

GLOBAL RISK MANAGEMENT INSTITUTE

CREATING
RISK
INTELLIGENT
PROFESSIONALS



GRMI

**GLOBAL RISK
MANAGEMENT
INSTITUTE**

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PROGRAMME
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Introduction

Boeing is an American Multinational Aerospace manufacturer located in Illinois, Chicago.

CEO: David L. Calhoun

Founder: William E. Boeing

Year founded: 1916

Headquarters: Chicago, Illinois, United States

Employees (Jan 2020): 161,100

Ticker Symbol: BA

Type: Public

Annual Revenue (FY2020): US\$58,158 Million

Products & Services:

- Commercial Airlines
- Private Jets
- Light Aircrafts
- Satellites
- Air Defense Weapons
- Security Systems
- Helicopters
- Global Services
- Boeing Capital
- Information and Communication Systems

Competitors:

- Airbus
- Lockheed Martin
- General Dynamics
- GE Aviation
- Industrial Select Sector
- United Technologies
- Northrop Grumman
- Raytheon

Business Model

✦ KEY PARTNERS	✓ KEY ACTIVITIES	🏠 VALUE PROPOSITIONS	♥ CUSTOMER RELATIONSHIPS	## CUSTOMER SEGMENTS
Investors US Government and defense sector Airlines NASA Algal Biomass Organization (ABO) Subsidiaries Suppliers	Research and development Manufacturing Design Networking Support services PR Lobbying Boeing Commercial Airplanes Boeing Defense Space & Security Boeing Capital Engineering Operations & Technology Boeing Shared Services Group	Aerospace leadership and innovation Advanced technology solutions Boeing is among the largest global aircraft manufacturers It is the second-largest defense contractor in the world Hybrid electric propulsion has the potential to shorten takeoff distance and reduce noise	Highly automated Military secret Co-creation Exclusivity Patent-protected products and services Innovation	Airlines Defense sector Military NASA and space exploration programs
	6		4	
	8			
	7			
		2		
			3	
				1
✦ COST STRUCTURE	★ REVENUE STREAMS			
Research and developments Parts and components Software and hardware Maintenance Manufacturing and logistics costs Employees Facilities Taxes	Long-term contracts Sale of finished goods Royalties on IP Licensing Merchandising			
	9			
	5			



Risks in Boeing

- **Flawed and Unsafe Design:** In 2019, Boeing 737 Max crashed twice in the Java Sea and Ethiopia killing all aboard. Both planes suffered the same malfunction attributed to a flaw in Boeing's design of the 737 Max. Boeing's flawed and unsafe design of 737 a major weakness.
- **Over-Outsourcing:** Boeing relies heavily on outsourcing the manufacture of the components and parts for its planes. The scale of Boeing's outsourcing was highlighted recently after Spirit's laid-off 2800 employees who worked primarily on the troubled 737 Max.
- **Overdependence on US Contracts:** While most other aircraft manufacturers rely on airlines, Boeing depends on contracts from the US government. With about 27% of its revenue coming from the US government contracts, Boeing is at the mercy of US politics and economic factors in the American market.
- **Supply Chain Issues:** Just any global operator, Boeing also faces several supply chain ;



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- **Intense Competition:** Airbus and Boeing are two big players and bitter rivals with the backing of the EU and the US respectively. **Competition in the airline** manufacturing sector is more complex since losing even a single customer or order can amount to losses in the millions.
- **Public Perception:** Once a specific airplane model has been involved in a crash and regulators have grounded the entire fleet due to safety concerns, the public can permanently associate it with a lack of safety. It is very difficult to convince the public that the flaw in 737 Max is fixed.
- **The Pandemic:** With the devastation, pain, and deaths due to the pandemic, most people would think twice before boarding a plane. The immediate threat is that the pandemic will bankrupt most airlines, forcing mass cancellations of their orders for Boeing.



