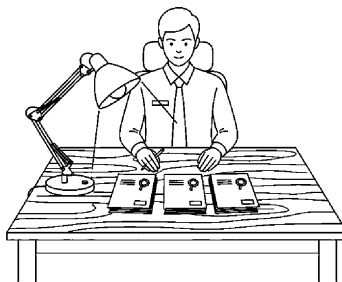


SPECIFIC-CASE

WORKSHEET 9 OF 9

Sole-Source Supplier Announces 6-Month Lead Time

Scenario: the only qualified vendor for a critical production input tells you their lead time has extended from 3 weeks to 6 months due to a raw material shortage. This input is used in every production run. Your current stock covers approximately 5 weeks of operations. Fill this worksheet in for your specific situation.



by Ibrahim Anwar

What This Is For

A sole-source lead-time crisis has two clocks running simultaneously. The first clock is operational: you have a finite number of production weeks before current stock runs out, and the gap between stock exhaustion and the vendor's 6-month lead time is a window of disruption. The second clock is strategic: this event has already proven that your current single-source arrangement is not adequate, and every day you spend in crisis mode is a day not spent qualifying the alternative vendor who will prevent the next crisis.

This worksheet addresses both clocks. The immediate response section deals with the operational window: what is your stock runway, can the vendor partially fulfill sooner, is there an emergency source, can the product be reformulated? The post-crisis section deals with the strategic question: what did this disruption cost in total, and what is the maximum justified cost of maintaining a dual-source arrangement going forward?

Benefits

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

- Organizes the immediate response actions by priority: stock position first, partial fulfillment second, emergency source third, production adaptation fourth.
- Forces the calculation of total disruption cost, which is the business case number for dual sourcing that would otherwise remain an unquantified 'good idea.'
- Identifies which response actions are within your authority and which need management escalation, so the escalation conversation is prepared with data.
- Creates the post-crisis record that prevents the same situation from being dismissed as a one-time event rather than addressed as a systemic risk.
- Produces the documentation that due diligence teams will request: how the business identified a supply concentration risk, what it did about it, and what the alternative qualification timeline was.

Framework To Use

— Dual-Clock Crisis Response

Two timelines run simultaneously. Immediate: maximize the operational runway before disruption. Strategic: qualify an alternative vendor before the next disruption, using this event's cost as the justification.

Two-Clock Response Map

Response Type	Immediate Actions (this week)	Strategic Actions (this quarter)
Stock	Confirm exact stock on hand and days of coverage at current production rate	Set minimum reorder point to provide 8 weeks of buffer coverage going forward
Vendor	Request partial or emergency fulfillment from current vendor; confirm what quantity and by when	Begin qualification of at least two alternative vendors; target first delivery within 90 days
Production	Identify reformulations or substitutes that reduce or eliminate dependency on this input	Calculate the annual cost of maintaining 20% volume with a qualified second vendor as insurance
Documentation	Record total disruption cost (emergency premium + delays + customer impact)	Use total cost as the business case ceiling for dual-sourcing investment

How To Use

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

- 1** Step 1 — Confirm the stock position: count current physical inventory of this input, calculate days of coverage at your current average production consumption rate. Write that number down. That is how many days you have before operations stop.
- 2** Step 2 — Contact the vendor immediately for a partial fulfillment assessment: can they deliver any quantity within 30, 60, or 90 days? Even a partial delivery that covers 2 additional weeks extends your window.
- 3** Step 3 — Search for emergency sources: your industry association, other vendors previously declined, import options, regional distributors, trade platform listings. An emergency source does not need to meet your full AVL qualification criteria at this stage — they need to be able to deliver something usable within your window.
- 4** Step 4 — Assess product reformulation: can your production team use a substitute or reformulated input that is available from a qualified vendor? What is the trial and approval time for that substitution? Can production run tests immediately?
- 5** Step 5 — Estimate the cost of temporary production suspension: if no emergency source and no reformulation is available, what does stopping production cost per day? That number defines the maximum you should pay as an emergency sourcing premium.
- 6** Step 6 — Calculate total disruption cost: emergency sourcing premium paid + production delay cost + customer impact (penalty clauses, lost orders, expediting costs). Record the total. This is the business case number for dual sourcing.
- 7** Step 7 — After the crisis resolves: use the total disruption cost as the ceiling when evaluating the ongoing cost of a dual-source arrangement. If maintaining a 20% volume second vendor costs \$3,000/year and this disruption cost \$18,000, the case for dual sourcing is already made.

