Team

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MS Supply Chain
Executive Summary

Objective

Bill, VP Supply
- Current shipping routes and 100% demand filled
- New logistic plan

Carly, CFO
- Close or reduce plant capacity
- Exit market to maximize profits
- Close Turkey plant
- Do not exit market

Arun, VP Strategy
- Exchange rate fluctuations
- Flexible supply chain
- Turkey currency risk loss
- Increase supply chain resiliency

Recommendation

- Operate all the existing plants with new logistic plan to meet 100% demands
- Implement Coronavirus response plan for China location
- Use our Strategic Sourcing Model (SSM) to add flexibility and responsiveness to the supply chain
- Look to alternate European countries like Portugal or Austria to replace Turkey as long-term plan

$4 M/yr
$2 M/yr
$2 M/yr
Current Supply Chain Overview

- **US**
  - Biggest Market for GIDGET
  - Local production capacity less than domestic demand

- **Turkey**
  - Accessibility to the European market
  - Lowest profit margin
  - 15 Day lead time to USA

- **Mexico**
  - Highest profit margin
  - United States – Mexico – Canada Agreement
  - 7 Day lead time to USA

- **China**
  - Coronavirus (COVID-19)
  - Lowest COGS
  - Highest unutilized capacity
  - 30 Day lead time to USA
Optimization Model

- Customer Fulfillment rate 100%
- All plants open

### Current Position

![Current Position Chart]

### Optimization Plan

![Optimization Plan Chart]

### Coronavirus Response Plan

![Coronavirus Response Plan Chart]
Use retained earnings to meet account payable requirements

Seamless return to production due to continued vendor relations.
Monte Carlo (MC) Simulation

- 80% likelihood of making approximately $2 Million more if we stop production plant in Turkey
Strategic Sourcing Model

- Economic Sustainability: 30%
- Financial Sustainability: 30%
- Environment Sustainability: 20%
- Geo-political Sustainability: 20%

Introduction | Solution | SSM | Implementation Plan | Risk and Mitigation | Conclusion
Strategic Sourcing Model- Europe

- 6 locations analyzed in Europe. Portugal and Austria were selected by SSM model
- Further site survey to be completed as per implementation plan

![SSM KPI](chart)

**SSM KPI**
- Economic Sustainability
- Financial Sustainability
- Environmental Sustainability
- Geopolitical Sustainability

**SSM Score**
- **Turkey**: 7.0
- **Portugal**: 8.7
- **Austria**: 8.9
Strategic Sourcing Model- Asia

- 6 locations analyzed in Asia. Taiwan and Malaysia are selected by SSM model
- If Coronavirus persists in Chinese market site survey to be conducted
Implementation Plan

Site survey
Setúbal, Portugal (brownfield)
Braga, Portugal (greenfield)

Southern Vienna, Austria (brownfield)
Linz, Austria (greenfield)

Procurement/Leasing of PP&E
Q1-Q2 2021

Conduct Site Survey
Finalize LP/SSM
Q2-Q4 2020

Roll RFQ to the Suppliers, PO, Leasing Workers
Q3-Q4 2021

Commercialize system through 3PL collaboration
Q1 2022

Turkey Scenario
• Feb 2021: Align worker contracts with projected closure 2022
• Feb 2022: Initiate termination notices based on TLA 4857, Article 25 timelines
• March 2022: Turkey plant shutdown
# Risk Mitigation

<table>
<thead>
<tr>
<th>Risk</th>
<th>Mitigation</th>
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<tbody>
<tr>
<td><strong>High</strong></td>
<td></td>
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<tr>
<td>• China Coronavirus – Indefinite production, market, and supply channel curtailment</td>
<td>• Utilize other market profits to offset increased accounts payable/receivable risks</td>
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<tr>
<td>• Capacity Limits – USA operating at 100% to meet local demands is not a sustainable solution</td>
<td>• Build safety stock system to service the USA market Inventory initial setup cost: $2.6 M (7488 units)</td>
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<tr>
<td><strong>Medium</strong></td>
<td></td>
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<tr>
<td>• Political Conflict – Diminished cross-relationship between Turkey and USA</td>
<td>• Maintain relationship with Turkey during European production transition plan</td>
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<td>• Quality control risk – Quality might suffer because of the nascent phase</td>
<td>• Extensive training to the workforce and experience QC managers.</td>
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Conclusion

• Maintain positive China vendor relations using profits to finance accounts payable

• Start transition European Union supplier based on implementation plan

Supply

• Demonstrate ‘Customer First’ stance by meeting 100% demand without increasing price

Strategy

• Apply our Strategic Sourcing Model (SSM) to add flexibility to the supply chain

Finance

• Utilize Optimization Model to maximize profits in short-term

Introduction  Solution  SSM  Implementation Plan  Risk and Mitigation  Conclusion
Appendix

• 6 Key Factors
• Short-term / Long-term Planning
• Monte Carlo Simulations
• Currency Trends
• SSM: Overall
• SSM: Geopolitical
• Safety Stock
  • Quantity
  • Cost
  • Sourcing (China)
  • Sourcing (Mexico)
• EOQ Variable Demand
• Collaborative Planning
• Cash to Cash Cycle

• LP Model
  • Demand Actual / Scenario SPOT
  • Demand Actual / Scenario Future
  • Demand High / Scenario SPOT
  • Demand High / Scenario Future
  • Demand Low / Scenario SPOT
  • Demand Low / Scenario Future