



# TESLA STRATEGIC ANALYSIS

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“Tesla’s mission is to accelerate the world’s transition to sustainable energy.”



“Tesla was founded in 2003 by a group of engineers who wanted to prove that people didn’t need to compromise to drive electric – that electric vehicles can be better, quicker and more fun to drive than gasoline cars. Today, Tesla builds not only all-electric vehicles but also infinitely scalable clean energy generation and storage products. Tesla believes the faster the world stops relying on fossil fuels and moves towards a zero-emission future, the better.”

TESLA

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## EXECUTIVE SUMMARY

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Tesla Motors Inc. (Tesla) is thriving and is not about to stop. The progressive company officially incorporated in July of 2003, and in just 15 years they have revolutionized the future of the automotive industry. Tesla couples high-end luxury with sustainability, engineering cars that appeal to a brand-new market segment where drivers want the status of luxury, yet have an environmentalist attitude. Catering to both markets, their competitors broaden and include high-end and any other mass automotive makers. Competitors are riding Tesla's coattails in technological innovation. Tesla may not have a majority stake in the market, but they are ahead in countless other aspects. The most notable difference is their unique innovative culture. CEO Elon Musk inspires and encourages any and all creative, intelligent innovation and he invests 14% of their revenue in research and development, while competitors invest around 4.5%. This can be considered a major strength of Tesla's alongside their sleek branding. Tesla has opportunities to grow with other acquisitions and entering brand-new markets like they have done why acquiring SolarCity (setting themselves up for a future in solar panels). Also, upcoming artificial intelligence, complemented by their number one resource - their brilliant engineers - will allow Tesla to easily lead the market in innovation and eventually in sales. Another opportunity is expansion into Asia and large investments in "gigafactories." Tesla can't keep up with consumer demand, yet are building billions of cars in several giant factories around the world. Consumer demand has drastically increased with the strong brand that Tesla has garnered for themselves, and then capturing middle class consumers by lowering the price of their products. The investment in research and development, international expansion, and upcoming technology will only propel Tesla towards gaining majority market share and reaching their mission of "[accelerating] the world's transition to sustainable energy." Throughout this essay, we will elaborate on all of Tesla's future and current endeavors.

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## FOCAL ORGANIZATION ANALYSIS

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### Strengths

Branding: Tesla is reputable to create the innovations and inventions for the future; they define technological progression. The strength of Tesla is in their brand recognition. They have created a brand around their innovative talent and successes by coupling sustainable and sexy. Tesla cars are easily noticeable by their attractive (and high performance) features, yet their smart sustainable electric insides make this company the first of it's kind. People discuss over dinner the next innovation that Tesla is conjuring up in their labs and facilities. The company is creating a worldwide buzz of excitement.

Booming Product (and Technology) Success: There would be no excitement if there were no results. Tesla cars are electric with success (literally and figuratively); they are high performance and sustainable. Their vast success is in part to their investment in research and development. The company's deep pockets via revenue and investors allow extensive research to further the company and their ultimate mission.

### Weaknesses

Expensive Product Prices: While Tesla is one of the most successful, innovative companies in the world, weaknesses are still to be accounted for. To start, their products are astoundingly expensive. Their first Roadster was priced at \$109,000. This massive price tag eliminates any potential profits from the growing middle class. Tesla has since worked on lowering the price, with their newest Model 3 being priced at \$35,000 Sooner than later, Tesla will hurdle this obstacle and make the car available to everyone. Regardless, currently, the expensive price tag of their product makes their car out of reach for the majority of the population, thus putting a damper on profits.

High Cost of Research and Development: Tesla, contrary to popular belief, isn't incredibly profitable. Tesla invests \$834 million in research and development -- that's 14% of their revenues.

With capital spending on new gigafactories ('giga' refers to billion - the amount of batteries they will produce) and other expansions, their cash isn't an abundant resource. One could counter, however, that the company has more than enough investors (not to mention their CEO's billions of dollars and other company, SpaceX) to keep their head above water for quite some time.

Tesla talks and walks a good game, but they must stay ahead of industry developments in the automotive and technological business sectors. Colossal investment in research and development is necessary in the long term, but expensive in the short term.

### **Opportunities**

Continuing Sustainability Market Trends: Trends in the market change as often as trends in the weather do. Tesla can capitalize on the up and coming trends, which create room for opportunity. Currently, the market wants sustainability: 'green', environment-friendly, save-the-world sort of products. Tesla has already etched itself in this trend popularity - possibly creating it itself. With that, comes the next step of sustainability and Tesla will be right there to answer the public's calling to save the world. Making their product affordable to the middle class is their next step in capturing more of these tree hugging, high-performance car customers and is an easy opportunity for future success.

International Expansion: Asia has been a major factor in the company's upcoming productions and operations strategic plans. With such inexpensive labor costs, Tesla can save millions by moving even just a small amount of production to Asia. Also, building in upward trending markets will allow Tesla to expand sales and relationships into the specific country. While this is a huge opportunity for the business, it also means compromising some of their control over technology, management, and thus, their brand.

Upcoming Artificial Intelligence: Aforementioned, Tesla has been known as “the company of the future” and is pioneering world-changing technology at this very moment. Artificial Intelligence (AI) is the next groundbreaking technology and its first introduction was through Siri, the Apple invented “intelligent personal assistant.” Recently, we have come to know Alexa, Amazon’s newest “intelligent personal assistant.” Tesla has the ability and opportunity to build on this technology and completely disrupt the car industry. In talks, are new levels of autopilot: self-driving cars that will take you and pick you up from the airport,

### **Resources**

Tesla’s success relies heavily on two crucial resources. First, Tesla’s intelligent engineers are unstoppable and irreplaceable. The minds that Musk has fostered and inspired have created one of the most technologically advanced companies. Second, Musk himself is an immense resource. The businessman came in with billions from his work at other companies but most notably, PayPal. Currently, Musk is the CEO of both Tesla and SpaceX. His futuristic thinking propels his company forward, and provides the leadership and vision that Tesla must uphold. Musk is a resource that Nikolas Tesla needed to impress his lithium battery upon society. Lastly, Tesla acquired SolarCity in November of 2016. This provided them with the technology to use solar panel energy. They built upon this and created a line of energy via the solar panels to a battery, which was for charging a Tesla car. This is the first Tesla acquisition and with SolarCity as a resource they have the ability to power households. With this resource, they are slowly branching out into new markets.