Example Use

A small plastics processor uses a specialty resin compound from a single qualified vendor. Current stock: 420kg. Production consumption: 85kg/week. Stock runway: approximately 5 weeks. Vendor announces 24-week lead time extension.

Week 0 — Crisis notification received:

Stock: 420kg = 4.9 weeks at 85kg/week.

Gap: vendor's 24-week lead time minus 4.9-week stock = 19.1 weeks of potential production disruption.

Immediate actions:

Vendor partial fulfillment call: vendor confirms they can supply 200kg from existing stock within 2 weeks at standard price. This extends the runway by $200/85 = 2.4$ weeks. New operational runway: 7.3 weeks.

Emergency source search: three import distributors identified from industry contacts. Distributor A can supply 300kg within 4 weeks at \$2.80/kg versus normal \$2.10/kg — a 33% premium. Distributor B: 500kg in 6 weeks at \$2.60/kg (24% premium). Distributor C: cannot supply.

Decision: order 200kg from vendor (standard price), order 300kg from Distributor A (\$2.80/kg), order 300kg from Distributor B (\$2.60/kg) for delivery at weeks 4 and 6 respectively. This covers the gap to week 14. By week 14, production needs a newly qualified vendor or the original vendor's partial supply to resume.

Production assessment: engineering team evaluates a substitute compound. Approval process takes 3 weeks. Trial production run planned for week 2.

Total disruption cost calculation:

Emergency sourcing premium: Distributor A $300\text{kg} \times (\$2.80 - \$2.10) = \$210$; Distributor B $300\text{kg} \times (\$2.60 - \$2.10) = \$150$. Total: \$360.

Production delay (week 5-7 before Distributor A arrives): $2\text{ weeks} \times \text{estimated } \$1,400/\text{week operating cost} = \$2,800$ avoided if substitute compound approved in time.

Substitute compound trial cost: \$340 materials + 8 hours engineering time (\$480) = \$820.

Total disruption cost: \$360 (premium) + \$820 (trial) = \$1,180 minimum, up to \$4,620 if substitute fails and production stops for 2 weeks.

Post-crisis action: qualify Distributor B as a second active vendor. Target: first standard PO within 60 days. Annual volume allocation: 15% to Distributor B, 85% to original vendor when supply resumes. Annual cost of maintaining the dual-source arrangement: approximately \$450 additional annual cost (premium on 15% volume). The \$1,180–\$4,620 cost of this single disruption justifies that \$450/year indefinitely.

The Worksheet

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

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Scenario: the only qualified vendor for a critical production input tells you their lead time has extended from 3 weeks to 6 months due to a raw material shortage. This input is used in every production run. Your current stock covers approximately 5 weeks of operations. Fill this worksheet in for your specific situation.

RESPONSE AREA	CURRENT SITUATION	IMMEDIATE ACTION	OWNER	TARGET DATE

Reflection Prompts

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

1. Response areas to address at minimum: exact stock level and weeks of coverage at current consumption rate, whether the vendor can supply any quantity within 30/60/90 days, whether an emergency source can be identified within your operational window, whether any product substitution or reformulation is technically possible, and the cost of temporary production suspension versus emergency procurement premium.

2. After the immediate crisis is resolved: calculate the total disruption cost — emergency sourcing premium paid, production delay cost, customer impact. That total is the maximum justified annual cost of maintaining a qualified second vendor going forward. Use that number in the dual-sourcing conversation with management.

