

IMPACTS OF COVID-19 ON WALMART'S STRATEGIC SOURCING OF BEEF

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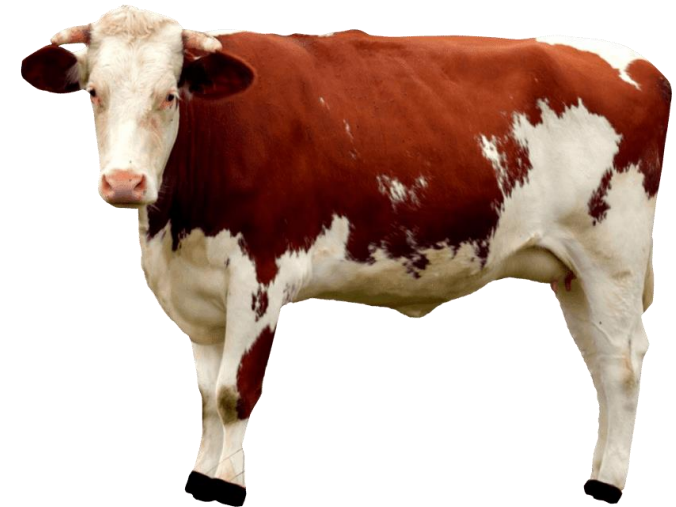
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Industry Background

Beef/Cattle Industry

- Beef/Cattle industry is one of the most important agricultural industries in the U.S.
- 18% of the entire cash receipts of agricultural commodities in 2020
- 880,000 cattle farms in the U.S.
- 730,000 grow beef cows
- Beef has over 2 to 3 years of life cycle
- US beef industry contributes to global beef trade
- Exports to South Korea, Japan, Hong Kong
- In 2020, beef industry lost \$13.6 billion due to COVID-19



Industry Background

ALL CATTLE AND CALVES

Annual Cash Receipts

2012	\$66,090,126
2013	\$67,849,440
2014	\$81,076,720
2015	\$78,252,807
2016	\$63,691,327
2017	\$66,936,726
2018	\$67,038,059
2019	\$66,239,043
2020	\$62,013,996
2021	\$65,958,605

Source: [USDA](#)

Leading Beef Exports

January 2020-January 2021

Country	Metric Tons	Value (\$Millions)
South Korea	20,734	\$154,553,000
Japan	18,368	\$113,262,000
Hong Kong/China	10,884	\$86,459,000
Mexico	10,514	\$68,249,000
Canada	9,173	\$60,139,000

Source: [USDA](#)



Company Background

Walmart & Tyson Foods



- Founded by Sam Rogers in Arkansas in 1962
- Sam's Club discount warehouses
- Wal-Mart Supercenters
- Largest grocer in the US
- Expanded to China, Canada, Germany, and UK
- Beef supplies from Tyson



- Founded by John Tyson in 1935
- Started off with supplying chicken products
- World's largest processor and marketer of chicken, beef, and pork
- Hillshire Farm
- JimmyDean
- Sara Lee



Research Questions

Q1. Was the demand largely affected by the spread of the pandemic?

Q2. What inventory policy does Walmart currently use? How have their purchasing habits and inventory policy changed after the pandemic?

