

Supply Chain Trends in the Digital Era → Data included in the PDF document

→ Struggling road system. Lots of people who you never hear from has knowledge. Lots of data in Washington. CSCMP quarterly review. Unbiased research from scholars and academics

→ Highways miles are complex, same with public transit. All of this part of supply chain world. Transportation budget costs a lot. Collaboration is difficult and essential.

→ → Look at the great data in his slides. Fight it out at the shelf and maximize capacity issues. Emerging supply chain collaboration ⇒ great idea to share data but difficult to do.

What's the best use of our capacity and equipment, even when it comes to distribution

Lots of the distribution centers are in the same area and county

It's best to put them on the same truck and fight it out on the shelf to improve capacity.

Air industry is doing well. While the waterways and ports are not doing fantastic.

Could use the Mississippi River as a viable option for steel, cotton, commodities, etc.

What's the unit cost on that container in that ship → it all comes to down to price

3rd party logistics = the market has gone up. Capacity pressure intensifies the need for 3PLs.

Warehousing = innovate or die. Building has to have frozen cases there.

Ecommerce \$2.87B on thanksgiving last year. Black friday \$5.03B... get stats from partner.

Real estate folks have unique ways to optimize supply chain there

Last mile = fast, free and flexible

Order from anywhere. Fulfill from anywhere is the future we're headed towards.

What do we do from those

Scale & innovation → big x to customer deliver

Change lexicon by changing the way supply chain leaders speak. A dollar saved in inventory is a dollar changed in cash flow. Designed for high long runs. Our competitors cannot do this.

Supply chain is a driving force in revenue focus. \$263B more spent if Walmart didn't do well.

This is physical - this

We're like the break between the switch and the lift. Not just called when things go wrong.

Evaluate publicly traded companies for their supply chain vl

Case Studies:

Amazon = everyday is a startup. Using deep machine learning to deliver customer needs. Robotics bring work to them. Idea is a good one = implement first, then get the cost right.

Nike ⇒ huge commitment to quality and published code of conduct partner has to abide by. Double size of the business with half the impact on the environment.

IBM = supply chain squarely in the front office. Watson = trusted advisor, subject matter experts. CEO sees it as critical. Try small innovations at a time.

How to deal with changing environments such as tsunamis in Asia. Tariffs in US. Transportation field is shrinking. Yet supply chain graduates are getting terrific jobs upon graduation. How P&L is affected by supply chain leaders.

CSCMP roundtables are the normal place for chapters. Leaders, speakers and tours.

Peter Drucker was inducted into the supply chain hall of fame. Square watermelon.

Washington Update

- Bipartisanship isn't coming
- Senate republican. House leaning democrat some polls say
- November election is huge

UP Announces Plan to Implement Precision Scheduled Railroading – Given the recent CSXT service failures following its implementation of PSR, the STB is proactively requiring planning and implementation information be provided by UP

115th Congress: Scorecard

- Mixed results so far on the Trump Agenda

115th Congress: Transportation

- FAA Reauthorization Act became law on Oct. 5 – 5- year reauthorization of FAA programs that invests in airport infrastructure, promotes safety

FMCSA ANPRM on Driver HOS

- FMCSA's ANPRM identifies 4 areas for potential reform:

1. Short-haul HOS limit
2. HOS exception for adverse driving conditions
3. 30-minute rest break provision
4. Split Sleeper Berth

Goodbye NAFTA, Hello USMCA

Much of NAFTA 1.0 Is Left Intact

Breakthrough with Mexico

Trudeau Was A Stalwart

New Agreement Won't Be Effective Until 2020

Korea To Amend Premium Pricing Policy for Drugs

Exports of U.S. Motor Vehicles to Korea May Improve

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Network Changes Stemming from the E-Commerce Revolution

The opportunities in supply chain have already been recognized by the market

-- Connected life. Connected smart lock.

Omni channel logistics -- all about managing seamless offline and online logistics. E Commerce is the biggest driver in the need for an omni channel strategy. What is the perfect balance between retailers, orders, ecommerce perfectly? It always changes. People are still shopping, different experiences expected.

Key Opportunities

New business opportunities for temperature-controlled last-mile delivery

Increases collaboration across the entire supply chain to achieve end-to-end cold chain networks

Higher product security through packaging innovation and real-time monitoring

Blockchain → data has to be verified.

