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The globalization of Tesla Motors: a strategic marketing plan analysis

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This case study provides analysis of the strategic marketing plan of electric vehicle manufacturer, Tesla Motors. It has profound marketing management implications, as it addresses this investigation from the unique perspective of Tesla's 'new technology'-based approach to automobile marketing and relates it to the successful marketing model of Apple Computer. This marketing approach is counter to the traditional automobile industry's marketing management approach which favors mass marketing and mass production. A qualitative, exploratory research approach was adopted for this analysis. Research was conducted via extensive secondary literature collection and data analysis, as well as in-depth examination of case studies focusing primarily on Apple Computer. Key findings conclude that: (1) the battery electric vehicle industry is poised for explosive growth; (2) Tesla Motors is uniquely positioned to capitalize upon this growth opportunity; and (3) a 'new technology'-based approach to marketing management is central to Tesla's current and future growth.

Keywords: Tesla Motors; Apple Computer paradigm; strategic marketing plan; qualitative marketing analysis; international marketing management; battery electric vehicles

Introduction

Tesla Motors ('Tesla') is a global enterprise that designs, produces and markets electric powered vehicles and components. Presently, it is the only vehicle manufacturer selling zero-emission sports cars in serial production (as opposed to concept vehicles or prototypes). It is now expanding this technological advantage to the luxury vehicle sedan market. Tesla's strategy of selling sleek, eco-friendly designs at high margins echoes Apple Computer's business model, and differs greatly from its industry peers Chrysler, Ford and General Motors in Detroit, which have been struggling to evolve their aging lines to meet the increasing demands for electric and hybrid vehicles (Sun, 2011).

In spite of the global strides made by Tesla in terms of technological developments, global branding and market adoption, it remains a relatively young company within a nascent industry – compared to the 150-year-old internal combustion vehicle industry. Not surprisingly, the amount of literature and research devoted to the company and the electric vehicle industry in general is limited. Further exacerbating current research gaps, existing research and analysis of Tesla has focused almost exclusively on the technological strides made by the company. As such, an even more serious research gap exists related to the marketing and business aspects of the company and its products.

In light of these research gaps, the central issues addressed in this research report include: (1) the major developments within the electric vehicle ecosystem that have

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created a unique market environment for Tesla; (2) Tesla's response to capitalize upon this market opportunity; and (3) analysis of Tesla's unique marketing strategy – current and prospective – to expand upon this market opportunity. Additionally, this writing represents the first in-depth research report to analyze Tesla from a strategic marketing perspective using Apple Computer as a comparative new technology marketing model.

Investors and analysts remain deeply divided on the future of Tesla. Many detractors view the company, which has experienced only limited profitability since its inception in 2003, as an 'emperor with no clothes', while more bullish proponents are calling it the 'Apple of automakers' (Sun, 2011).

Situation analysis: electric vehicles

A new generation of vehicles – powered by electric drivetrains with energy from electric storage batteries – has emerged over the past several years. These vehicles include advanced gas electric hybrids, plug-in hybrids and battery electric vehicles (BEVs) (Mintzer, 2009). Gas electric hybrids, such as the pre-2004 Toyota Prius, are powered by gasoline and batteries but are not considered true 'electric' vehicles since they do not have a 'plug-in' charging feature. Plug-in hybrids (e.g. the Chevrolet Volt), rely in part on conventional fuels but are still designed to be recharged via the power grid. BEVs, such as Tesla's Roadster, rely entirely on electricity and will be the focus of this report.

Electric vehicle market overview

Analysis of some of the most credible recent forecasts indicate that BEVs could account for as much as 53% of all electric vehicle sales through 2020 and 5% of total global automobile sales (Ashtiani et al., 2011; *Week in Review*, 2010). (See Figure 1.)

At this stage of BEV industry development, forecasting future sales volumes is complicated and speculative. The sales prospects of the market are highly contingent upon various market drivers, which are discussed later. In any event, two leading studies detailing projected BEV production by the Boston Consulting Group and Deutsche Bank, predict annual sales of up to one million BEVs by 2015 in North America alone (Cunningham, 2009). Table 1 highlights several additional, credible medium-term average annual BEV global sales estimates.

It should be noted that the above forecasts reflect fairly conservative projections since they are based upon technology developments which reflect a fairly limited BEV range of

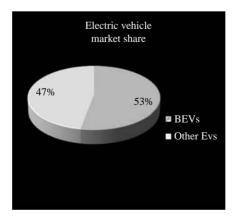


Figure 1. Electric vehicle market share. Source: EnTech Capital Ltd.

Forecast source (date)	BEVs sales	Sales period
Strategy Analytics (3/09)	500,000/Yr	By 2015
Goldman Sachs (7/10)	1.7 million/Yr	By 2020
Pike Research (9/10)	340,000/Yr	Thru 2015
Pricewaterhouse Coopers (10/09)	300,000/Yr	By 2015
J.D. Power & Assoc. (10/10)	1.3 million/Yr	By 2020

Table 1. Select global battery electric vehicle forecasts.

about 100 miles – and, therefore, reveal more limited market adoption. However, Google (2011), in its comprehensive 'Impact of clean energy innovation' report, predicts that battery breakthroughs reflecting a range of 300 miles on a single charge could propel BEVs' market share of the total automobile industry to over 30%. As noted, *Tesla's breakthrough battery technology is already capable of this range objective*.

A central argument in favor of rapid electric vehicle adoption is the positive environmental effects. Unlike emissions from gasoline powered vehicles, which contribute an estimated 56.6% of the total global greenhouse gas emissions, BEVs emit zero emissions into the atmosphere (US Environmental Protection Agency, 2007). Hardester (2010) notes that the argument can be made that while BEVs do not emit any pollution, the power sources used to charge the vehicles emit pollution. Counter to this position, much of the power necessary to charge BEVs could be produced by zero emissions pollutions sources such as wind, solar, geothermal, hydrogen and even nuclear power plants.

Market forecasts aside, the BEV industry continues to evolve in an unusual and uneven manner, with premium sports models, mini-cars and commercial vehicles leading the way prior to the technology being targeted toward the mainstream consumer. However, given the characteristics of BEVs and the underlying factors driving this 'new technologydriven' industry, such a market beginning was not only likely, but also well anticipated.

BEV market drivers

A driver is a major factor that contributes to the growth or change of a particular industry. Four key market drivers will have the greatest impact on the competitive position of BEVs in the vehicle market: (1) technological developments (advances in battery technology, vehicle performance improvements); (2) infrastructure developments (spread of recharging stations, smart-grid developments); (3) public policy; and (4) energy economics (price of electricity and gasoline). (See Figure 2.)

Technological developments

The advancement of the BEV market is highly contingent upon continued improvements in core technologies including vehicle batteries and overall vehicle performance. This includes improvements in battery characteristics such as range/power, production costs, safety and reliability. It also comprises vehicle performance improvements such as torque, efficiency and reliability.