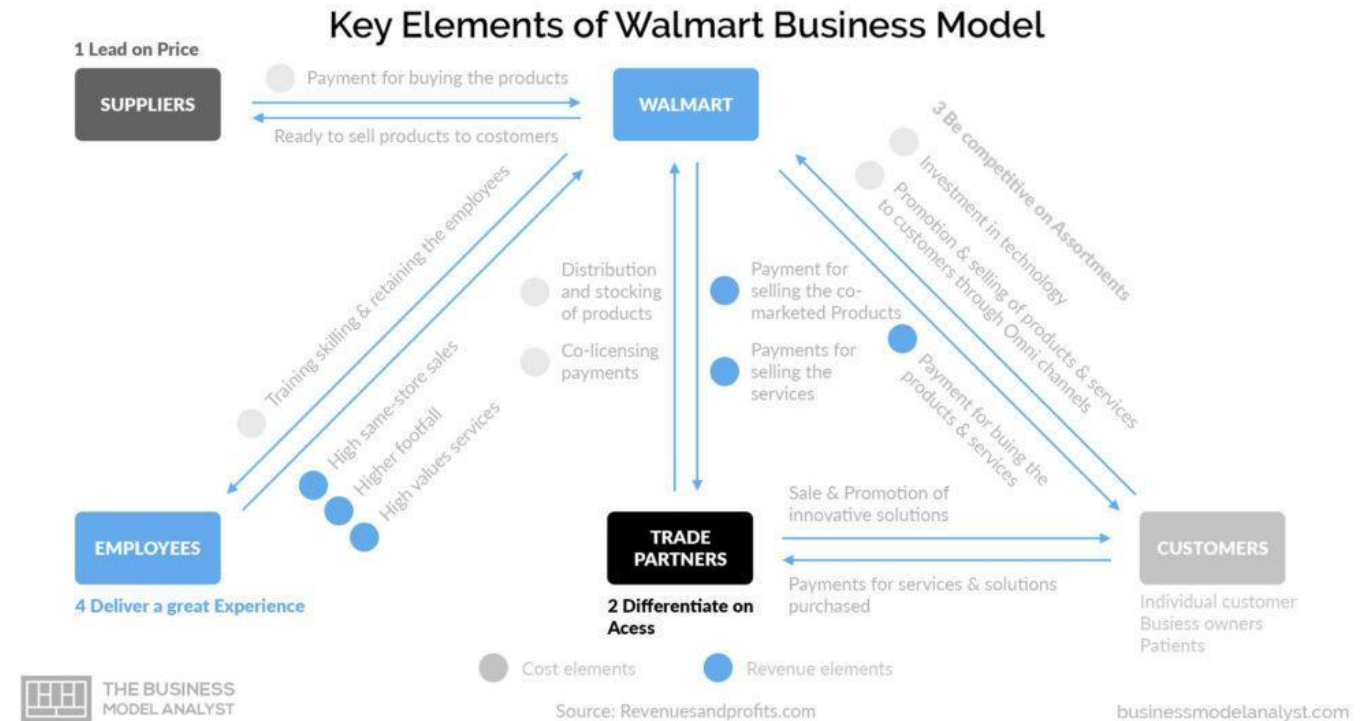
Q3. How can Walmart develop their inventory policy to fulfill customer's demand and avoid the stock-out probability due to the uncertainty brought by COVID-19?



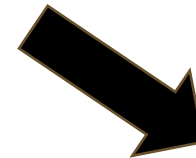
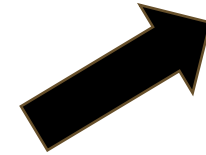
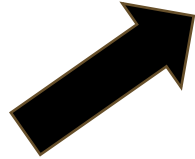
Walmart Business Models

Keys to Walmart's Success

- Lead on Price
- Differentiate on Access – Omnichannel Supply Chains
- Distribution Systems
- Disaster Preparedness
- Inventory Policies



Meat Supply Chain Strategy



Covid-19 Effects

Effects on Meat Industry

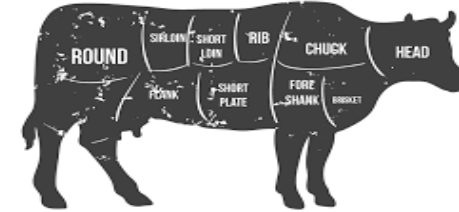
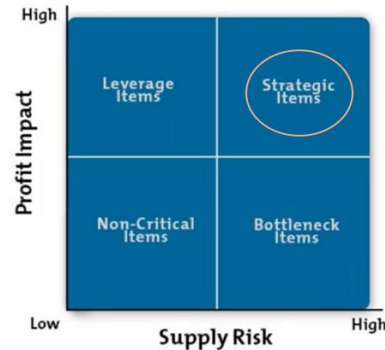
- Consumer Demand Spikes
- Closure of Food Processing Plants
- Food Service Shutdowns
- Depopulation and Disposal of Cattle



Recovery Strategy

- Evaluate Inventory Policies
- Redirect Production Lines
- Increase Role of Tyson Plants
- Focus on Short Leadtime Products
- Reduce Packaging and Labeling Requirements

