Amazon Drones and their Effects on Operation Management

Name

Institution

Contemporary supply chains have significantly revolutionized deliveries and they are on the verge of replacing human labor with the use of advanced robotics and automated technologies. For years, e-Commerce deliveries have been done through trucks, manned aircraft and ships. Bicycles and motorcycles have also been widely used to deliver light items over short distances.

Amazon is intending to introduce drones in its supply chain, a move that would greatly impact operations management of FedEx, UPS, and USPS. Since most Amazon's commodities weigh 2-3 kilograms, the drones that would be operating on a 10 mile radius would be able to transport up to 80% of the online shopping giant.

FedEx, UPS, and USPS have dominated both light and heavy transport for decades and Amazon has been partnering with them for long. Amazon is not alone in the drone program; Google has secretly been researching and developing its own.

Benefits of Drone Program

1. Unlike humans who get bored and tired, the Octocopter operates unmanned and automatic.
2. The drone (octocopter) provides flexibility and saves time.
3. The octocopter can operate 24/7, 365 days a year.
4. More than 100,000 new jobs will be created.
5. Drone deliveries will generate in excess of $10 billion over the next 10 years.

The drone program is being supported by the Federal Aviation Administration and the Association for Unmanned Vehicles Systems International (AUVSI). Additionally, the Federal Aviation Modernization and Reform Act of 2012 allow drones to be used privately, but not for commercial purposes.

Shortcomings of Drone Technology in the Supply Chain

1. The drone program is having strict regulations and safety rules must be engineered before they start operation commercially.
2. Its economic feasibility is not well understood.
3. The program would create space insecurity as thousands of octocopters will be using the space daily; increasing the chances of air-to-air accidents.
4. Human labor will be affected significantly.
5. The drones operate within a 10 mile radius and each carries goods weighing 2-3 kilograms.

In general, it will take decades before the Amazon drones put a significant impact of FedEx, UPS, and USPS operation management.