### **Capabilities**

Tesla’s capabilities include a plethora of capital, equipment and supplies. More specifically, their manufacturing techniques with robotics, their deep pockets and investors, and the suppliers that are willing to work with Tesla. However, what stands out most are their intangible capabilities. Tesla’s innovative culture and technology will outlast all else. The culture that Musk has created

encourages innovation throughout all employees, and ripples outwards to society. Alongside innovation comes technology and Tesla has an abundance.

### **Distinctive Competencies**

Brand: Tesla Motors Inc. branding is inspired by design combined with innovation via technology.

They have managed to develop an image of environmental consciousness to appease the environmentalist inner conscious. Yet they have also coupled it with sexy, luxury and high-performance, appeasing the beauty and status symbol people crave. The product speaks for itself, and then the masses speak for it. Tesla cars on the road, articles dissecting the company, company performance, noticeable branded charging stations, and new innovation gossip all lead to the buzz around the company. Tesla has initiated and brand of sexy and smart.

Innovation/Technology: Tesla's immense intelligence, expertise, and innovation trumps all other automotive and technology-based companies. Their research and development has designed a culture around innovation and Tesla employees do it best. With the combination of luxury, high-performance, and sustainable technology, Tesla has managed to penetrate into the automotive industry through their technological expertise, and has trumped most competitors in the process of doing so. Some speculate that it was merely a matter of time before this was accomplished; nevertheless Tesla Motors Inc. was the company to do so. In the end, however, the stepladder of technology plays no significant role in the immense intelligence administered by Tesla. There is no doubt that this separates Tesla from other companies.

Research and Development: Going hand-in-hand with this innovation and technology is the investment and dedication to research and development. While many other companies also invest in research and development, Tesla epically dedicates itself to this aspect of their company. It is where they distinguish themselves against all else, for it produces their next new technology, which creates

the excitement amongst the automotive consumers and is exactly what their company feeds on. The mammoth \$834 million that is dedicated to research and development, and the inspiring dedication to innovation is difficult to match. At a solid 14% of Tesla's revenue, they outdo Ford and General Motors in their spending. Tesla's competitors have much higher revenue, so the actual cost of research and development is high, but the percentage of revenue spent comes to only 4.6%.

### **Business Strategy**

Tesla's business strategy is clearly differentiation. The high operational costs associated with the product to consumer process lead to low profit margins. Rather than focusing on a low-cost strategy, Tesla invests vastly in new technology in order to differentiate their products and lead the industry in innovation. Tesla looks towards sustainable, performance technology to outdo all of its competitors, rather than focusing on a being a cost leader within the market.

### **Functional Strategies**

Tesla's commitment to brand drives several aspects to its value chain and thus, affects its functional strategy - particularly in sales and customer service. Unlike any other automaker, Tesla operates its own "dealerships," but a more accurate description would be "stores." Tesla wants their cars to be sold by the most knowledgeable salespersons of their company. Not only that, but if Tesla cars were sold at dealerships, they wouldn't be able to control the branding that Tesla works so hard to control and create. Their focus on brand and quality directly affects their training of employees (leading to salesmanship and customer service), as well as the atmosphere and design of stores.

Additionally, Tesla has its own charging stations (where electric cars can plug-in and charge their batteries). Their charging stations are sleek with Tesla colors and logos, once again enforcing their brand. Tesla charging stations also charge their cars quicker than a typical charging station, thus incentivizing car-owners to use Tesla stations (and future owners to admire the luxury stations).



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## VRIO ANALYSIS

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### **Values**

Reiterating, Tesla wholeheartedly dedicates its company to innovation. Their brand is innovation, their business model is fixed around innovation, and their employee motivation is based on innovation. Tesla was founded on the ideal of innovation and success. Innovator Nikola Tesla, and then boosted by Musk, who “wanted to prove that people didn’t need to compromise to drive electric – that electric vehicles can be better, quicker and more fun to drive than gasoline cars” (Gach, 2017). The entire company believes that they can change the future of electric vehicles, working towards the goal of total sustainable energy around the globe.

As mentioned above, Tesla invests 14% of their revenues, in research development, which comes to about \$834 million. Tesla’s tenacity towards research and development is unparalleled compared to their competitors (Ford and GM), with a measly 4.6% of their revenues being put toward research and development. Innovation is Tesla’s strong suit, culture, and their mission.

### **Rarities**

There are Prius’ and then there is the Mercedes’ S-class. Tesla combines both the sustainability and the high-performance luxury. Never have these opposite market segments been coupled together. Tesla is the first company to conquer this feat and make sustainability sexy. The combination gives Tesla the edge in both side markets. Meanwhile, they have created a brand-new market segment: sustainable luxury cars.

### **Imitable**

Once again, the reason that Tesla is successful is due to their success in innovative technology. However, Tesla also comes full circle in their business process as well as their values. Recently, Tesla purchased a large amount of land in Nevada for their 5.5 million square foot gigafactory to match the increase in customer demand. Also, their mission is focused on saving the world (in a

sustainable way) versus creating the penultimate of cars. In order to do this, they must produce the a quantity of cars to match every car-owner. To round this out, Tesla has committed to and invested in large scale production strategies that are going to be hard to imitate by other companies as they keep moving forward. Their tacit knowledge is currently unattainable and inimitable for technology-based and automotive companies.

### **Organization**

Tesla receives car parts from many different suppliers then assembling them via robotics. The lithium batteries, however, are currently produced in America and there is current expansion in China. As mentioned above, with the lofty mission that Tesla set for themselves, they bought land in Sparks, Nevada to build a factory and manufacture billions of lithium batteries. Tesla's organization also includes a global hierarchy. With locations in Norway, China and the United States the executives in the US must keep all decisions standardized otherwise the company could lose their brand, control of production, and innovative culture. A disadvantage of a centralized, global hierarchy, Tesla could also lose its touch with the different cultural trends and understand overseas troubles, or not be able to make a spot decision if need be.

