

US Supply Chains 2023 - Weakest Links

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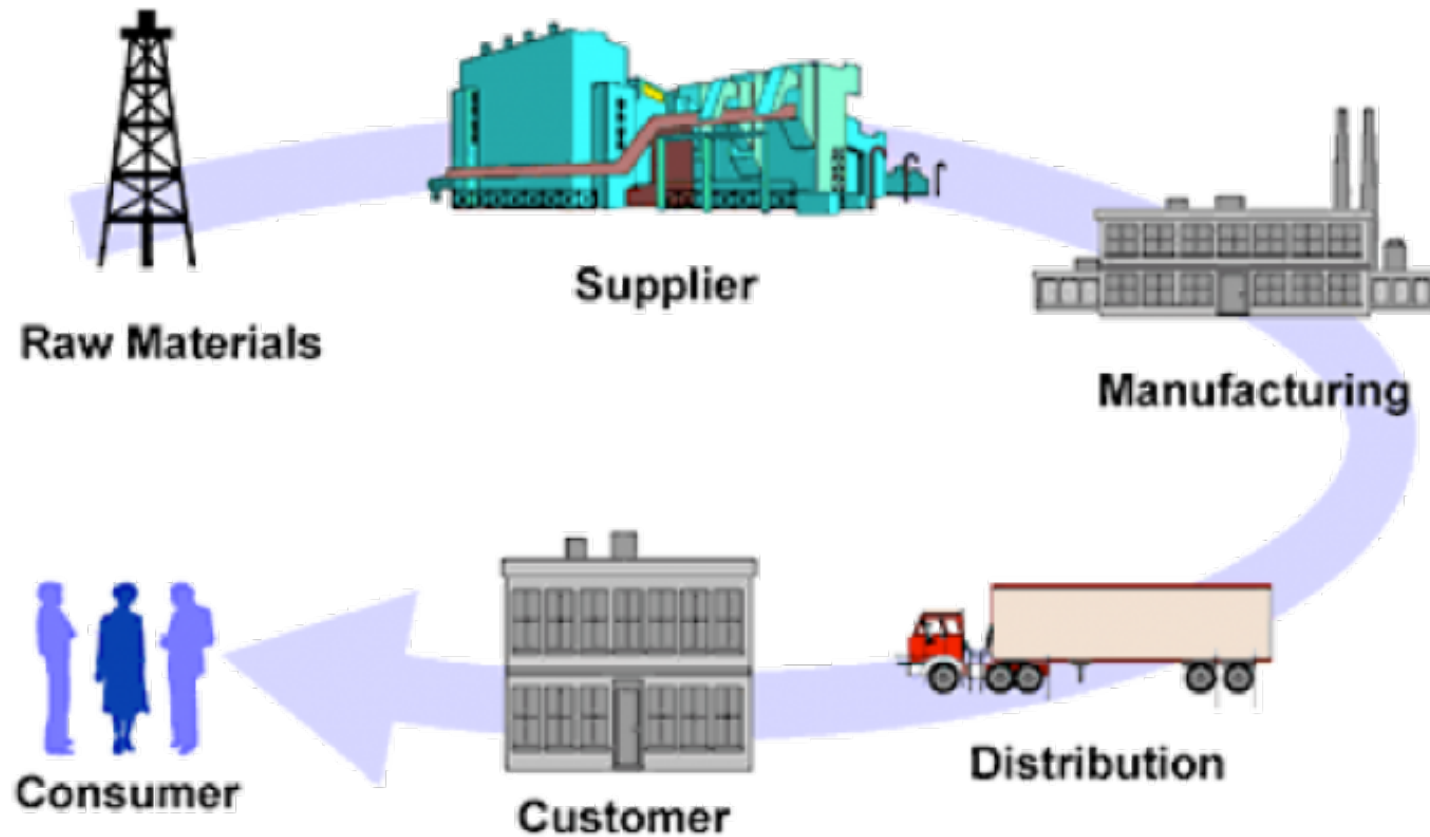
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So...

