STUDY ON TESLA

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Abstract

Elon Musk, JB Straubel, Martin Eberhard, Marc Tarpenning, and Ian Wright established Tesla, Inc., an American electric car and clean energy business, in 2003. Tesla is a company that creates, produces, and distributes electric vehicles, battery energy storage devices, and solar panels. With a goal to accelerate the world's shift to sustainable energy, the business has earned worldwide acclaim for its innovative approach to sustainable energy and transportation. Tesla's electric vehicles, including the Model S, Model X, Model 3, and Model Y, have redefined industry standards for speed, efficiency, and style, and are generally regarded as some of the finest electric vehicles on the market. Tesla is also committed to creating and implementing renewable energy technologies, such as energy storage systems and solar panels, in order to reduce global greenhouse gas pollution and create a more sustainable future.

Keywords

Revenue Ratios, Growth Factors, Electric Cars and Technology, Revenue Growth, Production.

INTRODUCTION (HEADING 1)

Tesla, Inc. is a leading American electric car and renewable energy business established in 2003 by a group of engineers with the goal of speeding up the world's transition to sustainable energy. The business is called after Nikola Tesla, a well-known inventor and electrical engineer, and is based in Palo Alto, California. Tesla's high-performance electric vehicles, such as the Model S, Model X, Model 3, and Model Y, have garnered broad praise for their cutting-edge technology, sleek designs, and remarkable range.Tesla is also engaged in the production of solar panels and energy storage systems, which have the potential to greatly reduce carbon emissions and aid in the fight against climate change. Tesla has rapidly become a significant player in the global market, with an emphasis on innovation, sustainability, and environmental responsibility, and its influence on the automotive and energy industries is expected to expand in the coming years. Tesla's goal to accelerate the world's shift to renewable energy is motivated by a strong desire to reduce carbon emissions and fight climate change. Elon Musk, Tesla's creator and CEO, has been an outspoken champion for the use of green energy and has set lofty goals for the business to help change the energy environment. Tesla vehicles are powered by advanced electric motors and batteries that provide exceptional performance, reliability, and efficiency, and the company has also made significant progress in developing self-driving technology, which has the potential to revolutionise transportation in the coming years.

Statement of problem

- Tesla is an electric car, solar panel, and energy storage device manufacturer.
- The supply of charging facilities for Tesla's electric cars is a problem. Despite the company's expanding network of Supercharger stations, many areas still lack charging infrastructure.
- Another issue that Tesla faces is the cost of its cars. While the business has made progress in lowering the cost of its vehicles, they remain comparatively expensive when compared to traditional gasoline-powered vehicles.
- Other electric vehicle manufacturers, some of which may have more resources and established reputations in the automotive industry, may also compete with Tesla.
- Concerns have been raised about the sustainability of the materials used in Tesla's products, particularly the mining of lithium for batteries. There are also concerns about the environmental effect of manufacturing and disposing of battery packs for electric vehicles.

REVIEW OF LITERATURE

Edward B. Roberts and Michael A. Cusumano's "Tesla Motors: A Case Study in Disruptive Innovation" (2018)

This research looks at Tesla's meteoric ascent as a case study in disruptive innovation. The writers examine Tesla's strategy of concentrating on the high-end electric car market and using innovation to distinguish itself from conventional manufacturers.

Benedikt Breuer and Andreas Lindinger's "The Business Plan of Tesla Motors: A Case Study" (2017)

This research examines Tesla's business strategy, concentrating on the company's approach to innovation, distribution, and marketing. According to the authors, Tesla's success stems from its ability to establish a distinct brand and engage consumers through a direct-to-consumer sales strategy.

Mark J. Perry's "The Effect of Tesla on the Automotive Sector" (2018)

This research investigates Tesla's effect on the automobile industry, specifically in terms of electric vehicle adoption and technical innovation. According to the author, Tesla has accelerated the shift to electric cars by compelling conventional automakers to spend in new technologies.

Ashlee Vance's "Tesla's Economic Edge" (2015)

This Bloomberg Business week piece delves into Tesla's competitive advantage, concentrating on the company's ability to recruit top talent while also disrupting the conventional automotive industry. According to the author, Tesla's success is due to its distinct culture, which prioritises invention and risk-taking.

