
Fremont Rocket Company

Optimizing Product Profitability
with Strategic Marketing

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Agenda

1. Business Scenario and Project Objectives
2. Analytical Framework
3. Data Analysis and Insights
4. Recommendations
5. Questions/Comments



FREMONT ROCKET

Fremont Rocket Company (FRC) aims to address declining profits and identify key product for new marketing campaign

Business Scenario:

- FRC specializes in LEO capable rocket production
 - Total Revenue = Sales of rockets
 - Total Expenses = Production Costs (fixed and marginal) + Sales Commissions Paid
- 5 products launched between years 2040 - 2049; varied attributes (i.e. type, pricing, fuel efficiency, branding, etc.)
 - Recent decline in profitability despite increased product launches and rising revenues
 - Looking to initiate new marketing campaign from traditional methods (word of mouth, door to door)

Project Objectives:

- Identify the root cause of declining profitability and offer actionable insights for improvement
- Recommend which product FRC should promote for its first marketing initiative next month and provide reasoning

Leveraged data aggregation and segmentation methods to draw key conclusions and recommendations

Data Preparation

Reviewed, pre-processed and cleaned datasets

- Ensure data integrity and usability for accuracy
- Enable better context when approaching analysis

Data Manipulation

Merged and feature engineered datasets

- Transform raw data into new features
- Define key metrics relative to objectives

EDA

Analyzed and created data visualizations

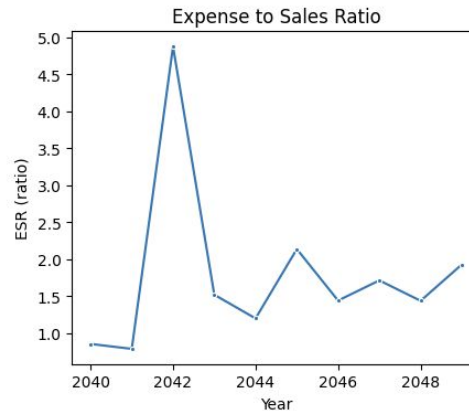
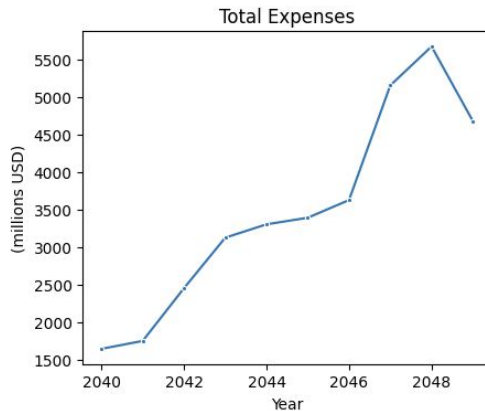
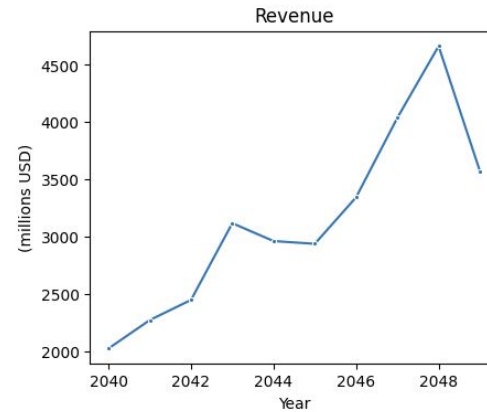
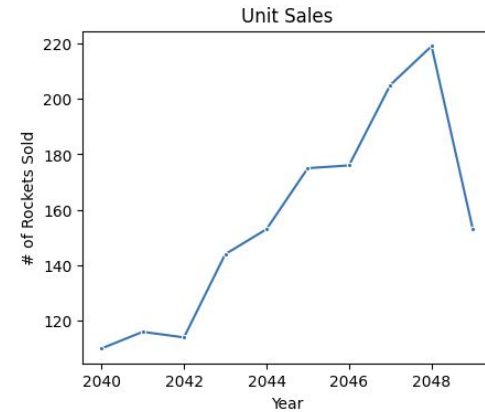
- Approach analysis using aggregation and segmentation
- Calculate and visualize data trends over time

Recommendations

Applied key insights to generate pivotal recommendations

- Evaluate profitability metrics with business acumen
- Considered customer behavior for product marketing strategy

Noteworthy declines in Gross Profit occur within 2040 to 2049, concluding with a sharp drop in Revenue and Total Expenses

