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WORKSHEET 5 OF 9

Idle Capacity Cost Reconstruction — Three-Year Lookback

Use when preparing for due diligence, an audit, or a private placement conversation where efficiency gains need to be substantiated retroactively.

Complementary worksheet for
Cost Reduction Strategies
by Ibrahim Anwar

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SECTION 1

What This Is For

This worksheet is not for routine monthly use. It is for the specific moment when an investor, auditor, or board member asks a question like: "How efficiently have you used the capacity you paid for over the last three years?" — and you realize you have never calculated the answer. Or when you are preparing a private placement information memorandum and want to show that idle capacity has been reduced, or that remaining idle capacity represents growth headroom rather than waste.

The three-year lookback forces a retrospective calculation: for each major capacity asset — warehouse space, production equipment, vehicles, staff headcount relative to throughput — what percentage was actually used in each of the past three years, and what did the unused fraction cost? The total figure is often large enough to anchor a credible efficiency narrative. If utilization improved over the three years, the savings are verifiable. If it worsened despite revenue growth, the worksheet identifies the accountability gap before an outsider does.

SECTION 2

Benefits

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

- Produces a verifiable three-year idle capacity cost figure that can be cited in a private placement document or investor conversation.
- Separates assets where utilization improved (efficiency story) from assets where it worsened (risk flag to address before external review).
- Provides the basis for a 'growth headroom' argument: idle capacity that has been consciously managed is an asset, not a liability, in an investor conversation.
- Identifies which asset categories drove the most idle cost historically, so future capital decisions are made with that context.
- Creates a defensible methodology for reconstructing a savings claim when documentation was not built in real time.

SECTION 3

Framework To Use

Asset-by-Asset Utilization Ladder

Three years of utilization data per asset shows whether management is improving capacity use over time — or simply paying for more idle space each year.

Asset	Year 1 Utilisation	Year 2 Utilisation	Year 3 Utilisation	Direction
Warehouse space	60%	68%	74%	Improving
Production equipment	72%	65%	61%	Worsening
Delivery fleet	80%	82%	84%	Stable / improving
Staff capacity	71%	68%	73%	Recovering

SECTION 4

How To Use

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

1. List every major capacity asset that carries a fixed monthly cost regardless of utilization. Start with the largest: warehouse space, owned or leased equipment, permanent headcount.
2. For each asset, pull historical data to estimate average utilization in each of the past three years. Data sources: warehouse logs (pallet counts vs capacity), machine-hours records, delivery route logs, payroll versus output records. If data is thin, use two data points per year and interpolate.
3. Calculate annual idle cost per asset per year: idle percentage × annual cost of the asset. Where annual cost includes rent or depreciation, maintenance, and utilities attributable to that asset.
4. Sum the idle costs across all assets for each year. This gives three annual totals: year 1, year 2, year 3 idle capacity cost.
5. Sum all three annual totals for a three-year cumulative idle capacity cost. This is the number that frames any efficiency narrative.
6. Assess the direction for each asset: is utilization improving, worsening, or flat? Improving assets are evidence of management action. Worsening assets need an explanation before an external reviewer asks for one.
7. If preparing for external review: document the data source for each utilization estimate in a separate notes column. A figure traceable to a warehouse log is defensible; an estimate with no source is not.

SECTION 5

Example Use

A fabrication workshop with a 12,000 sq ft facility, two CNC machines, and a five-truck delivery fleet is preparing for a private placement conversation. The investor's data room request includes a three-year capacity utilization summary.

The owner has never produced this report. The investor asked for it two weeks before the meeting. The first step is pulling the data that exists.

Facility: the shop floor is 12,000 sq ft total. The active production zone has been roughly 7,200 sq ft in year 1, 8,400 in year 2, and 9,600 in year 3 as the order book grew. Utilization: 60%, 70%, 80%. Monthly facility cost (rent plus maintenance): $8,400. Annual idle capacity cost: year 1 = $40,320, year 2 = $30,240, year 3 = $20,160. Clearly improving.

