

COMPANION WORKSHEET PACK

Break-Even Analysis Handbook

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

9 Worksheets · 3 Categories · A4 Print-Ready

High-Volume · Niche-Search · Specific-Case

PT Hibrkraft Kreasi Indonesia · hibranwar.com

PART 1

High-Volume Worksheets

Universal worksheets — what most operators reach for daily or weekly. Run these on a regular cadence regardless of business size or stage.

Single-Product Break-Even Quick-Calc

Run this whenever you need the current floor in under ten minutes.

Run this whenever you need the current floor in under ten minutes.

INPUT	YOUR NUMBER	NOTES
Selling price per unit (A)		Average across variants if needed
Variable cost per unit (B)		All costs that exit when one unit sells
Contribution margin per unit (A - B)		
CM Ratio (CM ÷ A)		Express as decimal, e.g. 0.40
Total fixed costs this month		Use audited figure from Chapter 02
BEP Units (Fixed ÷ CM per unit)		
BEP Revenue (Fixed ÷ CM Ratio)		Cross-check: BEP Units × Price
Actual operating days this month		Subtract public holidays
Daily BEP (BEP Units ÷ Operating Days)		

1. Is today's sales count above or below the daily BEP? If below, what is the gap — and is there still time to close it?

2. Has any input cost changed since the last time you ran this? If yes, recalculate variable cost per unit before using the result.

3. Compare this month's BEP Revenue against the same month last year. If fixed costs have grown and CM has not improved, the gap is compounding silently.

Weighted-Average Contribution Margin Update

Run after any month where one product's share of total sales shifts by more than 10 percentage points from the prior month.

Run after any month where one product's share of total sales shifts by more than 10 percentage points from the prior month.

PRODUCT / SKU	CM PER UNIT (RP)	UNITS SOLD THIS MONTH	SHARE OF TOTAL UNITS (%)	WEIGHTED CM (COL 2 × COL 4 ÷ 100)
Product A				
Product B				
Product C				
Product D				
Product E				
— add rows as needed				
—				
TOTAL			100%	= WACM
BEP Units = Fixed Costs ÷ WACM				

1. Did WACM go up or down from last month? By how much? If down, which product gained share?

2. If the lower-CM product continues growing as a proportion of mix, at what WACM does BEP exceed your realistic monthly capacity?

3. What is one action — a promotion, a bundle, a sales conversation — that shifts mix toward the higher-CM product this week?

Monthly Margin-vs-Volume Tracker

A one-page monthly review. Fills in under 20 minutes after the month closes.

A one-page monthly review. Fills in under 20 minutes after the month closes.

METRIC	THIS MONTH	PRIOR MONTH	CHANGE	FLAG?
Total fixed costs (Rp)				
CM per unit (Rp)				
CM Ratio (%)				
BEP Units				
BEP Revenue (Rp)				
Actual units sold				
Actual revenue (Rp)				
Margin of safety – units (Actual – BEP)				
Margin of safety – % (MoS Units ÷ Actual Units × 100)				
Any trigger fired this month? (Y/N)				
1. If the margin of safety dropped more than 5 percentage points month-over-month, identify which single variable moved most: fixed costs up, CM per unit down, or volume down.				
2. Did any of the five update triggers fire this month? If yes, is the BEP figure in this table already the recalculated one, or is it still the old number?				
3. At this month's margin of safety, how many units below actual volume would push the business below BEP? Is that gap comfortable given the most volatile month in your seasonal pattern?				

PART 2

Niche-Search Worksheets

Rare-situation worksheets — high value when the situation hits. Run these only when the trigger appears, but keep them findable.

Multi-Product BEP Rebuild After Product-Mix Shift

Use when a major product line is added, discontinued, or when a single product's share of revenue has changed by more than 15 points from the baseline used in the original BEP.

Use when a major product line is added, discontinued, or when a single product's share of revenue has changed by more than 15 points from the baseline used in the original BEP.

STEP	DESCRIPTION	YOUR CALCULATION	RESULT
1	List all current active products with their CM per unit		
2	Record last 3-month average units sold per product		
3	Calculate each product's share of total units (%)		
4	Multiply CM per unit × share % ÷ 100 for each product		
5	Sum column 4 → New WACM		
6	State total fixed costs (current, audited)		
7	BEP Units = Fixed Costs ÷ New WACM		
8	Compare to old BEP Units — how much did it move?		
9	At current average daily volume, how many operating days to clear new BEP?		

