Tesla Product and Market Performance Report

Model X & Model S

By

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Table of Contents

Introduction

This report provides a critical analysis of Tesla, Inc., focusing on profitability, purchasing trends, and market performance of Model S and X. The analysis examines the viability of market pricing, global earnings, and comparative profitability in key global markets, as well as payment trends. Actionable recommendations have been formulated to enhance the company's performance.

Objectives

- To assess which Tesla products are most profitable and viable across different countries
- To evaluate customer payment behaviour and its implication for the strategy development
- To inform sales, marketing, and product design strategy using data-driven insights

Analytical Questions

- Which Tesla model generates the most revenue?
- Which Tesla trim levels are primary contributors to the firm’s profitability?
- What are the purchasing patterns for the Tesla Model X and Model S?
- How competitive are the current market prices for these products?
- How do customer payment preferences vary across business years?

Tesla Performance Analysis

1. Model Performance

Findings indicate that Model X consistently outperformed the Model S by a significant gross profit margin in both 2016 and 2017. Model X was the stronger performer in the business market with higher gross profit in 2016 ($530,428,706.91) and a slight decline in 2017 ($509,131,627.65) while Model S generated gross profit of $418,984,926.26 and $419,814,335.33 in 2016 and 2017 respectively.

Although Tesla's Model X maintained its position as the top performer in both years, its growth trajectory was negative, whereas Model S demonstrated positive growth indicating expansion in the business market appeal. This suggests that while the Model X has a higher overall market share, its decline in revenue could be traceable to increased competition, a shift in consumer preference, or production issues.

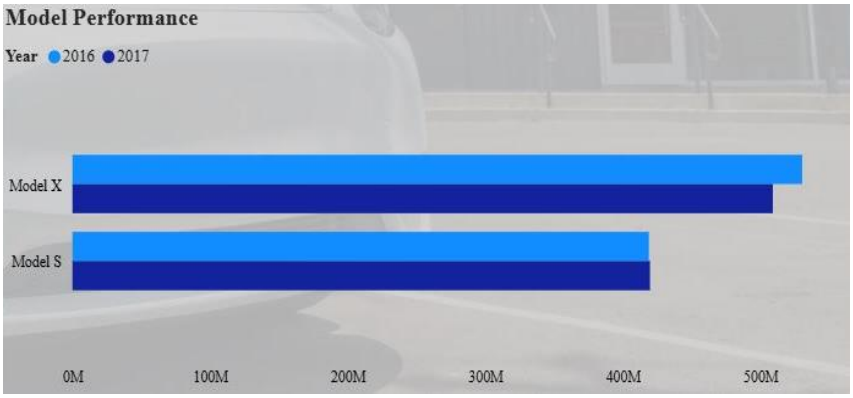

Fig 1. Tesla Model X and Model S

2. Trim Level Profitability

P90D is the most popular trim and the major primary driver of profit. With a value of $744,668,953.97, the P90D trim level accounts for the largest share of the total profit, making up 39.64%. The 90D AWD is the least popular trim, with a value of $127,351,729.28 representing 6.78% of the total gross profit. The 75D AWD trim generated gross profit of $226,532,186.39 (12.06%), while the 75 RWD trim generated gross profit of $289,395,214.94 (15.41%) which indicates relative acceptance and patronage among consumers. The 60D AWD trim accounts for 10.41% profit ($195,520,130.99) and the 90D trim accounts for 15.71% profit ($294,891,380.60).

The dominance of the P90D Trim indicates that P90D is clearly a "hero product" that resonates strongly with consumers, likely due to its performance, features, and branding. The company's financial health is heavily reliant on the continued success and high demand for this specific trim. This heavy reliance on P90D creates a significant business risk such that a change in market conditions that negatively impacts the P90D trim could have a disproportionately large effect on the Tesla's profitability.

In contrast to the P90D, the 90D AWD is the least profitable trim which indicates underlying market acceptance issues like unfavourable pricing, absence of key features, or intensive competition. For survival in the competitive business market, it is vital to implement strategic actions like intensive marketing to boost sales, rebranding the trim for increased patronage or discontinuing it and investing corporate resources on viable Tesla versions. Mid-Range trims like 75 RWD, 90D, 75D AWD, and 60D AWD collectively account for a significant portion of Tesla's profit (15.41%, 15.71%, 12.06%, and 10.41% respectively). Therefore, it is vital for Tesla to leverage the relative success of mid-range trims to create more balanced profit levels.