What is Supply Chain Management? (SCM)

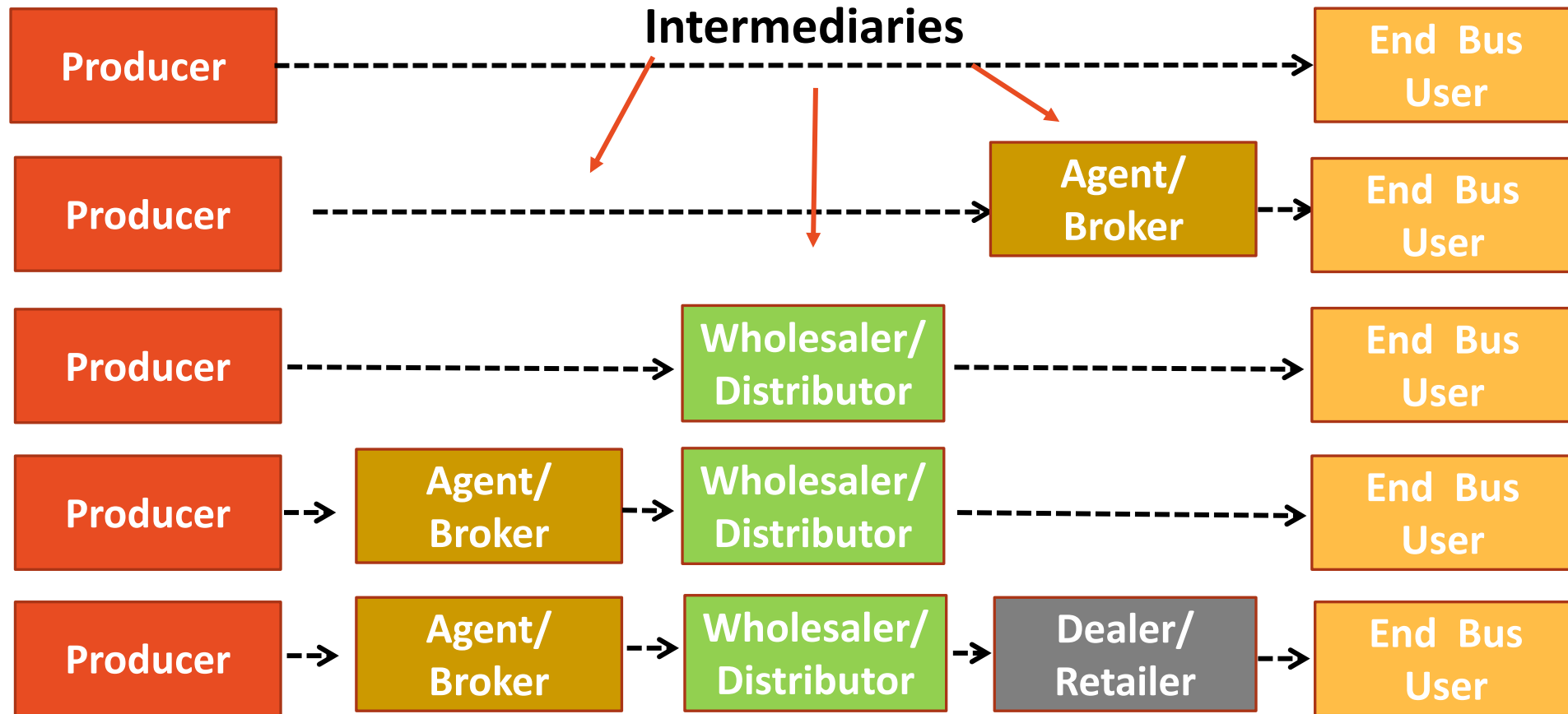
- Coordinating activities necessary to produce and deliver goods and services to a business's customers. Examples of supply chain activities can include manufacturing, designing, farming, packaging, and/or transporting.
- The functions of a supply chain include product development, marketing, operations, distribution, finance and customer service.
- Planning and optimization of profits is key.