Battery innovation

Two of the biggest factors inhibiting the mass adoption of BEVs are battery range limitations and high battery costs. In that regard, there are promising prospects for battery technology advancements that will continue to improve range performance and reduce costs. The original acid-based electric vehicle battery was extremely heavy and had a limited

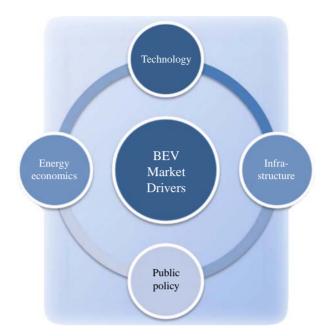


Figure 2. BEV market drivers.

range of only about 60 miles. Comparatively, lithium-ion batteries weigh substantially less, are about the same size and have nearly five times the range (Eberhard & Tarpenning, 2006). Tesla's leading-edge lithium-ion based battery, for instance, is 500 pounds lighter and has a range of up to 300 miles.

While breakthroughs in advanced battery technologies have already resulted in meaningful cost reductions, BEV batteries are still very relatively expensive (Ashtiani et al., 2011). Lithium-ion batteries can account for up to 50% of the cost of a BEV, with current battery prices estimated at around \$15,000 (Ramsey, 2010). A major concern is the high demand and short supply of battery component parts, including rare metals such as cobalt, manganese and nickel. Figure 3 illustrates a typical production cost breakdown for a lithium-ion battery.

Continued advances in R&D and anticipated economies of scale are likely to spur the type of significant battery price reductions necessary to make BEV prices more competitive. The US Department of Energy has established an attainable vehicle battery cost reduction goal of 70% between 2010 and 2014 (Ramsey, 2010). By comparison, the *Gale encyclopedia of U.S. economic history* reveals that computer processors (a comparable new technology development) were introduced at high relative prices, but steadily declined by an average of 20% per year since 1950 (Carson, 1999).

BEV improvements

The primary manner in which a BEV dramatically outperforms a gasoline powered vehicle (aside from obvious emissions advantages) is its high torque ratio. A gas engine has diminished torque capability in the low 'rpm' range and only delivers limited horsepower within a narrow rpm range. By comparison, an electric motor has high torque capabilities even at zero rpms, delivers near continuous torque within the 6000 rpm range and continues

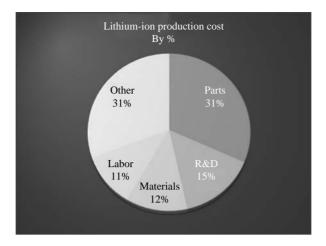


Figure 3. Lithium-ion production cost by %. Source: Tesla Motors, Inc.

to deliver exceptional power beyond 13,500 rpms (Eberhard & Tarpenning, 2006). What this means is that electric vehicles are extremely fast at any level of rpm output.

In terms of efficiency, electric vehicles are six times as efficient and produce less than one-tenth the pollution than the most efficient gasoline powered vehicle (Eberhard & Tarpenning, 2006). BEVs are mechanically much simpler (10 times fewer moving parts, no engine, no transmission, etc.) than both gasoline powered vehicles and hybrid electric vehicles. The BEV motor has only one moving part, has no clutch and boasts a highly simplified transmission.

Moreover, due to a technological advancement known as 'regenerative braking', even the friction brakes experience little wear. Service for a well-designed electric car is limited to routine vehicle inspection, possible simple software updates and tire maintenance, for the first 100,000 miles.

Infrastructure development

Charging stations

The prevailing theory is that in order for the BEV industry to gain significant global market share, a supportive charging station infrastructure needs to be developed that is on a similar scale as that of the gasoline powered vehicle infrastructure (Hardester, 2010). This translates into a viable network of quick-charging stations which are capable of rapid charging a BEV in less than 30 minutes, as opposed to home chargers which take up to eight hours.

What the above theory fails to factor is that the public infrastructure issue is neither new nor unique. In the early stages of the gasoline powered vehicle, fueling stations were few and far between. Moreover, the automobile was an unproven technology and was more costly than the horse drawn carriage. In spite of that, the number of automobiles on American roads grew from only 8000 in 1900 to over 17.5 million in 1925 (Wynn & Lafleur, 2009). The above theory also fails to factor rapid advances in battery technology (see earlier 'BEV improvements'). Tesla, for instance, has already developed battery technology which extends the range of BEVs to 300 miles. This gives rise for optimism for similar growth of the BEV industry and the development of a supportive charging station infrastructure.

Besides charging stations, there are a number of viable charging options that could spur sector growth including: the availability of plug-ins in parking garages, restaurants and

other commercial establishments, as well as the rapid evolution of workplace recharging facilities (Ashtiani et al., 2011; Wynn & Lafleur, 2009). Another innovation, battery swapping stations, provides yet another potential solution. In that regard, a partnership between Israel, Nissan/Renault and Silicon Valley-based Better Place was formed with the objective of building a nationwide battery swapping and charging infrastructure with the capacity to handle 100,000 electric vehicles by late 2011 (Cunningham, 2009). In any event, overcoming consumer 'range anxiety' is a critical factor in quickening the adoption rates of BEVs (Patel & Aalok, 2010).

Smart-grid development

Even a partial shift from gasoline to electricity as a transportation fuel will have major ramifications on the demands and operation of electric grid power systems. One potential solution to these issues is the development of smart-grid technologies which incorporate advanced distribution, transmission, metering and consumer technologies (Ashtiani et al., 2011). Smart-grid technologies include two-way communications processes between electricity users and energy providers, enhanced electricity load monitoring and management of two-way electricity flows.

In a joint study released by Better Place and PJM, it is argued that another viable solution for maintaining lower BEV-related electricity grid costs is via a central charging infrastructure managed by a single independent system operator (Schneider et al., 2011). Additionally, Ashtiani et al. (2011) assert that policies aiming to optimize electric power systems must be adopted, including the acceleration of smart-grid standards and implementation and the expansion of lower-priced, off-peak pricing.

Public policy

The transportation sector has become a focal point for international policymakers because it accounts for nearly 57% of all environmentally damaging greenhouse gases and up to 70% of petroleum consumption (Ashtiani et al., 2011; US Environmental Protection Agency, 2007). (See Figure 4.)

As a result, governments around the world are encouraging electric vehicle adoption as an alternative transportation technology. This encouragement comes in the form of government subsidies for electric vehicle producers, consumer price incentives, tax credits for producers and consumers and sponsorship of technological research and development (R&D) (Cunningham, 2009; *Week in Review*, 2010). Other countries, including the European Union, have focused on promoting technology-neutral measures such as strict new vehicle carbon emissions standards.