Analysis – Positioning: Suppliers & Beef



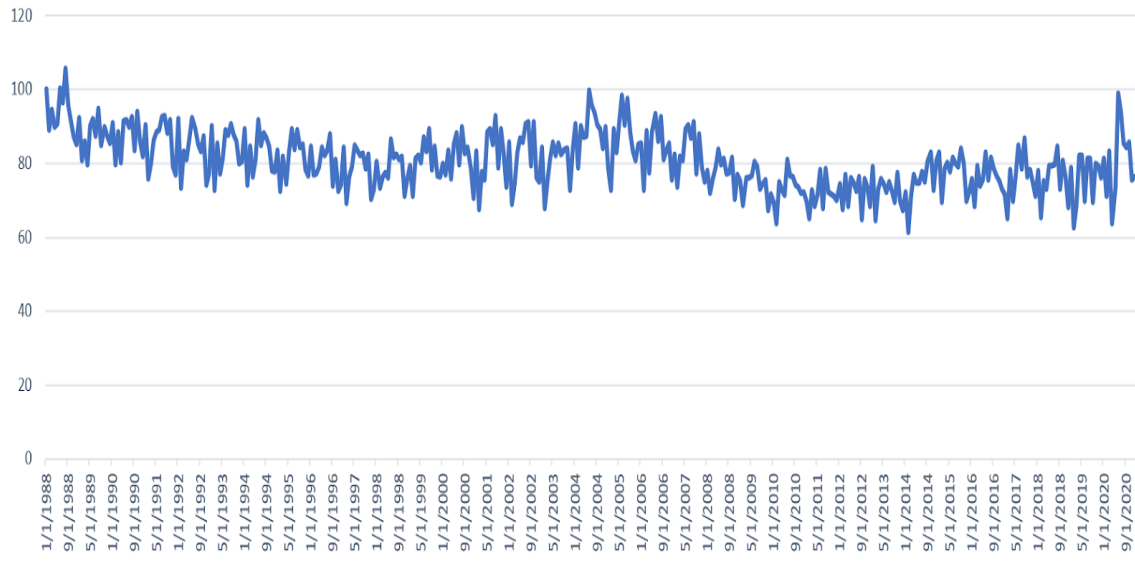
- Leverage
 - Diversify supply
 - Use Bargaining power
 - Routine, low profit products
- Strategic
 - Tyson, P&G, Nestle
 - Lock into long term contracts
 - “Should cost” analysis for beef

- Supply risk: high
 - Tyson and Cargill : major suppliers
- High profit impact
 - Relative to Walmart’s low-cost grocery items
 - Supply cannot be changed in the short term
- Strategy
 - establish a long term financial/risk performance : category captains



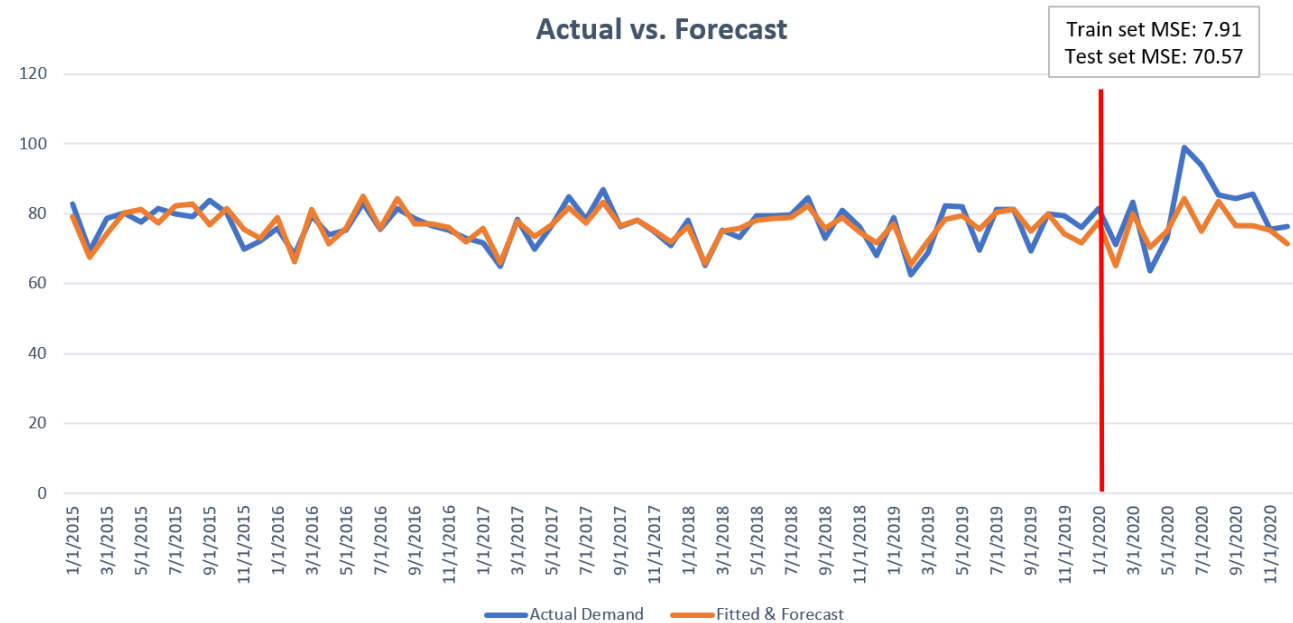
Analysis – Demand Planning

Beef Demand Indices



- No obvious trend
- Monthly seasonality
- Demand pattern changes during COVID-19