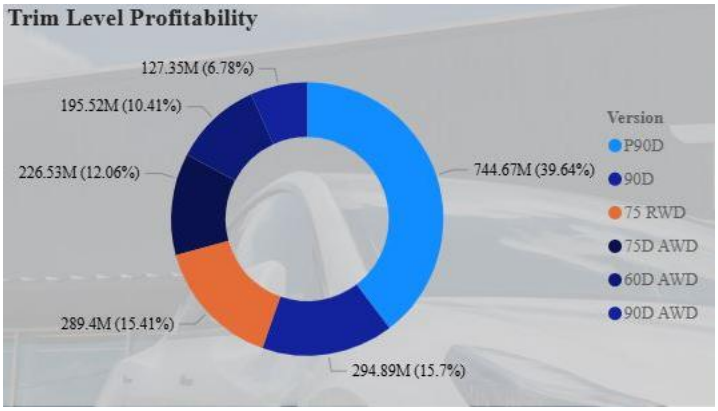

Fig 2. Profitability of Tesla Trims

3. Purchase Trends: Model X and Model S

The quarterly performance of the two models varied significantly during the 2016 and 2017 business year. The 2016 analysis indicates sales advancement of Model X from 5835 in QTR 1 to 6394 in QTR 2. A moderate decline in sales is observed in QTR 3 and QTR 4 as Model X dips to 6060 and 5613 respectively. Model S experienced progressive growth in all quarters of 2016 from 4603 to 4714, 4887 and 5144 in QTR 1, QTR 2 and QTR 3, and QTR 4 respectively.

In 2017, sales volume of Model X increases in QTR 1, QTR 2 and QTR 3 (5731, 5846 and 6020) respectively with a slight decline in QTR 4 (5468). In contrast, the performance of Model S in 2017 varied considerably in each quarter such that QTR 1, QTR 2, QTR 3 and QTR 4 were characterized by 4771, 5151, 4877 and 4478 sales respectively.

Model S demonstrates a more reliable and consistent demand, particularly with its steady growth throughout 2016, making it a dependable source of Tesla's revenue. In contrast, the Model X exhibits more volatile sales trends with notable declines in the latter part of the two business years, implying that although Model X has periods of strong sales, it requires careful attention in order to successfully mitigate periodic fluctuations and build a more consistent market presence. Ultimately, the entity benefits from a diversified portfolio, with Model S providing a steady foundation while Model X presents an opportunity for more growth.

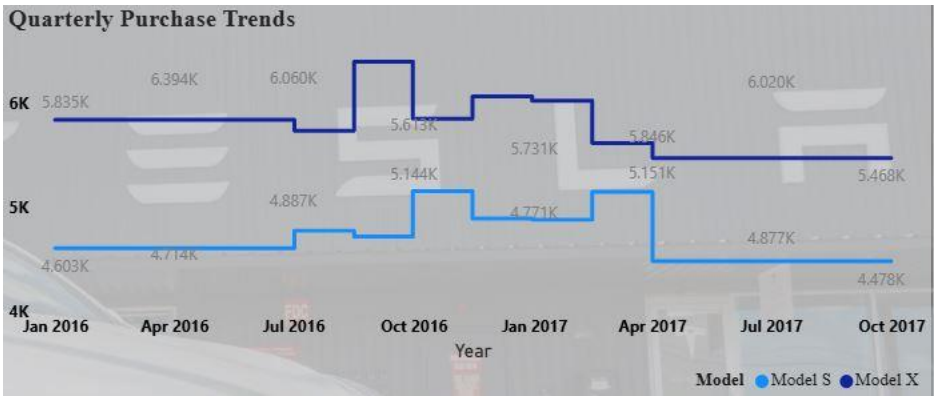

Fig 3. Quarterly Performance of Tesla Models

4. Seasonal Performance Statistics: 2016 vs. 2017

The two years record similar patterns in gross profit performance such that both years started with strong upward momentum from January to April, with both years peaking around April. It is notable that Tesla's 2017 performance in this period was consistently higher than its performance in 2016's, indicating a strong start. In May, both years experienced a noticeable dip, highlighting a potential seasonal trend or a recurring business challenge during this month, such as a temporary decline in demand or interference by market forces.

