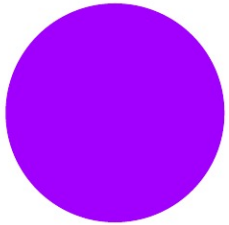
Cargill Supply Chain Analysis

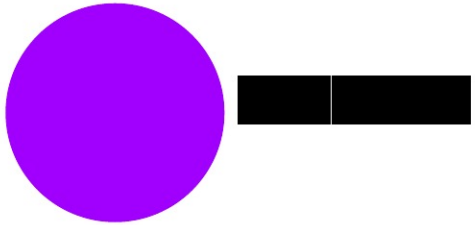
Today's agenda

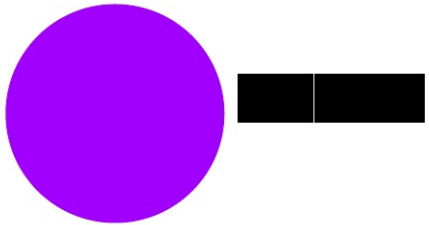
- Current State
- Technology Recommendation
- Suitability Impact
- Valuation

The Analytics team



Michael Vitale





Cargill

Cargill's operates across the entire supply chain:

1) Sourcing agricultural commodities like grains, oilseeds, and cocoa,
2) processing food ingredients, and
3) Offering guidance throughout the process for suppliers

Cargill's Current Growth Goals

Constant agility and Constant Innovation

• companies will lose market share and become obsolete if they do not innovate their product portfolio

Addressing risk

• Supply chain, especially in regard to Cargill's specific business has a lot of risk in regard to availability of customers, prices, or even vertical partnerships within customers respective industries.

Cargill's Current Sustainability Goals

Climate

• Reduce GHG emissions by 10% by 2025
• Reduce extended SC emissions by 30% by 2030
• Incentivize sustainable practices to farmers

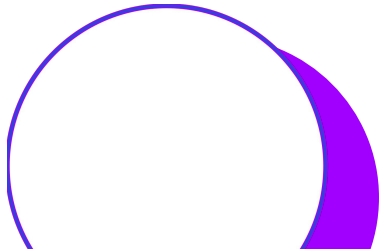
Land & Water

• Transform agricultural supply chain to be deforestation free by 2030
• Achieve water sustainable water management in operation

People

• Promote and respect human rights
• Improve livelihoods of 10 million farmers by 2030 by sustainable practice training

How can Cargill stay on top of its goals, building a more resilient supply chain while maintaining their core values?



Current State

What is Cargill's current supply chain strategy?

Cargill's current approach is multifaceted and has a number of advantages

1. Utilizing it's positioning in the market
2. Focuses on partnerships and sustainability
3. Forward looking technology and innovation
4. Effectively Managing risk

Cargill’s massive size is it’s biggest asset

- Cargill currently stretches itself across the process through vertical integration
- Cargill’s massive size benefits all aspects of its operations
  - Provides access to new markets
  - Pooling risks associated with specific aspects

Cargill's focus on partnerships and sustainability

- Cargill already partners with suppliers, customers, government agencies, NGOs and other stakeholders
- Partnerships enable knowledge sharing innovation, and collective action on sustainability issues
- Partnerships include
  - Hyperledger – provides master data overview and risk assessment
  - Descartes Labs – service to improvement supply chain efficiency
  - Cainthus – observes productivity of farms
  - Techstars – business scaling

Forward looking technology adaptation and sustainability practices

- Cargill is already forward-looking, and keen to introduce new technology
- They have been using a variety of data analysis tools including:
  - Machine Learning
  - IoT devices
  - Digital Platforms aimed and increasing efficiency and transparency through the process

Managing risks through a designated risk manager and risk related strategies

- Cargill has a massive exposure to contingent business interruption and price volatility
- Taking strategies to reduce this through:
  - Massive BI limits, monitoring prices and global events frequently, risk mitigation strategies through diversification

As Cargill Moves forward

Cargill needs to be oriented towards constant, innovation, balanced with a risk-aware strategy

Technology


1
Monitoring
2
Predicting
3
Prescribing
4
Autonomous Execution
Dynamic Visualization

Monitoring

Cargill currently uses monitoring in various ways such as:

- tracking product from “farm to fork”
- maximizes supply chain efficiency
- observes productivity of the farms

Predicting

Implementing this data on a new level:

- Using SAS supply chain Intelligence
- this uses predictive modeling and machine learning to forecast possible impacts on the environment as well as inventory and market demand

Prescribing

- After gathering both real time and future data how can we react to what data they are receiving either positive or negative
- Resiliency

Autonomous Execution

- Going through these steps autonomously
- Optimizing data collection, predicting, and prescribing to better allow real time results

Suitability

How Dynamic Visualization can accomplish Cargills Goals

- Climate
- Land & Water
- People

Climate

- Visibility enables Cargill to track progress towards its goal of reducing GHG emissions by 10% by 2025
- Ability to gather real time data on GHG emissions at different stages of the supply chain
- Contribute to Cargill’s goal of reducing extended supply chain emissions by 30% by 2030
- Real time emission tracking allows display of real-time data on emissions across Cargill’s extended supply chain.

Land & Water

- Progress to be made for the goal of Agricultural Supply Chain to be Deforestation-Free by 2030
- Can track land use changes in real-time. Allows Cargill to identify instances of deforestation within its agricultural supply chain
- Allows Cargill to achieve sustainable water management in operations
- Dynamic Visualization tools can monitor water usage in Cargill’s operations in real-time. Shows consumption patterns and trends.

People

- Dynamic visualization tools can monitor labor conditions across Cargill’s supply chain in real time. Cargill can identify where human rights violations may occur while taking immediate action.
- Helps achieve the goal of improving livelihoods of 10 million Farmers by 2030 through Sustainable Practice Training.
- Dynamic visualization enables Cargill to design and implement targeted training and education programs for farmers based on real-time data.

Value

How can our increase in sustainable practices benefit the firm and its cotton, grains and cocoa markets?

- Overall cost savings → flexibility in these industries
- Better information → preventative measures to address risks early
- Real time data → efficiency in all aspects of the business
- Long term viability → decreased costs moving forward

How to go about implementing it

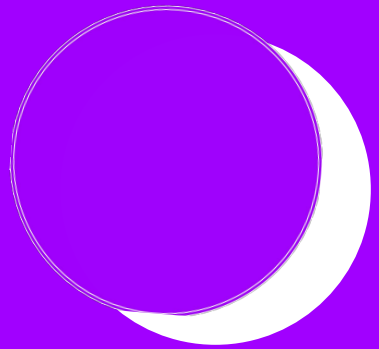
- Cargill can make up for investments and infrastructure reaching across all 4 business practices

How to gauge its success going forward

- 5 year cost analysis
- 5 year market share analysis

Recommendation

- Dynamic Visualization



Thank you!

ANY QUESTIONS?