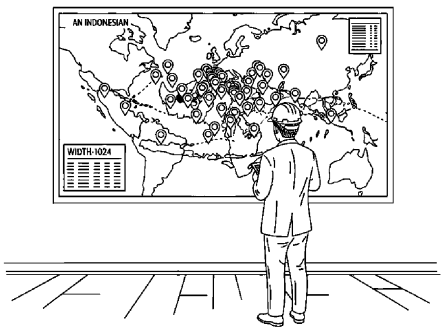
HIGH-VOLUME

WORKSHEET 1 OF 9

Weekly Single-Source Dependency Scan

Run every Monday before the week's purchase orders go out. Uses existing purchase data — no new system required.



Complementary worksheet for
Supply Chain Risk Mitigation
by Ibrahim Anwar

SECTION 1

What This Is For

A ten-minute weekly check that catches rising single-source concentration before it becomes a crisis decision. Most operators discover their Quadrant A exposure only when a vendor fails — not beforehand. This worksheet moves that discovery to Monday morning, while there is still time to act.

The trigger for this worksheet is not a disruption. The trigger is the weekly purchase order run. Before any PO goes out, you know which component is about to depend entirely on one vendor this week, and whether a 3-day delay on that vendor would stop the production line. That question, asked once per week, is the habit that converts dependency awareness into real risk management.

SECTION 2

Benefits

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

- Catches rising vendor concentration within the same week it increases, not after it has compounded into a structural dependency.
- Surfaces Quadrant A items — high share, no verified alternative — before a purchase order locks in the exposure for that cycle.
- Creates a running weekly record that shows whether the number of flagged components is trending up or down over time.
- Gives the procurement team a clear, repeatable trigger to contact an alternative vendor before an emergency forces it.
- Takes under 15 minutes from existing data. No new systems, no new reports. Uses purchase records already in front of the operator.

SECTION 3

Framework To Use

Four-Quadrant Dependency Classification

Place each component on two axes: purchase share from primary vendor, and whether a verified alternative exists. The quadrant determines the response — not gut feel.

Quadrant	Share	Alternative	Risk	This Week's Action
A	>50%	None verified	Critical	Flag before PO goes out; check stock runway
B	>50%	Active alt exists	Manageable	Monitor split ratio; keep alternative warm
C	<30%	None verified	Low for now	Note; periodic check only
D	<30%	Active alt exists	Safe	No action needed this week

SECTION 4

How To Use

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

1. Pull this week's planned purchase quantities per component from the order schedule or production plan. This takes 3 minutes if records are in any form of written system.
2. For each component on the list: calculate the primary vendor's share of total planned procurement for that item this week. If one vendor is the only source, write 100%.
3. In the Verified Alternative column, write Y only if that second vendor has previously received and fulfilled an actual purchase order. A vendor with a known phone number but no order history is N.
4. Mark the Flag column Y for any row where share exceeds 50% and alternative is N. Those are Quadrant A items for this week.
5. Count the total flagged rows and write it at the bottom. Compare to last week's count. If the number increased, identify which components moved and why.
6. For every flagged row with a PO due this week: calculate current stock divided by daily production requirement. If the result is under 5 working days, the buffer is below the minimum threshold for a vendor who is 100% depended upon.
7. For the highest-exposure flagged component: write one concrete action before Friday. This can be as simple as calling an alternative vendor candidate to confirm availability, not placing an order.

SECTION 5

Example Use

A light manufacturing workshop runs the scan on Monday. Three components appear in the Quadrant A column: a specialty adhesive, a batch of aluminum profiles, and a packing film. The adhesive vendor was flagged last week too. The aluminum vendor is new on the flag list — their share jumped from 40% to 65% because a second supplier stopped stocking the required profile grade.

The operator works through each flagged item in order of stock runway. Adhesive: current stock covers 8 working days. Aluminum profiles: current stock covers 4 working days. Packing film: current stock covers 11 working days.

The aluminum flag is the week's priority because the 4-day runway is below the 5-day threshold, and the vendor concentration just jumped without a mitigation in place. The operator calls a second aluminum supplier they spoke with three months ago but never ordered from. The supplier confirms the profile grade is in stock, minimum order is 200kg (the workshop's weekly requirement is 180kg), and lead time is 3 days.

The operator places a split order this week: 70% from primary vendor, 30% from the new vendor. The small order costs approximately $180 more than buying entirely from the primary vendor at their volume rate. Three weeks later, the primary vendor notifies them that supply of that profile grade will be constrained for 6 weeks due to an upstream mill issue. The 30% order placed in week one is already in stock. The relationship with the second vendor is now active.