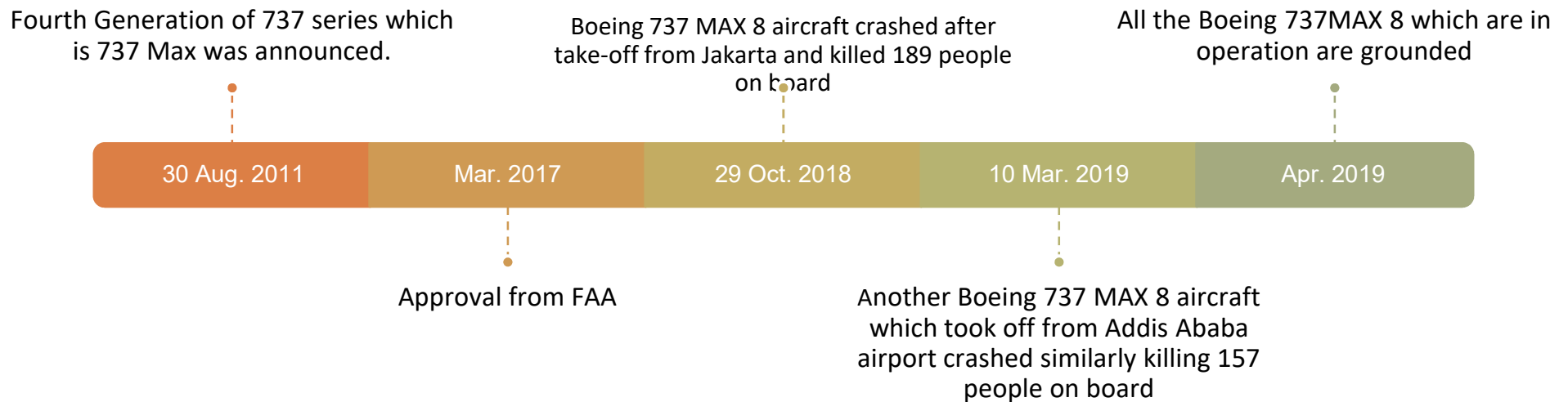
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- **Looming Recession:** Countries across the world are already **deep into recession**. Boeing's commercial customers (for example, **Southwest airlines**) will struggle to stay afloat in times of economic crisis as consumers avoid non-essential travels or seek cheaper options like trains and buses.
- **Terrorist Attack:** The threat posed by terror groups hangs over all airlines as well as airplane manufacturers. In the aftermath of the 9/11 terror attack, air travel declined drastically with Boeing and Airbus incurring immense losses.
- **Trade War:** Airbus and Boeing are both caught in the middle of the US-EU trade tussle. With both factions across the pond vehemently protecting their interests, the hostilities can escalate forcing the EU to deny Boeing access to the lucrative European market.
- **Cyber Security Threats:** Currently, cyber-attacks by rogue nations, terrorists, and cybercriminals pose a major threat to airlines globally. Security systems of Boeing were leaked, which revealed the flaws and vulnerabilities of 787 that can be

Boeing 737 max Debacle



What exactly happened ?



Impact of events

Financial losses

Boeing having posted a company record loss of \$2.9 billion USD for Q2 2019. Its market capitalization, as of August 2019, has fallen by \$62 billion USD, on the back of a 25% erosion in share price. Overall, the halt of sales and impending cancellation of orders may cost Boeing roughly \$600 billion USD.

Reputational losses

All the 737 max flights which are in operation in China, India, Australia and Europe where grounded and people lost trust over Boeing

Contd...

Business position

Boeing lost its position as the number one airplane manufacturer to Airbus. In the year 2019 Airbus total orders were 1116 compared to Boeing 234 whereas the orders in 2018 were Boeing 874 to Airbus 426.

Legal issues

A growing number of claims are being filed against Boeing by the families of victims on board the two doomed planes. The lawsuits accuse Boeing of greed and misconduct and say that Boeing did not inform pilots about the systems on board the 737 Max plane.

Contd..

Human resource issues

There has been dozens of Whistleblower incidents after the issue and around 26000 people lost their jobs
“This airplane [the 737 MAX] is designed by clowns, who in turn are supervised by monkeys,”



What was the actual problem?

- **Pilots Unawareness:** Pilots are not provided with the exact control MCAS(Maneuvering controlling augmented system) and it lead to improper control of airplanes
- **Leadership issues:** Dennis Muilenburg who was the then CEO of Boeing lost his CEO position immediately after the second crash. The New CEO David Calhoun revealed that Muilenburg in a streak to increase productivity and instant profits he compromised on quality.
- **Manipulating Authorities:** The FAA was provided with false information whenever there was an inspection to be carried out and FAA ordered boeing to carry out particular inspection inplace of FAA

Contd...

- **Toxic work culture and Communication issues:** After this incident there were almost dozens of whistle blower incidents which revealed that Boeing top management hid the facts about their products and even the employee who knew that there is something wrong in the aircraft or some technical glitch are not allowed to reveal the facts to others

"This is a joke," a Boeing employee, referring to the 737 Max, said to a colleague in 2016. "This airplane is ridiculous."
- **Organisational Values and ethics:** They have manipulated and hid the facts regarding the safety of the aircraft in the mails send to FAA. It was also revealed that even before the incident the Boeing knew about the malfunctioning of the device a long back.





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