

Health and  2014
Humanitarian Logistics Conference
June 4-5 • Mexico City

Supply Chain Design for World Cup Fever

5 June 2014
Ryan Purcell
LLamasoft, Inc.

Agenda

■ Supply Chain Design

- What is it?
- Why do it?
- How do we do it?

■ World Cup Fever

- Case Introduction and Objectives
- Quantification and Procurement
- Warehousing and Inventory
- Transportation
- Operations
- Political, Social, and Other Considerations

■ Takeaways

Supply Chain Design

CURRENT OPERATIONS

Analysis of Existing Supply Chain

FUTURE OPERATIONS

Strategy for New Supply Chain

VISIBILITY

What is my current supply chain profile?

SCENARIO ANALYSIS

What if we try *this*?
What if *this* happens?

RAPID RESPONSE

How should I react to an unplanned event?

Supply Chain Optimization & Simulation Engine

Sourcing & Production Footprint – Product Flowpaths – Transportation Routes – Inventory Placement

Reference Data

Transportation Costs – Risk Metrics – Labor Rates
Facility Costs – Emissions Benchmarks

Enterprise Data

Parts – Bills of Material – Costs – Facilities
Suppliers – Demand – Lead Times - Capacities

World Cup Fever – Intro

- Newly discovered flu-like condition expected to flare up near World Cup games starting in 1 week!
- Not life-threatening, but illness could adversely impact fan's enjoyment of the tournament
 - (and FIFA's bottom line)
- Treatment is available, but likely that limited supply will be available in time for the tournament
- Supply Chain costs will be covered by FIFA, but must be justified

World Cup Fever – Objective

You are a strategic analysis team that has been asked by FIFA to explore potential options for setting up the supply chain to treat World Cup fever. You are asked to report back with preliminary recommendations and rationale on strategies for procurement, distribution, storage, operations, and contingency planning.

World Cup Fever – Roles and Rules

1. Select your WC country
2. Select roles on your country team
 - Service Captain
 - Cost Captain
 - Operations Captain
 - Risk Captain
3. Ask FIFA questions, but there is a good chance they'll tell you they don't know

World Cup Fever – Practical Objectives

- Explore options and gain insight into how this supply chain could be designed
- Better understand the inherent trade-offs between these options
- Determine metrics that can be used to evaluate supply chain performance
- Brainstorm potential sources for necessary data
- Define sources of complexity and risk, and how they can be mitigated
- 1-2 takeaways

Quantification and Procurement

■ What we know:

- WC Fever is extremely contagious, but is expected to only impact cities where games will be held
- Treatment can be sourced at similar costs from Brazil (limited quantities) or from Europe (longer transport lead times)
- Production lead times are such that the full order(s) must be placed before the tournament starts

■ Questions to discuss:

- How much to source, and from where?
- What types of data will we need to analyze this? Where can we get it?
- What are some potential risks with your procurement strategy? How can we understand the impacts or mitigate these risks?

Warehousing and Inventory

■ What we know:

- Proposed treatment sites are co-located with stadiums
- Only space for 1 day of stock at the stadiums
- Additional warehouse space available in all major cities throughout Brazil, but rental costs at a premium during the tournament

■ Questions to discuss:

- How many stocking points make sense? Where?
- Should stock be pushed out regionally or be held centrally and deployed as needed?
- How much inventory should be held at these warehouses?

Transportation

■ What we know:

- FFA transport options not available
- 3PLs do have some spare capacity but need to commit to delivery schedules up front
- Truck and Air are the two main options

■ Questions to discuss:

- How often should we be transporting to our stocking locations? To treatment sites?
- For which locations is Air a viable option, if any? Why?
- Who could we talk with to quickly understand relative costs and challenges?

Operations, Political, Other Considerations

■ What we know:

- Everyone in the area is vulnerable
- Cross-state movements in Brazil are complex!

■ Questions to discuss:

- Given the necessary quick scale-up, what challenges should we expect to encounter? Can we design the supply chain to help in some way?
- Any cultural considerations to incorporate given the location and broad mix of patients?
- **NEW HOST COUNTRY!** If you were designing this same supply chain for your country team, how would it be the same/different?

Takeaways

- This is a complex multi-dimensional problem with many trade-offs!
- *“Don’t let the perfect be the enemy of the good.”*
- Supply Chain Design provides insight and direction, not a specific answer
- Cross-functional teams are helpful (often necessary) for holistic analysis

THANK YOU!

Ryan@LLamasoft.com

Some of Llamasoft's Customers

Automotive / Industrial Manufacturing	Consumer Goods	Defense
Hi-Tech / Electronics	Food	Beverage
Life Sciences	Grocery	Logistics
Apparel	Manufacturing	Petroleum
Public Health	Retail	Chemical

Technology

Full Range of Deployment Options

