



CASE 2: TESLA MOTORS

MGMT 340
Anna Rausa
11/9/2015

I. Tesla Motors

When visionaries Martin Eberhard and Elon Musk joined forces in 2004 to improve upon the tzero, the only high performance, battery powered, luxury-type electric car in existence at the time, something big was in store for the future of zero-emission vehicles. Both from highly successful entrepreneurial backgrounds, the duo created the Roadster, the first Tesla prototype. They priced the Roadster at \$100,000, and thanks to Musk's uncompromising values of quality, spared no expense in producing the model. It was the first of its kind in that it could travel 220 miles on a single charge, produced zero emissions, and didn't require any special charging equipment, but inexperience caused them to lose money on the high cost structure of the vehicle, which led to Eberhard's removal from the company.

Older and wiser, Tesla then turned their attention to the Model S, developing the vehicle with the help of a \$465 million government loan with the goal of creating a car that could help the United States achieve energy independence. The Model S was priced to compete with lower end luxury cars, and had garnered significant attention, with 10,000 reservations by May of 2012 with the release set for June. To help with the costs, Tesla used their facility to manufacture chargers for other automotive companies, and as result of improved decision-making and expertise, turned their first profit in 2013.

Next up for Tesla was developing the Model X, their first SUV, set to go into production in late 2013. Production would cost \$250 million and expanding the product line would help reach Elon Musk's goal of becoming a major U.S. auto company. However, it is not clear if Tesla's unconventional business strategy will pay off. Musk's ideals have caused him to make significant financial promises, and analysts were concerned that Tesla's stock was overvalued and in a bubble on the verge of bursting. Furthermore, Tesla had a lot of investors to please, and maximizing profitability was not necessarily compatible with the "mass-market" strategy for which Musk was striving.

Creating Value

Tesla creates value by designing and manufacturing sleek, high-performance, luxury electric vehicles. For now, they are serving the group of consumers known as the "eco-wealthy," a small and exclusive group who are price insensitive and care deeply about the environment, and want to convey those values publicly. Tesla's models made an environmental statement, being zero-emission vehicles, and due to successful branding and high-quality production, were positioned as an absolute luxury, especially in comparison with electric vehicles already on the market, like the Toyota Prius or the Nissan Leaf. The eco-wealthy wanted more than an environmentally conscious car, they wanted an environmentally conscious status symbol. At last, Tesla's models fulfilled this need.

II. The Electric Vehicle Industry

From 2012 to June of 2013, sales of electric vehicles in the United States were up 25.96%, and most companies manufacturing hybrids or electric cars saw an increase in sales with the exceptions of Porsche and Honda, who lost sales during that time. Many successful electric cars have been hybrids, such as the Toyota Prius. Hybrids are desirable to consumers because they are less expensive than purely electric cars and require no change in usage behavior, since they still require gas. However, electric cars such as the Tesla models as well as the Nissan Leaf do more than just reduce emissions and gas spending- they eliminate both. Environmentally conscious customers who can afford them can purchase electric cars and save on gas over the long run in many instances.

Porter's 5 + 1 Forces (See Appendix A)

Rivalry among Firms

As the technology for electric cars continues to develop, companies are competing on the basis of both differentiation and price. Charging time, range of miles per charge, and hybrid vs. electric are just some of the characteristics companies compete with separate from price. The rivalry among existing firms in the industry is HIGH.

Risk of Entry

Many companies have tried and failed to enter the electric car industry, because the initial required capital is significant, as is the industry expertise, even though brand loyalty is not as significant for electric cars as it is for traditional vehicles. However, the small number of major automobile manufacturers have the resources to outsource production and expertise and create electric cars, and the majority of them have done this, to varying degrees of success. The risk of entry is MODERATE.

Bargaining Power of Buyers

While entirely new companies may face pricing pressure from buyers in the beginning, dealerships purchase cars from automotive companies on contract, and are mandated to have certain inventories of each model, so the bargaining power of buyers is LOW.

Bargaining Power of Suppliers

Because automotive companies can produce their own parts, like Tesla did with the lithium ion batteries, suppliers are not usually able to put downward pressure on the profits of electric car companies, so the bargaining power of suppliers is LOW.

Threat of Substitutes

Though in certain geographic areas and climates, environmentally conscious vehicles aside from electric cars are popular, electric cars can be used just about everywhere traditional automobiles are used, and that means that the threat of substitutes is LOW.

