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Abstract

This research assess the challenges Tesla Motors Inc, a leading manufacture of electric sports cars, overcame as a new technology company in the automotive industry. We examine the product, finances, and share price of Tesla and how all of these are related to each other.

Introduction

Tesla Motors Inc. (TSLA) designs, develops, manufactures and sells electric vehicles. Before the 21st century, interests in electric vehicle never surfaced because the resulting cars were unattractive in both style and performance. This encouraged Mr. Elon Musk, the founder and CEO of Tesla Motors to investigate the feasibility of a zero emissions luxury sports car.



The Product

Tesla Model S & Tesla Roadster

HIGHEST SAFETY RATING IN AMERICA
THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Value

Base price \$58,000
Signature performance series \$106,900
Compares to Mercedes Benz M5 & Audi A6

Performance in intended function

Highest safety rating in America
Autopilot equipped
All-wheel drive dual motors

Advancement in Design

Wide, long, low but not like any eco mobile
17 Inch touch screen
Safe and conservative design
Executed design-enhancing proportions

Engineering Excellence

Over 250 claimed patents
416 Hp motor - 3.96 seconds to 60 mph
Motor is an AC-Induction type system
47/53-percent front/rear weight distribution

Efficiency

313 miles per charge 74.5mpg average
Clean Aerodynamic
Profile 0.24 drag coefficient
6 cents a mile to run