Following the May dip, both years rebounded with strong performance as the chart indicates a positive trend, with a peak in July. Tesla's performance in 2017 outpaced its performance in 2017 during the mid-year period. From September to December, the two years diverge significantly.

While 2016 experienced a moderate decline in profit from its peak, the drop was gradual and the year ended on a positive note, with profit rising again in December. In contrast, 2017 records a dramatic and sharp decline in gross profit from September to October, reaching its lowest point of the year in November. There was a slight recovery in December, but it was still below the 2016 December performance.

The 2016 performance illustrated a more stable and resilient gross profit model. The consistent upward and downward trends in 2016, with a strong finish in December, indicate a healthy and predictable business cycle while the dramatic decline in the second half of 2017 suggests possible business challenges like production bottlenecks, increased costs and logistic hindrances. Although 2017 started stronger than 2016, its finishing trajectory was significantly weaker and was still recovering by the end of the year. This highlights a critical need for Tesla to address its operational challenges to ensure a more stable and profitable fiscal year.

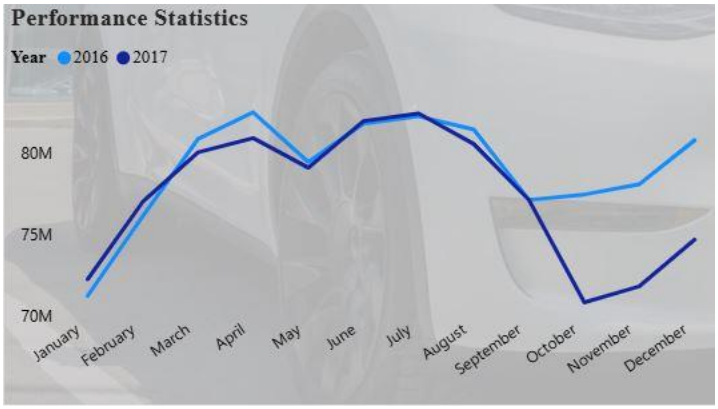

Fig 4. Gross Profit Performance

5. Top Global Markets: Australia, Germany and USA

The comparative profitability of Tesla versions indicates the profitability of each Trim across its top global markets.

The P90D version stands out with significant profitability in all three markets, particularly in the US ($600,103,226.15), followed by Germany ($109,708,632.83) and Australia ($34,857,094.98). This confirms the P90D as a globally strong performer.

The 90D trim is the next strongest performer recording profitability of $245,208,781.84 in US, $41,056,510.19 in Germany and $8,626,088.57 in Australia.

The 75 RWD trim yields a total of $223,959,524.70 in US, $34,975,554.17 in Germany and $30,460,136.07 in Australia.

The 75D AWD yields $180,274,571.68, $45,166,922.50, & $1,090,692.22 in US, Germany and Australia respectively.

The 60D AWD generates $170,906,861.61 in US, $20,037,715.96 in Germany and $4,575,553.42 in Australia.

The 90D AWD is the least performer in primary foreign markets such that it generates $103,273,396.45 in USA, $23,331,664.57 in Germany and $746,668.25 in Australia.

It is notable that the US market consistently shows the highest profitability across majority of Tesla versions. While the US market presents itself as a dominant market, Germany and Australia generate lower and more varied contributions. Versions like 60D AWD and 90D AWD have very minimal or negligible profitability outside the US. This indicates that market penetration for these versions is still low outside the US. The US market is not only the largest contributor to overall gross profit but also the most profitable market for almost all Tesla versions. While the P90D has global appeal, other versions are not generating comparable profit in Germany and Australia. This could be due to local preferences or competitive landscapes.