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## **INDUSTRY ANALYSIS**

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### **Rivalry Among Existing Competitors (High)**

Tesla operates in a highly competitive automotive industry. There are a number of significant and established companies operating within the market, with the largest U.S. automakers including General Motors, Ford Motor Company, and Fiat Chrysler. As far as the electric car segment currently, Tesla has virtually no rivals as the only all electric luxury brand. However, as the trend and adoption of electric vehicles becomes more appealing, Tesla will face increased rivalry within the industry. BMW, Mercedes-Benz, Maserati, Audi, Porsche, and Jaguar are a few existing high-end car makers that are each expected to expand their electric vehicle segments within the next few

years. As far as the mass market, Volkswagen is creating several new electric vehicles, while Volvo announced that starting in 2019, they will be phasing out purely gasoline and diesel powered cars. These models will directly compete with Tesla's newest Model 3, as well as the other affordable electric vehicles on the market. With the Model 3, the company clearly seems to be appealing towards middle class consumers. Regardless, Tesla will eventually face more and more competition within the luxury and mass market as the sustainable and electric movement becomes more popular.

### **Threat of New Entrants/Entry Barriers (Low)**

The threat of new entrants is low due to the automotive industry's high barriers to entry. There is an enormous amount of capital, resources, and technology needed for new entrants to enter. This not only includes the cost of purchasing materials/parts, but also the cost of the manufacturing processes and equipment, the hiring and training of employees, and factory costs. Another high cost is the research and development, which is needed to compete with industry leaders. Tesla in particular is seen as the innovator for driving electric car innovation and drawing top engineers from all around the world. This reputation makes it difficult for competitors to compete, let alone new entrants. The most significant entry barrier is economies of scale, as it ensures that large companies dominate the market, especially in industries such as manufacturing and service. Loyalty to existing brands also plays a significant role as Tesla's brand image and consumer perception are unmatched. There are also a number of rules and regulations enforced by the government that make entry less appealing as these limits can greatly influence how cars are manufactured, sold, and marketed. These regulations ultimately create various limits within the industry while also making production costs higher, as they influence several factors such as design, appearance, safety features and overall performance.

### **Threat of Substitutes (Moderate)**

A few of Tesla's substitutes for the Model 3 would currently be models such as the Chevrolet Bolt EV, the Nissan Leaf, and the Ford Focus Electric. The Tesla Model 3 starts at a base price of \$35,000 and is more expensive than its competitors like the Ford Focus Electric, which start at a base price of \$29,120. The Chevrolet Bolt does surpass Tesla's Model 3 in terms of miles per charge by 18 miles, however, performance in comparison is lacking like many of the other affordable substitutes. Hybrid vehicles, such as the Toyota Prius, are not perfect substitutes due to the fact that they still require gasoline to operate. While there are not many high end all electric vehicles, the substitution effect also occurs in the high end market, as ten percent of consumers who purchased a Tesla traded their Mercedes and BMW for it. Another potential substitute for electric cars is the development of hydrogen-fueled cars, which can be refueled as quickly as gasoline-powered cars and can travel farther distances. Over the past 3 years, Honda, Toyota, and Hyundai have leased a few hundred fuel cell vehicles and expect to lease over 1,000 more. However, California is home to most of the 34 public hydrogen-fueling stations in the United States, and therefore leases are limited.

### **Bargaining Power of Suppliers (Low)**

The bargaining power of suppliers is low due to the amount of suppliers available and because of the development of Tesla's gigafactories. Tesla's Model S sources parts globally from over 300 suppliers for over 2,000 purchased parts. Tesla also uses various raw materials, which fluctuate in price depending on market conditions and demand. This includes aluminum, steel, nickel and copper. The most important component is the cylindrical cell batteries, which they receive exclusively from their sole battery cell supplier for their model S, X, and 3. Typically, this would give suppliers higher power as sole suppliers have more control. However, Tesla holds much influence and can turn to other suppliers as they have in the past with their LG sourced battery

packs in the upgraded Tesla Roadster 2.5. In July of 2016, Musk commented publicly to confirm Panasonic as their sole supplier for batteries. After these comments, Panasonic's shares went up 6.3%. Meanwhile, Samsung SDI, who had been rumored to be in talks with Tesla about supplying batteries, went down 8% after surging 6.3% a day earlier. Clearly, Tesla has huge bargaining power and influence over its suppliers due to the reputation and influence that they hold. Tesla's gigafactories also lower the power of suppliers, as they are now producing their own lithium batteries, which will decrease the cost by one third due the manufacturing process operating under one roof and the large production scale.

### **Bargaining Power of Buyers (Moderate)**

Within the automobile industry, bargaining power of buyers is normally high due to price sensitivity and the large availability of options in terms of traditional gas powered vehicles. However, because Tesla is operating in such a niche market as the only high end all electric car company, bargaining power is low because there are not many substitutes for what they have to offer with their high-end models. As far as the mass market, bargaining power is higher because of consumer price sensitivity. There are other electric cars on the market that compete with the Model 3, especially since they has been criticized for being a bait and switch, as the true cost may be up to \$10,000 more than the base price. Tesla has also experienced production delays, which only further contributes to the issue of their demand far outweighing their supply. Tesla has experienced thousands of cancelled orders, yet are still experiencing 1,800 new reservation orders per day with the wait times being over a year. As more luxury brands begin to expand their research and production for all electric cars, Tesla will face much more competition and may not enjoy such a large mismatch between their supply and demand. This will in turn increase the bargaining power of buyers as competition among existing competitors increases and more options become available.

However, as of right now, Tesla is still possibly the most desired electric car in history and their wait lists can attest to that.

### **Complementary Factors**

The main complement to Tesla would be electricity due to the fact that is a fully electric car that does not run on gasoline. In comparison to gasoline prices used for normal combustion engines, users save money every month, as electricity is less expensive. One downside to the charging component of Tesla's all electric vehicles is that it takes much longer to charge than filling up a traditional vehicle at a gas station, with the charging time being around 30-40 minutes. Currently, there are 1,043 Tesla supercharger stations nationwide with plans on expanding to more city center locations to make the experience more accessible and convenient. Charging can also take place at any public electric charging station as well as at home after installation of home charging equipment, or near any electrical outlet with the appropriate accessories needed such as adapters and wall connectors.