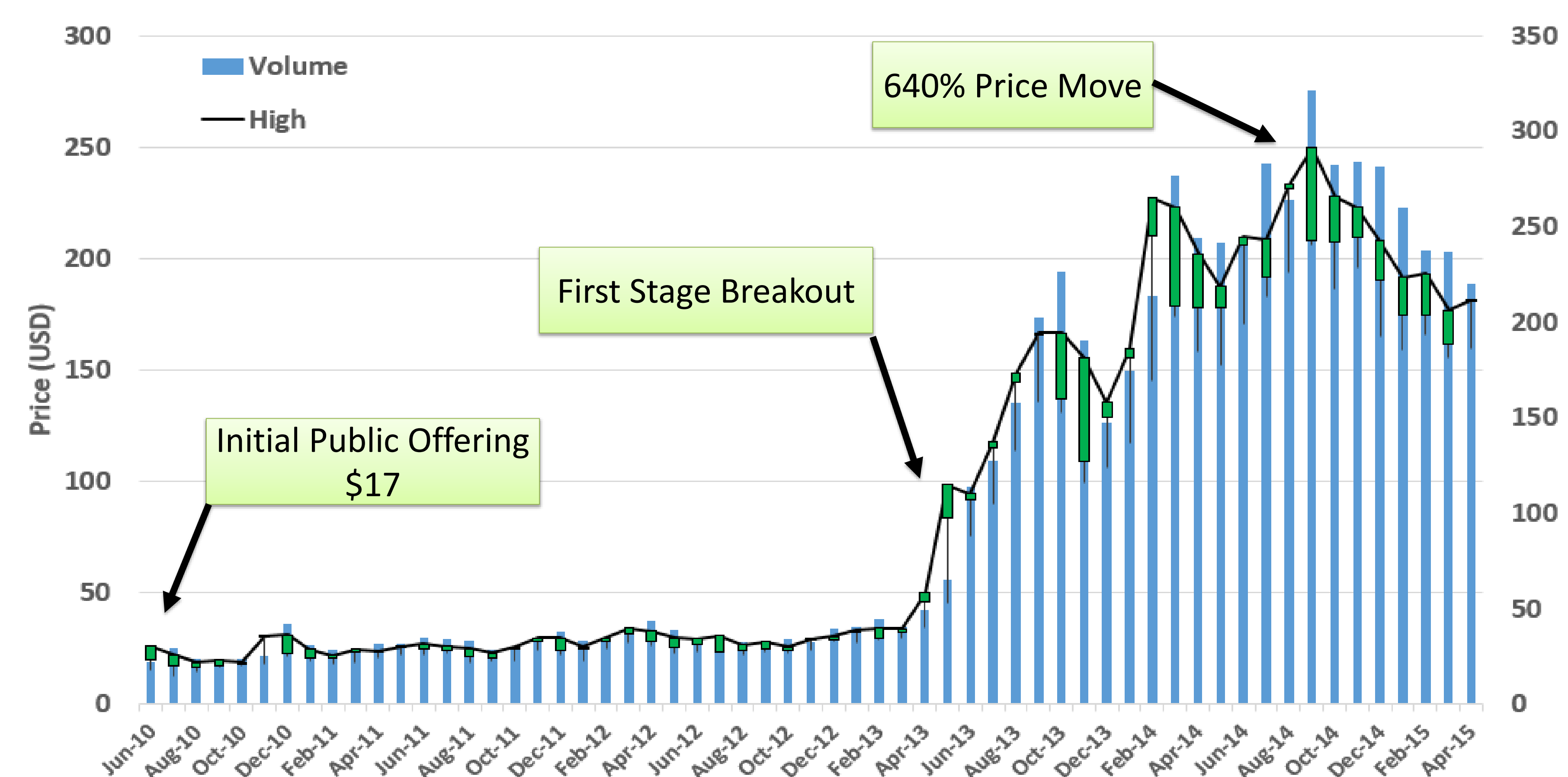
Safety

Model S is top of its class
Car's mass low and between the wheels
Instant-on torque and regenerative braking

Table 1: Snapshot of Income Statement for years 2009 to 2014

Report Date	2014	2013	2012	2011	2010	2009
Revenue	3198.36	2013.5	413.256	204.242	116.744	111.943
Cost of Revenue	2316.69	1557.23	383.189	142.647	86.013	102.408
Gross margin	-186.69	-61.283	-394.28	-251.49	-146.84	-51.897
Marketing expenses	0	0	0	0	0	0
Gross Profit	881.671	456.262	30.067	61.595	30.731	9.535
Operating Income	-186.69	-61.283	-394.28	-251.49	-146.84	-51.897

Graph 1: Snapshot of Share Prices from 2010 to 2015



Sources:

Business Insights: Essentials, NASDAQ, HGS Investors, Motor Trend, NY Times, Wall street Journal, and Mergent Online

Method

To complete my research, I reviewed the following:

- **Product:** Review press release for Tesla's first production vehicles the Model S & Roadster
- **Finances:** Analyze company income statement beginning from IPO to 2014
- **Share Prices:** Evaluate share price fluctuations and breakouts caused by quarterly earning calls

Discussion

Tesla went public in July 2010 and as evident from table 1 and graph 1, chose to grow its sales aggressively and face losses than to remain a small profitable company. About two years later the stock began barely gripping profits for the Dec. 2012 last quarter. Few quarters later TSLA consistently posted greater than 20% growth in revenue that helped the stock breakout from \$40 to over \$100 in seven weeks. As of March 2014 sales overcame a 640% leading to a high price of \$265 per share. Not only has the company expanded, but it also expanded with better margins, thus creating greater shareholder wealth.

Compounded Annual growth Rate (CAGR) for revenues

$$\frac{\text{Revenue for 2014 } (\$111.942)}{\text{Revenue for 2009 } (\$3198.36)} = (1 + x)^5 \Rightarrow x = 95.42\%$$

At the brink of failure, Mr. Elon Musk catalyzed a change in peoples' opinion about Tesla from its darkest hours beginning from financial armageddon of 2008. Not only did he help launch Tesla with \$6.4 million dollars of his own, he then reinvested his personal capital of \$40 million dollars to save the company in 2008. From an underdog Tesla went on to be a leader in its market segment and has now expanded to a \$35 billion dollar company. It's clear that investors can't always be sure of a company by only poring over financial statements and there is no magic formula for evaluating management style