Cameron Baker and Joseph C. Weinberg wrote "Tesla, Inc.: A Strategy Study" (2019)

The purpose of this research is to provide a comprehensive analysis of Tesla, concentrating on the company's assets, flaws, opportunities, and dangers. The authors contend that Tesla's success stems from its ability to establish a strong brand identification and keep an innovative culture, but they also point out that the company confronts significant challenges in scaling production and expanding into new markets.

Tobias Niedermaier's "Tesla Motors: Research and Recommendations Based on Financial Analysis" (2017)

This research examines Tesla's revenue, liquidity, and viability through a financial analysis. To guarantee long-term success, the author suggests that Tesla better its cost structure and broaden its product range.

Tim Friesner's "Tesla, Inc.: SWOT Study" (2018)

This paper examines Tesla's assets, flaws, opportunities, and threats using a SWOT analysis. The author contends that Tesla's powerful brand, innovative goods, and emphasis on sustainability provide it with a competitive edge, but he also points out that the company confronts significant challenges in scaling production and expanding its product range.

John R. Brandt's "The Tesla Revolution: A Study in Business Vision and Change" (2017)

This research looks at Tesla's entrepreneurial strategy and its effect on the car industry. According to the author, Tesla's success stems from its ability to establish a distinct brand identity, produce novel goods, and challenge conventional business methods.

Rebecca Leber's "Sustainability and Disruption: How Tesla is Driving the Automobile Industry's Transition to a Low-Carbon Future" (2019)

This paper examines Tesla's position in the shift to a low-carbon future, focusing on sustainability and innovation. According to the author, Tesla's dedication to renewable energy and electric car technology has catalysed change in the automotive industry and stimulated investment in sustainable technologies.

Ahmad B. Radzi and Mohamed H. Othman wrote "Tesla Motors: A SWOT Study" (2017)

This research examines Tesla's assets, flaws, opportunities, and threats using a SWOT analysis. The authors contend that Tesla has a competitive edge due to its powerful brand, innovative products, and direct-to-consumer sales strategy, but they also point out that the company confronts major hurdles in scaling production and distribution.

OBJECTIVES OF THE STUDY

- To comprehend Tesla's past, including its origins, important milestones, and major obstacles encountered by the business.

- To examine Tesla's business strategy and competing advantages in the electric car industry, including design, technology, branding, and distribution.

- To examine Tesla's environmental effect, including its role to lowering greenhouse gas emissions and supporting sustainable energy.

- To assess Tesla's financial performance over time, including sales growth, profitability, and stock market valuation, and to determine the primary causes of the company's success or failure.

Results And Discussion

Tesla Sales and Production Statistical data: How So many Cars Are Sold Worldwide?

Nikola Tesla, a 19th-century inventor famed for discovering the phenomenon of rotating electromagnetic fields, inspired the creation of Tesla (TSLA), which bears his name. Elon Musk joined the company a year after it was created, despite the fact that he is now closely associated with Tesla. He invested $30 million in Tesla, rose to the position of board chairman, and later assisted in securing funding from Google's founders. Tesla's first electric vehicle, the Roadster, was unveiled in 2006 and put into production in 2008. Through June 2009, 500 Roadsters were sold for $98,000 apiece. With the launch of the Model 3, which rose to the top of the global plug-in electric car market by 2020, Tesla joined the mass market in 2017. 501,000 or so units sold globally in 2021.
https://www.investing.com/academy/statistics/tesla-facts/

2021-2022 Tesla Statistics

- In 2021, Tesla made $53.8 billion in revenue.
- Tesla's revenue in the first and second quarters of 2021 was $22.35 billion.
- In 2021, Tesla will have delivered 938,172 automobiles.
- In 2021, the Tesla Model 3 sold 501,000 units globally.
- Tesla Model 3 and Model Y deliveries accounted for 97% of Tesla's sales volume in 2021.
- Tesla produced 386,759 EVs in the first and second quarters of 2021.
- In 2021, Tesla sold 473,078 automobiles in China.
- In the first quarter of 2022, there were 3,724 Tesla supercharger stations worldwide.
- In the first quarter of 2022, Tesla sold over 310,000 automobiles.
- In the second quarter of 2022, Tesla delivered 254,700 vehicles.
- In the fiscal quarter ending June 30, 2022, Tesla earned $16,934 billion.
- Tesla's revenue for the fiscal year ended June 30, 2022 was $67.166 billion.

