

- ✓ Supply Chain Consulting
- ✓ Strategic Development
- ✓ Project Management
- ✓ Mobility Solutions
- ✓ Accredited Training
- ✓ Performance Management

A background image of a business meeting in a modern office. Several people are seated around a long table, looking at documents and laptops. The lighting is soft and professional.

# Factors Driving Change in Supply Chain Ecosystems

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## The Driving Forces

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The global COVID-19 pandemic has caused unprecedented disruption to supply chain and mobility ecosystems around the world during 2020-2021, and it has distracted many of us from focusing on the more long-term evolving market forces and critical strategic development.

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We have identified five factors (other than the pandemic) that are driving change in many Supply Chain & Mobility Ecosystems:

1. Consumer Behaviour
2. Technology
3. Sustainability
4. Economics
5. Industry 4.0

## 1. Consumer Behaviour

### The Delivery Market

#### Current Delivery Market;

- ✓ High volume of small parcels
- ✓ High volume of delivery addresses
- ✓ Quick response (same day-several days lead time)
- ✓ Challenging address system for locating customer
- ✓ Mostly no temperature control
- ✓ Predominant product categories
  - ✓ Electronics
  - ✓ Clothing
  - ✓ Fashion Accessories
  - ✓ Banking & documents
- ✓ Cost sensitive delivery

#### Emerging Delivery Market

- Diminishing tolerance for error & delays
- Margins increasingly under pressure
- Volumes increasing, but delivery size remains small package
- New product categories
  - Fresh and perishable foods
  - Grocery
  - Personal and healthcare
  - Pharma and prescriptions
- Demands temperature and security management

### The Modern Consumer

- ✓ More sophisticated
- ✓ Mobile
- ✓ More informed
- ✓ Expects to be more informed
- ✓ Time poor
- ✓ Seeks convenience
- ✓ Seeks value
- ✓ Wants to be able to compare options
- ✓ Appreciates “personal experience”
- ✓ Desires immediate gratification
- ✓ Little tolerance for error or mishaps
- ✓ Loyal to “convenience”
- ✓ Consumers are in control

**ALWAYS CONNECTED**  
 63% adult smartphone owners in the US don't go an hour without checking their phone.  
 73% of Millennials are disconnected for an hour or less per day.  
 50% check their phones before they sleep and after they wake up.

**OPINIONATED & SHARES IT**  
 34% have turned to social media to air their feelings about a company.  
 26% express dissatisfaction.  
 23% share companies or products they like.  
 46% feel they can be brutally honest online.  
 51% aim to influence others when they express their preferences online.

**TRUST IS CONVENIENCE**  
 69% said they are more likely to buy from a brand that talks publicly about its CSR results.  
 >88% think companies should try to achieve their business goals while improving society and the environment.

**VALUE CONSCIOUS**  
 41% practice "showrooming".  
 >50% of Millennials use four or more sources to help them make their purchase decision.

**REQUIRES IMMEDIACY**  
 89% having access to real-time product availability would influence their shopping choices.  
 Walmart's Site to Store service is very popular, with over 50% choosing store pickup.  
 Amazon.com are testing drones as a method of parcel delivery.  
 Amazon says that it will be able to ship 86% of its deliveries in under 30 minutes with short range drones.

**IGNORES ADS, SEEKS AUTHENTICITY**  
 92% say they have more confidence in info found online than other sources.  
 75% don't believe that companies tell the truth in advertisements.  
 70% consult reviews before making a purchase.

**FOLLOWS RITUALS**  
 When performing our morning rituals 89% rely on the same brands.  
 3/4 gets disappointed when their sequence is disrupted or their brand of choice is not available.



## 2. Technology

### Disruptive Technologies Impacting Supply Chains & Mobility:

1. 5G Mobile Connectivity
2. Artificial Intelligence & Computer Vision
3. Big Data & Processing Power (Moore's Law)
4. Extended Reality (Virtual/Augmented/etc)
5. Renewable Energy/Energy Storage
6. Robotics & Autonomous Vehicles
7. Online Skills Training Accessible to All
8. ERP's Mimicking Consumer Apps
9. Accessibility & Low Cost of Technology to All
10. Blockchain



## 3. Sustainability

### Resource Management

- Using resources to meet our current needs without limiting the ability of future generations to meet theirs
- I.e. To consume resources at the same or less rate than they can be renewed
- The ability to maintain rates of renewable resource harvest, pollution creation, and non-renewable resource depletion that can be continued indefinitely
- We are not sustainable yet, we are becoming less non-sustainable
- Environment - Planet

### Commercial Benefits

- Using the resources of an organisation efficiently to allow it to continue functioning profitably over time
- Initiatives pay for themselves
- Efficiency gains
- Waste reduction
- Competitive Advantage
  - Differentiation
  - Customer satisfaction
  - Reduced production/logistics costs
  - Improved production/logistics flow
- Economic - Profits

### Social Benefits

- The ability of a social system, such as a country, to function at a defined level of social well being indefinitely
- Encompasses:
  - Social equity
  - Livability
  - Health
  - Social support
  - Human rights
  - Labour rights
  - Social responsibility
- Social - People

## 4. Economics

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1. Globalisation
2. Uncertainty
3. Scale and Sharing
4. Marginal Costs Disappearing
5. Energy
6. Labour Resources

## 5. Industry 4.0

### The Four Industrial Revolutions

1. Late 18<sup>th</sup> Century – mechanisation, harnessing of energy (coal, steam)
  2. Late 19<sup>th</sup> Century – chemical synthesis, communication, transport, automation, new energy (oil, electricity)
  3. Late 20<sup>th</sup> Century – electronics, computers, advanced automation, biotechnology, communication, new energy (nuclear)
  4. Early 21<sup>st</sup> Century – internet, IoT, Cloud, Big Data, AR and AI, new energy (solar, wind, geothermal), connectedness and sharing
- The new consumer stimulates the new supply chain
  - Sharing economy (new perspective on power and independence)
    - 80% reduction in cars (ownership declines, all electric, managed networks)
    - Marginal costs disappear (open source, production and delivery of music, programs, shared use of resources such as uber, Airbnb, toys, banking)
  - 3D printing using composite recycled materials
  - GHG reductions (1. retrofitting buildings, 2. farming to reduce nitrous oxide & methane, 3. transport sharing)
  - IoT connects everything, but subject to cyber crime & terrorism, corporate/political dominance, data corruption, data theft

What are the minimum service levels?  
(these were once competitive edge)

Qualifiers

- ✓ Speed
- ✓ Range
- ✓ Information
- ✓ Transparency
- ✓ Sustainability
- ✓ Error Free

What is now a competitive edge?

Winners

- ✓ Efficiency – Cost effectiveness
- ✓ Adapting to continuous disruption
- ✓ Satisfaction of multiple Customer segments
- ✓ Agility (respond to actual demand, not forecast)
- ✓ Customer experience – Seamless Integration of channels

Responsiveness

Efficiency