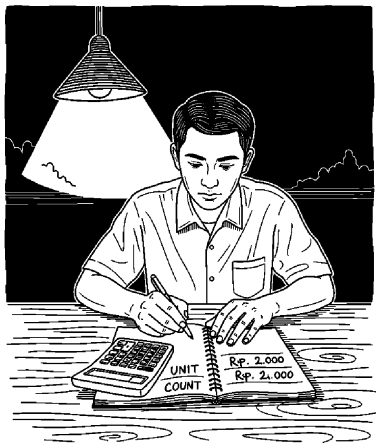
SPECIFIC-CASE

WORKSHEET 7 OF 9

Adding a New SKU at 30% Contribution Margin

Scenario: you are considering adding a new product to the lineup. The new SKU carries a contribution margin of 30%. Your current product mix has a weighted-average CM of Rp 18,000 per unit and a monthly BEP of 1,200 units. The question is how the new SKU changes the BEP depending on how much of total volume it eventually takes up.



Complementary worksheet for

SECTION 1

What This Is For

Before a new SKU launches, most operators ask whether there is demand and whether the margins are acceptable. This worksheet adds a third question: at what sales-mix proportion does the new SKU actually help BEP rather than hurt it? If the new SKU carries a lower CM than the existing mix's weighted average, adding it will raise BEP — meaning the business must sell more total units just to cover the same fixed costs. Whether that trade is worth making depends on the two scenarios in this table.

Use this worksheet before placing the first production run order. Fill in Scenario A (new SKU at 20% of total mix) and Scenario B (new SKU at 40% of total mix). Compare the resulting BEPs to current BEP and to actual volume. The worksheet will show whether the launch is BEP-neutral, BEP-improving, or BEP-damaging at each of those mix proportions.

SECTION 2

Benefits

What you get when you actually run this worksheet on a real situation:

- Answers the mix-proportion question before the launch — not after two months of declining margin of safety.
- Quantifies the BEP impact in units, not percentages: how many additional units per month must be sold after the launch to maintain current margin of safety.
- Identifies the mix-proportion crossover: the share at which the new SKU's CM equals the current WACM, below which launch is BEP-neutral.
- Forces disclosure of any additional fixed costs the new SKU requires — certifications, dedicated storage, supplier minimums — before those costs are committed.
- Produces a launch decision document with a clear go/no-go condition: at what mix proportion is the launch BEP-safe?

SECTION 3

Framework To Use

Two-Scenario Mix Impact

New SKU impact on BEP depends on its CM relative to existing WACM and on what share of total volume it captures. Two scenarios bracket the realistic range.

NEW SKU CM > WACM	NEW SKU CM = WACM	NEW SKU CM < WACM
Adding the SKU improves WACM. Any mix proportion lowers BEP. Launch is BEP-improving.	Adding the SKU is BEP-neutral. Mix proportion does not matter for BEP — margin of safety stays the same.	Adding the SKU raises BEP. The higher the new SKU's mix share, the larger the BEP increase. Quantify before launching.

SECTION 4

How To Use

Follow these steps in order. Each one builds on the previous.

1. Step 1: Confirm your current WACM from the most recent hv-2 worksheet. If the last WACM calculation is more than 60 days old, recalculate it first.
2. Step 2: Write the new SKU's selling price, variable cost per unit (all costs that exit when one unit sells), and calculated CM per unit. Also calculate CM as a percentage of selling price.
3. Step 3: Write the current existing product(s) share at 100% in the 'Current' column and 80% and 60% in Scenarios A and B respectively.
4. Step 4: Write the new SKU's share at 0% (current), 20% (Scenario A), and 40% (Scenario B).
5. Step 5: Calculate revised WACM for each scenario: (Existing CM × Existing Share %) + (New SKU CM × New SKU Share %). This requires knowing existing CM in the same per-unit terms as the new SKU.
6. Step 6: Write total fixed costs per month. If the new SKU requires any additional fixed cost, add it to the figure used in Scenarios A and B.
7. Step 7: BEP Units = Total Fixed Costs ÷ Revised WACM for each column.
8. Step 8: BEP change vs current = each scenario's BEP − 1,200 (current BEP). Positive means BEP rose; negative means BEP fell.
9. Step 9: At current average daily volume, does each scenario's BEP fit within a normal operating month? If not, that scenario requires growth before it is BEP-safe.

SECTION 5

Example Use

A processed food manufacturer sells Standard Sauce at $3.00 CM per unit. Current WACM is $3.00 (single product), BEP 1,200 units/month, fixed costs $3,600/month. The owner is considering launching Budget Paste at $1.50 CM per unit (30% CM ratio on a $5 selling price vs. Standard's 40%). The question: what share of total sales would Budget Paste need to reach before BEP becomes a concern?

Current state: WACM = $3.00, BEP = $3,600 ÷ $3.00 = 1,200 units. Margin of safety at 1,500 units sold: 300 units (20%).

Scenario A — Budget Paste at 20% of mix:
WACM = $3.00 × 0.80 + $1.50 × 0.20 = $2.40 + $0.30 = $2.70.
BEP = $3,600 ÷ $2.70 = 1,333 units. BEP rose by 133 units.
At 1,500 total units: margin of safety = 167 units (11.1%). Down from 20%.

Scenario B — Budget Paste at 40% of mix:
WACM = $3.00 × 0.60 + $1.50 × 0.40 = $1.80 + $0.60 = $2.40.
BEP = $3,600 ÷ $2.40 = 1,500 units. BEP equals current actual volume.
Margin of safety collapses to zero. The business is at break-even with no cushion.