CNC machine 1: rented at $2,200 per month. Operating hours: year 1 average 118 hours per month against 160 available, year 2 average 136, year 3 average 151. Utilization: 74%, 85%, 94%. Annual idle cost: year 1 = $6,864, year 2 = $3,168, year 3 = $844.

CNC machine 2: leased at $1,800 per month. Added in month 4 of year 2. Operating hours: year 2 average 68 hours per month against 160 available, year 3 average 109. Utilization: 43% (year 2), 68% (year 3). Annual idle cost: year 2 = $9,936 (9 months), year 3 = $6,912.

Fleet: five trucks, $1,400 per truck per month in fixed costs. Average load factors from driver logs: year 1 = 77%, year 2 = 81%, year 3 = 84%. Annual fleet idle cost: year 1 = $14,580, year 2 = $11,340, year 3 = $9,072.

Three-year cumulative idle capacity cost across all assets: $153,436. In the investor conversation, the owner presents not just the total but the direction: facility utilization rose from 60% to 80%, CNC machine 1 moved from 74% to 94%. The CNC 2 purchase is the outlier — it arrived at low utilization and is still below 70%. The owner proactively explains: the machine was purchased to support a contract that took two quarters longer to ramp than expected. Current utilization is 68% and rising; the trajectory suggests 85%+ within six months based on current order backlog.

The investor sees management that can articulate capacity decisions with data, not just a business that happened to grow.

SECTION 6

The Worksheet

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

Idle Capacity Cost Reconstruction — Three-Year Lookback

Use when preparing for due diligence, an audit, or a private placement conversation where efficiency gains need to be substantiated retroactively.

ASSET / COST CATEGORY	YEAR 1 AVG UTILISATION (%)	YEAR 2 AVG UTILISATION (%)	YEAR 3 AVG UTILISATION (%)	ANNUAL IDLE COST EACH YEAR ($)

SECTION 6 (CONTINUED)

Reflection Prompts

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

1. For each row, calculate idle cost per year: (100% minus utilisation%) multiplied by the full annual cost of the asset. Sum column 5 across all rows and all three years. That figure is the total idle capacity cost paid over the lookback period — available as a concrete baseline for any efficiency narrative you are building.

2. Did utilisation improve or worsen over the three years? If it worsened while revenue grew, you have a capacity management story that needs explaining before an investor or auditor surfaces it independently. If it improved, calculate the saving delivered — it is a verifiable number, not an estimate.

SECTION 7

Tips and Traps

TIPS

- Start with the two or three largest assets by annual cost. Precise three-year data on small assets adds work without materially changing the total. Get the big items right first.
- Record the data source for each utilization estimate in a separate column. 'Warehouse log, average of 12 monthly pallet counts' is defensible. 'My best recollection' is not.
- If utilization data does not exist for a full three years, note the gap explicitly rather than estimating. An investor who finds a gap later loses confidence; an investor who sees the gap disclosed in the worksheet trusts the rest of the data.
- For staff capacity, use output-based utilization, not hours-based. An 8-hour day that produces 5 hours of output is 63% utilized by output, not 100% utilized by presence. The output measure is what matters.
- An improving utilization trend is more persuasive than a perfect single-year figure. A business at 80% that was at 60% three years ago shows management. A business consistently at 80% shows stability. Both are good; the trajectory story is the better one.

TRAPS

- Using booked or theoretical capacity as the 'available' denominator without accounting for planned maintenance downtime, legal rest periods, or seasonal shutdowns. This inflates the idle percentage and understates real efficiency.
- Presenting a worsening trend without an explanation and hoping the investor does not notice. A fabrication workshop whose CNC utilization fell from 85% to 61% over three years will absolutely be asked about it. Prepare the answer before the meeting.
- Calculating annual idle cost against the current monthly cost rather than the cost at each historical point. If rent increased 15% over three years, year 1 idle cost should use the year 1 rent figure, not today's.
- Treating the three-year lookback as a one-time exercise. Once the data is built, updating it takes one hour per year. The ongoing version is far more valuable than a reconstruction under deadline pressure.
- Conflating idle capacity cost with waste. Some idle capacity is rational buffer — a 90% warehouse that loses a major account suddenly has no recovery room. The right benchmark is 80–90% target utilization, not 100%.

