Focal Firm Analysis

Focal Firm: Space X

STEEP Analysis

Category	Trend	Implication/Impact on Business
Sociocultural Trends *Population Demographics* *Values in Society* *Lifestyles* *Tastes and Preferences* *Levels of Education* *Greening of Business and Society*	• Shift towards private space explorations • Growing curiosity into space travel • Younger generation is more open to accept new challenges in space industry and any other related ways of transportation that helps save time. (Yusaku Maezawa signed up for Space X's private flight)	• Increasing capabilities of space vehicles, so it can serve multiple purposes with one type of vehicle. Eg. Space X's starship will serve as human flights and as payload transporter vehicles
Technological Trends *New Discoveries* *New Product Potential* *New Communication Technology* *Alternative Means of Providing Goods/Services* *Government Expenditure on Research*	• New and more detailed research on raptor engines. • Computer chips, processors, and parts are decreasing in sizes • Enormous data on space industry from NASA and other government organizations	• Straship's raptor engine only measures 4ft diameter and 10.2ft in height. Making more space to fit more fuel and loads • Space X develops new technologies and assembles their engines, spacecrafts in house. • Starting a Star Link program. Where Space X is trying to provide cheaper internet services in most rural areas.

Category	Trend	Implication/Impact on Business
Economic Trends *Interest Rates and Inflation* *Consumer Confidence* *Economic Growth* *Unemployment Levels* *Disposable Income* *Seasonality* *Business Cycles*	• Space X is building more trust with NASA, and that's why NASA is investing heavily into Space X • Local manufacturing and assemblies • Able to ship satellites at cheaper cost for customers	• Space X can able to buy more raw material at cheaper cost and private customers are going to Space X instead of NASA. • Hire more local employees and directly impacting local economy
Environmental Trends *Consumer preferences and demands for sustainable products and services* *Environmental regulation and incentives* *Access to sustainable resources (e.g. natural resources)*	• New reusable technology on launch vehicles and launch pad can reduces metal resource. • Mass of most rockets are more than 95% fuel. Which is liquid kerosene and oxygen.	• Reusable rockets can help cut material cost which directly impacts cost of the launch • Some of the negative effects are more carbon dioxide into the environment, clearing up sky after launches
Political/Legal Trends *Employment Laws* *Taxation* *Environmental Regulations* *Industry and Trade Regulations* *Copyright and IP Laws* *Monopoly Laws* *Censorship*	• Patents on Space X's engines and it's technologies • Potential barriers on reaching to different countries for more research and customers into different government agencies • Environmental regulations on limitation of launches	• This one works as favor in Space X. It earns some revenue when selling or leasing out rights to use space x's patents in other industries • Environmental regulations and legal overseas barriers decreases the pool of customers, vendors, and research data

Force	Strength (High, Med, Low)	Support & Substantiation
Threat (Bargaining Power) of Buyers	High	Typical Buyers? 1. Government Agencies 2. Private companies like AT&T, Verizon, Microsoft for network connections 3. Research organizations Explanation of the strength of buyers
Threat (Bargaining Power) of Suppliers	Low (Since Space X pretty much make everything in-house)	Typical Suppliers? 1. PMI Industries 2. NASA 3. U.S Airforce Explanation of the strength of suppliers:
Threat (Intensity) of Rivalry	Med >> High	Who are the main firms within this industry? 1. Blue Origin 2. Boeing 3. Virgin Galactic 4. United Space Alliance Basis of Competition: Similar private companies with with solid capital power and similar goals. Explanation of the strength of rivalry: Boeing and Space X both have contracts from NASA and competing against each other very closely