Typical Supply Chain

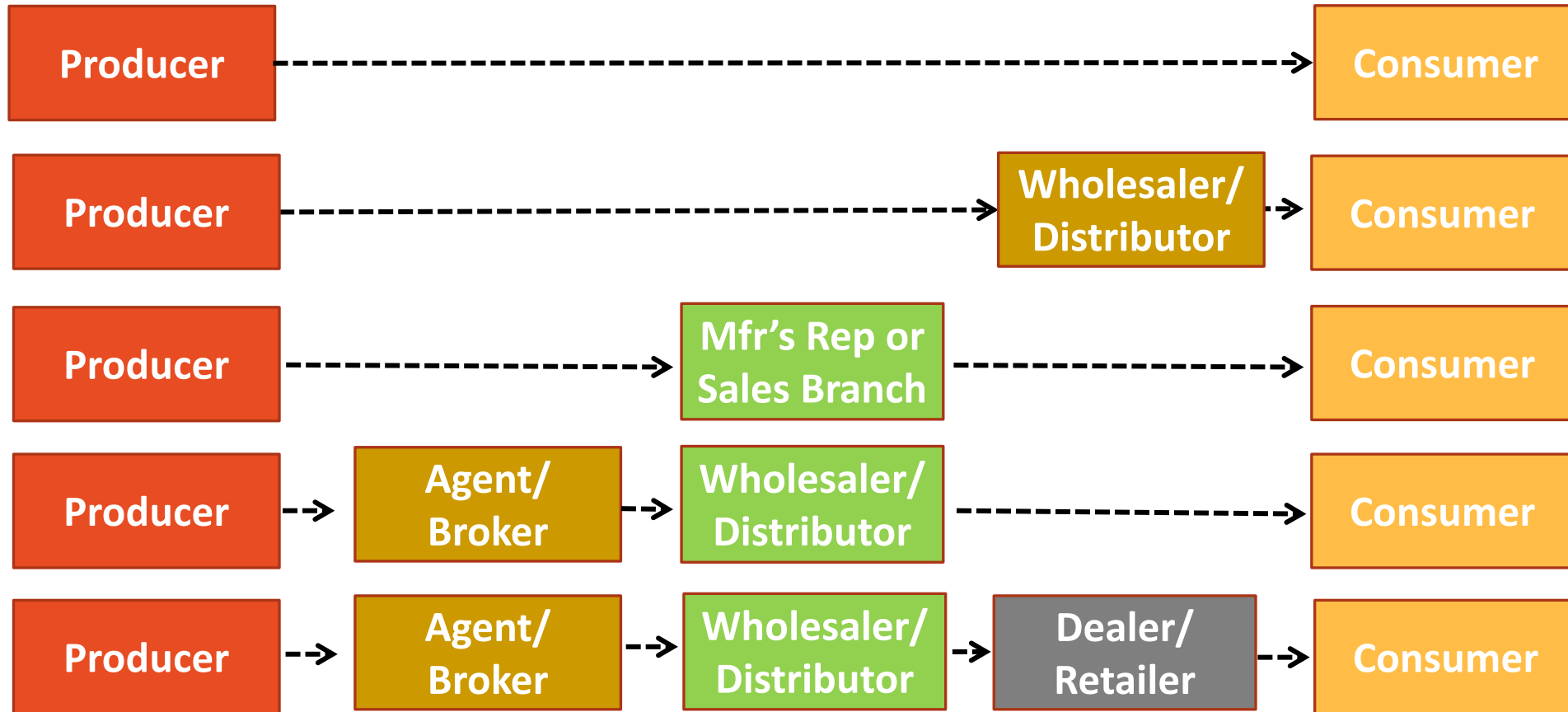


Common B2B Distribution Channels

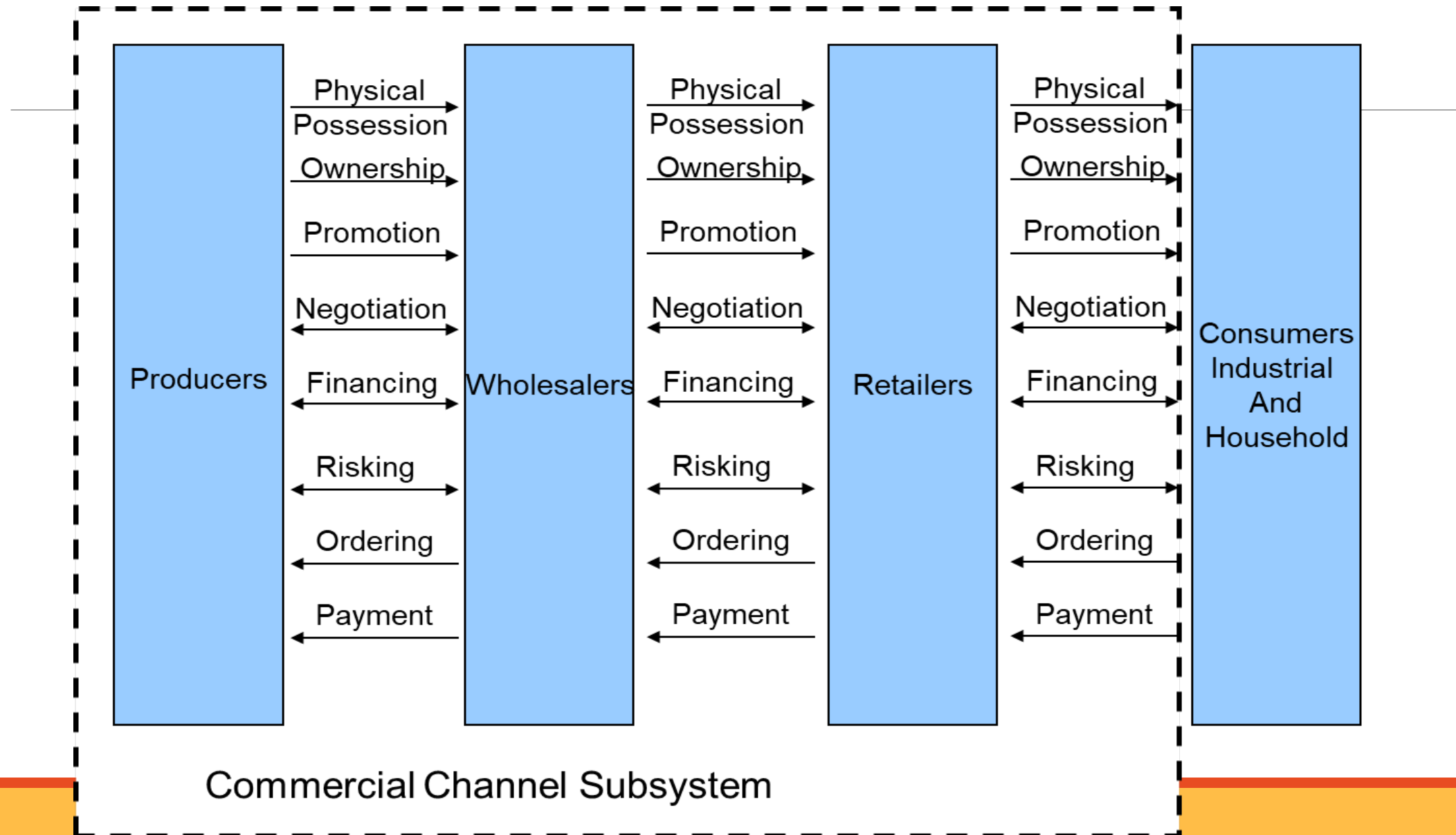
There are many variations of vertical distribution channels, each with their own supply chain and financial characteristics