A significant degree of governmental support is necessary because of private sector underinvestment in critical areas such as electric vehicle R&D and infrastructure development (Ashtiani et al., 2011). Public policy measures have been implemented to counter this underinvestment, including support for production and infrastructure, R&D grants, loan guarantees and public–private partnerships. China, for example, is currently committed to supportive policies and annual government investments of \$150 billion a year into the clean energy industry – citing the 'emerging' electric vehicle sector as a core strategic industry component (*Week in Review*, 2010). Moreover, many countries, including the United States, China and Japan, have established near-term electric vehicle production targets which serve to drive investment and resource focus into the industry sector.

Transportation sector impact

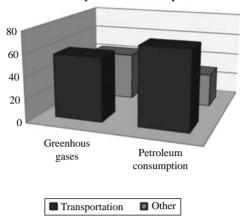


Figure 4. Transportation sector impact. Source: US Environmental Protection Agency (2007).

Energy economics

The economics of the electric vehicle industry entail comparative analysis between the price of electricity on one hand, and the price of gasoline on the other. Both are subject to change, but crude oil price volatility serves to undermine investment in alternative energy sources (Ashtiani et al., 2011). The average price of gas in the United States, for example is expected to increase from below \$2 per gallon for most of the 1990s to an estimated \$3.60 per gallon in 2011 and beyond in the United States and nearly twice as much in countries such as Norway, Denmark and Germany (Ashtiani et al., 2011, p. 53). At the same time, the US Energy Information Administration (2011) forecasts crude oil prices to rise from an average \$79 per barrel in 2010 to over \$100 per barrel in 2011 and beyond.

The price of gasoline is tightly linked to global oil prices, but electricity prices in most major countries are only weakly related to oil prices (Ashtiani et al., 2011). Electricity prices in these countries are more directly related to the prices of natural gas and coal. Overall, energy economics trends and the other major market drivers are highly favorable to BEV commercialization.

In terms of the economics of purchasing an electric vehicle, the total cost of ownership gap between electric vehicles and gasoline powered vehicles should continue to narrow as countries worldwide scale back the estimated \$300 billion in fossil fuel subsidies currently provided to oil companies. As a case in point, leaders of the Group of 20 Nations in November 2010 re-affirmed their prior commitments to this type of subsidy phase-out (*Week in Review*, 2010).

Situation analysis: Tesla Motors

Company overview

One battery electric vehicle manufacturer, Tesla Motors, is particularly well suited to capitalize upon the discussed market drivers, and is the focus of this marketing plan analysis.

Company background

Tesla Motors Inc. (Tesla) is a Silicon Valley-based company that designs, manufactures and markets battery electric vehicles (BEVs), as well as lithium-ion battery packs, and electric vehicle powertrain components. Founded in 2003, Tesla was the first new American automobile manufacturer to emerge in decades. It was also the first automaker to manufacture and sell highway-capable BEVs in serial production.

The company's culture and marketing approach are more 'Silicon Valley' than 'Detroit', reflective of an approach that is highly innovative, extremely competitive and very efficient (Aden & Barray, 2008, p. 84). The company has grown from a single retail store (through which it markets its vehicles) in 2008, to 18 stores worldwide, a 350,000 square-foot production facility and global sales in at least 30 countries (Tesla Motors, 2011a). On 29 June 2010 Tesla (TSLA) successfully launched its initial public offering, raising over \$226 million.

Company sales

Since 2008, Tesla has sold 1650 of its signature Tesla Roadsters worldwide at a base price of around \$109,000. The company's financial statements for the three months ended 31 March 2011 show total revenues of \$49 million and a net loss of \$48.9 million (Tesla Motors, 2011b). Tesla's medium-term sales volume projections are fairly conservative – a 2% market share of the global mid-size luxury vehicle sedan market by 2013 (Patel & Aalok, 2010). Tesla's longer-term success is highly contingent upon overall consumer adaptation of electric vehicles and the company's ability to broaden its brand.

Even though Tesla has yet to earn a steady profit, it has a market cap of about \$2.24 billion and currently trades at around 20 times earnings, with per share prices consistently trading in the \$25/share range – off its all-time highs, but at the high end of its historical range (LaMonica, 2011; Seeking Alpha, 2011).

Corporate strategy

Tesla's primary goal is to increase the number of electric vehicles available to mainstream consumers in three ways:

sales of its vehicles through its expanding network of company-owned showrooms and online; 2) sales of its patented electric powertrain components to other automakers to stimulate overall electric vehicle interest and sales; and 3) serve as a catalyst and positive example of how 'fun' and 'social responsibility' driving are mutually compatible. (Logan, 2011)

Tesla's overall strategy is to first establish a foundation for electric vehicle sales via its high-end Roadster model – an objective it has already accomplished. Next, by 2012 it plans to begin mass production of its new Model S Sedan, a more affordable (around \$57,000) BEV targeted at middle to upper-middle class consumers (Seeking Alpha, 2011). Finally, by 2015 Tesla plans to build and market a BEV (BlueStar) available for under \$30,000, bringing its BEV lines into the mass-market consumer price range.

Product analysis

Tesla Roadster

Tesla's flagship vehicle is the \$109,000 (base price) Tesla Roadster (see Figure 5). This high-performance BEV, with a range of up to 250 miles, uses a proprietary lithium-ion polymer battery pack that stores as much as twice the energy – hence twice the range – of batteries used in older electric vehicles and hybrids present in the market today. Another distinguishing feature of the Roadster is its speed – capable of acceleration from zero to 60 mph in less than four seconds, with a self-limited top speed of 125 mph (Logan, 2011). A final major distinction of the Roadster is its modern, sporty appearance, designed to attract consumers in the luxury sports vehicle market occupied by automakers such as Ferrari and Porsche (Aden & Barray, 2008).



Figure 5. Tesla Roadster. Retrieved April 25, 2012, from http://www.teslamotors.com/roadster/gallery/view/5135. Reproduced with permission.

Tesla reports sales of 1650 Roadsters worldwide as of the end of April 2011. In spite of the fact that the Roadster accounts for most of Tesla's revenue to date, the company plans to discontinue its production by the end of summer 2011 in order to focus on the debut of its next generation of BEVs – the Model S sedan.

Tesla Model S

Tesla's next generation vehicle is the Model S sedan, which the company has targeted for consumer delivery by mid-2012 (see Figure 6). Priced at around \$57,000, the Model S is positioned to compete in the luxury sedan market (e.g. Audi A6, Mercedes E-Class and BMW 5-Series) (Kanellos, 2011; Patel & Aalok, 2010). It will seat up to seven people when equipped with an optional third-row of rear-facing seats. The Model S will incorporate battery technology similar to the Roadster and will be available with batteries ranging from 160 miles to 300 miles. Consumers will pay extra for the larger battery range options. A significant feature of the Model S is that it will be capable of quick battery swaps and recharging capabilities using 100V, 200V and 480V power sources (Cunningham, 2009).