### **Strategic Groups Discussion**

When it comes to companies that compete in similar ways with similar business models that pursue a similar set of customers, Tesla is in a unique position because of it operates on its niche stance as an all electric luxury brand. Mercedes-Benz and BMW are two automotive companies that are the most similar in terms of competing in the luxury area and in the way that they market specifically to wealthy and high-income consumers. With the trend of electric vehicles and the environmentally conscious movement, luxury brands such as these will pose more of a threat as their electric car developments advance. In terms of technology, Apple and Google also operate in a similar ways as Tesla as they are both seen as innovators in technological advancement and development.

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## MACRO ENVIRONMENT ANALYSIS

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### **Political**

Globally, there are already many countries that have policies in place to support growth in this industry. For example, in Sweden, by purchasing a fully electric vehicle, one can receive a rebate of up to \$4,500. A rebate of about \$2,250 can be received for purchasing plug-in hybrid vehicles. In the UK, on November 22, 2017, the government revealed the new budget, which mandated that the sale of new diesel cars will include a new tax if they do not meet the latest emission standards. This goes hand in hand with the announcement of a 220 million pound Clean Air Fund, along with an additional 400 million pounds given to improve the infrastructure for electric vehicle charging stations, and finally, an additional 100 million pounds in subsidies for consumers who buy electric vehicles (BBC, 2017). Prior to this, in London specifically, plans have been made for the Ultra Low Emission Zone (ULEZ). The ULEZ is an area within London that, beginning in 2019 or 2020, will require all cars, motorcycles, vans, minibuses, buses, coaches, and heavy-goods vehicles to meet the exhaust emissions or pay a fine to travel through the zone within central London (IEA, pg. 16). China's government also offers incentives for purchasing electric vehicles by offering to subsidize the purchase up to \$6,300. In addition, a provincial government can subsidize an additional amount equal to half of the original subsidy (Bloomberg, 2017). These efforts have proved to be successful, – whether directly or indirectly – as evident by the 39% increase in electric vehicle sales in Europe (The Electric Vehicle World Sales Database, Q3-2017).

As for domestically in the U.S., there are a few factors affecting the political environment that Tesla is operating in. Currently, President Trump has made statements and decisions that do not support sustainable advancements/initiatives. In addition to labeling global warming as a “very expensive form of tax,” in June 2017, President Trump made the decision to withdrawal from the Paris

Agreement. The Paris Agreement includes 195 other countries and aims to stop the global temperature from rising by working to reduce man-made emissions that scientists have said causes temperatures to rise. Other examples of President Trump showing opposition of sustainable initiatives include his executive order to the EPA to review former President Obama's Clean Power Plan. However, despite the recent change in political support for a more sustainable environment, there are still initiatives currently in place to support the market of sustainable vehicles. For example, the zero-emission vehicle (ZEV) mandates were created in California, but are now enforced by multiple U.S. state. The ZEV mandates are requirements for automakers to sell a certain portion of ultra-low or zero-emission vehicles. In addition, as outlined on Tesla's Incentives page, there is a federal income tax credit of \$7,500, and possible additional incentives depending on the state.

### **Economic**

As for the current economic environment, there are a few factors that lend to a future of a positive economic environment for Tesla. Overall, since the 2008-2009 recession, GDP and global growth has been on the rise. World Bank estimates that the World GDP has increased from about \$58 trillion in 2007, to \$75.5 trillion in 2016, and has seen about a 2.5% increase each year for the past few years (World Bank, 2017). Driving the current global outlook includes "soft commodity prices; persistently low interest rates but increasingly divergent monetary policies across major economies; and weak world trade" (World Bank, 2015). With an increase in global and national economies, consumer confidence is stronger and consumers are more likely to make luxury purchases or invest in innovative technologies and markets.

Hitting a two-year high on U.S. oil prices – along with globally rising oil prices - has led to an increase in fuel prices. Coupled with the fickle nature of the oil industry, consumers often face



uncertainty with gas prices and often perceive prices as “too high.” The U.S. Department of Energy points out that a lot of the oil reserves are in politically volatile countries, which makes the industry hard to predict. Because of this, the U.S. is often at risk to price spikes and supply disruptions.

A steep drop in electric battery prices can also be credited to creating a positive economic environment for Tesla and their industry. According to a 2017 report from McKinsey & Company, battery prices have been falling from \$1,000/kWh in 2010 to \$227/kWh in 2016. However, they predict costs will be below \$190/kWh by 202 and below \$100/kWh by 2030 – which is key for automakers to achieve profitability and higher margins.

### **Social**

Globally, the demand for sustainable technologies is on the rise; and the interest for renewable energy and ways to live a more environmentally friendly lifestyle continues to increase. Because environmental issues are brought further into the limelight, socially, many have chosen to take part in the social movement to become eco-friendlier consumers. Consumers are now much more social and environmentally aware than they used to be. This has led to them being much more willing to purchase sustainable vehicles. In fact, in June 2016, the four-millionth hybrid car was purchased – only two and a half years after the milestone of the three-millionth hybrid car purchase. Before that milestone, it had taken thirteen years to reach three million hybrid cars sold.

Many companies have also adopted a “go green” mentality. Even stores such as Wal-Mart advertise organic foods, and restaurants proudly display the fact that they use cage-free eggs or grass fed beef. Products made out of recycled products pop up as water bottles, bags, and more. When companies that people see everyday are encouraging eco-friendly practices, it further enhances the overall social environment for sustainability.

A 2015 Nielsen global online study found that “66% of global respondents [...are] willing to pay more for products and services that come from companies that are committed to positive social and environmental impact” (Nielsen, 2015). This was an 11% increase from the percentage of respondents in 2014, and a 16% jump from 2013. Out of respondents aged 50-64, 51% said they would be willing to pay extra for products and services that are from companies who are committed to positive social and environmental impact. However, Millennials are often labeled as the forefront of this social environment, proving to be the most willing to attach onto sustainable products and services. Almost 75% of Millennials reported they were willing to pay more.

### **Technological**

In addition to the environmental factors discussed above, technology advancements and capabilities have made the environment in which Tesla operates a prosperous one. However, technology also proves as a roadblock to a more widespread adoption of EVs. Currently, the maximum distance for an electric vehicle is 300 miles – making long distance trips impossible without making sure you stop at a charging station along the way. And while infrastructure for charging stations is growing, there is still a lack in infrastructure throughout long highways.