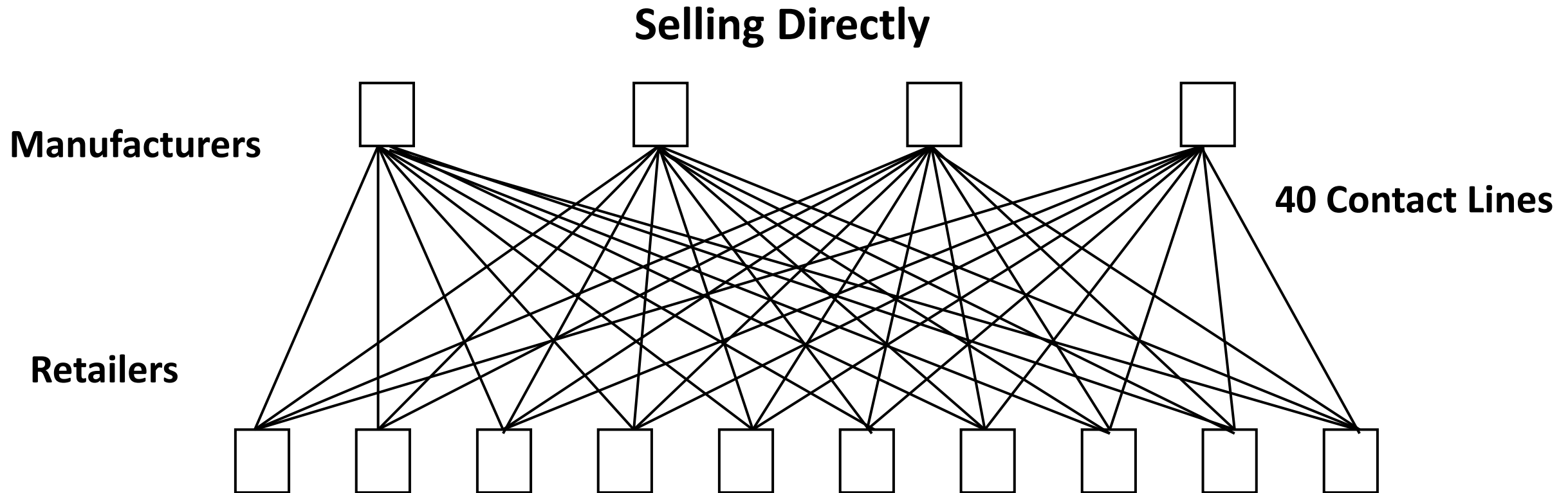
Common B2C Distribution Channels



Marketing Flows in Channel

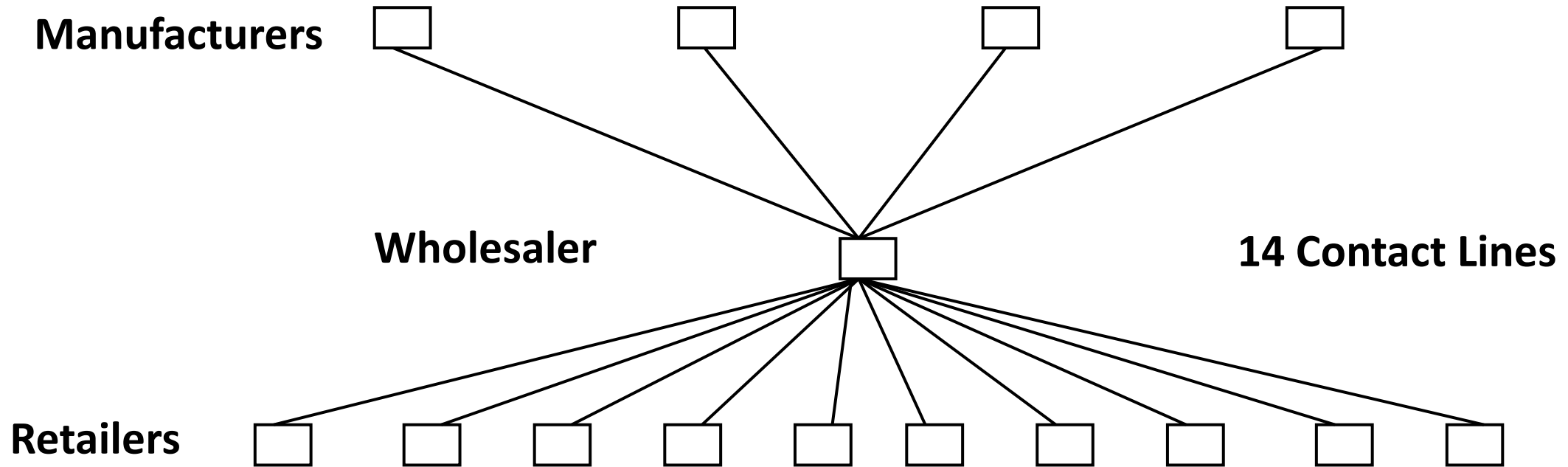


CONTACTS NEEDED TO REACH THE MARKET WITH AND WITHOUT INTERMEDIARIES

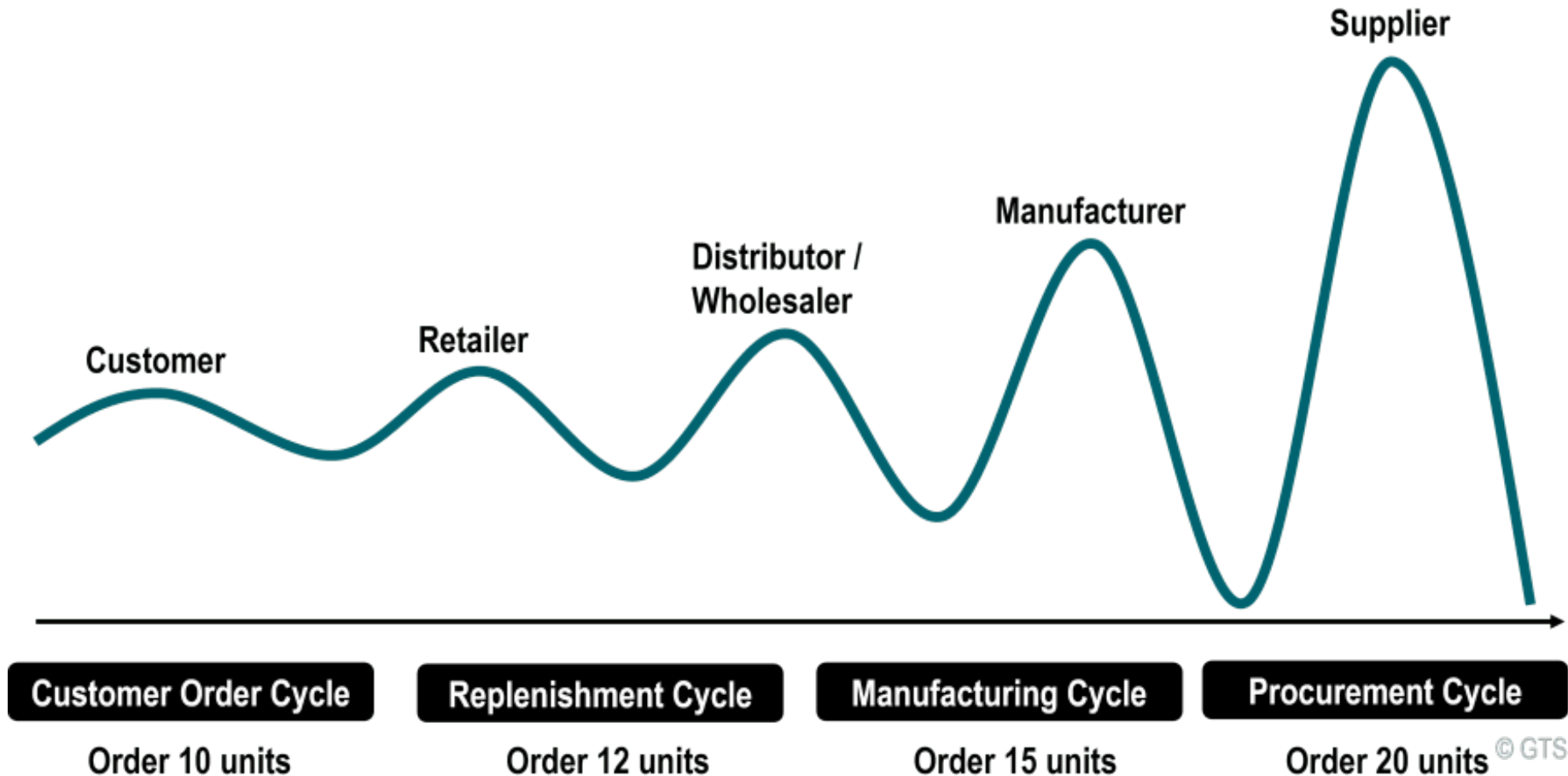


CONTACTS NEEDED TO REACH THE MARKET WITH AND WITHOUT INTERMEDIARIES

Selling Through One Wholesaler



“The Bullwhip Effect” – Causes Spikes in Demand that Leads to Big Problems



So ... How are Supply Chains Doing Today?

