<https://www.youtube.com/watch?v=IwsboOHBUhc>

1. Do a research and Write an essay about this case that include 4 paragraph (1 and ½ page )
2. Answer the case questions.
3. APA Format
4. There will be a Plagiarism Checker if you copy and paste do not do it please
5. You must provide a Referances

BOEING 787 DREAMLINER

The first Boeing 787 Dreamliner was delivered to Japan’s ANA in the third quarter of 2011, more than three years after the initial planned delivery date. Its complicated, unique design (including a one-piece fuselage that eliminated the need for 1,500 aluminum sheets and 50,000 fasteners and reduced the resulting weight of the plane proportionally), promise of 20% increase in fuel economy and reduction in ‘out of service’ maintenance time, and problems with early testing of the new design all contributed to the giant project’s troubles.

Delivery of Boeing’s 787 Dreamliner project was delayed, in part, because of their global supply chain network, which was touted to reduce cost and development time. In reality, this turned out to be a major cause for problems. Boeing decided to change the rules of the way large

passenger aircraft were developed through its Dreamliner program; rather than simply relying on technological know-how, it decided to use collaboration as a competitive tool embedded into a new global supply chain process.

With the Dreamliner project, Boeing not only attempted to create a new aircraft through the innovative design and new material, but it also radically changed the production process. It built an incredibly complex supply chain involving over fifty partners scattered in 103 locations all over the world. The goal was to reduce the financial risks involved in a $10 billion-plus project for designing and developing a new aircraft and reduce the new product development cycle time. It tapped expertise of various firms in different areas such as composite materials, aerodynamics, and IT infrastructure to create a network in which partners’ skills complement each other. This changed the basis of competition to skill set rather than the traditional basis of low cost. In addition, this was the first time Boeing had outsourced the production on the two most critical parts of the plane— the wings and the fuselage.

The first sign of problems showed up just six months into the trial production. Engineers discovered unexpected bubbles in the skin of the fuselage during baking of the composite material. This delayed the project a month. Boeing officials insisted that they made up the time and all things were under control. But next to fail was the test version of the nose section. This time a problem was found in the software programs, which were designed by various manufacturers. They failed to communicate with each other, leading to a breakdown in the integrated supply chain. Then problems popped up in the integration of electronics. The Dreamliner program entered the danger zone when Boeing declared that it was having trouble getting enough permanent titanium fasteners to hold together various parts of the aircraft. The global supply network did not integrate well for Boeing and left it highly dependent on a few suppliers.

This case clearly underscores the hazards in relying on an extensive supply chain in which information exchange problems may create extended problems and seriously compromise a company’s ability to carry out business as planned. Creating a radically different process can mean encountering unexpected problems. In some cases, it would put a company so far behind their competition that they were doomed to fail. However, in this case, the major competitor to the Dreamliner, the Airbus 380 program, was also using a global supply-chain model, and its program was delayed by a couple of years. The result for Boeing was a much-anticipated plane with fuel economy and outstanding design that made the wait worth it, but the resulting design, a plane that holds up to 250 passengers, compared to the A380, which has a seating capacity between 525 and 853, was a major compromise.

Discussion Questions

1. Why did Boeing adopt the radical change approach for designing and developing the 787 Dreamliner? What were the risks? In your opinion, was it a good move? Defend your choice.

2. Using the Silo Perspective versus Business Process Perspective, analyze the Dreamliner program.

3. What are your conclusions about the design of the integrated supply chain? Give some specific ideas about what could have been done to integrate it better.

4. If you were the program manager, what would you have done differently to avoid the prob- lems faced by the Dreamliner program?

Sources: Adapted from J. Lynn Lunsford, “Boeing Scrambles to Repair Problems with New Plane,” Wall Street Journal (December 7, 2007), A1, 13; Stanley Holmes, “The 787 Encounters Turbulence,” BusinessWeek (June 19, 2006), 38–40; and Zach Honig, “Boeing 787 review: ANA’s Dreamliner flies across Japan, we join for the ride” (December 16, 2011), http://www.engadget.com/2011/12/16/boeing-787-review-anas-dreamliner-flies- across-japan-we-join/.