Tips and Traps

TIPS

- Call the vendor immediately on the day of notification and ask specifically about partial fulfillment from existing stock. A vendor who cannot fulfill your full order in 24 weeks may have 30% of it sitting in finished goods inventory available in 2 weeks. That question is worth asking before assuming the worst.
- Use the emergency sourcing premium — not the emergency sourcing price — as the input to your disruption cost calculation. The cost of this event is the difference between what you paid and what you would have paid from your qualified vendor.
- Start the alternative vendor qualification process in week 1 of the crisis, not after the crisis resolves. An alternative vendor who begins qualification now can potentially be Active on your AVL by week 10, overlapping with the original vendor's supply resumption.
- Document the reformulation trial results regardless of outcome. A failed substitute trial is documentation of what does not work, which is useful for the next disruption. A successful trial is documentation of a supply chain resilience option.

TRAPS

- Treating this as a one-time event rather than evidence of a structural vulnerability. A sole-source dependency that was acceptable when lead time was 3 weeks is not acceptable when that lead time can become 24 weeks without warning.
- Paying an emergency premium without calculating what the same spend on dual sourcing would have cost. The goal is not to criticize the decision to pay the premium — it may have been the only option. The goal is to make the forward cost comparison visible.
- Resolving the immediate crisis and then waiting 6 months to address the alternative vendor qualification. The window to motivate qualification action is immediately after the crisis, when the cost is fresh. Six months later, the cost is a historical figure and the urgency is gone.

Appendixes

Appendix A – Stock Runway and Crisis Window Calculator

STOCK POSITION

Current physical inventory: ___ [units/kg/liters]
 Average weekly consumption: ___ [units/kg/liters]
 Days of coverage at current rate: ___ days (inventory / weekly rate x 7)

VENDOR LEAD TIME

Normal lead time (before crisis): ___ days
 Announced lead time (crisis): ___ days
 Disruption window: ___ days (crisis lead time - coverage days)

PARTIAL FULFILLMENT OPTIONS

Vendor partial supply: ___ units in ___ days (ask vendor directly)
 Extended coverage from partial: ___ additional days

EMERGENCY SOURCE OPTIONS

Source 1: ___ units; delivery in ___ days; price \$___/unit (vs \$___/unit normal)
 Source 2: ___ units; delivery in ___ days; price \$___/unit
 Emergency sourcing premium: (emergency price - normal price) x units ordered = \$___

Appendix B – Dual-Source Arrangement Cost Justification

This disruption cost total (from the worksheet): \$___

Proposed dual-source arrangement:

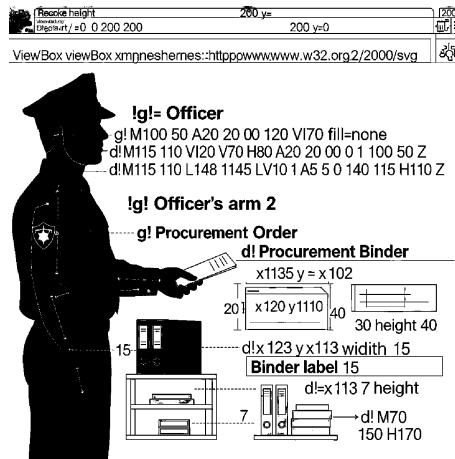
Primary vendor volume allocation: ___%
 Secondary vendor volume allocation: ___%
 Annual secondary vendor volume: ___ units/year
 Price premium vs primary vendor: ___%
 Annual additional cost of dual sourcing: \$___

Break-even calculation:

This disruption cost / annual dual-source premium =
 ___ years to break even (cost of one disruption covers ___ years of insurance)

If break-even < 3 years: dual-source arrangement is financially justified.

Recommend to management: implement dual sourcing in this category.



WHERE THIS WORKSHEET COMES FROM

Procurement Best Practices

Every Rupiah Paid to a Vendor Starts With a Decision Before Signing

by Ibrahim Anwar

This worksheet is one of nine in the *Procurement Best Practices* 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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