It Depends on
Who you Ask...



Some Issues have Plagued Supply Chains for Years

- The need for better information sharing and coordination among supply chain partners to better plan and prepare for the next disruption.
- Most of the technology in today's supply chain is legacy from the Y2K scramble. Y2K gave rise to investments in Enterprise Resource Planning (ERP). With ERP investments, supply chains became more efficient at transactional processing, but not in *sensing and responding* to market trends.
- Traditional planning processes focus on volume-based decisions, but not the trade-offs of market price shifts and product mix changes
- Labor Unions and Management Issues: port operations that include data standardization and management of excessive dwell fees and empty container returns etc.



Major Challenges to Supply Chains 2023

- ✓ **The Economy and Financial Markets. Inflation!**
- ✓ **Cybersecurity and an Increase in Cyber Attacks.**
- ✓ **Employee Anxiety about Automation and AI .**
- ✓ **Poor Labor Relations.**
- ✓ **Regionalization of Sourcing – Movement to Asia a big concern. Some companies looking to re-shore production to the U.S., despite questions of labor availability and cost.**
- ✓ **Climate risk – Climate Disruptions Growing (mapping and monitoring are now critical capabilities).**
- ✓ **Increased Geopolitical Risk.**

Next Generation Digit from Agility Robotics



<https://www.youtube.com/watch?v=OF383hECzQ>

Other Key Issues

- **Technology and Innovation**
- **War for Workers still a factor**
- **Infrastructure is key**
- **Education – new emphasis on career education and community colleges**
- **Access to Capital**
- **Cost of Living**
- **Two emerging industries: Cryptocurrencies and cannabis**



Indiana Small Business

Inside Indiana Business, June 13, 2023

- **Remains positive despite economic and labor concerns**
- **Owners are feeling pressure around inflation, commodities prices and supply chain issues, however:**
 - 76% felt well positioned for strong year
 - More than half (56% reported higher revenue in 2022 than 2021)
 - Majority (65%) expected revenue to increase in the next 12 months
 - 82% intend to obtain funding in the year ahead (up from 82% last spring)
 - 34% plan to hire, up from 26% last spring
- **Insights for 2023**
 - Labor Concerns and Challenges – more than ½ impacted by shortages

Insights for 2023

- **Labor Concerns and Challenges** – more than ½ impacted by shortages and 21% report customer losses due to labor issues.
- **New Strategies to Retain and Attract Talent** – 51% implemented additional perks and benefits (high base pay, remote or hybrid work, new employee training options and additional healthcare benefits)
 - 75% of those implementing these changes reported a meaningful impact on employee morale and retention.
- **New Growth Opportunities** – need to creative to grow and tap into latest digital tools and resources. 80% adopted new tools, and 49% plan to use artificial intelligence (AI) tools in 2023.
- 90% of small bus owners say digital tools helped make operations more efficient.

Key Industry Segments



✓ *Retail and Consumer*

- Better, but Material Shortages and Hiring Woes Linger (Reuters, May).

✓ *Aviation*

- Air travel will be affected by “very frustrating” supply chain issues this year. Shortages in engine parts are delaying delivery of new aircraft from manufacturers like Boeing and Airbus.
- A scarcity of air traffic control staff is also likely to be a problem in 2023.
- Head count is up since pandemic, but too few workers with “institutional knowledge” remains a problems.
- Optimism is mood for industry as a whole

✓ *Automotive – Supply Chain Issues Easing, But Not Completely*

✓ *Chemical Manufacturing - Major SC Problems Continue to Impact*

Thank You!

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