Power of Complements

Complements for electric cars consist mainly of power sources such as regular home electrical outlets, gas (for hybrids), or charging stations. In the case of purely electric cars, people may make decisions based upon how much it costs or how convenient it is to charge their car's battery. The Nissan Leaf can be charged at home, but takes 8 hours to reach a full charge, whereas the Tesla models rely on availability of Supercharging stations, which do not provide comprehensive geographic coverage. There is a downward pressure on pricing to compensate for these shortcomings, so the power of complements is MODERATE.

Implications

Because Tesla's target market is not price-sensitive, some of the pressure on pricing put forth by the rivalry among existing firms, risk of entry by other firms, and availability of complements is quelled. However, if a major automotive company decided to create a luxury zero-emissions vehicle and were successful, it could very well mean a huge hit to profitability. Musk also promised consumers who were concerned about the total cost of ownership of a Tesla model that charging would be free, which pushes back against the pricing power of complements discussed earlier. But because Tesla is still so new, Musk also made

promises to consumers which eliminated the opportunity for revenue after the Model S cars were sold, such as free maintenance and trade-ins for residual values, and many were concerned this was too generous and would hinder profits for the company.

III. Internal Analysis

Strengths and Weaknesses (See Appendix B)

Tesla has a number of factors which contribute to and weaken its competitive advantage. In terms of efficiency, Tesla used to be terrible inefficient with the production of their initial prototype, the Roadster. After dealing with delayed production, runaway costs, and agency issues, however, they emerged a stronger and more efficient company when producing the Model S. They also utilize their production facility to a higher capacity by producing parts for other automotive companies in its downtime. One value that Elon Musk insisted on to a fault since the inception of Tesla is the superior quality of the materials, and the care and expertise that has gone into developing the Tesla product line ensures the excellent quality of the vehicles. After the Model S was released, Tesla was very responsive to customers' worries about estimating the total cost of ownership and in promising free charging, maintenance, and trade-ins, mitigated that concern successfully. However, this led to a major weakness in that confronting these concerns has led to a major financial commitment that may significantly damage Tesla's profitability. Overall, Tesla is an impressively innovative company. When considering their automated production facility, their nonexistent marketing budget, and opting-out of the dealership sales model, Tesla has been anything but traditional, and has so far reaped success from their nonconformist values.

Business Level Strategy

The electric vehicle industry is still in a growth stage, and demand for electric vehicles is growing and has not yet reached its peak. Currently, the group that owns Tesla's models are considered early adopters, since the vehicles are still in many ways inaccessible to the general public. Within that growth industry, Tesla is pursuing a focus differentiation strategy. Tesla's product is highly differentiated on the basis of quality as excellence, as well as process and product innovation. They are currently serving a very focused segment of the market, the eco-wealthy. Though prices may eventually fall in the industry due to macro environmental forces such as introduction of competitors after Tesla paves the way for zero-emission luxury vehicles, this niche market is not price sensitive and will not be swayed by changes in price.

Functional Level Strategies

Tesla employs functional level strategies to sustain their competitive advantage. In terms of efficiency, they perform a highly efficient production process using automated robots to increase capacity to 83 cars per day while reducing labor. They also have an extremely efficient marketing strategy- which is that the product markets itself with the help of organic word-of-mouth advertising from the influencers with ties to the company. As previously discussed, the production process including the selection of parts and materials ensures a high quality product that meets the needs of their target market. Tesla has also employed customer responsiveness in their distribution strategy, as purchasers of the vehicles can abstain from the traditional methods of buying and fueling their cars through Tesla's own dealerships and Supercharging stations. Their production process is also innovative as the multifunction robotics are

in stark contrast to the single-function machines used by other US auto manufacturers. The entire company was founded upon the ideal of innovation, and that value can be found in each functional area. Innovation, efficiency, quality, and customer responsiveness have been embodied in Tesla's functional strategies and combine to position the Tesla Model S as a high quality and groundbreaking luxury vehicle, driven by some of the most influential business people in the country.

Resources and Capabilities (See Appendix C)

Tesla has many tangible resources which help them maintain a competitive advantage. One major tangible resource is the production facility with automatic manufacturing capabilities. This has allowed them to achieve efficiency and differentiation among US automotive companies by altering the former means of production. Additionally, Tesla's expertise in the technology associated with electric vehicles is an intangible asset that could not in its totality be bought by another company. From the beginning, Tesla took advantage of some of the most advanced talent in the industry, and that expertise has helped them shape their product line.

Of all of Tesla's impressive capabilities, perhaps the most remarkable is the creation of a niche. Tesla entered a market which had historically been unfashionable and not cool and changed the game entirely. Tesla has become the standard in luxury electric cars, and no other competitor matches them in style or technology.

