Executive Summary – Analyze Phase

Project Title: Reducing Supply Chain Disruptions Due to Dispatch Documentation Errors

Project Lead: Chance Loban

Organization: Redacted

Summary of Deliverables and Findings

Cause & Effect Analysis (Fishbone Diagram):

Identified root causes in five key areas:
- People: Miscommunication between dispatch and drivers
- Process: Lack of standard operating procedures
- Materials: Incomplete or incorrect Bills of Lading (BOLs)
- Equipment: Not applicable at this phase due to manual systems
- Environment: Weather delays and site access challenges

These causes were selected based on recurring issues found in dispatch logs and stakeholder input.

Graphical Analysis (Histogram):

Documentation error frequency data over 30 days was analyzed. A histogram revealed clustering of errors during specific high-volume periods, especially around new client onboarding or tight dispatch windows.

Process and Statistical Analysis:

Process mapping revealed bottlenecks in the document review process. Basic statistics show an average documentation error rate of ~15%, with spikes on Mondays and end-of-month crunch periods. No formal standard deviation was possible due to inconsistent record structure.

Value-Added Analysis (8 Wastes):

Identified significant non-value-added activities:
- Waiting: Drivers held at sites due to documentation corrections
- Defects: BOL errors requiring multiple reprints
- Motion: Manual checks between dispatch and CSR offices
- Overprocessing: Redundant verifications due to lack of trust in the system

At least 4 of the 8 wastes were consistently present.

Cost of Poor Quality (COPQ):

Estimated losses include:
- Detention/layover costs (~$300 per incident)

- Admin hours for rework
- Delays impacting client trust and rescheduling

Total monthly COPQ estimated conservatively at $5,000–$7,500.

FMEA:

Analyzed high-risk process steps such as document prep and final checks.

- Highest RPNs:
  - Incomplete BOL generation
  - Last-minute dispatch changes without updated paperwork

Recommended countermeasures include documentation checklists and automation.

Reflective Questions

a) Do you believe there was an appropriate use of tools?

Yes. Each tool addressed a specific aspect of the problem, revealing root causes, impact, and process gaps.

b) What tools did you use beyond each required tool? Why did you use them?

In addition to required tools, we used basic trend analysis and a Pareto mindset (though not formally charted) to prioritize causes. This improved focus and guided the FMEA.

c) Do you believe the project is ready to move to the next phase? Why or why not?

Yes. Root causes have been verified, high-impact issues identified, and COPQ estimated. There is a clear improvement direction tied to document standardization and process redesign.

d) If the project is not ready, what measures need to be taken to recover?

N/A – project is ready. If needed, additional error classification by dispatcher or CSR could refine the FMEA even more.

e) Does the project charter, problem, scope, or other aspect of the project need to be refined? Please explain.

Scope remains appropriate. If anything, future phases may expand to include client-side document sharing or electronic POD systems.