There are continued RD&D efforts to enhance the technologies of power train, battery, and charging infrastructure. The hope is also to make the EV technology less costly so companies are able to achieve higher profit margins. With less costly and more advanced technology, barriers that currently make consumers hesitant to buy – distance range, infrastructure, and high cost - would diminish.

Enhancing this technology has become somewhat of a technological race between companies and manufacturers to become a market leader and achieve these technological advancements first. Tesla is working on their Roadster 3.0, which they hope will have a 40-50% increase in range efficiency.

This would make it the first electric vehicle to have an expected range of up to 400 miles. Airbus, Rolls-Royce and Siemens recently teamed up to begin development on the technology and capabilities to create a hybrid electric plane. Dubbed the E-Fan X program, the European plan aims to have the capabilities to fly a demonstrator version by 2020 and be able to fly commercially by 2025.

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## COMPETITOR ANALYSIS

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### Luxury Competitors

#### *Bavarian Motor Works (BMW)*

- Strengths: Strong brand image, quality, performance, reliability
- Weaknesses: Lack of operational cost efficiency, lack of partnerships
- Capabilities: Flexible and productive facilities, strong financial position
- Distinctive Competencies: Innovation, engineering history
- Business Strategy: Differentiation

#### *Mercedes Benz*

- Strengths: Brand recognition, quality, product portfolio, strong hold on developing nations
- Weaknesses: Expensive service and maintenance, stunted distribution
- Capabilities: Worldwide manufacturing, continuous product advancement, financially stable
- Distinctive Competencies: Known as pioneers, technology and engineering
- Business Strategy: Differentiation

BMW and Mercedes-Benz are just two of the luxury brands that compete with Tesla in terms of brand image and luxury appeal, but may also be stronger competitors in the future for electric vehicles. BMW plans to have a total of 25 electric vehicles in the next few years, with 12 of them being fully electric and potentially having a useable range of up to 435 miles. Daimler AG, parent company of Mercedes-Benz, also plan on spending \$1 billion to start production of electric vehicles, with the introduction of 10 new electric vehicles. Mass market brands such as Volvo have also announced that all of their new models will be fully electric or hybrid cars starting in 2019. As a result, Tesla faces many challenges in the coming future as a luxury electric car brand, but also with the mass market they have attempted to gain as well.

## **American Automotive Competitors**

### *Ford Motor Company*

- Strengths: Strong financial position and U.S. market position, manufacturing/R&D expertise
- Weaknesses: Inability to match production capabilities to competitors,
- Capabilities: Manufacturing and distribution network
- Distinctive Competencies: Originator of mass production system
- Business Strategy: Cost leadership

### *General Motors*

- Strengths: Joint ventures with Chinese companies, strong position in the U.S.
- Weaknesses: U.S. market revenue dependence, reliance on pick-up trucks/SUVs for sales
- Capabilities: Large, global supply chain management
- Distinctive Competencies: Strategic supplier engagement program
- Business Strategy: Low cost strategy

Ford Motor Company and General Motors are two large automobile companies that have already made investments in autonomous cars, artificial intelligence and investments in improving their electric car segments, which can pose a huge threat to Tesla in the near future. Just last year, GM announced that they bought an autonomy technology firm called Cruise Automation, while Ford recently announced a \$1 billion investment in Argo AI, which makes technology for autonomous driving. Both companies are clearly thinking ahead to the future of artificial intelligence and self-driving cars, which could pose a threat to Tesla in the less traditional sense. These new acquisitions will now bring GM and Ford experienced roboticists and engineers that will work on the development of autonomous cars and possibly influence the future of the automobile industry.

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## **KEY FACTORS, OPPORTUNITIES, AND THREATS IMPACTING TESLA'S FUTURE**

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Tesla has grown to become a top-notch automotive competitor in the 21st century. The introduction of lithium-ion based electric cars has heightened the company's emergence amongst businesses – if not surpassed them. Through its sheer size and large infrastructure, the firm is presented with a few opportunities and strategic options that can help further develop the firm's competitiveness. The following are of significant value and should be considered.

### **Sales and Supply Chain Expansion**

Tesla has struggled with a lack of presence in countries that have seen increasingly higher economic growth such as Asia, Europe, and Southern America. These untapped markets have a plethora of customers eagerly awaiting environmentally friendly means of transportation and other sustainable solar products. Tesla must consider sales and supply chain expansion to collect larger sources of revenue while simultaneously gaining global traction. The opportunity to cater to these areas would be financially and benevolently worthwhile on behalf of the firm. In addition, expansion into these regions can also minimize the exposure to risk in the same token as diversification. If Tesla is able to manipulate prices to better appeal to the middle class consumers of those countries in which it has insignificant presence, it can potentially see extended growth. However with this proposed expansion, challenges with meeting demand and inabilities to scale properly for manufacturing come into play as well.

### **Lowered-Price Models**

One of the largest contributing factors in the 21st century is an increased international rise of both the lower and middle class. According to OECD Observer, a 2010 study showed that the middle class included 1.8 billion people, with Europe (664 million), Asia (525 million), North America (338 million) accounting for the highest number of people belonging to this group (Pezzini). With such a large majority of potential consumers within this segment, it is important for Tesla to consider a lower-priced model to increase its customer pool. Tesla has appealed mainly to the upper class, but a restructured price model that incorporates a reduction in operations costs could amass lower-priced vehicles. However, such a restructuring exposes the risk of losing the luxury title associated with their products and magnate customers alike.

Implementing a feasible and more affordable price structure could be of a significant value for the firm bringing in much more sales and profits. It is important for Tesla to consider that through the

achievement of better efficiencies, the firm can expect to pass along more value to the customer and their own financial standings.

### **Mobility Services**

Musk has mentioned Tesla's interest in autonomous ride-sharing and mobility services. With more than 31 different locations worldwide, this opportunity can augment success tenfold and provide a massive innovative edge. With the many inconveniences that come from driving, Tesla can further develop the already innovative status of their company by offering customers a less costly solution. In addition, autonomous ride-sharing offers to cater to customers by offering less stressed driving, better emissions control, grander luxury, and can potentially revolutionize the modern day transportation. According to Business Inside interview, the president of GM shared that, "it's very clear that most people will have their first application of autonomous vehicles is in a ride-sharing setting."