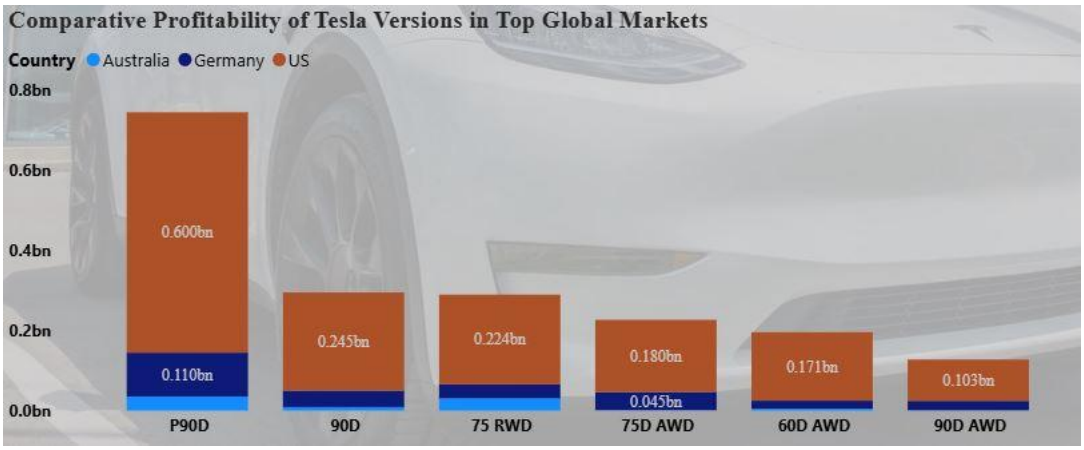

Fig 5. Top Foreign Markets

6. Global Earnings: Gross Profit Insights

The US market accounts for 81.12% of Tesla's global gross profit, being a major driver of revenue and profit. US contributes $1,523,726,362.43 throughout the 2016-2017 business year, presenting the US as Tesla's most viable business market. Germany yields gross profit of $274,277,000.21

(14.6%) while Australia yields gross profit of $80,356,233.52 (4.28%), being the least viable business market. This implies that Tesla's profitability is heavily concentrated in the US market. The heavy concentration of profit in one market presents a potential risk of high dependency on a single market for profitability. While there's growth in other regions, the US remains the critical driver of profit which indicates the need to diversify revenue streams and potentially increase market penetration in other key international markets to mitigate this risk and ensure long-term growth.

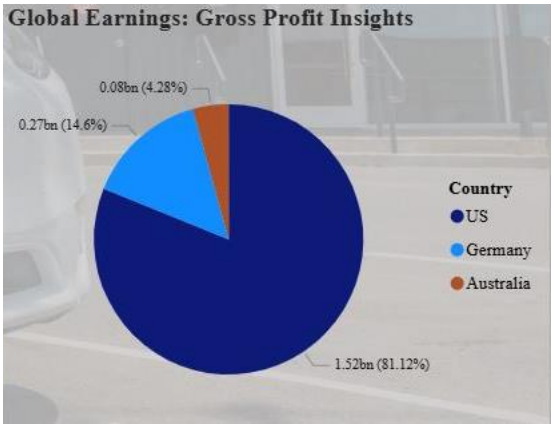

Fig 6. Global Earnings

7. Viability Analysis: Market Price

The viability analysis measures the profitability of market price tiers, indicating that the highest price ($74,000) yielded the most profit ($744,668,953.97). It is notable that higher market price contributes the significant revenue while lower price tiers yielded minimal revenue.

Subsequent prices like $80000, $70700, $75700, $74200 and $88700 returned revenue of $294891380.60, $289395214.94, $226532186.39, $195520130.99 and $127351729.28 respectively, indicating a decreasing contribution from lower-priced tiers. This reinforces that Tesla's higher-end offerings are crucial for its financial viability. Moreover, the presence of multiple contributing tiers indicates a broad market acceptance across different price points, though with a clear lean towards the higher end in terms of generated value.

Tesla's market strategy appears to be heavily reliant on its higher-priced models, which generate the most significant portion of market viability. This indicates strong brand perception and consumer willingness to invest in premium Tesla vehicles.