How Much Revenue Does Tesla Make Annually?

In 2021, Tesla earned $53.8 billion in sales revenue. This was an increase from the $31.5 billion gained in 2020, with sales increasing by 70.64% in 2021. In terms of sales and market share, Tesla will be the top EV manufacturer in 2022, followed by VW.

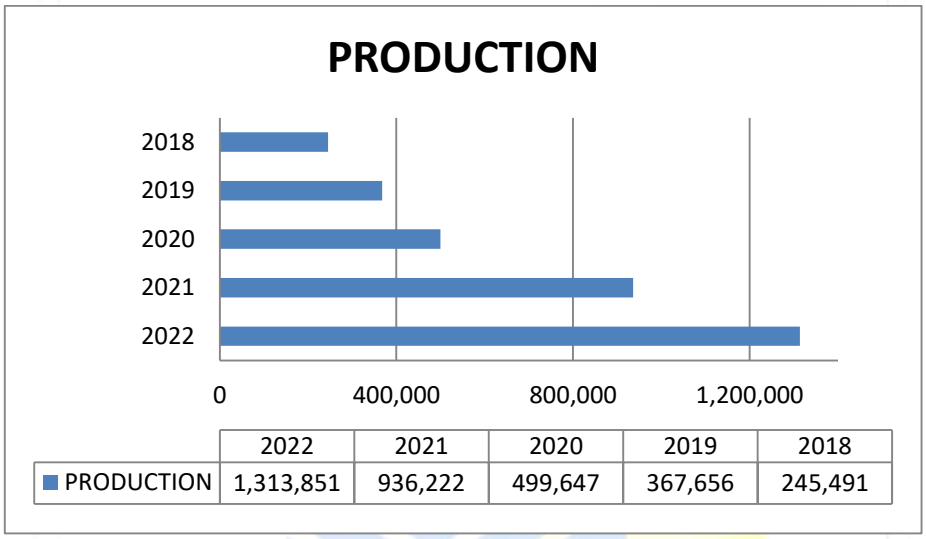
Tesla sold over 310,000 vehicles in the first quarter of 2022, and delivered 254,700 units in the second quarter. Tesla's revenue for the fiscal quarter ended June 30, 2022 was $16.934 billion, representing a 41.61% rise year over year. Tesla's revenue for the fiscal year ended June 30, 2022 was $67.166 billion, a 60.45% increase over the previous year.

Tesla's sales in the third quarter of 2022 was $21.454 billion, while it earned $24.32 billion in the fourth quarter, representing a 37.24% year-over-year growth. Its revenue for the fiscal year ended December 31, 2022 was $81.462 billion, representing a 51.35% increase year on year. The company's hourly income in 2022 will be $8,703,704; in 2012, it earned 'just' $13,981 per hour.

HOW MANT TESLA VEHICLES SOLD EACH YEAR?

Tesla's yearly manufacturing rates have been gradually rising. In 2014, the firm only produced 35,000 automobiles. Tesla manufactured 386,759 cars in the first half of 2021, with 184,877 vehicles delivered in Q1 and 201,304 in Q2. In all, Tesla produced 930,422 EVs and delivered 936,222, setting a new record. These figures indicate an 82.5% year-over-year increase when compared to 2020.