Another avenue to consider is the ability for the everyday drive to summon a self-driving Tesla car at ones doorstep. This eliminates the extra efforts and necessities included in the driving process and completely revitalizes it. Although this may require extensive amounts of capital and advanced amounts of technological knowledge, pursuing such an opportunity would pose aggressively against competitors such as Lyft or Uber. Both competitors pose a major threat to this opportunity through their already well-established ride-sharing reputability, which leaves only the proprietary autonomous technology at bay.

### **New Market Segments**

Tesla Motors has experienced success with ventures into new market segments already, largely being SolarCity. Capitalizing on this acquisition and capturing this segment proved why opportunities like this are an important aspect for furthering the firm's success. Thus, accessing new market segments through applications such as acquisitions, mergers, or even first-mover strategies

can help increase competitiveness and can result with expense reduction, greater customer pools, more brand recognition, and other remunerations. To understand this better, it is important to look at the evidential benefits that came from SolarCity. In order to continue progress and add long-term value, it is vital for Tesla to expand their market segmentation. Pursuing into new market segments can require extensive amounts of capital and labor costs, while it can also require reallocation of resources.

### **Key Factors Takeaway**

Ultimately, the extent of these respects should be deeply evaluated and taken into consideration as determining the betterment of Tesla. Both beneficial and detrimental effects can arise from the implementation or pursuit of these opportunities, but it is important to comprehend the risks involved respectively. Through the evaluation of these opportunities, there are threats and risks that arise as well and should be considered.

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## **RECOMMENDATIONS FOR STRATEGIC CHANGE**

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As a company that fundamentally accelerated the realm of electric cars, Tesla Motors Inc. has done relatively well through their innovative and environmentally friendly motivations. In order to sustain such visions, we would recommend that Tesla to not merge with any automakers in order to keep their distinctive mark and stay objectively focused. If any, we recommend Tesla only engage in strategic acquisitions with lithium ion and solar-based technology companies. This would be based on financial and company cultural benefits. We also recommend that Tesla modernize their mission and visions statements to better incorporate the entirety of their interests such as electrical cars, electrical powertrains, autonomous driving technology, and solar-based roofing. We expect this to realign the organizational guidance of Tesla with their brand and values.

*Expand Internationally:* There is much appeal for a company like Tesla that helps current world problems like the increasingly high amounts of carbon footprint, global warming, and pollution. Because of this we highly recommend Tesla continue its efforts on international expansion, with focuses primarily on sales and supply chain. The objective behind this would be to increase the amount of customers and to better establish the firm in order to improve efficiencies. In essence, the success of this suggestion brings forth the next recommendation of vertical integration to point. Moving towards a more vertically integrated position for the production of goods will help Tesla Motors in avenues such as improved adaptability, lower and more controlled unit costs, and an ability to remain agile within the market. In addition, we firmly believe that the in-house production of materials can also reduce inefficiencies and maximize long-term value. These values include quality improvement, production control, cost tracking, knowledge protection, and other recompenses. In the past, we have seen Tesla outsource for its ‘roadster’, which resulted in astronomical inefficiencies.

*Pursue Low-Priced Models:* Our next recommendation is that Tesla to continue pursuit after a low-priced model for their products. The success of the Tesla Model 3, structured predominantly to be cost efficient and much more affordable to customers, supports this. Capturing more customers in the lower and middle class brings much benefit for the company – both monetarily and terminally. The primary objective is to not only attract customers, but accelerate the global traction for Tesla. In essence, a low pricing scheme supports new product lines in the future and improve customer relations. We believe the implementation of this price model will better benefit the company.

*Sustain Innovative Superiority:* Our final recommendation for Tesla is to sustain their innovative edge and challenge the status quo. With the multitude of opportunities presented for Tesla, it is important for the firm to take the necessary risks to yield the maximum benefit. This includes



mobility services and autonomous technology, more sustained solar products, more environmentally-friendly products, and much more revolutionizing forms of technological outlooks. As a pioneering company, Tesla must set the standard for other competitors alike to accelerate its edge.

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## IMPLEMENTATION RECOMMENDATIONS

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Implementing the above opportunities and recommendations - such as international expansion, pursuing new sustainable business segments, and continued pursuit of low-priced models and innovative superiority - relies heavily on the continued development of Tesla's operations. Functions such as Tesla's structure, control systems, compensation strategy, and culture can greatly affect the level of success Tesla achieves with these opportunities.



Expanding into new international territories, especially ones that currently are lacking in an EV market, could allow Tesla to lead the market in those territories before other global companies make their footprint. However, when implementing further international expansion, it would be smart to commit resources to researching and understanding the various cultures, laws, and operations currently in place in each respective country. For example, some countries - like Germany - have such strict labor unions that employees are not as motivated by sales, productivity, and efficiency because their labor unions protect them. In addition, sales tactics used on American consumers will not be the same as those used on consumers of different cultures. Sales and Operations trainers should also be sent from Tesla to each new territory to ensure success. Companies have before made the mistake when expanding globally of focusing too much on the product itself and not on the labor producing it and the consumers buying it. While more costly, the investment in research and resources pays off greatly.

Another major opportunity for Tesla is expanding into new sustainable business segments, as discussed above. However, in order to prove successful, they must be strategic about their implementation. The best way in which to expand into these new markets would be through acquisition - as Tesla did with SolarCity. In addition, instead of solely relying on the current operations managers of Tesla, they need to bring on various executives from these industries to team up with the Tesla management to successfully combine attributes of Tesla with these new business segments. Even though these business segments are still in sustainability, with different products, marketing will be different as well, so even going as far as to bring on additional Marketing executives would prove useful.