1. Which product was discontinued or added, and how did it change the WACM? Express the shift as a percentage point move.

2. If the new BEP is higher than the old, what is the minimum monthly volume increase needed to restore the prior margin of safety?

3. Is there a product currently small in mix but high in CM that could be deliberately promoted to pull WACM back up without adding fixed costs?

Sensitivity Matrix for New Pricing Scenario

Use when evaluating a price change — upward or downward — against a backdrop of variable cost pressure. Build before the decision, not after.

Use when evaluating a price change — upward or downward — against a backdrop of variable cost pressure. Build before the decision, not after.

	SELLING PRICE -10%	SELLING PRICE -5%	SELLING PRICE 0% (BASELINE)	SELLING PRICE +5%	SELLING PRICE +10%
Variable Costs +0%	BEP = ?	BEP = ?	BEP = ?	BEP = ?	BEP = ?
Variable Costs +5%	BEP = ?	BEP = ?	BEP = ?	BEP = ?	BEP = ?
Variable Costs +10%	BEP = ?	BEP = ?	BEP = ?	BEP = ?	BEP = ?
Variable Costs +15%	BEP = ?	BEP = ?	BEP = ?	BEP = ?	BEP = ?
Variable Costs +20%	BEP = ?	BEP = ?	BEP = ?	BEP = ?	BEP = ?

1. For each cell: New CM Ratio = (Baseline CM Ratio - Variable Cost Increase %) adjusted for price change. BEP Revenue = Fixed Costs ÷ New CM Ratio. Fill every cell before reading the matrix.

2. Mark every cell whose BEP Revenue exceeds your current average monthly revenue in red. The boundary between red and non-red cells is your operating tolerance limit.

3. Which single-variable scenario is most likely to occur in the next 90 days based on current supplier and market signals? Circle that row and column. Is the corresponding BEP cell above or below current revenue?

Expansion Decision BEP — Fixed vs Variable Alternative

Use before committing to any new permanent fixed cost: a lease, a hire, a machine installment. The worksheet forces the comparison the business plan rarely shows.

Use before committing to any new permanent fixed cost: a lease, a hire, a machine installment. The worksheet forces the comparison the business plan rarely shows.

ITEM	FIXED-COST SCENARIO	VARIABLE-COST ALTERNATIVE	DIFFERENCE
New monthly fixed cost added (Rp)		Rp 0 (variable replaces it)	
New variable cost per unit added (Rp)	Rp 0		
CM per unit after change			
Total fixed costs after change (Rp)			
New BEP Units (Fixed ÷ New CM)			
New BEP Revenue (Rp)			
BEP increase vs current BEP (units)			
Months to cover BEP increase at avg monthly growth			
Total cost per unit at avg volume — fixed scenario			
Total cost per unit at avg volume — variable scenario			

1. If the fixed-cost scenario produces a BEP increase that takes more than 12 months to cover at historical growth rates, what conditions would need to be true for the timeline to shorten — and how probable are those conditions?

2. At what monthly volume do total costs become equal between the fixed and variable scenarios? Below that crossover volume, which scenario costs less per unit?

3. If the variable-cost alternative were used, and volume grew to match the projected increase, how much would total variable cost diverge from the fixed-cost scenario? Is the per-unit premium worth the lower BEP risk?

PART 3

Specific-Case Worksheets

Pre-framed scenarios — each worksheet walks you through a single, concrete situation. Read the scenario, then fill in your version of it.

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.

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 (Rp)	—		
New SKU variable cost per unit (Rp)	—		
New SKU CM per unit (Rp)	—		
New SKU CM Ratio (%)	—		
Existing product(s) share of mix (%)	100%		
New SKU share of mix (%)	0%	20%	40%
Revised WACM (Rp)	Rp 18,000		
Total fixed costs per month (Rp)			
New BEP Units (Fixed ÷ Revised WACM)	1,200		
BEP change vs current (units)	—		

1. At what mix proportion does the new SKU's CM pull the WACM above your current Rp 18,000? 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.