For maximizing returns, focusing on the high-end market is the most profitable path. This isn't just about selling a high-priced car, but about the high-margin, premium products that accompany it. Findings reinforce Tesla's brand as a premium, technology-driven leader in the automotive industry. A high price signals quality, innovation, and exclusivity, which attracts consumers who value these attributes and are willing to pay for them. The significant profits from the high-end models can be reinvested into innovation, research and development. This allows Tesla to continue innovating, improving battery technology, and developing new features, which further justifies its premium pricing and maintains its competitive advantage.

Having multiple price tiers helps Tesla capture a wider audience. The lower-priced models, while less profitable individually, can serve as an entry point for new customers, building brand loyalty and expanding market share. Tesla should continue to prioritize the development and promotion of its premium models and features. Over-reliance on the high-end market could be a risk. A shift in consumer sentiment or economic downturn could impact sales of expensive vehicles. However, the presence of multiple contributing tiers suggests some resilience, as the company is not dependent on a single market segment.

The viability analysis confirms that Tesla's current strategy of leveraging high-priced, high-margin models is a sound one. It drives the company's financial success, enhances its brand image, and provides the capital necessary for continued growth and innovation in the competitive business market.

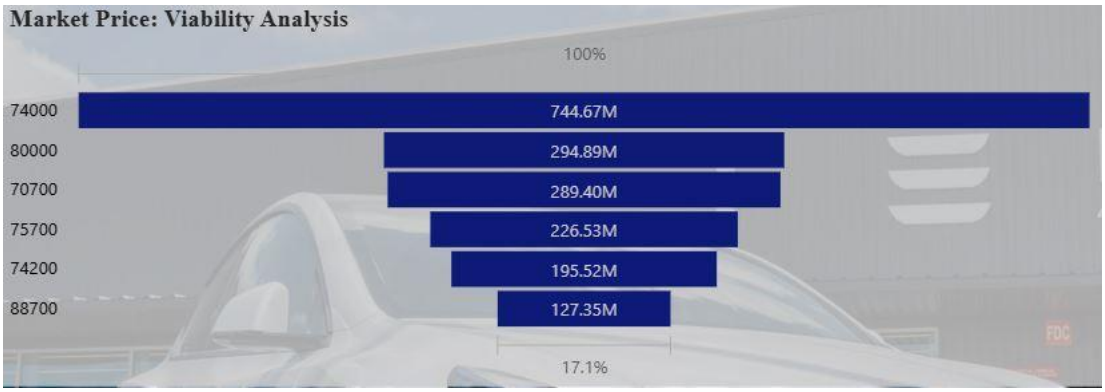

Fig 7. Price Viability

8. Payment Trends: Cash Purchase Vs Deposit

Findings indicate overall growth in payment volume and a shift towards deposit payment method in both 2016 and 2017. In 2016, cash purchase ($435,624,249.57) was significantly higher than deposit payments ($513,789,383.61). However, in 2017, there was a clear shift, with deposit payments ($502,052,870.28) surpassing Cash Purchases ($426,893,092.70).

The noticeable increase in deposit payments in 2017 indicates increased pre-orders (reservation), production backlog and increased financing options. Increased pre-orders signifies a surge in demand for upcoming models or a general trend of customers reserving choice vehicles. A higher proportion of deposits could also imply longer waiting times for deliveries, leading customers to place deposits rather than making full cash purchases upfront. Moreover, growing preference for financing options indicates financial trends where a deposit is made, and the remaining balance is financed. This payment method may be more favourable to customers which is evident in the shift from cash purchases to deposit payment.

The increased preference for deposit payment could be a positive indicator of strong pre-order demand for outstanding models. On the other hand, it may be a strong indicator of production bottlenecks largely impacting immediate cash sales. Understanding this trend is vital for production planning and financial forecasting of Tesla Inc.