All of these opportunities would benefit from Tesla's continued pursuit of low-priced models and innovative superiority. Tesla's innovative and forward thinking culture creates an environment in which the employees are passionate about finding new ways to promote and create sustainability. However, with such expansive plans for the advancement of their Tesla vehicles, it may be hard to shift the focus to other business sectors. Their innovative superiority should go beyond only EV's. While their mission statement has been updated to center around accelerating sustainable energy as a whole, they are still branded as a sustainable vehicle company. The change in perception needs to begin from within their own culture to support the overall expansion to new sustainable segments. In addition, when structuring their workforce in these new market segments, it would prove beneficial to have a forward thinking compensation model. Similar to automotive company Lincoln, Tesla should motivate their employees through a compensation model that awards based on measurable sales, efficiency, and productivity.

Tesla has established themselves as one of the most innovative and successful companies in the fight to create a more sustainable environment and to protect our planet. With already remarkable systems in place, Tesla's reach is incomparable when coupled with their business opportunities.

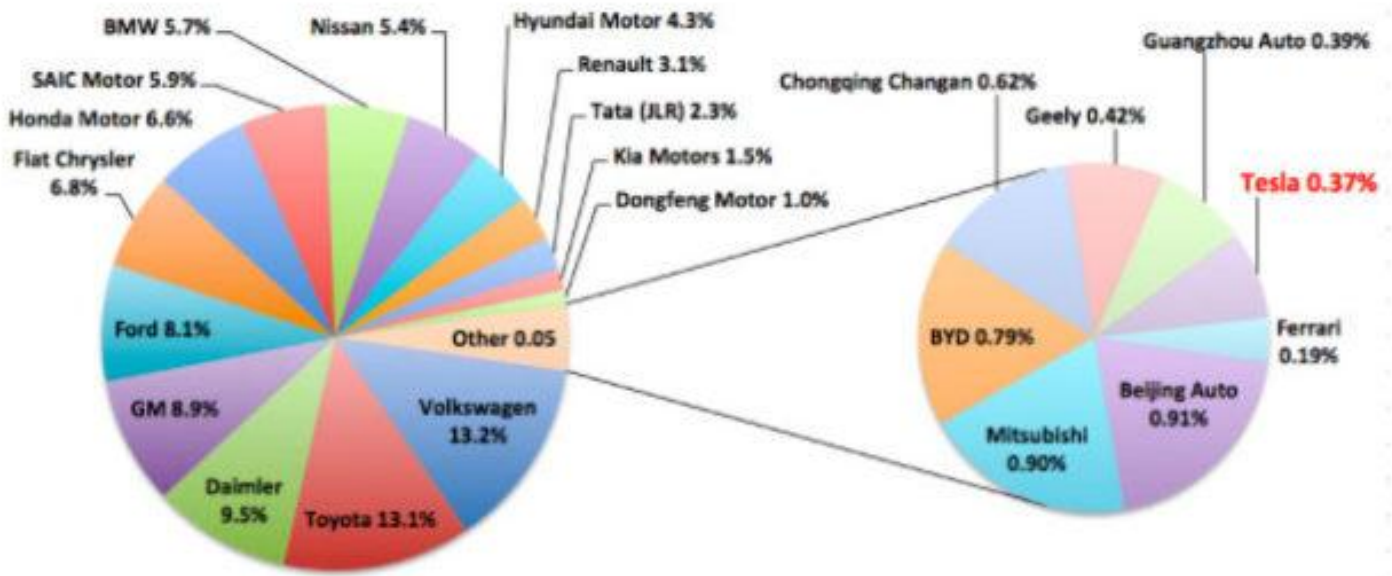
## APPENDIX

<b>U.S. Sales of Large Luxury Vehicles</b>				
<b>MODEL</b>	<b>2015 Sales</b>	<b>2014 Sales</b>	<b>% Change</b>	
Tesla Model S	25,202	16,689	51.01%	
Audi A7	7,721	8,133	-5.07%	
Audi A8	4,990	5,904	-15.48%	
BMW 6-Series	8,146	8,647	-5.79%	
BMW 7-Series	9,292	9,744	-4.64%	
Jaguar XJ	3,611	4,329	-16.59%	
Lexus LS	7,165	8,559	-16.29%	
Mercedes-Benz CLS-Class	6,152	6,981	-11.88%	
Mercedes-Benz S-Class	21,934	25,276	-13.22%	
Porsche Panamera	4,985	5,740	-13.15%	
<b>Total</b> 	<b>99,198</b> 	<b>100,002</b>	<b>-0.80%</b>	

*Source: Company reports*

“Tesla dominates Audi, BMW, and even Mercedes in 2015 luxury sedan sales.” Fortune, [fortune.com/2016/02/11/tesla-best-selling-luxury-sedan/](http://fortune.com/2016/02/11/tesla-best-selling-luxury-sedan/).

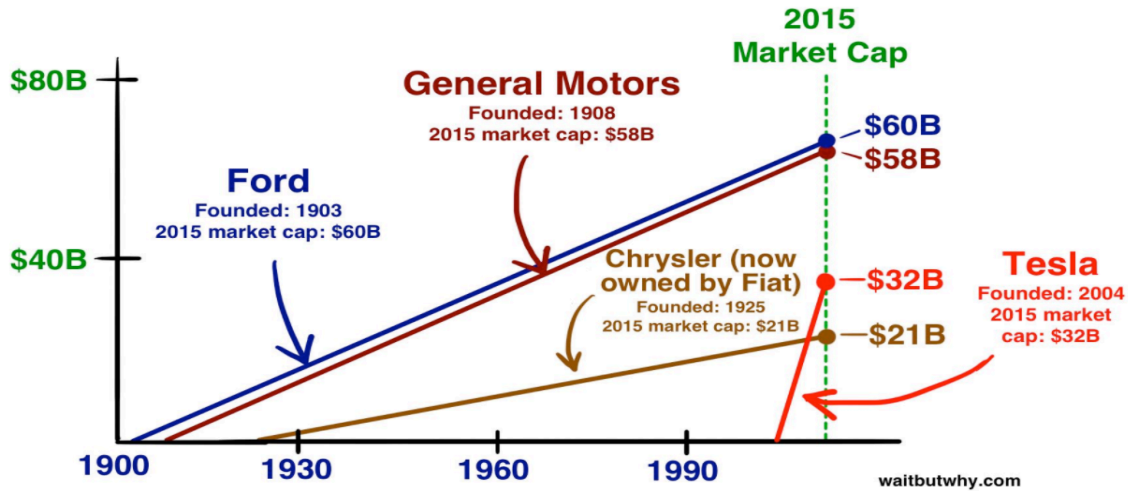
### Motor industry: 2016 revenue market share



Source: Morningstar, OfWealth analysis

Rob Marstrand Deep Value, value, growth at reasonable price, medium-term horizonOfWealth.cls-1{fill:#024999;}. “Why Tesla Inc. Stock Is Clearly Overpriced.” Seeking Alpha, 4 July 2017, seekingalpha.com/article/4085569-tesla-inc-stock-clearly-overpriced.