Sharing driver transportation capacity. Amazon lockers, Uber, Instacart, a revolution is happening. FedEx services expanded into new markets. Ecosystem of partnership and shared economy. You can now lease a set of vans from FedEx then lease vans from Amazon.

Rent is lowest on the scale of factors that drive cost in the supply chain. Transportation is half the cost. Inventory is second largest cost.

Sam's closed facilities and turned them into last mile deliveries

Big pharma companies are locked into distributor and supplier networks

Blockchain allows verification at each point of the supply chain

Amazon is offering PayPal and lockers to make it more convenient and pushing every industry to become more customer obsessed. Amazon also loses money on shipping in order to gain in depth data. Other companies including CPG must sell on Amazon. Easy replicable products means Amazon could decide to produce their own.

More shipping over less miles = now with an app can take trials. Less risk management, easier data collection.

Blockchain is going to become the norm for trustworthy interactions. The perfect algorithm so far, it uses game theory and a key to access rights in which you can read it and not change it.

DHL stimulated blockchains throughput → Quantum computing is needed because it worked. Must also have tipping point in which everyone agrees to sign on to the same system. BiTa.

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Blockchain and Serialization in Health Care Supply Chains

This is serious technology and its time to come out of the phase of illusion. With hundreds of companies using blockchain the power and efficiency is going to continue to increase.

Primary concern was massive companies developing their own blockchain technology.

This is the biggest threat to blockchain -- someone else building their own blockchain that others cannot use.

Rapid adoptions of technologies are carriers and 3PLs. It's important for shippers to join BiTA and have a seat at the table. The tension time on the dock can now be monitored in a specific way using blockchain. Top shippers in the country don't know how much inefficiency they are actually wasting as shown by Walmart.

In the trucking world there is a daily chasm of unknown time being spent not moving the product. This affects the way you secure capacity and improve efficiency.

The tension time on the dock is one the greatest indicator of rather a driver quits or not. We've got reports out now about how long every shipper sits on docks. Foru of the worst are in Chicago. T

his affects the rate you pay and the ability to move trucks off the dock in an efficient manner. If you can find ways to improve your efficiency as a shipper and become the shipper of choice rate - then you'll secure your capacity, ensure your efficiency. No visibility in your WMS is an issue.

Use data to understand where the pain points are located.

The blockchain breaks have been because of bad code. Highly unlikely of getting broken into iof the system is built well.

Who is responsible for the community of that data? The community policies it to make sure the right data comes in. If you scan in a bit of writing, everyone in the blockchain has a contractual bill of writing, including your product code and other essential information that's already been validated before your started the process. Majority of people in your network must approve the block and data being added to the blockchain - that's the process that secures it.

Gartner hype cycle happening with blockchain

BiTA Fall Symposium
November 12-14, 2018
Grapevine, TX

The Logistics of Cannabis

\$9B industry in the US with

- 30 states medical use is legal
- 9 states recreational use is legal

Canada, Uruguay, Chile, Georgia, and Netherlands are leaders.

It's a cash business and banks can't accept deposits. Currently using cryptocurrency

Medical marijuana has substantial benefits, but there is a stigma against using this drug

Still believed to be a gateway drug but not based on facts and more propaganda

This looks like the repeal of prohibition -- medical use first, then recreational

PepsiCo (recently considered) and other infused beverages have actually invested

The medical marijuana market is similar to controlled substance programs in pharma

Legalized marijuana is still seen against the stigma of a long history of illegal use

Pharma industry provides a model to follow

Complicated and difficult to ship with legal limits varying across state and country lines

Extremely difficult to open when shipping = made it child proof

World Customs Organisation WCO doesn't recognize this as allowed to move internationally

Not legal to move marijuana plants across the US

Currently happening fast

Increased security measures will be needed.

Large spike in controlled substance capacity will be needed.

Strong inventory controls and highly integrated serialization.

Adult recreational use will quickly follow

BioTech and Pharma companies having discussions

It's going to more biotech. Has the potential to be this massive

Sort of a gold rush industry both medical and recreational.

Legal issues

How do you tell if someone is intoxicated?

What are the rules for employees?

Maybe one day a breathalyzer type test like they use for alcohol

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