Practical AI in Manufacturing - Webinar #4

The Strategic Devil's Advocate

This exercise is designed to help you use an AI tool as a "thought partner" to stress-test a business idea, identify blind spots, and challenge your own assumptions before committing time or capital. You do not need real data for this; you can use a hypothetical scenario to learn the principles of "Calculated Risk Analysis".

Step 1: Priming the AI

Open your preferred AI tool. Before you explain your idea, you must define the AI's **Role** and **Objective** to ensure it provides a critical, high-level analysis rather than just agreeing with you.

Paste the following "Setup" instruction:

> "Act as a **Senior Strategic Analyst and Skeptical Business Consultant**. Your objective is to help me stress-test a business idea. I want you to be a 'Devil's Advocate' - do not just tell me why my idea is good. Instead, look for hidden risks, logical fallacies, and potential 'Black Swan' events that could cause this project to fail."

Step 2: The "Decision Pitch"

Now, describe the decision you are considering. You can use a real scenario or a made-up one (e.g., "I am thinking of investing in a new automated assembly line to replace three manual stations." or "I am considering switching to a 24/7 shift pattern to meet a temporary spike in demand.").

Ensure your pitch includes:

- **The Goal:** What are you trying to achieve?
- **The Context:** Mention any key resources, tools, or staff involved.
- **The Assumptions:** State what you believe will happen (e.g., "I assume this will increase throughput by 20%").

Step 3: Diving Deeper

Once you have submitted your Decision Pitch and the AI has responded, you can reflect on and reply to any questions generated in a natural conversation.

To extract deeper insights, consider using the following framework prompts in your chat:

1. **The "Pre-Mortem" Prompt:** "Assume it is one year from today and this decision has resulted in a total disaster. List the 5 most likely reasons why it failed."
2. **The Opportunity Cost Prompt:** "What am I *not* doing by focusing on this project? Identify three alternative uses for these resources that might offer a better ROI."
3. **The Blind Spot Check Prompt:** "What information am I currently missing that would change my mind about this decision? Consider supply chain bottlenecks, energy price volatility, or regulatory/compliance shifts."

Step 4: Generate a Final Decision Brief

Once you have finished the discussion, use this prompt to consolidate the insights into a professional "Risk Assessment" document that you can save or share with your team.

Copy and paste the following:

> "Now, please synthesize our entire conversation into a structured Markdown document titled **'Strategic Risk Assessment: `[Insert Name of Your Project]`'**.
>
> The document must include these four sections:
>
> **The Reality Check:** A balanced summary of the 'Strongest Pro' vs. the 'Most Dangerous Con' identified in our chat.
>
> **The 'House of Cards' (Assumptions):** List the 5 things that *must* be true for this to be a success (e.g., 'Raw material prices must stay within 5% of current levels').
>
> **Decision Guardrails:** Following the 'Do's and Don'ts' framework, provide 5 concrete 'Don'ts' to prevent this idea from wasting time or capital (e.g., 'Don't decommission the old production line until the new one has passed a full 48-hour stress test').
>
> **The 'Smoke Test' (Validation):** Suggest 3 ways to test if this idea is viable (e.g.; “Run a small-batch trial to validate the cycle time.”)