



# The Driving Forces

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.

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;**

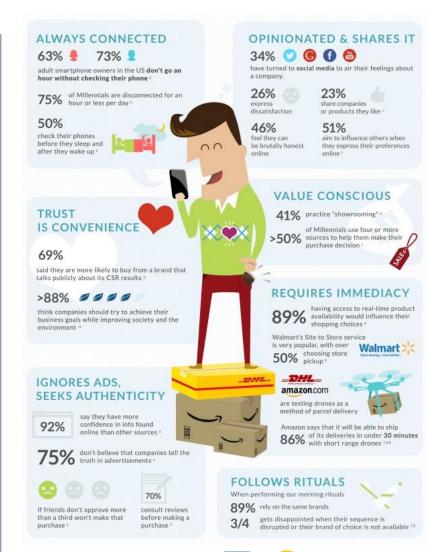
- ✓ High volume of small parcels
- ✓ High volume of delivery addresses
- ✓ Quick response (same day-several days lead time)
- ✓ Challenging address system for locating customer
- ✓ Mostly no temperature control
- ✓ Predominant product categories
  - ✓ Electronics
  - ✓ Clothing
  - ✓ Fashion Accessories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





#### 4

# 2. Technology



- 1. 5G Mobile Connectivity
- 2. Artificial Intelligence & Computer Vision
- 3. Big Data & Processing Power (Moores 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
- le. 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 nonrenewable 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 profitability 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

- 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 <u>buildings</u>, 2. <u>farming</u> to reduce nitrous oxide & methane, 3. <u>transport</u> sharing)
- IoT connects everything, but subject to cyber crime & terrorism, corporate/political dominance, data corruption, data theft



# Efficiency

# B2C Logistics Consulting - Factors Driving Change in Supply Chain Ecosystems

# The Supply Chain Response

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?

Vinner

- ✓ 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