Tesla expects Model S to be a large volume driver for the company. Accordingly, it plans to build between 5000 to 7000 Model S vehicles in 2012. Tesla will then increase Model S manufacturing to 20,000 vehicles a year starting 2013 (Kanellos, 2011).

BlueStar

Tesla's longer-term product objectives include development of a \$30,000 sedan by 2015 (codename 'BlueStar'), as well as a crossover/SUV-type vehicle (codename 'Model X). These cars will be targeted more toward an even larger, mass-market (middle-class) consumer segment (Kanellos, 2011; Sun, 2011).



Figure 6. Tesla Model S. Retrieved April 25, 2012, from http://www.teslamotors.com/models/gallery#2. Reproduced with permission.

Tesla Energy Group

Tesla has formed a special products division, the Tesla Energy Group, that is charged with developing and marketing its proprietary powertrain components, custom designed battery packs, battery chargers, and supply power management technology (Aden & Barray, 2008). It also generates revenues from the sale of zero-emission vehicle credits.

New product development

In 2009, Tesla announced medium-term plans to build electric SUV crossover vehicles, family-sized minivans and electric fleet vans for municipal governments (Logan, 2011). Additionally, it has entered into strategic partnerships with Daimler, Panasonic and Toyota to develop a line of electric vehicle-related products.

Partnerships

Tesla manufactures and markets its own BEVs, but unlike many traditional manufacturers it also operates as an original equipment manufacturer, producing electric powertrain components that other automakers may purchase and retail under their own brand names (Aden & Barray, 2008; Seeking Alpha, 2011). Tesla currently has confirmed strategic partnerships with two major automakers (Daimler and Toyota), a partnership with electronics manufacturer, Panasonic, and a manufacturing partnership with Lotus Cars. Figure 7 highlights the nature of these partnerships.

In addition to the above partnerships, Tesla maintains strategic relationships with dozens of suppliers for various parts for its vehicles, including Tesla's carbon fiber body panels which are made in France by Sotira. Tesla's proprietary powertrain, however, is designed and built exclusively in Tesla's California factory.

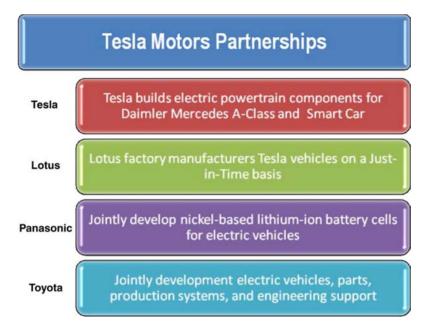


Figure 7. Tesla Motors Partnerships. Source: Tesla Motors Inc.

Competitor analysis

The overall electric vehicle industry, including BEVs and plug-in hybrid vehicles, has grown significantly from Tesla's single premium sports car offering in 2009. It has expanded to include four additional current and future electric premium sports vehicle lines, three planned luxury sedan vehicles (including Tesla's Model S), 18 different current and future models slated for the mass-market consumer segment and two new commercial electric truck entries (Ashtiani et al., 2011). Table 2 summarizes this competition landscape and notes the competitive implications for Tesla.

Tesla will continue to experience direct competition from other BEV entrants, indirect competition from existing and emerging plug-in hybrid vehicle manufacturers and competition from BEV 'substitutes' including gasoline hybrid and gasoline powered vehicles. The areas in which it has the greatest competitive advantages and the least amounts of direct competition are the premium sports car and the luxury sedan markets. Tesla's competitive advantages include: superior BEV technology; first mover market position; brand recognition; and unique component product lines (e.g. powertrains, vehicle batteries, etc.). While the company's indirect competitors (BMW, Mercedes Benz, Jaguar, etc.) within the traditional luxury vehicle market are firmly entrenched and have typically loyal customer bases, a combination of Tesla's competitive advantages and aggressive marketing could result in the capture and sustainment of a significant percentage of this market share.

Getting back to the Apple Computer marketing model comparison, Tesla is particularly well positioned to capture and sustain a significant share of the high-end luxury sedan 'niche' market because of its competitive advantages. Apple adopted and maintained a similar marketing strategy (premium computer market segment) with highly notable and profitable results.

Table 2. Tesla Motor's electric vehicle market competition summary.	ehicle market c	competition summary.	
Company	BEV	Models (timeline)	Competition summary analysis
Audi	Yes	e-tron (2012), A1 e-Tron (2012)	e-tron (2012), A1 e-Tron (2012) Limited, small build production output. Price: \$123,300. Range: 150
BMW	Yes	MINI-E (N/D)*, Active-E (N/D), Megacity (2013)	MINI-E (N/D)*, Active-E (N/D), Only 500 MINI-Es slated for production. Active-E scheduled for mass Megacity (2013) production. Price \$500/mo. Range: 100 miles. Direct competition for
ВҮД	Yes	E6 (2012), S6DM (N/A)	1esta Model >, but 1esta enjoys technology and range advantages Production output objectives unknown. Price: \$35,000. Range: 200 miles. Significant direct competition for Tesla's planned BlueStar
CODA	Yes	CODA Sedan (2012)	(mass market) product line To produce 14,000 cars within 12 months of debut. Price: \$40,000. Range: 120 miles. Significant direct competition for Tesla's planned BlueStar
Chrysler	Yes	Dodge Circuit (2011)	(mass market) product line Priced in the same range as Tesla's Roadster. Range: 200 miles. Low production numbers anticipated Direct competition for Roadster. Tesla
Daimler	Yes	Smart EV (2012) Mercedes A-Class E-Cell	will be able to compete on technology advantages and range Smart EV production schedule – 1500 global sales in 2011. Price: \$36,000. Range: 65 miles. Mercedes A-Class in serial production. Price TBA. Range: 125 miles. Both models are likely significant competition for
Fisker	No	Karma (2011), Nina (2012)	Tesla's planned BlueStar (mass market) line Plug-In Hybrid. To produce 15,000 Karmas annually. Company focused on producing sports luxury plug-in hybrid vehicles. Presents substitute
Detroit Electric	Yes	e63 (2011) e46 (2011)	competition to Tesla's Roadster models To produce 270,000+ vehicles by 2012. Price: \$25,000. Range: 110-200 miles. Significant direct competition for Tesla's planned BlueStar
Aptera	Yes	2e	(mass market) product line Price: \$30,000. Range: 120 miles. Manufacturer currently experiencing
Ford	Yes	Focus BEV (2011), unnamed PHEV (2012)	scrious solvency issues. Likely bankrupicy prospect To produce 5,000–10,000 BEVs annually. No price information available. Range: 100 miles. Significant direct competition for Tesla's planned BlueStar (mass market) product line