### Tesla's Founding and 2015 Market Cap Compared with the American Big Three



“How Tesla Will Change The World.” Wait But Why, 17 Nov. 2017, [waitbutwhy.com/2015/06/how-tesla-will-change-your-life.html](http://waitbutwhy.com/2015/06/how-tesla-will-change-your-life.html).

### 2017 CAR-MAKERS MARKET VALUE

#### The world's top car makers, by market value

COMPANY	STOCK PRICE	MARKET CAP
Toyota	\$52	\$172.1 billion
Daimler AG	\$73	\$78.3 billion
Tesla Inc	\$364	\$59.7 billion
BMW	\$94	\$56.8 billion
SAIC Motor Corp	\$5	\$53.2 billion
General Motors	\$34	\$51.9 billion
Honda	\$28	\$50.3 billion
Volkswagen	\$154	\$45.5 billion
Ford	\$11	\$43.3 billion

Assis, Claudia. “Tesla's market value zooms past another car maker.” MarketWatch, 9 June 2017, [www.marketwatch.com/story/teslas-market-value-zooms-past-another-car-maker-2017-06-09](http://www.marketwatch.com/story/teslas-market-value-zooms-past-another-car-maker-2017-06-09).

## 5-YEAR TESLA AND GENERAL MOTORS STOCK MARKET TRENDS

### Market summary > Tesla Inc

NASDAQ: TSLA - Dec 1, 5:16 PM EST



**306.53** USD **↓2.32 (0.75%)**

After-hours: 305.70 **↑0.27%**

1 day | 5 day | 1 month | 3 month | 1 year | **5 year** | max



Open 305.44  
 High 310.32

Mkt cap 51.52B  
 P/E ratio -

### Market summary > General Motors Company

NYSE: GM - Dec 1, 4:27 PM EST



**42.79** USD **↓0.28 (0.65%)**

After-hours: 42.78 **↑0.02%**

1 day | 5 day | 1 month | 3 month | 1 year | **5 year** | max



Open 43.19  
 High 43.25

Mkt cap 60.78B  
 P/E ratio 9.25

## Key Performance Indicators and Ratios for 2017 Fiscal Year (Tesla Motors Inc.[TSLA])

<b>Valuation</b>		<b>Profitability</b>	
P/E Current	<b>-65.71</b>	Gross Margin	<b>22.48</b>
P/E Ratio (with extraordinary items)	<b>-36.56</b>	Operating Margin	<b>-9.86</b>
Price to Sales Ratio	<b>4.40</b>	Pretax Margin	<b>-10.66</b>
Price to Book Ratio	<b>7.26</b>	Net Margin	<b>-9.64</b>
Enterprise Value to EBITDA	<b>226.56</b>	Return on Assets	<b>-4.39</b>
Enterprise Value to Sales	<b>5.40</b>	Return on Equity	<b>-23.11</b>
Total Debt to Enterprise Value	<b>0.23</b>	Return on Total Capital	<b>-7.78</b>
		Return on Invested Capital	<b>-8.70</b>
<b>Efficiency</b>		<b>Capital Structure</b>	
Revenue/Employee	<b>393,664.00</b>	Total Debt to Total Equity	<b>180.77</b>
Income Per Employee	<b>-37,955.00</b>	Total Debt to Total Capital	<b>64.38</b>
Receivables Turnover	<b>20.96</b>	Total Debt to Total Assets	<b>37.91</b>
Total Asset Turnover	<b>0.46</b>	Long-Term Debt to Equity	<b>155.40</b>
		Long-Term Debt to Total Capital	<b>55.35</b>
<b>Liquidity</b>			
Current Ratio	<b>1.07</b>		
Quick Ratio	<b>0.72</b>		
Cash Ratio	<b>0.60</b>		

“Tesla Inc.” MarketWatch, [www.marketwatch.com/investing/stock/tsla/profile](http://www.marketwatch.com/investing/stock/tsla/profile).



## Key Performance Indicators and Ratios for 2017 Fiscal Year (General Motors[GM])

<b>Valuation</b>		<b>Profitability</b>	
P/E Current	<b>7.30</b>	Gross Margin	<b>17.80</b>
P/E Ratio (with extraordinary items)	<b>20.66</b>	Operating Margin	<b>6.32</b>
P/E Ratio (without extraordinary items)	<b>5.81</b>	Pretax Margin	<b>7.02</b>
Price to Sales Ratio	<b>0.33</b>	Net Margin	<b>5.67</b>
Price to Book Ratio	<b>1.19</b>	Return on Assets	<b>4.53</b>
Price to Cash Flow Ratio	<b>3.31</b>	Return on Equity	<b>22.52</b>
Enterprise Value to EBITDA	<b>5.87</b>	Return on Total Capital	<b>8.15</b>
Enterprise Value to Sales	<b>0.78</b>	Return on Invested Capital	<b>10.31</b>
Total Debt to Enterprise Value	<b>0.75</b>		
<b>Efficiency</b>		<b>Capital Structure</b>	
Revenue/Employee	<b>739,467.00</b>	Total Debt to Total Equity	<b>193.06</b>
Income Per Employee	<b>41,898.00</b>	Total Debt to Total Capital	<b>65.88</b>
Receivables Turnover	<b>5.73</b>	Total Debt to Total Assets	<b>38.17</b>
Total Asset Turnover	<b>0.80</b>	Long-Term Debt to Equity	<b>126.84</b>
		Long-Term Debt to Total Capital	<b>43.28</b>
<b>Liquidity</b>			
Current Ratio	<b>0.89</b>		
Quick Ratio	<b>0.73</b>		
Cash Ratio	<b>0.31</b>		

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