VRIO Analysis

VRIO Component	Definition	Resource/Capability 1: Reusable Rocket Concept	Resource/Capability 2: Multiple lift launch capabilities	Resource/Capability 3: Competitive Pricing	Resource/Capability 4: NASA's Commercial Crew Program Contracts
Valuable	The first question of the framework asks if a resource/ capability adds value by enabling a firm to exploit opportunities or defend against threats. If the answer is yes, then a resource is considered valuable. They are also valuable if they help organizations to increase the perceived customer value. This is done by increasing differentiation or/and decreasing the price of the product	Yes/No? Why? -Space X was first one to introduce reusable space rockets concept.	Yes/No? Why? -Space X offers small to heavy payload lifting capacity and can launch at any inclination and altitude.	Yes/No? Why? -SpaceX offers competitive pricing for its Falcon9 and Falcon Heavy launch services. Modest discounts are available, for committed, multi-launch purchases.	Yes/No? Why? -Space X is the only private company to have crew mission contracts with NASA.
Rare	Resources/Capabilities that can only be acquired by one or very few companies are considered rare. Rare and valuable resources/capabilities grant temporary competitive advantage.	Yes/No? Why? - This technology is Space X's own developed technology where they have money saving goal at heart. So they can create cheap more environment friendly rockets.	Yes/No? Why? - Other companies like Virgin Galatic and Blue Origin are trying to develop these technology.	Yes/No? Why? - No other companies whether in private sector or government sector offers discounts when buying launch or rockets in space industry.	Yes/No? Why? -NASA's crew mission contract with Space X is expiring in 2024 and once it gets expired, other companies will try to bid for that contract as well.
Difficult to Imitate	A resource/capability is costly to imitate if other organizations do not possess it, cannot imitate, buy or substitute it at a reasonable price. Imitation can occur in two ways: by directly imitating (duplicating) the resource or providing the comparable product/service (substituting). Barney has identified three reasons why resources can be hard to imitate: • Historical conditions • Causal ambiguity • Social Complexity	Yes/No? Why? -Other companies never thought of creating this type of technology specially because those companies are in the market for long time. While Space X is new, they started with scratch and developed these reusable technology.	Yes/No? Why? -Companies like Boeing and Lockheed Martin also have these capabilities, not necessarily at the price which Space X is giving.	Yes/No? Why? - Space X's goal is to reduce cost by factor of ten, saving billions of tax dollars and helping new age of discovery. No other company is working to minimize their profit and help space exploration.	Yes/No? Why? - It's difficult to have two same contracts with multiple companies at the same time.
Organized to capture value	The resources itself do not confer any advantage for a company if it's not organized to capture the value from them. A firm must organize its management systems, processes, policies, organizational structure and culture to be able to fully realize the potential of its valuable, rare and costly to imitate resources and capabilities. Only then the companies can achieve sustained competitive advantage.	Yes/No? Why? -Space X's flat organization structure and unorthodox approaches helps innovate more and efficiently.	Yes/No? Why? - More pool of space scientist and engineers who works at Space X because they like to think outside of box.	Yes/No? Why? - Corporate structure and their responsibly organized in-house U.S based manufacturing division.	Yes/No? Why? -Because Space X is kind of newbie, it doesn't have much experience with government contracts and political in. -Companies like Boeing and Lockheed Martin are so well connected with government, they can easily get more insights on contracts.

SWOT ANALYSIS

External Opportunities (O)
1. More National Security Space Contracts
2.Use it's Starlink program to reach out to more developing countries to help them grow their network connectivity
3. High-speed point to point travel on earth
4. More international government space contracts
5. Noncommercial crew program

External Threats (T)
1. Boeing and Lockheed Martin's alliance for space programs
2.Blue Orgin's Lunar missions and goals
3. Government laws on space travel and keeping more control over space and who gets the contracts
4. National and International trades

Internal Strengths (S)
1.Majority of in-house manufacturing
2.Higher product quality
3.New rocket concepts and designs
4.Low cost and simplified solutions

SO Strategic Options
Leverage strength to seize opportunity
1. (S&O)Higher product quality and trust of NASA can help Space X get more international contracts.
2. (S&O) Low cost solutions might help Space X get contracts from developing nations
3. (S&O) In-house production capabilities help Sapce X get more national security contracts, since all the confidential stuff stays in the country.

ST Strategic Options
Leverage strength to mitigate threat
1. (S&T) It is hard to compete with Space X's competitive pricing
2. (S&T) No other private companies have done as many successful launches as Space X
3. (S&T) Space X can create it's designs to exactly match with government regulations and more environment friendly.

Internal Weaknesses (W)
1.Not enough experienced talent
2.Higher expectations on launch dates (Quick Timeline)
3.Civil Safety (Elon Musk's inappropriate behavior)
4.Company's profitability
5.Enourmous capital requirements

WO Strategic Options
Seize opportunity to overcome weakness
1. (S&T) Train new and non experienced talent with most UpToDate technological trends
2. (S&T) Elon Musk's furious nature and confidence in company opens door to more countries as he expands his Starlink program. This program will increase Space X's profitability
3. (S&T) People believes Elon Musk's high ambitious and he proved it many times. His high ambitious gets capital investment for Space travel (point to point travel).

WT Strategic Options
Play defense to overcome weakness and mitigate threat
1. (W&T) Young talents can think outside the box and can compete with traditional old companies like Boeing.
2. (W&T) Elon Musk's public statements and appearances sometime challenges deep historical connections that companies like Lockheed Martin has with government.
3. (W&T) Quick turnover time frame for launch can help when there is a short time to finish the international trades and laws over manufacturing and waiting periods over satellite rights

