Drone Delivery: Deal or No Deal

Motivation / Background
- Shortage of truck drivers is at historic levels.
- Huge potential in transportation cost savings by using drones for last mile deliveries.
- Research estimated that delivering a package by drone can reduce greenhouse gas emission by 54%.

Key Questions / Hypothesis
- Will drone delivery ever be feasible?
- When is the right time to invest in drone delivery?
- In what capacity can drone delivery replace traditional methods?

Relevant Literature
Scan QR codes for some useful info relating to drone deliveries.

The Problem
To invest or not to invest?
- Regulations
- Infrastructure requirements
- Technological limitations
- Cost savings
- Commitment to sustainability
- Serve demand

Methodology
Operational Feasibility

Financial Viability

Initial Results
% of Orders Feasible for Drone Delivery based on Different Constraints
- Airports: 15%
- Drone Payload: 29%
- Drone Flight Distance Limitation: 58%
- All deliveries without constraint: 100%

Expected Contribution
Our framework gives executives an adaptable tool to analyze the potential for drone implementation via the following perspectives:
- % of deliveries eligible for drone delivery
- Financial returns
- Benefits from implementing now or later
- Sustainable value created

January 2019 Poster Session

Student: Blane Butcher, SCM 2019
Student: Kok Weng Lim, SCM 2019
Advisor: Dr. Justin Boutilier
Sponsor: Iron Mountain