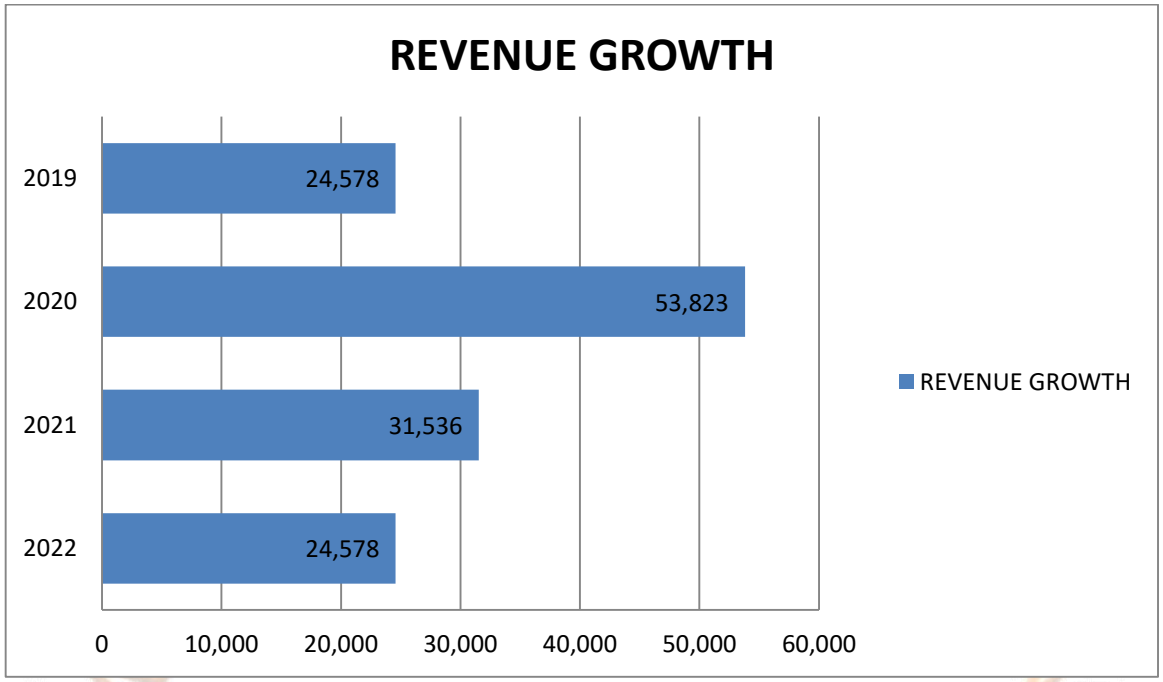
There were 906,032 Model 3/Y automobiles produced, representing a 99% increase over 2020. In the same year, Tesla manufactured 24,390 Model S/X vehicles, a 56% decrease year on year. The latter model's deliveries were likewise 56% lower than in 2020, totaling 24,980 cars. The Tesla Model 3/Y had 911,242 deliveries, which was 106% more than in 2020.



https://www.investing.com/academy/statistics/tesla-facts/

TESLA'S REVENUE RATIO

YEAR	REVENUE GROWTH IN DOLLAR
2019	24,578 MILLION
2020	31,536 MILLION
2021	53,823 MILLION
2022	81,462 MILLION



Ratios Of Revenue Growth

24.578 : 31.536 : 53.823 : 81.462

= 1 : 1.282 : 2.185 : 3.314

FINDINGS

DEVELOPMENT OF TESLA

Tesla, Inc. is an American electric car and clean energy business established in 2003 by a group of engineers looking to develop sustainable transportation and energy solutions. The business was called after Nikola Tesla, a renowned inventor and physicist who is credited with developing many of the technologies used in electric cars and energy storage systems today. Tesla's initial emphasis was on developing high-performance electric sports vehicles, and their first model, the Tesla Roadster, was introduced in 2008. This vehicle was praised for its speed and range, and it contributed to Tesla's reputation as a major competitor in the automotive industry. Tesla continued to improve their technology and extend their product range in the years that followed, introducing new models like the Model S, Model X, and Model 3.Tesla has made major advances in the area of energy storage, in addition to electric vehicles. They have created a variety of batteries and energy storage devices to assist families and companies in transitioning away from fossil fuels and towards pure, renewable energy sources. Tesla's Powerwall and Powerpack systems are among the most common energy storage options on the market today, and they have aided in the widespread adoption of solar power and other renewable energy sources. Tesla has continued to stretch the limits of what is possible in the worlds of transportation and electricity in recent years. They have created new innovations such as the Tesla Semi, an electric lorry that is set to revolutionise the transportation sector, and the Tesla Roadster.as well as the Tesla Cybertruck, an all-electric pickup truck unlike any other on the market. They've also increased their footprint in foreign marketplaces, with manufacturing facilities in China and plans for more in Europe.