Actual vs. Forecast

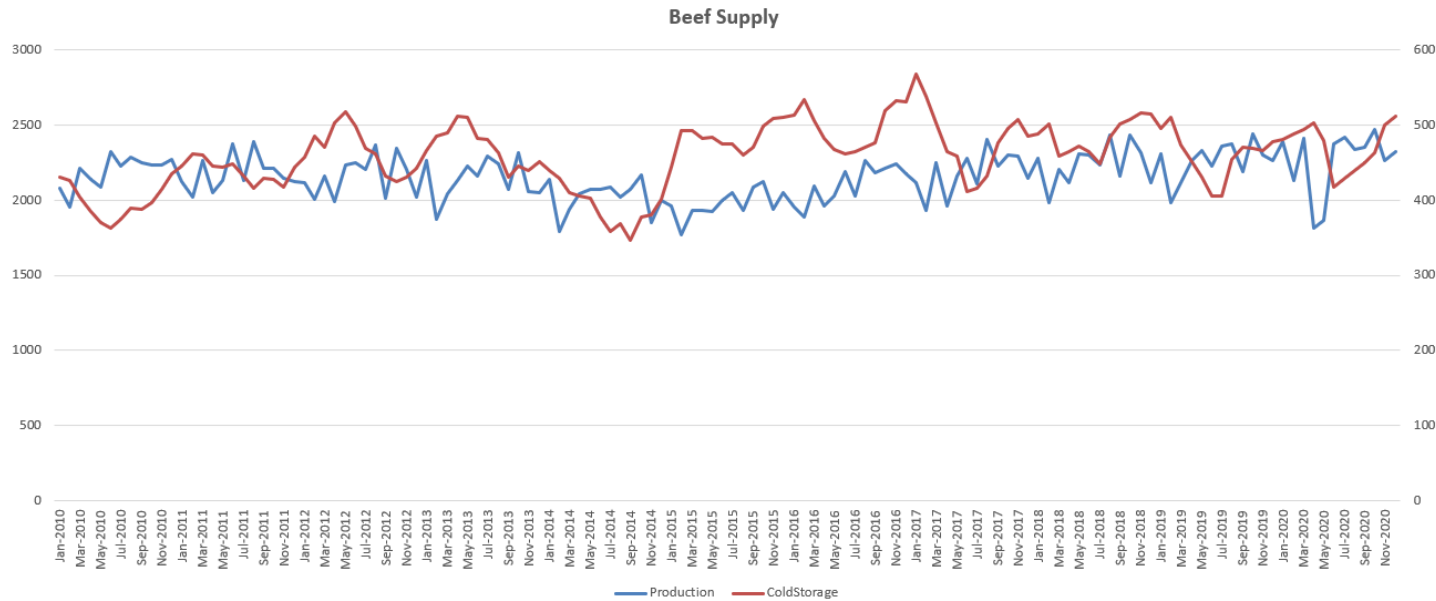


- Used Facebook Prophet method to stimulate Walmart's forecasting model
- Monthly update
- Walmart may not be able to predict the demand surge accurately.



Analysis – Potential Supply Interruptions

■ Supply Capacity



■ Uncertainties

- Tyson plants closed down

The **Tyson** Fresh Meats plant in Logansport announced Wednesday that it will temporarily close, after 146 employees tested positive for the novel coronavirus. ... Some of those can be traced back to **Tyson** employees. Alter said the **Indiana** State Department of Health is sending a strike team to the plant for assistance.

