

Homework 2: Stakeholder Analysis**Mayank Kumar**

1. Read the article in the link provided. - Done

2. A) Identify the stakeholders

These would be the stakeholders as per my understanding of the situation and system:

Internal stakeholders

- i. Board Member at Boeing (Decision maker, Driving force)
- ii. Engineers at Boeing
- iii. Financiers of Boeing
- iv. Operations team
- v. Supply chain management team
- vi. Manufacturing team and others...

*Engineers include design, testing, validation etc. these are employees who are responsible for technical aspect of the product.

External Stakeholders

- vii. Regulators at USA government
- viii. Direct customers to Boeing like Ryanair
- ix. Federal Aviation Administration (FAA) or Certification agency
- x. Legislative body
- xi. Flight crew: Pilots, Flight attendants
 - a. This set of stakeholders are highly crucial as they will directly using the product (the airplane).
 - b. They need correct and clear information to take decisions which is will have impact on safety of the passengers.
- xii. Indirect customers to Boeing but direct beneficiary of the service: Passengers
- xiii. Contractor and Subcontractor of Boeing
- xiv. Operations team of customer
- xv. Marketing team of customer
- xvi. Maintenance crew with Boeing's direct customers
- xvii. Journalists
- xviii. Judicial bodies like lawyers and judges

B) Stakeholder map

Power/ Influence	High	Watch	Keep Satisfied	Actively Manage
		Legislative body	FAA, Regulators	Board Members, Financers, Direct customers
	Some	Keep on side		
			Judicial Bodies	Supply chain management, manufacturing and engineering team at Boeing, Contractors of Boeing, Operations and marketing team of the customer
	Little	General Communication	Keep Informed	
		Journalist	Passengers	Flight Crew Maintenance crew
		Little	Some	High
		Interest		

C) Stakeholder allegiances

Assessment	Who?
Advocates	Board members of Boeing, Financers of Boeing, Management team of Direct customers
Followers	Manufacturing and supply chain team at Boeing, Contractors of Boeing Flight crew, Operations and Marketing team of customer
Indifferent	Judicial Bodies, Legislative bodies, Regulators, FAA
Blockers	Passengers, Journalist, maintenance crew
Opponents	Engineers

D) Stakeholder Management Strategies

Stakeholder	Impact	Impor.	Allegiance	AIH	LIH	HIH	MIH	Concerns	Actions
Internal stakeholders									
Board members of Boeing	High	High	Advocate				Δ	Profits shall be made.	Silenced the opponents citing cost reasons
Financiers of Boeing	High	High	Advocate				Δ	Profits shall be made.	Same as above
Engineers at Boeing	Med	Some	Follower	Δ				Design feasibility and safety.	Shut down by promoters.
Supply chain Management at Boeing	Med	Some	Follower			Δ		Supplier will not be able to meet demands.	
Manufacturing Team at Boeing	Med	Some	Follower			Δ		Timeline will not be met.	
External Stakeholders									
Regulators at US Govt.	Med	Some	Indifferent		Δ				
Direct customer	High	High	Advocate				Δ	Not able to scale until Boeing meets it promises.	
FAA	High	High	Indifferent		Δ			Meet the provisions made by legislature	Gave exception supporting reasons provided by Boeing.
Legislative body	High	High	Indifferent		Δ			Capitalism should prevail	Monopoly law was scraped.
Flight crew	Med	Little	Follower		Δ			Alert system is outdated and confusing.	
Passengers	Med	Some	Blocker		Δ			Not finding enough flights to travel.	
Contractors	High	High	Follower			Δ		Supply target couldn't be met	Slowed down the production.
Operations team at customer	Med	Some	Follower			Δ		Timelines?	Waited for Boeing's delivery
Marketing team at customer	Med	Some	Follower			Δ		Struggle to keep up with the demand.	

Maintenance team of customer	Med	Some	Blockers	Δ				They faced issues with system.	They didn't record in the log.
Judicial bodies	Low	High	Indifferent	Δ				Something is wrong with Boeing.	Launched investigation during beginning of the project.
Journalists#	Low	Little	Blockers		Δ			Crash should be investigated.	Investigative journalism.

They become AIH after the accidents.

Impor. = Importance

Question 3: are the interests of stake holders compatible? Can they be changed to better aligned?

Answer: Interests of stakeholders were not aligned. Major conflict of interest was between engineering team and management team at Boeing. Engineers had highlighted the concern about alert system but they were shut down by the promoter of the company. The promoters cited cost related concern to avoid developing and integrating into the new aircraft. They had given clear instruction to the team that if any feature is not part of the regulation, team should avoid pursuing it for development. Ultimately, old alert system was used in MAX.

Also, Passengers and Journalists expected Boeing to take action after the series of crashes. Boeing promised to have taken action to mitigate the issues but internal whistleblowers rejected the statements made by Boeing.

Customers of Boeing were not satisfied with delayed delivery and were pushing Boeing to meet the demand. Boeing was struggling to meet the commitment because supplier had slowed down the manufacturing at their end.

Boeing also used the loop hole in the law to convince the regulators to give exception citing higher cost and low impact. However, legislature supported them in their endeavors.

Question 4: What sources of power do the various parties bring to the project? How is power distributed among them? How might the outcomes change this?

Answer: This project faced direct impact of capitalism. Power shared by stakeholders are as below:

1. Board member and promoter of Boeing were only concerned about the profits. They had decisive power of project and could change outcomes as per their expectation. They made it clear that profits should be given highest priority.
2. Legislature or Regulators had power to control the law. The scrap of the monopoly laws resulted in merger of Boeing and McDonnell. If they had controlled this, Boeing would

have had a competitor and promoters might have taken decisions considering other factors than cost.