Sustained Competitive Advantage

The Tesla Model S has earned the highest Consumer Reports' rating, and the company took in over \$11 million in profit in 2013, so it in addition to Musk's confidence in the company, Tesla is getting outwardly recognized for the value of their product. As previously mentioned, Tesla's ability to serve the eco-wealthy niche was unheard of before the Roadster, and no real competitor exists for their product line, so Tesla has created an indisputably rare product and brand. At this point, Tesla is not quite organized for success. Tesla is certainly forging their own way in the automotive industry, but they have fallen into their recent financial success somewhat haphazardly. Considering the significant financial promises Musk made to Model S owners, Tesla may not be poised for sustained positive financial performance. Altogether, however, what Tesla has created is very close to inimitable. Individual aspects such as production, materials, or business model could be recreated, but when combined with Tesla's investors, branding, and market positioning, it would be difficult for an automotive company to imitate the company successfully.

Opportunities and Threats (See Appendix B)

Tesla may in the future choose to expand internationally, and that is in large part thanks to the attention they have attracted from high-profile business people and tech entrepreneurs. One major opportunity the company can choose to pursue is the availability of capital from these powerful industry folks. However, the support of these investors and entrepreneurs is somewhat contingent upon Tesla's strategy. Musk has a vision for a mass-market, major automotive company which produces zero-emissions vehicles for a large market. To achieve this vision, however, would mean abandoning the niche market Tesla currently serves, the eco-wealthy, and opening a space for another luxury electric vehicle to enter.

National Competitive Advantage & Porter's Diamond (See Appendix D)

To determine the capability for Tesla to have success in the global market, we must first analyze their National Competitive advantage.

Intensity of Rivalry

So far, Tesla's rivals have been luxury positioned hybrid cars such as the BMW 5-series. There is negligible threat from zero-emission electric cars such as the Nissan Leaf, since they are not positioned as luxury sports cars catering to the eco-wealthy. As result, rivalry in the United States is not currently very intense.

Local Demand Conditions

Though there is interest in Tesla's product line in Europe and Asia, the majority of the demand for the Model S came from inside the United States, and was partially created in reaction to the US government's desire to become oil independent of other countries.

Competitiveness of Related and Supporting Industries

Since Tesla was able to develop their revolutionary lithium ion battery in the United States, there is a good chance the related industries of steel and battery technology are sufficiently developed to provide for Tesla's inputs.

Factor Endowments

The United States provides ample factor endowments for Tesla to succeed in producing luxury electric vehicles. The majority of the technological expertise Tesla utilized to design and produce their product line resided in the US before the formation of the company, and production takes place in California, where the majority of their customer base lives.

Technology

As a high-tech automotive company, the implications of the technological environment are extremely important to Tesla's success. Tesla pioneered the lithium ion battery which, for the first time, allowed zero-emissions vehicles to travel impressive ranges between charges. A rise in demand for zero-emission, purely electric cars would be beneficial for Tesla, since there are few competitors in the luxury position of the industry. One technical strategy that Tesla has pursued is ensuring a supply of complements by promising free charging at Supercharging stations. This strategy will aid the early adopters in assimilating to the new technology in addition to helping them estimate the total cost of ownership.

IV. Conclusion & Recommendations

Tesla has become an impressive force in the electric vehicle industry as well as the automotive industry as a whole. They are currently serving the niche market of the eco-wealthy by producing what is perhaps the first line of vehicles which are both stylish and environmentally responsible. They have crafted a competitive advantage by leveraging developing technology to produce a high quality vehicle through an innovative and efficient production process, and have since displayed customer responsiveness by expanding the product line and helping to curb costs of ownership. At present, Tesla is poised at a

crossroads. Musk has a vision for Tesla that involves a mass-market strategy, which contradicts the basis of Tesla's initial success- serving a niche market with a focus differentiation strategy.

Tesla is fortunate to have a range of options in terms of the future of the company, and at this point should choose very carefully how to proceed depending on their strategy. Tesla should pursue, as Musk has envisioned, a mass market broad differentiation strategy. The implications of this strategy include steps toward oil independence and widespread use of zero-emissions vehicles. It did make sense for Tesla to enter the market as a luxury company, because it helped them get the necessary funding and interest to take off, but now since they are able, and it aligns with their values, they should adopt a mass market strategy, especially because the eco-wealthy market is only so profitable as it is a small niche. Broad differentiation would look like developing the Model X by using government funding and pricing it even lower than the Model S to appeal to larger markets. Tesla has an opportunity to create the high-performance electric vehicle that changes perceptions of what sustainable transportation looks like, and serve the greater environmental good while doing it.