GM	No	Chevrolet Volt (2011)	Plug-In Hybrid. To produce 10–15,000 in 2011; up to 60,000 in 2012. Price: \$41,000. Significant substitute competition to Tesla's planned
Honda	No	Unknown	BlueStar (mass market) line No public interest in BEVs. Currently expanding investments in hybrid,
Mitsubishi	Yes	iMiEV (2011), PX-MiEV (2013)	iMiEV (2011), PX-MiEV (2013) Production output objectives unknown. Price: \$43,000. Range: 100 miles. Significant direct competition for Tesla's planned BlueStar
Navistar	Yes	eStar (2011)	(mass market) product line Commercial class electric vehicle truck. Currently in serial production. Price: \$150,000. Range: 150 miles. Direct competition for Tesla's
Nissan	Yes	LEAF (2011), NV200 (N/D), Infiniti EV (N/D)	Commercial venicie expansion plans LEAF is currently in serial production. To produce 500,000/year globally by 2012. Price: \$32,780. Range: 100 miles. Significant direct
Smith Electric Vehicles	Yes	Newton (2008)	Competition for testa's planned bluestar (tracks tracket) fine Currently in serial production of commercial trucks. Price: \$85,000. Production capacity of 30/week as of 2008. Direct competition for Total's commercial tracks, bluest states above
Toyota	Yes Yes	City EV (N/D) Prius PHEV (2012), Toyota Scion iQ (2012)	To produce 'tens of thousands' of Prius PHEVs annually. IQ Range: 50 miles. TBA. Both models are likely significant competition for
Volkswagen	Yes	Golf Blue e-Motion (2014)	Testa s planned bluestar (mass market) line Production output objectives unknown. Price: TBD. Range: 90 miles. Likely significant competition for Tesla's planned BlueStar
ZAP	Yes	Alias (N/D); ZAP-X (2013)	(mass market) time Alias Range: 100 miles. Alias Price: \$30,000. Currently taking orders for limited edition version. ZAP-X Range: up to 350 miles. Price: TBA. Both models are likely significant competition for Tesla's planned BlueStar (mass market) line

Note: *(N/D) = No Date. The author does not claim any rights to the respective company service marks displayed herein. Source: EnTech Capital Ltd.

Tesla's current business model does not position it well to compete directly in the BEV mass-market consumer segment. There are too many current and prospective entrants in this space, several of which already enjoy major manufacturing and economies of scale advantages that would make such an endeavor highly prohibitive and costly.

SWOT analysis

A SWOT analysis is a simplified business model that provides direction for a company and serves as a basis for marketing plan development (Ferrell, Hartline, & Luck, 1998). The following provides a summary assessment of Tesla's strengths and weaknesses, in addition to its opportunities and threats.

Strengths

A company's strengths include an analysis of its capabilities and resources that can be utilized as a foundation for competitive advantage development. Tesla's major strengths/advantages in the BEV industry include:

- leading-edge proprietary technologies (vehicle design, powertrain technology, battery technology) (Binkiewicz & Czubakowski, 2008);
- superior products in terms of exceptional vehicle performance (i.e. vehicle range capabilities) and unique/attractive vehicle designs;
- forward-thinking corporate leadership;
- BEV market 'first mover' advantage;
- solid brand name foundation;
- good reputation among customers and positive reviews from press;
- unique business model and innovative distribution/sales network;
- solid capital base and strong access to capital markets (public, private and government).

Weaknesses

Tesla's primary weaknesses in the BEV market include:

- relatively high cost structure due to lack of significant economies of scale;
- immature industry focus (nascent nature of electric vehicle market in general);
- growing but limited brand name recognition within the mass-market consumer segment;
- possible component supply problems if demand increases significantly (Binkiewicz & Czubakowski, 2008);
- potential production output problems if consumer demand in targeted luxury sedan market increases significantly (current manufacturer, Lotus has limited production capacity);
- consumer concerns over electric vehicle market infrastructure ('range anxiety', limited number of charging stations, limited other available charging options, etc.).

Opportunities

Numerous changes, external to the BEV environment, are occurring that directly impact the BEV industry and create opportunities for properly positioned industry market participants, such as Tesla. These changes occur primarily within 'the competitive, economic, political/legal, technological, or sociocultural environments' (Ferrell et al., 1998). Some of the key changes creating opportunities for Tesla include:

- momentous advances in vehicle battery technology (led by Tesla);
- significant barriers to entry in the BEV market which serves to limit the number of viable new entrants (witness the recent failures of TH!NK, Aptera, Venture One and Venture Vehicles) (Binkiewicz & Czubakowski, 2008);
- rising consumer awareness of cost and environmental benefits of BEV ownership;
- substantial increases in the price of gasoline, driving producers and consumers to look to alternative sources of power;
- global 'peak oil'-related pressures;
- increasing governmental focus on infrastructures necessary to support widespread BEV adoption;
- mounting anxieties about environmental pollution and global warming;
- swelling global concerns over energy security and fossil fuel dependencies;
- growing number of government mandates and regulations favorable toward BEV adoption (i.e. electric vehicle subsidies, phase-out of fossil fuels subsidies, etc.);
- increasing number of government incentives worldwide in support of electric vehicle adoption (e.g. rebates, tax breaks, low-interest loans, grants, etc.);
- certain market sectors are 'niche' and largely untouched (i.e. electric vehicle sectors within the premium sports vehicles and luxury sedan markets).

Threats

In spite of numerous positive changes in the competitive, economic, political/legal, technological and sociocultural environments, significant threats remain and must be considered or overcome by Tesla, including:

- significant increase in the number of direct BEV competitors;
- growing number of substitutes for BEVs (i.e. plug-in hybrids, gasoline-powered hybrids, natural gas vehicles, ethanol-fueled vehicles, more fuel efficient non-electric vehicles);
- entry of large automobile companies into the BEV market with greater economies of scale capabilities;
- possible major breakthrough by competitor(s) in vehicle battery technologies that could diminish Tesla's current BEV technology advantages;
- potential major breakthrough by competitor(s) of related alternative energy technologies such as hydrogen powered vehicles;
- resurgent consumer apathy driven by historically demonstrated 'status quo' attitudes when upwards gasoline pricing pressures are eased in the short term;
- possible dramatic short-term decreases in the price of oil that could discourage consumer adoption of BEVs as a substitute to gasoline powered vehicles.

It will not be enough for Tesla to simply identify its strengths, weaknesses, opportunities and threats. In order to optimize its potential within the BEV industry, Tesla should apply lessons learned from this kind of SWOT analysis to the implementation of the type of strategic global marketing plan discussed next.

