

ILLUSTRATION 1.1

Tesla Motors: the future is electric!



Tesla car

Source: Jim West/Alamy Images.

The Tesla Roadster is a staggeringly quick car with a difference. There's no wheel-spin, no traction control stutter, no driveline shutter. As soon as one stamps on the throttle the driver gets 686 lbs of torque immediately, rocketing the car from 0–60 mph in 3.2 seconds and with negligible noise – the car is electric.

The Tesla Roadster is the main product of Tesla Motors. Its charismatic chairman and main funder is PayPal co-founder, and SpaceX CEO, Elon Musk. Barely a decade old, Tesla Motors is already gigantic, \$33bn (£20bn, €25bn) market capitalisation and adored. It's been called 'the world's most important automotive company'¹ and the Tesla's Model S, 'the Most Loved Vehicle in America'¹ – out-selling Mercedes S-class and BMW 7 series. And yet the last successful American car start-up was Ford, founded 111 years ago. How can Tesla Motors be so successful?

Tesla is the brain-child of three Silicon Valley engineers convinced by global warming arguments and looking for alternative fuel sources for cars. Co-founder Martin Eberhard asked: 'How much of the energy that comes out of the ground makes your car go a mile?'¹ He observed: 'Hydrogen fuel cells are terrible – no more efficient than gas. Electric cars were superior to everything.'¹ He then discovered a bright yellow, all-electric, two-seater bullet car with zero emissions, 'tzero', built by AC propulsion. Inspired, Eberhard kept saying to potential recruits – 'try and touch the dashboard.'¹ He would then hit the accelerator – they couldn't! With Lamborghini-level acceleration, this demonstrated electric cars didn't have to be golf carts.

But industry logic said electric cars would never succeed. GM spent \$1bn (£0.6bn, €0.75bn), developing the EV-1 which was then scrapped. Battery technology had not improved in a hundred years. But Eberhard realised lithium-ion batteries were different – improving 7 per cent p.a. So Tesla was positioned to ride the current of technological history.

The founders had no experience making cars, but realised car companies now outsourced everything, even styling. Manufacturing partners were ready to be connected with; a 'fab-less' car company was possible.³ Production began 2008. The business plan described the Roadster as 'disruptive' technology¹ – a high-end sports car with lower price and emissions than competitors – and a lower resource cost to the planet.

Roadster

0–60 mph < 3.9 seconds; 100mpg; world-class handling; zero tailpipe emissions; 300 mile range; zero maintenance for 100,00 miles (other than tyres); 50% price of the cheapest competitive sports car.¹

Tesla's strategy was:

to enter at the high end of the market, where customers are prepared to pay a premium, and then drive down market as fast as possible to higher unit volume and lower prices with each successive model. . . . all free cash flow is plowed back into R&D to drive down the costs and bring the follow on products to market as fast as possible. When someone buys the Tesla Roadster sports car, they are actually helping pay for development of the low cost family car.²

Tesla aimed to provide zero emission electric power generation from their 'giga' battery factory in line with their 'overarching purpose . . . to help expedite the move from a mine-and-burn hydrocarbon economy towards a solar electric economy.'² In 2015, Tesla Energy was launched selling batteries for home and business use.

Edison didn't invent the light bulb, but he made it affordable and accessible through his electric system.³ Tesla is also offering an energy system for a world of electric vehicles, homes and businesses, using batteries.

Sources: (1) E. Musk, 'The Secret Tesla Motors Master Plan (just between you and me)', 2 August 2006; (2) D. Baer, 'The making of Tesla: invention, betrayal, and the birth of the Roadster', *Business Insider*, 11 November 2014; (3) J. Suskewicz, 'Tesla's new strategy is over 100 years old', *Harvard Business Review*, May 2015.

Questions

- 1 How does Tesla Motor's strategy fit with the various strategy definitions in Figure 1.1?
- 2 What seems to account for Tesla's success?