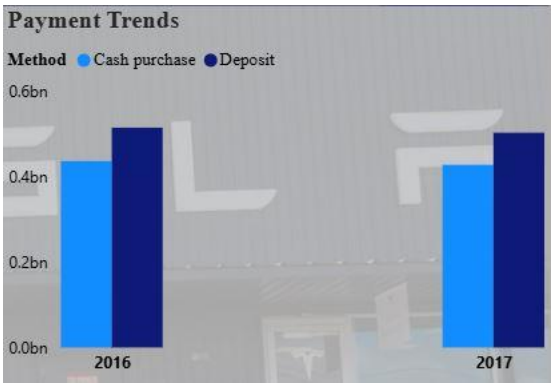

Fig 8. Payment Trends

Summary

The analysis reveals a strong market presence in the US, significant earnings driven by the US market, and a clear shift towards deposit-based payments in 2017. While the P90D version shows strong profitability globally, other versions have mixed performance across different countries

Model X consistently generated more revenue than Model S in both 2016 and 2017. While Model S showed positive growth, the Model X remained the top performer, generating more than $500 million in gross profit in each of those years, making it the highest revenue generator between the two models. The purchasing patterns for the Model X and Model S vary. The Model S shows a more reliable and consistent demand, with progressive quarterly growth throughout 2016. In contrast, the Model X sales are more volatile, with a notable decline in the latter part of both 2016 and 2017.

Findings indicate that Tesla P90D is the primary driver of profitability, accounting for nearly 40% of the total profit. Mid-range trims—specifically the 75 RWD, 90D, 75D AWD, and 60D AWD—collectively contribute a significant portion of profit, while the 90D AWD is the least profitable trim. High profit generated by the highest price tiers indicates strong brand perception and consumer willingness to invest in premium Tesla vehicles, such that even at high prices, Tesla has found a receptive market. Customer payment preferences shifted from 2016 to 2017. In 2016, cash purchases were slightly higher than deposit payments. However, in 2017, there was a clear shift, with deposit payments surpassing cash purchases. This indicates an increased trend toward pre-orders and financing options over time.

Recommendations

The overwhelming reliance on the US market for gross profit and version profitability implies that Tesla must continue to innovate and maintain its competitive edge in its home market. Tesla should actively pursue strategies to grow its market share and profitability in other regions to build a more resilient global business. While the US is dominant, the relatively small contributions from Germany and Australia indicate significant untapped potential for expansion. Tesla should develop tailored strategies for these and other international markets, potentially focusing on specific models or pricing strategies that resonate locally. Top performing products should be used to maximize revenue. The strong performance of high-end models (like P90D) across markets suggests that Tesla should continue to invest in and market its premium offerings.