Tesla Motors – strategic marketing plan

Marketing goals

As stated in Tesla's Registration Statement (Tesla, 2011b), the company's primary marketing goals are to:

- (1) generate demand for its vehicles and drive leads to its sales teams;
- (2) build long-term brand awareness and manage corporate reputation;
- (3) manage its existing customer base to create loyalty and customer referrals; and
- (4) enable customer input into the product development process.

Until Tesla's introduction of the Roadster, previous efforts in the United States to sell battery electric vehicles had failed, due in large measure to a combination of high prices, unattractive vehicle designs and limited battery range. Faced with these challenges, Tesla adopted a unique marketing approach which takes its cues more from Silicon Valley than from Motor City/Detroit. Tesla's marketing plan is highly reflective of Apple Computer's ('Apple') strategic marketing of the Macintosh Computer and its implementation of a 'crossing the chasm' marketing strategy of premium pricing combined with limited production within intelligent brackets (Sun, 2011).

The success of Apple's Macintosh computer lines set the stage for massive growth of the company and expansion of product lines including world-leading hardware products such as the iPod, the iPhone and the iPad, as well as leading-edge software products such as the Mac OS X Operating System, the iTunes media browser, the iWork suite of productivity software. Apple currently enjoys a solid 3% market share of the computer hardware industry, operates 301 company-owned retail stores in 10 countries and manages an online store through which its products are also sold. As of May 2011, Apple had overtaken Microsoft and Google as the most valuable technology company in the world, with an estimated brand worth of \$153 billion (Cowell, 2011).

Apple had enjoyed a great deal of success marketing the Apple II to computer enthusiasts, but it was clear that its future growth was contingent upon reaching out to larger consumer segments. Apple's introduction of the Macintosh computer ushered in an evolutionary new level of high-technology marketing sophistication. It introduced a unique set of marketing practices that have been widely emulated in Silicon Valley, and, conversely, by Tesla.

Marketing strategy

Tesla's business model reflects a marketing strategy that is clearly adoptive of Apple's marketing approach to innovative technologies. It begins with the premise that new technology is often very expensive and very rich customers are typically the first to adopt it. Accordingly, Tesla targeted its first production vehicle, the Roadster, to 'early adopters' within the premium sports car consumer segment in order to optimize the technology before cascading it down to less expensive, more mainstream BEVs (Logan, 2011). However, this marketing approach is somewhat of a rarity in the global automobile industry, where predominant business models favor mass production and mass marketing of low priced vehicles. In this case, Tesla is competing with 150 years of technology development and trillions of dollars invested in gasoline powered vehicles.

As Tesla shifts its production and marketing emphasis toward the Model S, it is using the same marketing strategy of targeting the high-end auto segment (LaMonica, 2011). Similar to the Apple Macintosh marketing plan, in order to achieve its major marketing objectives, Tesla must capture the hearts and minds of several key groups: its customers; its dedicated sales force; industry analysts; and the press.

Brand/product positioning

The definition of 'positioning' typically varies between individuals (Aaker & Shansby, 1982). Savary and Elberse (2006, p. 3) define positioning as 'a marketer's attempts to

identify a product's unique sales proposition'. It is 'arranging for a product to occupy a clear, distinctive, and attractive position relative to competing products in the minds of target consumers' (2006, p. 3). They argue further that positioning addresses various customer identification issues, needs fulfilled by the product and the best way for company's product to meet those needs.

Tesla's image and positioning for its BEVs embodies the characteristics of being hightech, attractive, reliable and environmentally friendly. With this in mind, a recommended positioning statement might be along the lines of 'Tesla's vehicles represent a high-tech, attractive, reliable and environmentally friendly transportation alternative for forward thinking consumers.'

Market segmentation

The process of market segmentation encompasses the division of potential consumers into market segments that share distinct needs or behaviors (Savary & Elberse, 2006). The goal of this process is to cluster buyer prospects who share a high degree of homogeneity, but who can also be plainly distinguished from other consumer groups. A company can better address the needs of consumers by clustering large heterogeneous markets into smaller, more manageable segments.

Tesla has targeted three key consumer segments for each stage of its product adoption strategy:

- (1) *High-end sports car market*: relatively small niche market segment targeted to introduce the Tesla brand.
- (2) *Luxury vehicle sedan market*: substantially larger, but highly competitive consumer segment targeted for broader-based consumer adoption.
- (3) *Mainstream vehicle consumer segment*: targeted for mass vehicle production and market penetration.

Product design strategy

Product design relates to the look, feel and functionality of a product in relation to consumer demands. With increasing competition for global markets, product design offers an effective way to differentiate and position a company's products and services (Kotler & Keller, 2009, pp. 325–326). Tesla's Model S, as a ground-breaking vehicle in terms of design and technology, will readily differentiate and position Tesla's latest product line.

Tesla's main design objective for the Model S was to create a mid-sized sedan that seats seven people (including their luggage) in a vehicle package that is 'environmentally friendly, extremely functional and attractive' (Holzhausen, 2009). In regards to being environmentally friendly, the Model S touts a 'zero emissions' standard. In terms of functionality, the vehicle boasts a stunning roomy interior built around a state-of-the-art 17-inch touch screen vehicle interface and control center described as the 'iPhone of the auto industry', and a battery with ranges from 160 miles to 300 miles and a useful life up to seven years (Holzhausen, 2009). In terms of its 'attractiveness', the *New York Times* (Gairthwaite, 2011) compares Model S to the striking Maserati Quattroporte sedan, which sells for more than twice the Model S base price.

Product pricing strategy

A company's pricing decisions need to be supportive and reflective of its specific marketing strategies. More precisely, pricing must be in line with a firm's target market

objectives and positioning strategies (Hollensen, 2010). Much like Apple Computer, Tesla represents a premium brand and can adopt premium pricing strategies for its products. Since new technologies are generally always expensive, it made sense for Tesla to start out with a high-end, relatively high-priced (100,000 +) model – the Tesla Roadster. This strategy better accommodates the high unit costs/low unit volume of a typical new technology marketing model (Wynn & Lafleur, 2009).

Tesla's premium branding notwithstanding, its ultimate goal is to sell BEVs to more mainstream consumers at affordable prices. Tesla's market pricing regression is similar to what happened when laptop computers hit the market (including Apple's MacBook). Apple computers started as luxuries and eventually became widely affordable.

Tesla's next pricing steps include the introduction of the new, more affordable Model S sedan, which is priced in the \$57,000 range. Tesla then plans to launch a third generation BEV based on its proprietary technologies within the \$30,000 price range.

Branding strategy

Branding is a tool used by marketers to help differentiate products in a concrete manner (Savary & Elberse, 2006). It is important for marketers to effectively manage the local, regional and global characteristics of their brands. This is critical for companies such as Tesla who understand the importance of product expansion into lucrative foreign markets.

