000 + 1,000,000 = \$6,620,000 / \$234.50 = 28,230$
8. Corporate management requires all projects to generate at least 10% profit margins. What dollar volume in sales will NetComm need to hit in order to generate a 10% profit margin on the project? **$= \$5,620,000 / .57 = \$9,859,649$**

Simple Income Statement for A-6:

6. Simple Income Statement for NetComm:

Item	Amount in \$ million
Gross Revenue	75
Gross Contribution Margin	52.5
Marketing Expenses	-10
Net Marketing Contribution (NMC)	42.5
Operating Expenses	-35
Net Profit (NIBIT)	7.5

CHAT GPT Solutions to Part B Below

1. What is NetComm's margin net of variable marketing expenses?

The margin net of variable marketing expenses can be calculated by adjusting the contribution margin for the commissions the salespeople earn:

$$\text{Margin net of variable marketing expenses} = \text{Contribution Margin} - \text{Commiss}$$

Given:

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\begin{align*}
\text{Contribution Margin} &= 70\% = 0.70 \\
\text{Commission per Dollar} &= 3\% = 0.03 \\
\end{align*}
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2. Based on that margin, what is NetComm's expected margin per customer in dollars?

Given that the average revenue per customer is \$350, the margin per customer can be calculated as:

$$\text{Expected Margin per Customer} = \text{Average Revenue per Customer} \times \text{Margin n}$$

3. What are the total relevant fixed costs associated with the project?

Relevant fixed costs for the project include:

- .. Retooling and reengineering costs: \$3.5 million
- .. Marketing expenses: \$2 million
- .. Salaries for the two new salespeople: $2 \times \$60,000 = \$120,000$

4. How many “units” (customers) do we need to sell (have) in order to breakeven?

To determine the breakeven point in terms of customers, we use:

$$\text{Breakeven Customers} = \frac{\text{Total Relevant Fixed Costs}}{\text{Expected Margin per Customer}}$$

5. At what dollar volume in sales will NetComm breakeven on the new project?

The dollar volume in sales for breakeven can be determined using:

$$\text{Breakeven Sales} = \text{Breakeven Customers} \times \text{Average Revenue per Customer}$$

6. What is their anticipated breakeven market share in this new market?

Given that the overall market demand is \$330 million per year, the breakeven market share can be calculated as:

$$\text{Breakeven Market Share} = \frac{\text{Breakeven Sales}}{\text{Total Market Demand}}$$

7. NetComm wants to know how many customers they will have to create in order to generate at least \$1,000,000 in profitability?

To determine the number of customers needed to achieve a given profit, we use:

$$\text{Customers for Target Profit} = \frac{\text{Total Relevant Fixed Costs} + \text{Target Profit}}{\text{Expected Margin per Customer}}$$

Given:

$$\text{Target Profit} = \$1,000,000$$

8. Corporate management requires all projects to generate at least 10% profit margins. What dollar volume in sales will NetComm need to hit in order to generate a 10% profit margin on the project?

The required sales volume to achieve a 10% profit margin is:

$$\text{Required Sales} = \frac{\text{Total Relevant Fixed Costs}}{\text{Contribution Margin} - \text{Profit Margin Goal}}$$

🔄 Regenerate

1. NetComm's margin net of variable marketing expenses is approximately 67%.
2. Based on that margin, NetComm's expected margin per customer in dollars is approximately \$234.50.
3. The total relevant fixed costs associated with the project are \$5.62 million.
4. NetComm would need to sell to approximately 23,966 customers (or units) to breakeven on the new project.
5. NetComm will breakeven on the new project at a sales volume of approximately \$8.39 million.
6. Their anticipated breakeven market share in this new market is approximately 2.54%.
7. NetComm will need to acquire approximately 28,230 customers in order to generate a profitability of at least \$1,000,000.
8. NetComm will need to achieve a sales volume of approximately \$9.86 million in order to generate a 10% profit margin on the project.

9. Would you "go" on the project or "no go" on the project? Why?

Given these corrected figures:

- The breakeven market share is only 2.54%, which seems achievable given the total market demand of \$330 million.
- To achieve a 10% profit margin, NetComm needs a sales volume of approximately \$9.86 million, translating to a market share of roughly 2.98%. This is only slightly higher than the breakeven market share.
- The project has the potential to be profitable and even surpass the corporate requirement of a 10% profit margin if NetComm can capture just under 3% of the new market.

Given the above, and assuming there aren't significant external risks or challenges not covered in the data, I would recommend a "go" for the project. However, as always, it's crucial to consider other qualitative factors, including competition, market dynamics, and strategic fit, before making a final decision.

Glenn: Can you tell me why .57 is the correct denominator in question B-8

ChatGPT: Certainly!

The 0.57 denominator represents the portion of each dollar of sales that contributes to covering fixed costs and generating profit, after accounting for variable costs and the desired profit margin. Here's the breakdown:

1. **Contribution Margin (0.67):** This is the portion of each sales dollar that remains after variable costs have been covered. It represents how much of each dollar of sales contributes towards covering fixed costs and generating profit.
2. **Profit Margin Goal (0.10):** This is the portion of each sales dollar that you want as profit. Subtracting this from the contribution margin indicates how much of each sales dollar is available to cover fixed costs.

When you subtract the Profit Margin Goal from the Contribution Margin:

$$0.67 - 0.10 = 0.57$$

This 0.57 (or 57%) means that for every dollar of sales, 57 cents is available to cover fixed costs. Once fixed costs are covered, any additional sales will contribute 57 cents towards profit for every dollar of sales, ensuring that the profit margin goal of 10% is maintained.

In essence, the 0.57 denominator is used to determine how much sales volume is needed to cover the relevant fixed costs while still achieving the desired profit margin of 10%.