Appendix

Fig A1: Tesla Performance Dashboard

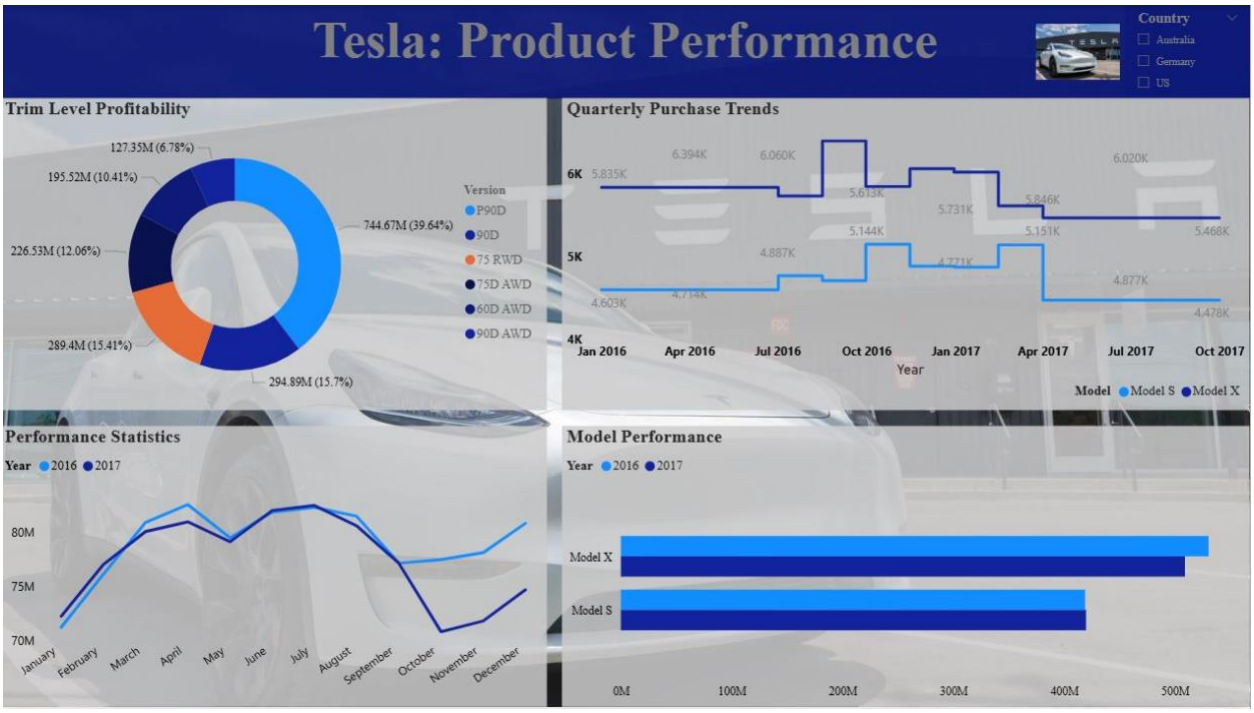

Fig A2: Tesla Product Performance Dashboard

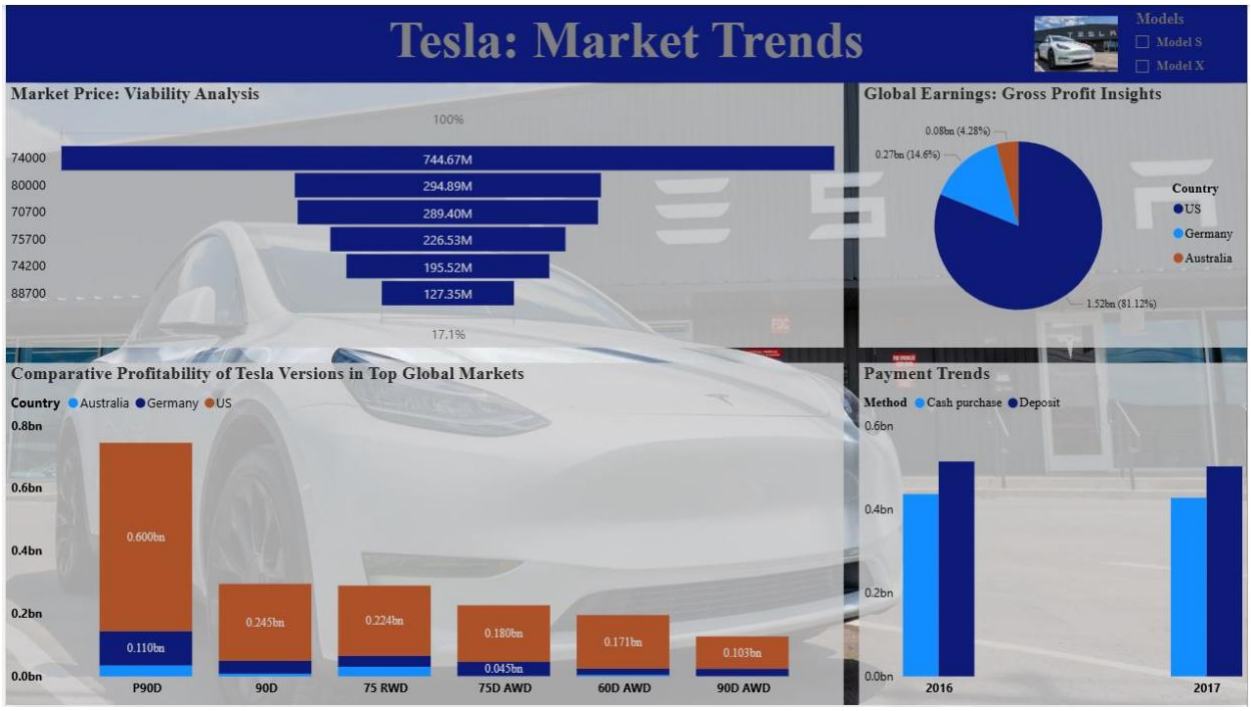

Fig A3: Tesla Market Performance Dashboard