Tesla has already achieved sales in 30 countries and has established retail stores in eight foreign markets, with plans for immediate expansion. As a relatively new brand operating within a quickly evolving world of 'brand-savvy' consumers, building a firm brand identity is vital to Tesla's future. Tesla's Roadster established a solid brand foundation. The Model S will create a volume platform through which Tesla can dramatically expand its brand.

Tesla's Model S vehicle design reinforces a BEV brand that is 'gender-neutral, advanced and unique – but not strange, futuristic or overly avant-garde. It's ready-to-wear, not runway haute couture' (Holzhausen, 2009). The strength of its brand has already been reinforced by independent authorities. For instance, *Advertising Age* (2009) selected Tesla as one of 'America's hottest brands' in a special report focusing on the year's top-50 brands (Tesla, 2011b, citing *Advertising Age*).

Taking a cue from Apple's highly successful branding strategy, Tesla is creating innovative products aligned with a 'technology hub' strategy, whereby Tesla's Roadster and Model S BEVs function as the technology hub for its other technology-driven product lines, including battery packs, powertrain components, supply power management technology and additional BEV lines. By comparison, Apple's branding strategy involved the creation of innovative products and services aligned with a 'digital hub' strategy. Here, Apple Macintosh computer products functioned as the digital hub for various digital devices such as the iPod, iPhone and other electronic devices (Marketing Minds, 2008).

Sales and service strategy

Counter to the traditional auto industry's sales model of franchise dealerships, Tesla markets and sells its vehicles directly to consumers. It sells online, through its global network of company-owned stores, over the telephone or in-person at its headquarters and via corporate events (Tesla, 2011b). In this regard, Tesla's sales strategy takes yet another cue from Apple Computer. In fact, in 2010 Tesla hired former Apple executive, George Blankenship as Vice President of Design and Store development to build its retail strategy and network (Tesla, 2010). While at Apple, Blankenship was, in large part, responsible for

one of the most successful retail growth strategies in history, for which Apple was repeatedly recognized by *Fortune Magazine* as 'America's Best Retailer' (Tesla, 2010).

While still in its early stages, Apple improved and expanded its sales/distribution capabilities by opening company-owned retail stores in key cities throughout the world in quality shopping venues located in up-scale markets (Marketing Minds, 2008) The highly successful Apple retail stores provided customer prospects with a 'hands-on' experience of Apple's brand values within a stimulating, no-pressure environment and allowed them to leisurely learn more about the Apple family of products.

Like Apple sales outlets, Tesla stores are located in highly visible, premium outlets in major 'trend-setting' metropolitan markets. As of April 2011 it had opened 18 Tesla stores in the United States, Asia and Europe, located in Boulder, Chicago, Copenhagen, London, Los Angeles, Menlo Park, Miami, Milan, Monaco, Munich, New York, Newport Beach, Paris, San Jose, Tokyo, Washington, DC and Zurich. It plans to open a total of 50 stores worldwide over the next several years to coincide with the rollout of the Model S (Tesla, 2011b).

Its company-owned stores also operate as showrooms and are designed to engage and inform potential customers about electric vehicles in general, and the specific advantages of owning a Tesla vehicle. The showrooms feature free snacks, coffee bars, high-speed internet access and comfortable couches. Additionally, customer prospects can test-drive Tesla vehicles with a salesperson. Tesla customers deal directly with a Tesla-employed, highly trained and knowledgeable sales and service staff, creating a differentiated buying experience from the typical buying experience customers have with traditional automobile franchise dealers and service centers.

Generally, Tesla outlets have combined retails sales and service, but it plans to build separate sales and service locations in several markets in the near-term. Tesla's service options will also include convenient 'Tesla Mobile Service Vans' focused on servicing Tesla vehicles in remote locations.

Marketing communications plan

To achieve Tesla's primary goal of increasing the number of electric vehicles – preferably Tesla BEVs – available to mainstream consumers, the company must weave a focused, consistent marketing communications message throughout all communications media. This message, derived from its product positioning statement, must be consistent, concise and frequently communicated. Further, it should be designed to educate sales prospects as to the benefits of Tesla vehicles versus other electric, hybrid or gasoline fueled vehicles, and encourage them to visit Tesla stores for a hands-on trial of the product.

As a company, Tesla must speak with a unified voice to four key groups, each with separate needs. The groups include the company's customers, its in-house retail sales force, industry analysts and the press. This marketing communications strategy has much in common with Apple's communications strategy – minus the need for communicating to an outside dealer network or third party developers (Apple Computer Inc., 1983).

Advertising strategy

Tesla recognizes the importance of global advertising for a new technology product. Accordingly, Tesla presently utilizes a degree of traditional advertising including product placement in a variety of media outlets, in conjunction with pay-per-click advertisements on websites and media applications relevant to its target demographics (Tesla, 2011b).

Given the fact that Tesla's target markets currently exist within fairly homogeneous environments, standardized advertising is likely the most valid near- to medium-term marketing approach (Mayur, 2009). Standardized advertising involves advertising designed from inception for its use in multiple countries, taking into consideration both market similarities and market differences (Onkvisit & Shaw, 1999). As the company progresses toward its broader-based mass-market objectives, more heterogeneous market variables are likely to arise, which may warrant consideration of a more localized advertising approach.

Taking a page from the Apple advertising playbook, Tesla should focus much of its advertising efforts around 'specialist events' and conferences on a par with Apple's MacWorld Expo and the Apple Expo – events used to successfully launch Apple's iPhone and iPad. These events typically draw a sizeable gathering of sales prospects and media representatives (Marketing Minds, 2008). Another Apple strategy that could be employed by Tesla is the use of highly creative themed advertising campaigns such as Apple's hugely successful '1984' campaign, the 1990s 'Think Different' campaign and the 'iPod people' campaign of the 2000s. One possible campaign angle might involve Tesla building a campaign around the theme, 'Drive Different', which would appeal to the type of innovative, discriminating automobile consumer Tesla is looking to engage.

Public relations strategy

Tesla's main public relations objectives are to: (1) introduce its line of BEVs with maximum media impact and reinforce its position as the leader in the electric vehicle industry; (2) reinforce the importance of electric vehicle technology and demonstrate that it is now available to a wider market base; and (3) reinforce and clarify Tesla's product line strategy (i.e. leading with the Roadster and following up with the Model S). These were similar objectives for Apple in regards to the introduction of the Macintosh computer, except Apple's strategy was geared toward the high-tech computer industry (Apple Computer Inc., 1983).

By positioning itself as the first company to commercially produce an all-electric vehicle that is federally compliant and achieves a market-leading range on a single charge, Tesla has been successful in generating significant media coverage of the company and its vehicles. This media coverage interest has been aided by a growing list of celebrity Tesla owners, including George Clooney, Matt Damon and Leonardo DeCaprio (an official Tesla spokesperson). To date, according to its Registration Statement (Telsa, 2011b), media coverage and word-of-mouth have been the primary drivers for the company's sales leads and have helped Tesla achieve sales without significant advertising and maintain relatively low overall marketing costs (Telsa, 2011b). It is likely that this approach will continue.