Choosing Between Two Production Methods

Scenario: you have two options to fulfill the same output. Method A uses a leased machine at Rp 12,000,000 per month in fixed cost and Rp 4,000 per unit in variable cost. Method B uses contract production at Rp 0 additional fixed cost and Rp 9,500 per unit in variable cost. Current selling price is Rp 22,000 per unit and monthly fixed costs before this decision are Rp 30,000,000.

Scenario: you have two options to fulfill the same output. Method A uses a leased machine at Rp 12,000,000 per month in fixed cost and Rp 4,000 per unit in variable cost. Method B uses contract production at Rp 0 additional fixed cost and Rp 9,500 per unit in variable cost. Current selling price is Rp 22,000 per unit and monthly fixed costs before this decision are Rp 30,000,000.

METRIC	METHOD A (LEASED MACHINE)	METHOD B (CONTRACT PRODUCTION)
Additional fixed cost per month (Rp)	Rp 12,000,000	Rp 0
Variable cost per unit — this method only (Rp)	Rp 4,000	Rp 9,500
Total fixed costs after adoption (Rp)		
Total variable cost per unit after adoption (Rp)		
CM per unit (Selling Price – Total Variable Cost)		
CM Ratio (%)		
BEP Units (Total Fixed ÷ CM per unit)		
BEP Revenue (Rp)		
Crossover volume — units where total cost is equal across methods		
At your avg monthly volume, total cost per unit — this method		

1. Calculate the crossover volume: set total cost of Method A equal to total cost of Method B and solve for units. Below that volume, which method produces lower total cost? Above that volume, which is cheaper per unit?

2. Your current average monthly volume sits on which side of the crossover point? By how many units? If demand is seasonal, does it cross the threshold in peak months?

3. Method A raises BEP by how many units? At your historical growth rate, how many months before volume reliably covers the higher BEP? If cash reserves cannot sustain that runway, Method B may be the lower-risk path even if it costs more per unit at scale.

Opening a Second Location — Rp 25M Monthly Fixed Cost

Scenario: you are evaluating a second location with Rp 25,000,000 per month in new fixed costs — rent, one permanent staff hire, and a contracted utility. The new location is expected to generate its own revenue stream but does not change the variable cost per unit. Your current business: Rp 40,000,000 in fixed costs, CM per unit Rp 16,000, BEP 2,500 units per month, actual volume 3,200 units per month.

Scenario: you are evaluating a second location with Rp 25,000,000 per month in new fixed costs — rent, one permanent staff hire, and a contracted utility. The new location is expected to generate its own revenue stream but does not change the variable cost per unit. Your current business: Rp 40,000,000 in fixed costs, CM per unit Rp 16,000, BEP 2,500 units per month, actual volume 3,200 units per month.

METRIC	CURRENT (ONE LOCATION)	COMBINED (TWO LOCATIONS)	LOCATION 2 STANDALONE
Total fixed costs per month (Rp)	Rp 40,000,000		Rp 25,000,000
CM per unit (Rp)	Rp 16,000	Rp 16,000	Rp 16,000
BEP Units	2,500		
Actual volume (units/month)	3,200		Estimate:
Margin of safety — units	700		
Margin of safety — %	21.9%		
Months to BEP at projected ramp rate — Location 2	—	—	
Cash reserve needed to sustain deficit during ramp (Rp)	—	—	

1. The combined BEP after adding Location 2's fixed costs: how many total units per month across both locations? How far is that from your current total output at full capacity?

2. Location 2 standalone BEP is $\text{Rp } 25,000,000 \div \text{Rp } 16,000 = 1,563$ units per month. Based on comparable location data or pilot sales, how many months before Location 2 reaches 1,563 units? Each month below that BEP costs the business fixed costs with no contribution from that location.

3. If Location 2 takes 9 months to reach standalone BEP, the cumulative deficit from that location is approximately $9 \times (\text{Fixed Costs} - \text{Partial CM Coverage})$. Can current cash reserves and existing location profit absorb that timeline without triggering a cash emergency at Location 1?

Companion to:

Break-Even Analysis Handbook — Calculate How Many Units Must Sell Before This Business
Turns a Profit

by Ibrahim Anwar

PT Hibrkraft Kreasi Indonesia

hibranwar.com