SECTION 8

Appendixes

Appendix A — Annual Idle Capacity Cost Formula

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For each asset, each year:

Idle fraction    = (1 - utilization%) as a decimal
Annual cost      = monthly cost × 12 (or actual cost if variable)
Annual idle cost = idle fraction × annual cost

Example:
  Asset: Warehouse
  Utilization: 65%
  Annual cost: $96,000 ($8,000/month × 12)
  Idle fraction: 35% = 0.35
  Annual idle cost: 0.35 × $96,000 = $33,600

Three-year cumulative for this asset:
  Year 1 idle cost + Year 2 idle cost + Year 3 idle cost = $_________

Cross-asset total (sum all rows, all years): $_________
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Appendix B — Utilization Direction Scorecard

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For each asset, classify the three-year direction:

IMPROVING (Year 3 > Year 1 by >= 5 percentage points):
  → Evidence of management action on capacity
  → Use in investor narrative as a verified efficiency gain

FLAT (Year 3 within +-4 points of Year 1):
  → Stable; neither a story nor a risk
  → Show that current utilization is in the healthy range (75-90%)

WORSENING (Year 3 < Year 1 by >= 5 percentage points):
  → Prepare explanation before external review
  → Was an asset added for a contract that did not materialize?
  → Has revenue mix shifted, reducing demand on this asset?
  → Is this asset a candidate for partial subleasing or disposal?
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Appendix C — Data Source Confidence Rating

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Rate each utilization estimate on a 3-point scale:

HIGH confidence (cite in investor data room without caveat):
  - Sourced from a warehouse management log, machine counter,
    GPS fleet data, or payroll-vs-output records
  - Data covers at least 10 months of the year in question
  - Consistent methodology across all three years

MEDIUM confidence (include with a footnote):
  - Sourced from physical counts taken quarterly
  - One year has fewer than 8 months of data points
  - Methodology shifted mid-period (note the change)

LOW confidence (label as estimate; do not use in formal documents):
  - Based on recollection or a single data point per year
  - Asset was not consistently tracked during the period
  - Reconstruct from invoices or purchase orders if possible
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WHERE THIS WORKSHEET COMES FROM

Cost Reduction Strategies

Find Where Costs Hide Before the Knife Touches Anything

by Ibrahim Anwar

This worksheet is one of nine in the *Cost Reduction Strategies* 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.

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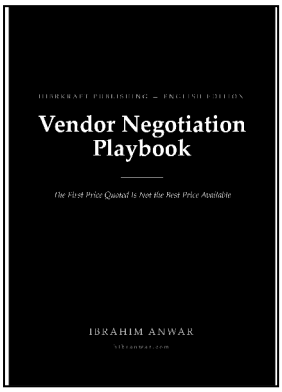

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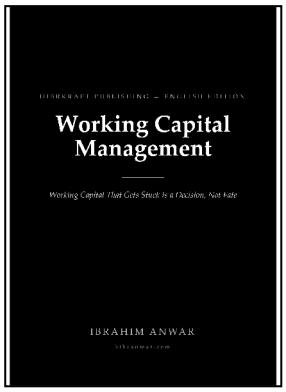

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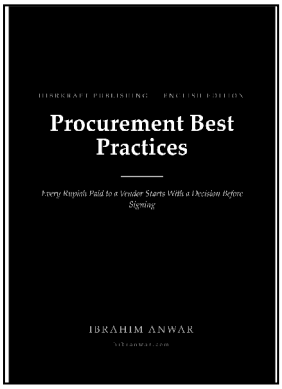

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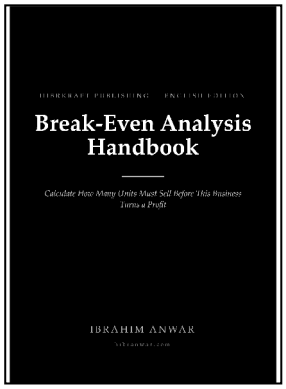

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