3. Judicial had the power to ask investigation against Boeing. They were already initiated an investigation for criminal activity in Boeing.
4. Once monopoly law was scraped, financiers had the ultimate power and could control the decision at the firm.

Question 5: Is the history of the relations among the different parties involved in the project amenable to effective conflict resolution and problem-solving?

Answer: As capitalism was highest priority of everyone at top level of the project. For example, Management team of Boeing was focused toward attracting members of govt. to the Board which would have ensured support in legislature as well. They had a member on Board who shared strong connections with the politicians. The management team has diverted its focus away from product development. They were assured of approvals because of their relation with govt. and other members of legislature.

Boeing's general council had worked with FBI and shared strong connections with judicial bodies. He was once considered groomsman for the supreme court chief justice.

Question 6: Have there been conflicts or disputes about this project? How have they been resolved?

Answer: Major dispute happened at system design stage of the project. System engineers found out that there is need to upgrade the alert system of the aircraft. When this was highlighted to management, they opposed the idea citing cost reasons. They decided to keep the old alert system. This alert system was very confusing but was certified due to negligence of the regulators. Also, Upper management tried to hide the fact about data received from the crash. They mentioned it to legislature and regulators by convincing them that reason from 3 crashes were 3 distinct reasons and were already addressed. They cited that cost of this change will be huge at both the ends Boeing and their customers. Customers will have to retrain their pilots if new system was implemented. Many engineers in the team were sure that the crashes were result of outdated and confusing alert system.

Also, when Boeing was being investigated by judiciary, they used their relation inside judiciary to close the matter.

Question 7: Are there any measures to allow the less powerful parties to voice their interests as they relate to the project?

Answer: Every organization should be open to feedback from every level in the system. Reason being, employees at different level of organization works to find solution to different problem statement. It is not necessary to solve all of their problems but establishing a feedback mechanism will ensure that issues which might be critical are not left unresolved. Leadership team can take following steps:

1. Be open to concerns and criticism.
2. Create an environment where feedbacks are appreciated.
3. Filter out critical concerns and include it in requirement.
4. Develop action plan to solve those concerns. This will create an inclusive environment and hence, people will feel included which will be a great motivation towards the project.

Question 8: In the context of this analysis, what went wrong and resulted in the incidents? How could it have been prevented?

Answer: There were multiple reasons which cascaded to final failure. If corrected, it would have avoided the mis happenings. Those are:

1. Legislature would have worked towards curbing monopoly rather than supporting it.
 - a. Major trigger of whole episode was merger between Boeing and McDonnell.
 - b. The merger established Boeing as only supplier of aircraft and gave lots of power to financiers to control outcome as per their benefits.
2. Certification agencies should have been proactive in ensuring all the regulations are met.
 - a. Though, Boeing hid the fact from certification agencies. If certification agencies had pushed Boeing for more clarification, they might have understood the issue with the system.
 - b. The imposition might have saved the crashes.
3. More Vigilant and Honest Judiciary.
 - a. Boeing escaped the investigation because they had internal relationship within judiciary.
 - b. People sharing responsibility in law enforcement or legislation would not have been allowed to be part of board at corporations like Boeing.
4. Engineers at Boeing were eclipsed by financiers and management team member whose only aim was to make profit. If engineers were heard at initial stage, the crashes could have been avoided.
5. If maintenance crew of the Boeing's customer had not ignored the issue and made effort to log the concern for further discussion. If reported at right time, it would have prevented the crash.

Some points of reference from the sources:**The Guardian**

1. Financiers were so much power that main aim was diverted to make profits rather than improving production or other parameters related to deliver high quality product.
 - a. They used to monopolize the system and then loot the corporations.
2. Executives were mostly good at making money but lacked good engineering skills.
3. The corporation was not focused towards their main product i.e., building aircrafts. They were more involved in serving political propaganda.
4. Merger of Boeing and McDonnell: Killed the competition and hence, created monopolistic market in aircraft manufacturing. Law passed by legislature acted as activation energy for the mergers.
5. Contractor and sub-contractors slowed the production down and Boeing was not able to deliver planes on time.

The Seattle Times

1. Crew alert system was confusing and was result of negligence by the regulators. Basically, Boeing used the loop hole to convince the regulators that actually meeting the regulation will cost dearly and should not be pursued for MAX planes.
2. Old design from 737 was used in MAX.
3. Because of a faulty angle-of-attack sensor on each flight, the stick-shaker was warning, falsely, that the jet was close to a stall. But having noted it, the pilots couldn't stop it. The MAX has no way to suppress that alert. The stick-shaker continued throughout both flights, along with multiple other alerts.
4. Boeing made promises to bring minimal changes to new MAX in order to facilitate airlines to avoid expenditure on pilot training.
5. Upgrading the alert system appeared during the system design but was rejected stating cost of the upgrade.
6. Instead of exemption, Boeing asked for Exception. By doing this they avoid public's scrutiny.
7. Leaders opposed to ideas citing cost impact and had given clear instruction that if any feature is not mandated in regulation, it should be avoided. Upper management tried their best to hid the facts and neglected the data received from the 3 crashes which happened.

Twitter thread by Trevor Sumner:

1. Maintenance crew faced some problem with the system but they didn't record them in Log book.

New York Times

1. Boeing failed to inform FAA about changes made to MACS during certification briefings.
2. Boeing failed to test, validate and implement changes to MACS.