S-Curve Analysis

Criteria	Your Answers
Focal Company	Space X
Core Business or SBU	Private company manufacturing and launching advance rockets and spacecrafts
S-Curve Stage	Growth
Explanation of Categorization of S-Curve Stage	Space X was launched in 2002 and the first private company to send a spacecraft to international space station in year 2012. At that time Sapce X was in introduction phase but now it has contracts from U.S government and NASA. Space X is also first private company to send crew into space few months ago. As of now Space X has 40+ contracts for launch vehicles. So it is safe to assume that Space X is in growth stage.
What are the consequences for your focal firm of this S-Curve positioning i.e. what does this mean for the firm's strategy? Please write at least three lines exploring what this means.	- Space X offers variety of launch vehicles like Falcon 1 - two stage, liquid oxygen and rocket grade kerosene (RP-1) powered launch vehicle, Falcon 9 - wider diameter, Falcon Heavy - heavy lift launch vehicle, Dragon is a free - flying, reusable spacecraft. Since Space X is in growing phase, it can expand it's reach to the customer who prefer cheaper space solution. And before with government programs it was nearly impossible for a smaller company to launch their own satellite. But with help of Space X, this can be done on variety of task whether to carry heavy load or just to launch a research-based satellite to the orbit with Dragon vehicle.
Discuss how your firm can better prepare for the next S-Curve stage (or a completely new S-curve). *Please identify some emerging disruptions and technologies that will become increasingly important in the next stage or new S-Curve. Please cite two sources.*	- Space X can prepare to support suborbital space tourism. Space X has the capabilities to launch vehicles to space stations. They can sure develop or add additional resources for sub orbital space tourism. After years of delays, the two leading companies in suborbital human spaceflight may finally enter commercial operations. Virgin Galactic plans to move VSS Unity, its SpaceShipTwo suborbital spaceplane, in the year for a final series of test flights. And Blue origin also promised to start crew flights. If this trend goes upwards, Space X will be in good position since they already have resources for this type of missions. -The U.S. Federal Communications Commission decided in November to run its own auction of satellite C-band spectrum instead of letting satellite operators handle it. Space X can re-arrange its resources towards Starlink to get benefits of this change of FCC rule. Once it becomes fully operational, Starlink will be able to offer internet access from virtually anywhere on the planet. Space X's effort is to launch thousands of small satellites, all of which will be in low Earth orbit. They will be able to transmit fast internet signals down to Earth. (Sources: starlink.com, spacenews.com, nasa.gov)
Analyze the array of markets, products, or technologies within a business as a portfolio and use a portfolio perspective in making strategic decisions about where to play and how to win. *Consider competitor positions with respect to 1) their current market, product, or technology portfolio and the associated S-curves and 2) the investments they are making in new markets, technologies, or products.*	- Space X has direct competition with Boeing. When Nasa awarded commercial crew program contract, Boeing received $4.2 billion, while Space X only got $2.6 billion. But Space X proven to be faster when delivering it's promises and safest crew vehicles. Space X just proved itself, when company's Crew Dragon spaceship carried two NASA astronauts into orbit and docked to the space station two months ago, then returned on Sunday. - Boeing is making more investment in developing more virtual astronauts training center around different regions of the countries while Space X is investing heavily into more user friendly and less complicated touch screen controls for dashboard of the crew dragon like it has in Tesla. Both companies are investing what is important more much safer travel, they both have to figure out how to combine those into one solution that either of the company can offer.

Application of Hypothesis Testing Logic

What is your most promising strategic option for firm (from SWOT)?