Additional public relations efforts should include coverage in major media outlets geared toward high technology, green technology, automobile technology and automobile enthusiasts in general. A particular aspect of this campaign might include public accolades given to members of the Tesla design team. Prior to Apple's public relations focus on its Macintosh design team, designers, engineers and other key technical contributors received very little public attention in marketing campaigns. Conversely, Macintosh engineers were almost treated like rock stars – featured in publications such as *Rolling Stone* magazine and photographed by the same team that had worked with Fleetwood Mac (Marketing Minds, 2008).

Sales promotion strategies

Sales promotion refers to a number of incentive types and techniques directed toward consumers with the intention of producing immediate or short-term sales effects (Karray, 2011). Generally, sales promotion includes some type of incentive offering

or interest-creating activities which are typically short-term marketing events – other than direct marketing, advertising, publicity or personal selling. To date, Tesla's promotional efforts have essentially included events where its vehicles are prominently displayed and demonstrated. These events range from broadly attended public events, such as the Frankfurt, Los Angeles and Detroit auto shows, to smaller private drive events oriented toward sales promotion (Telsa, 2011b).

Taking yet another page from the Apple playbook, Tesla should focus on bold, innovative 'Apple-type' promotional strategies that might include:

- creating annual specialist events and conferences on a par with Apple's 'MacWorld Expo' and the 'Apple Expo';
- partnering with an influential car magazine such as *Car and Driver* or *Motor Trend* to support the publication of its own specialty magazine geared toward the electric vehicle industry (similar to Apple's *MacWorld* magazine efforts), that is *TeslaWorld* or *EVWorld*;
- partnerships with leading green, clean energy non-profits and corporate campaigns, to jointly promote the benefits of BEVs and 'driving green';
- partnerships with governmental programs, which promote the adoption of electric vehicles and reinforce the various regional and local incentives available to purchasers of electric vehicles.

Additional Tesla marketing strategy recommendations

The above Marketing Analysis demonstrates how Apple's arsenal of global attentiongrabbing marketing tools holds lessons for a new technology company such as Tesla. Apple's 'buzz machine' has helped it continually generate record profits and grow to one of the most valuable global technology companies. Some additional lessons Tesla could learn from the Apple marketing manual (Apple Computer Inc., 1983), include:

- *Continue to make innovative products*: like Apple, Tesla must continue to push the envelope in respect to innovation and design. It must continue to emulate Apple's history of inventing and designing products (most technology competitors outsource). Tesla's cutting-edge development of electric vehicles, BEV battery technology and electric vehicle powertrains represents a solid start.
- *Keep it simple*: while typical automobile competitors are likely to spread their development efforts among a confusing array of gasoline powered, electric and hybrid vehicles, Tesla must remain focused on developing a narrow line of memorable products of exceptional quality. Apple Computer used this simple approach with great success within its Macintosh, Mac Mini, MacBook, iMac and PowerMac product lines.
- *Create truly memorable ads*: while Tesla continues to adhere to a highly selective and limited advertising strategy, the ads that it does produce should be uniquely themed, 'hip' and highly effective with a focus on quality ads, not quantity. By example, Apple continues to regularly receive industry awards and accolades for its creative and innovative advertising campaigns. More importantly, the ads continue to reinforce the company's brand and drive sales two objectives Tesla must continue to strive for.
- *Find an enemy*: over the years, Apple has never shied away from brazenly distinguishing itself from its competitors, inspiring the world in its advertising to *'Think Different'* by adopting its products. Similarly, Tesla should aggressively

seek to distinguish itself from its competitors (particularly the eco-damaging traditional automakers) in its marketing efforts. Perhaps Tesla could encourage the world to '*Drive Different*' by buying its environmentally friendly and attractively designed vehicles.

- Work the taste makers: with a relatively small market share (3%) of the global computer industry, Apple had to work harder than its major, more entrenched competitors to bring its products to the attention of the public. Like Apple, Tesla has already established an aggressive rollout of Tesla retail stores in 'taste maker' metropolitan areas. Additionally, it must continue to adopt a very 'PR-centric' approach to getting its vehicles reviewed, and engage in other tactics such as product placement in motion pictures and television shows.
- *Offer surprises*: Apple's efforts to keep product launches close to the vest are well documented (i.e. iPhone at the MacWorld expo). This type of secrecy could pay off for Tesla as well, as technology products shrouded in secrecy often generate massive news interest and valuable word-of-mouth activity.
- *Put on a show*: technology companies often stage splashy events to unveil their products. However, only Apple has consistently succeeded in turning those events into major headlines. Tesla could take this final page out of Apple's marketing manual and put on the type of attention grabbing events that are merit-worthy of its leading-edge, high-tech and environmentally friendly BEVs that happen to look as 'cool' as they perform.

Conclusion

Considering the litany of unique market drivers, the battery electric vehicle market is poised for explosive growth. In that regard, Tesla is faced with a couple of critical questions: Should their primary objective be to establish the Tesla brand as a high-end, lower volume electric vehicle marque comparable to BMW or Mercedes' market positions in the traditional automobile industry? If so, what is the best strategic marketing plan to achieve that objective?

In view of the available market research and data, the above primary objective should indeed be Tesla's focus. Tesla's business model, available resources and current marketing strategy all buttress this perspective. Moreover, competitive analysis indicates that a prospectively large number of automobile companies are positioning themselves within the mass-market BEV plug-in hybrid and hybrid consumer segments. Several of these manufacturers are considerably larger than Tesla and will have decisive 'economies of scale' pricing, marketing and production advantages.

An alternative strategy for Tesla to consider might be to broaden the Tesla brand within the luxury vehicle market segment as planned and then position themselves to be bought out by a large automobile manufacturer that might be better positioned to expand that brand into the broader mass-market consumer segment. However, Tesla should be cautious of this approach. Jaguar (then partnered with Ford), lost a significant amount of its prestige and market share as a luxury vehicle brand when it 'cheapened' its brand by introducing the X-Type in the hope of capturing a broader market. The X-Type was ultimately abandoned by Jaguar in 2009.

From a marketing perspective, Tesla must continue to focus on building brand recognition, optimizing its cost structure and establishing its 'Apple-esque' sales/distribution infrastructure. Like Apple, who revolutionized the computer buying experience, Tesla is poised to revolutionize the automobile buying experience – more specifically the BEV

buying experience. In an 'Apples to Apple' comparison, it can be reasonably concluded that in the case of Tesla Motors, the emperor is not only clearly fully attired, but more appropriately 'dressed to kill'.

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