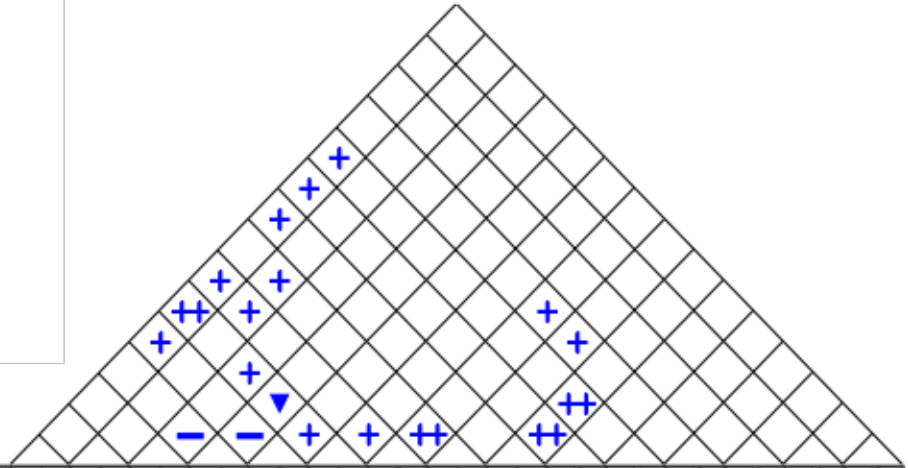
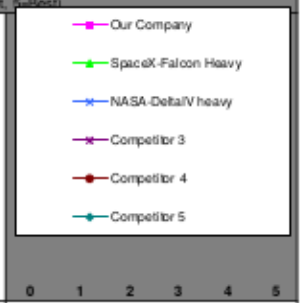


Legend		
⊖	Strong Relationship	9
O	Moderate Relationship	3
▲	Weak Relationship	1
++	Strong Positive Correlation	
+	Positive Correlation	
−	Negative Correlation	
▼	Strong Negative Correlation	
▼	Objective Is To Minimize	
▲	Objective Is To Maximize	
X	Objective Is To Hit Target	

Row #	Max Relationship Value in Row	Relative Weight	Weight / Importance	Demanded Quality (a.k.a. "Customer Requirements" or "Whats") \ Quality Characteristics (a.k.a. "Functional Requirements" or "Hows")	1 TVC angle excursion	2 Aerodynamic drag	3 Sustainer thrust fraction	4 Boosters thrust fraction	5 Centre of mass excursion	6 Misalignment of thrust with respect to center of mass	7 Velocity at boosters detachment	8 Altitude at boosters detachment	9 Sensors responding time	10 Attitude angular position sensitivity	11 Attitude angular velocity sensitivity	12 GPS/Radar visibility	13	14	15	Our Company	SpaceX-Falcon Heavy	NASA-DeltaIV heavy	Competitor 3	Competitor 4	Competitor 5
				Direction of Improvement: Minimize (▼), Maximize (▲), or Target (x)	▲	▼	X	X	▼	▼	X	X	X	X	X	▲									
1	9	30,3	10,0	Similar-to -target altitude and velocity at boosters detachment	O	▲	O	⊖	▲	O	⊖	⊖	O	O	O	▲				4	5	3			
2	9	24,2	8,0	Full control of trajectory	⊖	O	O	O	O	⊖	▲	O	⊖	O	O	O				4	4	4			
3	9	21,2	7,0	High precision attitude control	⊖				O	O			⊖	⊖	⊖					4	5	4			
4	9	6,1	2,0	Lightweight system	▲		O	⊖				▲								4	2	5			
5	3	6,1	2,0	Cheap system	▲	O						▲	▲	▲	▲					3	4	1			
6	3	12,1	4,0	Robustness to atmospheric disturbances		O			O	▲	▲		O	O	O					4	4	4			
7																									
8																									
9																									
10																									
				Target or Limit Value																					
				Difficulty (0=Easy to Accomplish, 10=Extremely Difficult)	6	6	3	3	2	7	4	4	5	5	5	2									
				Max Relationship Value in Column	9	3	3	9	3	9	9	9	9	9	9	3									
				Weight / Importance	512,1	157,6	181,8	400,0	203,0	384,8	309,1	357,6	542,4	397,0	397,0	103,0									
				Relative Weight	13,0	4,0	4,6	10,1	5,1	9,8	7,8	9,1	13,7	10,1	10,1	2,6									

Competitive Analysis (0=Worst, 5=Best)