

Case Study 3: Tesla Motors Value Chain Analysis

Tesla has a diverse supply chain and their inbound logistics involve purchasing parts from suppliers all over the globe, and using them to manufacture cars at their two factories in America. Over 3000 parts are purchased from over 350 suppliers around the globe, which is costly, and Tesla is trying to vertically integrate some of this process as raw materials prices can be volatile. Tesla is building a massive new factory in Nevada, called Gigafactory, to produce some of the materials used in their cars. Raw materials that they can't insource will be purchased from suppliers within North America as it is less costly to transport them intercontinentally and there is little in the way of import tariffs because of NAFTA. Should the U.S. government pass additional trade deals that decrease the costs of importing raw materials from other countries, Tesla may need to rethink their decision to vertically integrate the process. All manufacturing is done at Tesla's factories in California and Nevada. Both factories are well equipped for several manufacturing operations including stamping, plastics, body assembly, paint operations, and final vehicle assembly. The manufacturing process is highly innovated and automated, using multi-function robots that can produce many vehicles per day and are easily reprogrammed to produce different car models or inputs in the car making process. Quality engineers monitor the process to ensure each car is up to snuff, since Tesla's are luxury automobiles and quality is extremely important. Tesla sells through their website and storefronts they have in major metropolitan areas. Tesla's distribution channel consists of their storefronts located in major metropolitan areas across eighteen countries. Vehicle inventory is typically low, both at the factories and at the storefronts, because customers generally have the option to customize their vehicle when they order it. When a vehicle is ordered it will be manufactured at one of the Tesla factories and delivered to the closest storefront to the customer. The customer

either picks their vehicle up at that location, or it will be delivered to the customers house for an additional fee.

Tesla doesn't use traditional advertising methods like television, radio, and internet advertising to market their vehicles. Tesla's are luxury vehicles and their potential customer base is wealthy people, and traditional advertising methods are ineffective at targeting these people. Instead, Tesla hold "display and demonstration" events at premium company owned outlets and galleries in metropolitan areas where potential customers can find out about the cars. This is less expensive than traditional marketing strategies and hits Tesla's target market better, as these events generate lots of media buzz and gets Tesla's owners to recommend their friends and colleagues purchase one. Hosting these events also allows Tesla to offer customized experiences to each potential customer as opposed to having a standardized process like franchised auto dealerships. A big part of Tesla's success is due to being the only luxury electric vehicle maker, and capitalizing on wealthy people's desire to own something unique. As other companies enter the electric vehicle market Tesla will likely have to update their marketing strategy as they will lose their edge as the new exciting company. Media coverage will drop as will the number of people talking about Tesla, forcing the company to pursue more traditional marketing strategies. Tesla also benefits from government initiatives to encourage people to buy electric vehicles such as tax breaks, infrastructure projects to build charge points, and letting electric vehicles drive in preferential lanes. This increases consumer interest in electric vehicles like Tesla's without Tesla spending any money. The customer service section of the value chain is extremely important to Tesla as their customers can't go to general service stations. To deal with this issue Tesla opened their own customer service centers and hired mobile service technicians to aide customers who need assistance. As of 2015 there were 95 such sites, and Tesla is in the process of creating more. Tesla vehicles have an on-board wireless system that can diagnose technical issues with the vehicle when

they occur. This makes it easier for vehicle technicians to get the car running again, which shortens the time a customer isn't able to drive their Tesla.

Tesla had great experience producing the electric-batteries needed to power fully electric vehicles, but were struggling to mass produce the vehicles and get them to market. Tesla entered into a series of partnerships designed to help them in the areas of the engineering and manufacturing process where they were struggling. In 2009 Daimler AG, the parent company of Mercedes-Benz, purchased a 10% equity stake in Tesla. Daimler was looking to get into the Electric vehicle market, and needed Tesla's electric batteries to begin producing such vehicles. Tesla was struggling to bring their electric cars to full production, and bringing in a Daimler executive was supposed to help Tesla get their Model S sedan to full production. Essentially, Tesla had expertise in producing electric batteries, and Daimler had expertise with everything else. This partnership was a resounding success for Tesla. Model S's went into production shortly thereafter and Tesla became a force in the electric vehicle market. Daimler eventually sold their equity in Tesla and focused on in house production of electric vehicles as Tesla had grown into much more than an electric battery supplier as Daimler had largely envisioned they would be.

In 2010 Tesla purchased a \$50 million stake in Toyota as the companies were going to partner in creating electric vehicles. Toyota dominated the hybrid car market before this partnership, and were partnering with Tesla in hopes Tesla could help design the electric drive train for Toyota's going forward. Tesla's biggest advantage from this deal was a feeling of legitimacy as they had been producing vehicles for only two years and delivered very few, hardly inspiring to the general investing public. Tesla also gained access to Toyota's breadth of knowledge about manufacturing, delivering, and marketing automobiles; which ideally would help Tesla gain market share in the U.S. automobile market. Unfortunately this partnership had

little effect on either company's future prospects, and Toyota sold off all their shares of Tesla stock by 2016.