TESLA'S FUTURE

Elon Musk, CEO of Tesla, told an audience gathered at the company's Austin, Texas Gigafactory for Investor Day 2023 that the company's production capabilities are set for a substantial increase — and AI will presumably be the golden pill that gets them there. All of this is part of Musk's "Grand Plan 3."

Third iteration of Musk's Master Plan; the first two appeared in 2006 and 2016, respectively. Over the last 17 years, as the business has grown from a young startup to the leading EV carmaker in the world, these have served as a road map for Tesla's growth and

development. Musk claimed during his introductory statement that there is a clear path to a sustainable energy planet by 2050 that does not need the eradication of natural ecosystems. "Much more advanced civilizations than that seen on Earth might be supported by you. I'm continuously amazed and shocked by how few people realise that far more than 8 billion people might live sustainably on Earth. He continued. He promised during the event that the company will provide a "full whitepaper containing via Twitter, "with figures & assumptions." The Master Plan calls for building 240 terawatt hours (TWH) of energy storage and 30 TWH of renewable power generation, a total cost of $10 trillion, or 10% of the world's gross domestic product. But as Musk points out, this amount is only a fraction of what we now spend on internal combustion engines. In sum, he predicts that less than 0.2 percent of the planet's surface will be needed to develop the production capacity for wind and solar energy. Musk declared that all vehicles "will be completely electric and driverless" and predicted that ICE vehicles will soon be derided in the same way as the horse-drawn carriage. Additionally, he said that he could want to electrify when or how this may be achieved. "A sustainable energy economy is within our grasp, and we must accelerate it," said Drew Baglino, Tesla's SVP of Powertrain and Energy Engineering.
https://www.engadget.com/elon-musk-lays-out-his-vision-for-teslas-future-at-the-companys-investor-day-2023-215737642.html

Two Major Factors Fuel Demand For Electric Cars (Evs):

- The price of fossil fuels (gasoline) 90% of Americans believes that petrol costs are too high when they reach $4.00 per gallon, according to AAA. Half of US citizens consider petrol prices to be "too expensive" when they reach $3.44 per gallon. Revenue increases significantly when petrol prices are lowered. The price of oil decreases as discretionary income increases. When it comes to high expenses, the opposite is true. Buyers choose to replace them with vehicles that get less miles per gallon when petrol prices are very high for an extended period of time. (MPG). These activities raise demand for automobiles that use less energy, such electric cars (EVs).

- Those who wish to lessen their carbon footprint can purchase fully electric or gas-electric hybrid automobiles. Because this type of demand is less elastic, it is unaffected by changes in fuel costs. Demand for eco-friendly products is influenced by the driving need to reduce carbon emissions.

- Along with the demand sources mentioned above, Tesla also has demand brought on by the premium branding of its vehicles. Due to the popularity of Tesla and its impression of exclusivity, demand for these vehicles is increasing.

https://www.investopedia.com/articles/personal-finance/021715/what-drives-consumer-demand-tesla.asp#:~:text=Tesla's%20brand%20recognition%20and%20perceived%20elite%20status%20increase%20demand%20for%20these%20vehicles.&text=The%20key%20factors%20that%20drive,of%20the%20%E2%80%9Cgreen%E2%80%9D%20movement.

CONCLUSION

The financial comparison between private and government banks has shown that both types of institutions have their own strengths and weaknesses. Private banks are typically more innovative, customer-focused, and agile in responding to marketchanges, while government banks have the advantage of greater stability, credibility, and reach due to their public ownership and support. In terms offinancial performance, private banks have generally outperformed governmentbanks in terms of profitability, asset quality, and efficiency ratios. However, government banks play a crucial role in promoting financial inclusion, providing credit to priority sectors, and supporting economic development in rural and underserved areas. Therefore, the choice between a private or government bank depends on various factors such as personal preferences, financial goals, and risk tolerance. While private banks may offer higher returns and better services, government banks may provide more security and social benefits. Ultimately, consumers should carefully assess the pros and cons of each type of bank before making a decision that best suits their needs and priorities.

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