Apr 22, 2020

<https://www.indystar.com/news/health/2020/04/22>

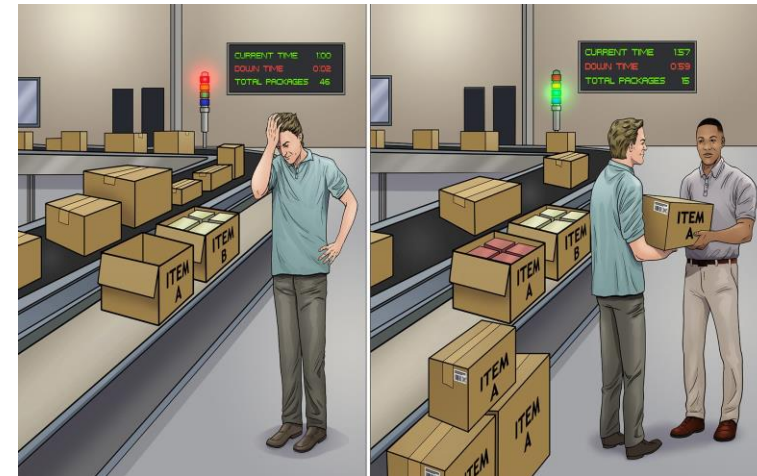
Meat plant closing: Indiana Tyson plant shuts down due to ...



Analysis – Inventory Policy & Response Strategies

Inventory management methods

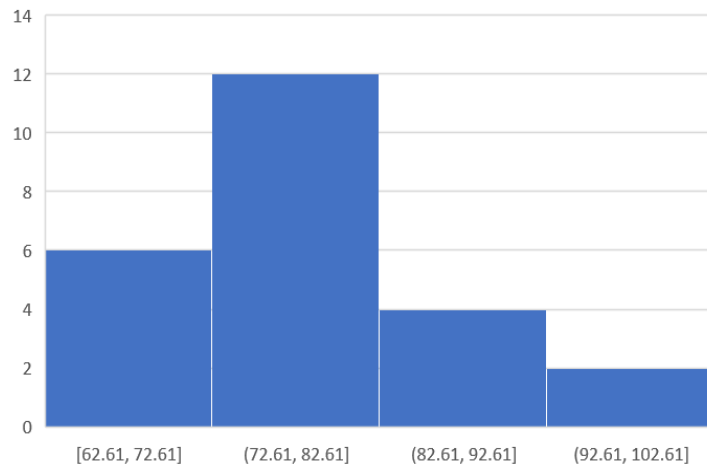
- Vendor-managed inventory model
- Just-in-time method



Analysis – Inventory Policy & Response Strategies

Response strategies

- Convert the production line to retailers
- Purchase case ready meat
- Product limited
- Single source to unreliable



Basestock Levels	
OUT 1	50
OUT 2	0
Total Value	
Avg Value	\$ 237.76
Avg Fill Rate	71%
Single to reliable	

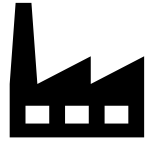
Basestock Levels	
OUT 1	0
OUT 2	66
Total Value	
Avg Value	\$ 285.61
Avg Fill Rate	85%
Single to unreliable	

Basestock Levels	
OUT 1	50
OUT 2	66
Total Value	
Avg Value	\$ 277.40
Avg Fill Rate	85%
Dual sourcing	



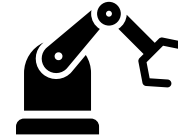
Recommendations

Continue to develop its own beef supply chain



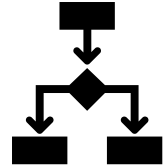
- Walmart create its own supply chain in 2019
- Work directly with ranchers
- Less rely on large suppliers like Tyson and Cargill
- Better prices
- Reducing logistic complexity
- Can quickly respond to unpredictable changes

Automation



- Example: Alphabot, inventory-scanning robots
- Fewer workers needed
- Faster production line
- Decrease risk of food contamination
- Can be use for heavy lifting jobs

Diversification



- Diversify supply to both large companies and small farms/processing facility
- Less impact if another disruption occurs
- Less dependent on big retailers
- Help keep products in stock



Conclusion

Research Questions	Answer
Was the demand largely affected by the spread of the pandemic?	Yes, the beef demand increased dramatically in June and July of 2020 due to COVID-19. Walmart was not able to accurately predict and prepare for the demand surge.
What inventory policy does Walmart currently use? How have their purchasing habits and inventory policy changed after the pandemic?	Walmart applied vendor-managed inventory model and just-in-time method. Focusing on beef product, Walmart prefers to purchase meat that requires less processing time, and they stick to the inventory policies they currently use which will help them to deal with fluctuation in demand.
How can Walmart develop their inventory policy to fulfill customer's demand and avoid the stock-out probability due to the uncertainty brought by COVID-19?	<ol style="list-style-type: none">1. Continue to develop its own beef supply chain;2. Automation;3. Supply diversification



THANK YOU