Coronavirus Collaboratory #3: Coronavirus actions described by companies in North America, Latin America, and Europe

April 23rd, 2020

Survival Planning and Demand
Collaboratory Objectives

<table>
<thead>
<tr>
<th>Outline</th>
<th>Describe</th>
<th>Develop</th>
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<tr>
<td>Outline overall impact of the Coronavirus on global supply chains, especially how supply chains will survive, and demand will be managed</td>
<td>Describe actions being taken across companies on supply chain survival, and uneven demand; provide specific examples of company actions</td>
<td>Develop recommendations that help your supply chain win with customers and with your shareholders</td>
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Collaboratory Agenda

9:00 AM
DSCI: Observations and recommendations
- George Bailey, Executive Director & CRO

9:10 AM
Arauco: Perspective and recommendations
- Diego de la Maza, Director of Supply Chain & Planning

9:25 AM
ChainIQ: Perspective and recommendations in Europe
- Lukas Schaerer, Chief Operating Officer

9:40 AM
Q & A

9:55 AM
Closing observations and summary

10:00 AM
End Collaboratory
Companies: keep the supply chains alive!

• Suppliers are struggling and some will not make it
• Geography matters
• Demand?!?!?!?
• Severe impact on cash flow, impossible to recover costs for many
• Amazing revenue increase for some, but for how long?
• Equity market gyrations
• Government assistance
• Uncertainty about when things will return to “normal”
• Must bet right or mostly right
Unprecedented change

- 97% reduction in airline seats
- Multiple trillion $ government programs
- A nearly 26% gain in food and beverage store sales
- Global market cap in Jan 2020 was around ~$90 trillion and lost around ~$6 trillion in Feb and Mar 2020
Form War Room team that includes operations, supply chain, sales & marketing, finance and HR and ensure focus on customers and financials.

Assess supply chain risk, determine past needs, current requirements, and future needs of the New Customer.

Authorize rapid decision-making, overcome Coronavirus inertia, reduce costs, know the customer, predict demand.

Decide best way to optimize supply chain regarding demand, people, technology, risk.

Create profile of New Customer, set priorities, meet urgent needs, keep customer base alive.

Focus on FINANCIALS and winner products.

Start the change process now and measure progress.

Short-term Supply Chain Actions

- FORM
- CALCULATE DEMAND
- ENABLE RAPID ACTION
- GROWTH RE-ASSESS STRATEGY
- DECIDE CUSTOMER
- GROWTH IDEAS
Mid-term actions

1. Reengineer the supply chain around the New Customer and measure supply chain caused demand (measurement is not currently common)
2. Figure out the right people that are needed for the future, hire them, train them and shed those with legacy skills
3. Move to the technology that will enable better supply chain performance including AI/ML, Analytics, 3D design and manufacturing, logistics and delivery, Blockchain
4. Create better supply chain visibility from customer requirement through Tier 3 suppliers
5. Decide how close to the customer you can locate parts of the supply chain to reduce risk and improve performance
6. Communicate so that no one forgets how important the Supply Chain is and why change is necessary
Arauco: Perspective and recommendations
We see 3 different stages

**Reaction**
- **Home Office** for all the employees not required in a production facility
- **Multiple what if scenarios analysis** sales and production budgets are reviewed in a weekly basis adjusting operational plans accordingly
- **Customer Prioritization** for short supply items
- **Factory workers older than 60 or with a medical condition must remain at Home**
- **Strict sanitary control in every operation** including masks, temperature control, safety distance, etc (foto)

**Recovery**
- **E2E supply chain visibility in real time** based on data
- **What if supply and demand scenarios systems integrated with operational systems**
- **Dynamic programming in production**
- **Enhance RPA Development**
- **Redesign of the in-factory teams.** With real time visibility and remote control can we handle some supply chain process from a central office?

**New Normal**
- **Online visibility of operational data** and big data based analytics to support machine operators
- **Process optimization** based on machine learning and analytics
- **Augmented Reality** for Remote Monitoring and Maintenance
What if Scenarios
Tableros de Tareas

Permite tener visibilidad actualizada de las prioridades y de la asignación de tareas a cada integrante del equipo

- Backlog de Historias y Tareas

- Status de Historias y Tareas planificadas
Safety Distance and Cleaning
ChainIQ: Perspective and recommendations
Q & A
• **Question:** What do you consider as the major challenges of supply chain managers and how can be addressed?

• **Answer:** Biggest issues: demand planning and management, new people with data skills, technology that collects and manages a new data model, risk management that keeps IP and information protected.

• **Question:** How can we keep logistics constant and also ensure health of individuals during this COVID-19 period?

• **Answer:** Difficult but necessary! Logistics will be challenging.... protective equipment and change procedures help

• **Question:** Specifically about the resilience of suppliers and the ability to restart operations after COVID-19, with several suppliers failing to go through this pandemic event, how to protect supply chains and keep suppliers alive avoiding a massive disruption and making sure that companies would be able to return, at least, to the previous production levels whatever the “new normal” would be?

• **Answer:** AR is a good plan for many tasks. I have seen very few, fully scaled up AR solutions. I think that will change but not in the short term. I think AI/ML and algorithms are the place to start for many companies
• **Question:** "In my view, a lot of supply chain redesign for “new normal” will require capital investment like standing up nearshore supply bases etc. At a time when companies are struggling with working capital, how would you see the response from such companies? Thanks for your insights!"

• **Answer:** You raise a good point. On the one hand we must cut costs, and on the other hand we must invest to go near shore. I think that smart companies will find a way to do both! Sometimes a crisis creates an ability to make decisions quicker decisions and digest investment.

• **Question:** Do you foresee an increase in Procurement Outsourcing services from now on since companies may have “rationalize” their own procurement resources?

• **Answer:** I think so!

• **Question:** Which will the geographical breadth of the supply chain be? Can we still rely on distant suppliers? How to support key suppliers?

• **Answer:** Distant suppliers will continue. BUT there will be more that are closer to the customer. All of our members are thinking about this.....
• **Question:** How can we identify the weak links of the chain?

• **Answer:** Your customers can tell you how you compare to their needs and to the services of your competitors. Also, check the speed and efficiency versus demand requirements.

• **Question:** Should we have overlapping chains, with the negative efficiency implications therefor?

• **Answer:** Companies will need different sources. If done correctly, you can potentially negotiate a lower price for what you require because you have alternative sources of production. A key element of this is being able to accurately forecast and manage demand.

• **Question:** How have you handled the fact that workers don't have internet connectivity or access devices to do home office?

• **Answer:** Connectivity is so important! Providing employees with devices is one option, although some believe that employees should bring their own device. I think that internet coverage will greatly increase over the coming months because of 5G and also the emergence of Low Earth Orbit satellite constellations that will create low cost. Low latency connections.
Thank You