Decision: the owner can launch Budget Paste if total volume grows above 1,333 units before the new SKU reaches 20% share, and must limit Budget Paste to below 40% share unless total volume grows past 1,800 units (20% above new BEP of 1,500). Set a mix-share cap and a volume trigger for reassessment.

SECTION 6

The Worksheet

Tear this out, copy it onto a fresh sheet, or fill it in directly.

Adding a New SKU at 30% Contribution Margin

Scenario: you are considering adding a new product to the lineup. The new SKU carries a contribution margin of 30%. Your current product mix has a weighted-average CM of Rp 18,000 per unit and a monthly BEP of 1,200 units. The question is how the new SKU changes the BEP depending on how much of total volume it eventually takes up.

INPUT / CALCULATED METRIC	CURRENT (BEFORE NEW SKU)	SCENARIO A: NEW SKU = 20% OF MIX	SCENARIO B: NEW SKU = 40% OF MIX
New SKU selling price per unit ($)	—		
New SKU variable cost per unit ($)	—		
New SKU CM per unit ($)	—		
New SKU CM Ratio (%)	—		
Existing product(s) share of mix (%)	100%		
New SKU share of mix (%)	0%	20%	40%
Revised WACM ($)	$18,000 or fill yours		
Total fixed costs per month ($)			
New BEP Units (Fixed ÷ Revised WACM)	1,200 or fill yours		
BEP change vs current (units)	—		

SECTION 6 (CONTINUED)

Reflection Prompts

After filling in the worksheet on the previous page, work through these.

1. At what mix proportion does the new SKU's CM pull the WACM above your current WACM? Below that proportion, adding the SKU raises BEP without benefit.

2. Does the new SKU require any additional fixed cost to produce or stock — dedicated storage, a new supplier minimum, a certification? If yes, add that to fixed costs in both scenarios before reading the BEP result.

3. Which scenario is more realistic given your current sales channel capacity? If Scenario B requires a channel you do not yet have, plan for Scenario A first and set a mix-share trigger for reassessment.

SECTION 7

Tips and Traps

TIPS

- Calculate the mix-proportion crossover before filling in Scenario A and B: at what share does the new SKU's CM equal the current WACM? That proportion is the neutral point — below it, BEP rises; above it (if CM is higher than WACM), BEP falls.
- If total volume is expected to grow because of the new SKU, model both: the BEP from the mix change and the volume growth. A BEP that rises by 133 units is acceptable if the new SKU brings 200 additional units per month.
- Revisit this worksheet three months after launch. Check the actual mix share the new SKU achieved and recalculate WACM from actual data. Compare to the scenario you assumed.

TRAPS

- Assuming the new SKU will not cannibalize existing product sales. If customers shift from Standard Sauce to Budget Paste rather than adding Budget Paste as a new purchase, total volume stays flat while WACM falls — the worst-case scenario.
- Ignoring the additional fixed cost the new SKU may require. A new SKU that needs a cold-storage upgrade or a separate production run minimum adds to fixed costs before a single unit is sold — raise fixed costs in both scenario columns before calculating BEP.
- Using a 30% CM ratio as a target without checking whether 30% is above or below the current WACM in dollar terms. A 30% ratio on a $5 product ($1.50 CM) may be below the WACM if existing products have a $3.00 CM — the percentage comparison is misleading without the dollar amount.

SECTION 8

Appendixes

Appendix A — Mix-Proportion Neutral Point Formula

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The neutral point is the mix share at which the new SKU's CM equals
the existing WACM — meaning WACM does not change when the new
SKU is introduced at that proportion.

This is only meaningful when new SKU CM differs from existing WACM.

Formula:
  If new SKU CM < existing WACM (SKU raises BEP):
    No neutral point — BEP always rises with any positive mix share.
    Minimize the new SKU's share to minimize BEP damage.

  If new SKU CM > existing WACM (SKU lowers BEP):
    BEP falls at any positive mix share. No upper limit from BEP perspective.

  If multiple existing products (WACM from several products):
    New WACM = (Existing WACM × (1 − S)) + (New SKU CM × S)
    Set New WACM = Existing WACM and solve for S:
      Existing WACM = Existing WACM × (1−S) + New SKU CM × S
      0 = (New SKU CM − Existing WACM) × S
      S = 0 only if New SKU CM ≠ Existing WACM

  Conclusion: when New SKU CM < Existing WACM, any positive share
  raises BEP. The question is not "what share is neutral" but
  "how much BEP increase is acceptable at the intended share?"
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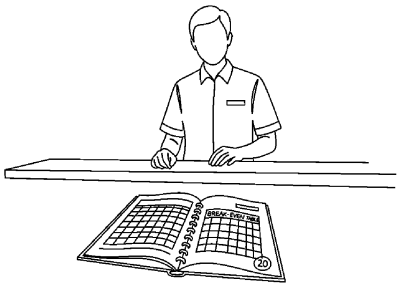

WHERE THIS WORKSHEET COMES FROM

Break-Even Analysis Handbook

Calculate How Many Units Must Sell Before This Business Turns a Profit

by Ibrahim Anwar

This worksheet is one of nine in the *Break-Even Analysis Handbook* companion worksheet pack. The full pack is grouped into three categories: high-volume worksheets you can run weekly, niche-search worksheets for rare but high-value situations, and specific-case worksheets that walk you through a single concrete scenario.

Every framework, decision filter, and figure used in these worksheets is drawn from the chapters of the source book. The book sets the diagnosis, the worksheets give you the form to act on it.

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