The Quadrant A count on the scan dropped from 3 to 2 in the following week. The aluminum profiles moved to Quadrant B.

SECTION 6

The Worksheet

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

Weekly Single-Source Dependency Scan

Run every Monday before the week's purchase orders go out. Uses existing purchase data — no new system required.

COMPONENT	PRIMARY VENDOR SHARE (%) THIS WEEK	VERIFIED ALTERNATIVE? (Y/N)	FLAG FOR ACTION? (Y/N)

SECTION 6 (CONTINUED)

Reflection Prompts

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

1. Mark any row where primary vendor share is above 50% and alternative column is N. Those are Quadrant A items. Write the count here: ___. If it is higher than last week, what changed in procurement volume or vendor availability?

2. For each flagged row: is there a purchase order due to the primary vendor this week? If yes, do you have enough current stock to cover a 3-day delay without halting production? Write your minimum safe stock figure per item and check it against current stock records.

SECTION 7

Tips and Traps

TIPS

- Run it at the same time every week — Monday before purchase orders are finalized is ideal because you can still adjust the order before it goes out.
- Keep the previous week's scan beside the current one. Changes are more informative than the absolute numbers. A share that went from 48% to 72% in one week is more urgent than a share sitting steadily at 60%.
- Treat the verified alternative column as binary. A vendor who quoted but never delivered is N. Only actual fulfilled orders count as Y. This sounds strict because it is — a vendor who has never shipped to you is an unknown quantity in an emergency.
- A Quadrant A count of zero does not mean no risk. It means concentration is below 50% this week. Components in Quadrant C (low share, no alternative) can graduate to Quadrant A quickly if volume shifts.

TRAPS

- Filling in the alternative column from memory rather than from the Vendor Information Sheet. Memory degrades. A vendor contact you last spoke to 14 months ago may no longer be active, may have changed pricing, or may no longer stock the item.
- Treating the scan as a reporting exercise rather than an action trigger. If a Quadrant A item gets flagged every week with no action taken, the worksheet is not being used correctly.
- Skipping the scan in weeks where 'everything looks normal.' Those are the weeks when silent concentration growth has the most cover.
- Noting the flag count but not comparing it to the previous week. The trend matters more than any single week's number.

SECTION 8

Appendixes

Appendix A — Minimum Safe Stock Thresholds by Vendor Risk Level

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Quadrant A vendor (>50% share, no verified alternative):
  Minimum buffer stock = primary vendor's longest actual lead time × 1.5
  Target buffer stock = primary vendor's longest actual lead time × 2.0

Quadrant B vendor (>50% share, verified alternative exists):
  Minimum buffer stock = primary vendor's average lead time × 1.25
  Target buffer stock = primary vendor's average lead time × 1.5

Quadrant C/D vendor (<30% share):
  Normal safety stock formula applies:
    Safety Stock = Z × σ_LT × D_average
    (Z = 1.65 for 95% service level; σ_LT = std dev of lead time; D_average = daily demand)

5-day runway threshold:
  Below 5 working days of stock coverage for a Quadrant A component = act this week.
  Below 3 working days = place emergency order today regardless of day of week.
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Appendix B — When to Escalate from Scan to Full Dependency Audit

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Escalate immediately to Full Supplier Redundancy Mapping (NS-1) if:
  - Quadrant A count rises 3 weeks in a row
  - Any single component jumps from <30% share to >60% in one week
  - A primary vendor for a Quadrant A item misses a delivery this week
  - A vendor contact you relied on is no longer reachable

Run geographic re-baselining (NS-2) if:
  - A new vendor is added whose tier-2 source is unknown
  - News of a geopolitical event affects any country named in your supply map
  - Any vendor requests a sudden price increase citing "raw material availability"
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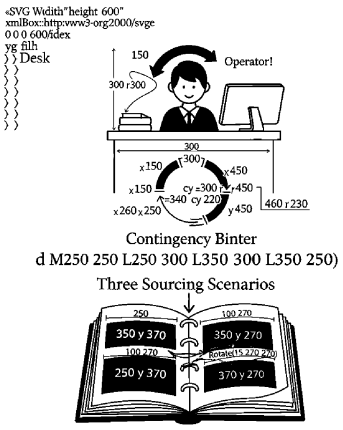

WHERE THIS WORKSHEET COMES FROM

Supply Chain Risk Mitigation

Disruptions Cannot Always Be Prevented, But Their Impact Can Be Limited

by Ibrahim Anwar

This worksheet is one of nine in the *Supply Chain Risk Mitigation* 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.

Available on Google Play Books

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