Competitive pricing on space vehicles

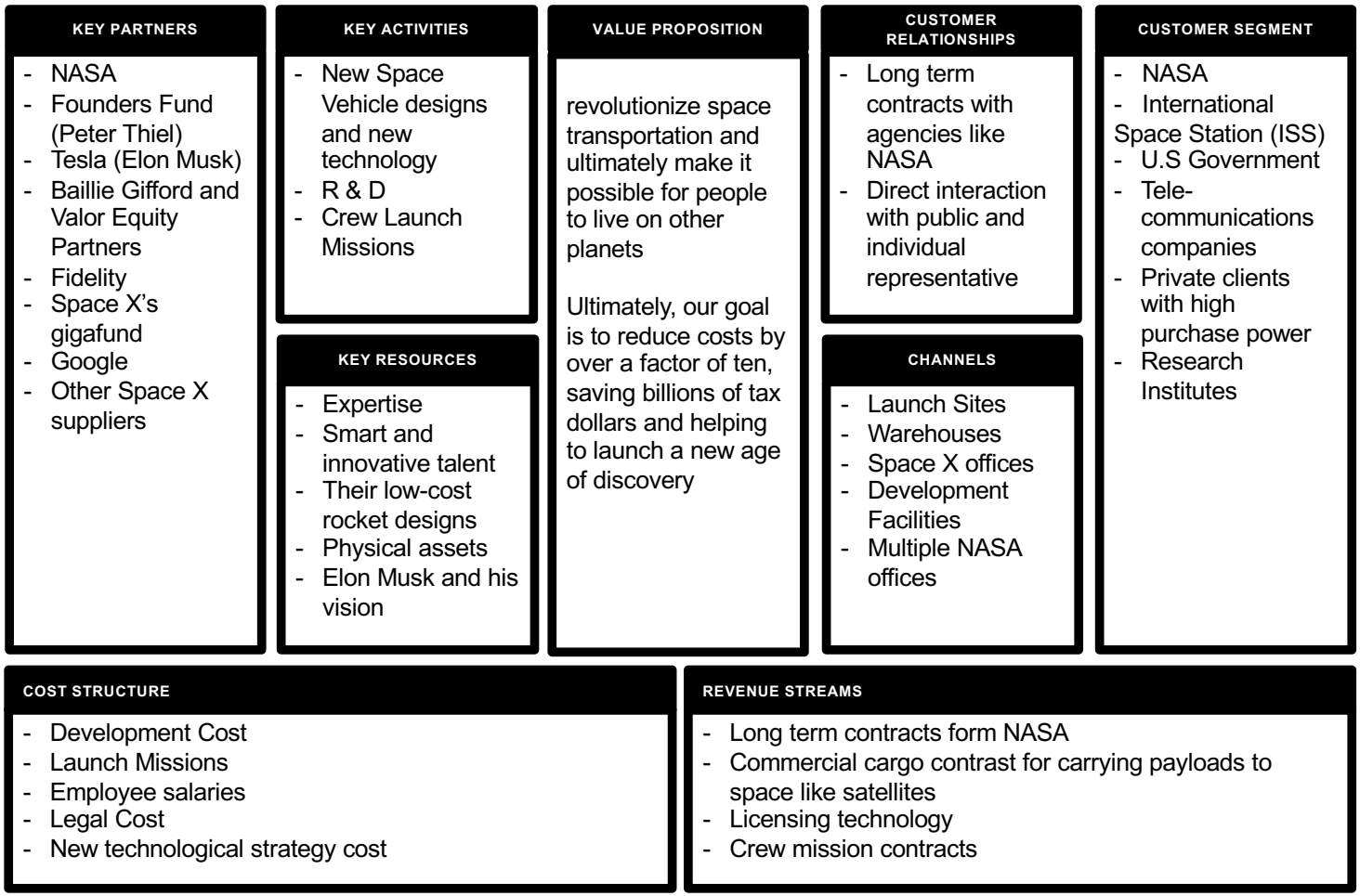
What would need to be true for this strategic option to be viable?

1. Other private companies offering similar kind of vehicles line as Space X (Because if there is no company who offers exactly same product as space x, then there is not benefits of doing competitive pricing, Space can setup whatever price they want.)
2. Space X's pricing for each vehicle should be cheaper and Space X needs to make revenue
3. Prices should be less no matter the order order quantity and term of agreement (years)

How could you test if these conditions are are valid?

1. Get data to see if there are companies who offer similar products from NASA and other public agencies. Since NASA is public agency, they should be able to provide all the data
2. Sapce X can investigate their historical tax records and financial records to see how their revenue changes form years to years and how they are charging prices differently order by order to different customers
3. Space X must look at their cost of goods (product production cost), launch cost, operational cost, and overhead to see what prices they can offer to customer for a single order and still able to make profits from a launch

Business Model Canvas



https://www.cnbc.com/2020/07/23/spacex-is-raising-up-to-1-billion-at-44-billion-valuation.html

Simple Balanced Scorecard

	Customers (marketing)	Business Processes (operations)	Learning and Growth (people)	Financial ($)
Objective What should they aim to achieve?	- They should aim to achieve more long-term contracts from more diverse industries and different governments around the world	- Space X should aim for more safe launches and as many as possible	- Space X should hire more talented and open to learn kind of people in their teams. - Space X should aim to get more knowledge from their employees	- Space X should aim to achieve profitability and able gain more margins while keeping prices competitive
Measure What should they measure?	- Customer's exact need and how much that customer is trying to spend and for how many years	- They should measure their historical data and see what issues they had during an of those previous launches	- They should measure their people's ability to learn from mistakes and how they can think outside of the box to solve a problem more safety and at relatively low price	- They should measure their competitors and their financials. This can help Space X to understand their price structure
Target What should their target be?	- Their target should be reaching out to the direct space organizations of many countries as possible	- Their target should be delivering on promised launch dates	- Their target should be their people's work like balance so Space X can keep their employees for long time	- Space X's target should be reducing costs by over a factor of ten and save tax and private dollars
Initiatives What initiatives should they put in place to achieve the target?	- Space X should offer competitive pricing as they already doing it to every customer regardless of order qty	- Space X can offer some rewards to their employees on finishing up a safe launch	- Space X can offer stock options like other major companies doing it or they can have their best talent to choose a name or create something close to them on one of their rockets or vehicles.	- Space X can invest back their profits into R&D and social benefits of employees and community around it.