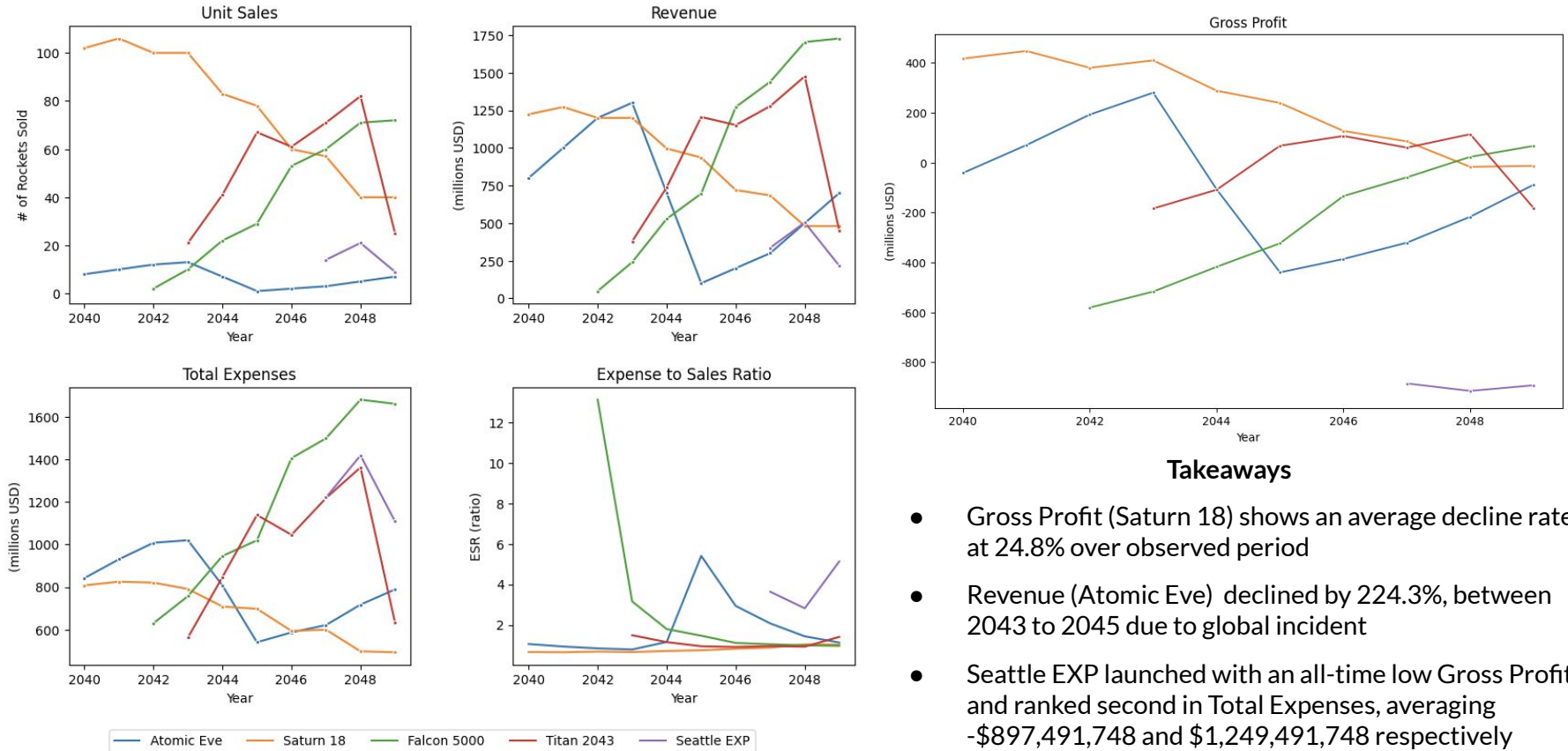


Takeaways

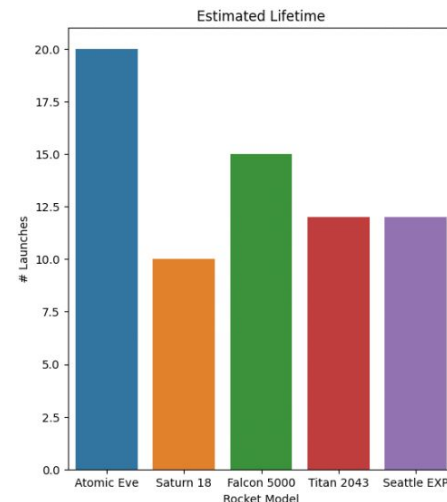
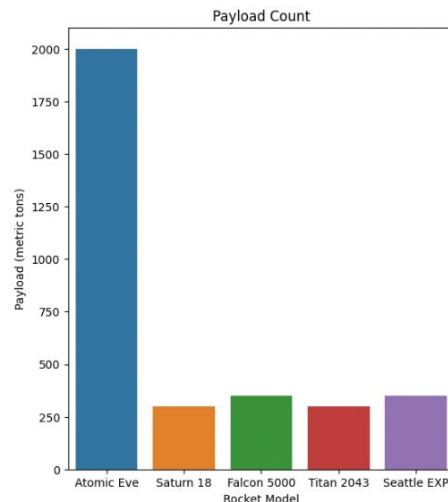
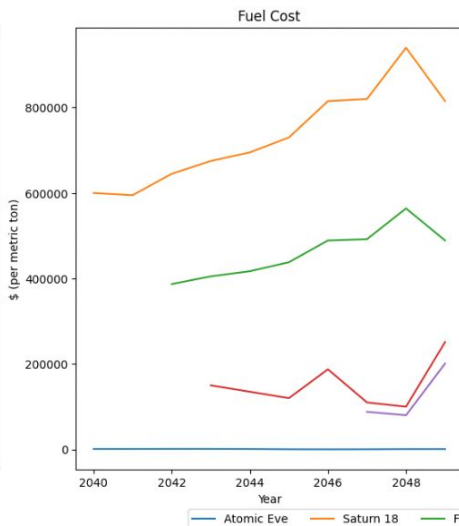
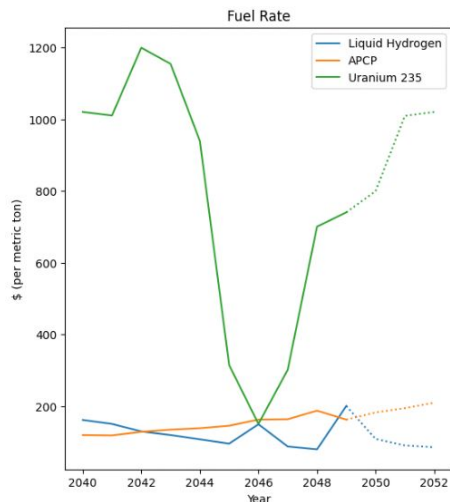
- Gross Profit shows an annual average decline rate at 340.1%* within the period (2040 to 2049)
- Gross Profit declined by ~101.9% and ~289.4% year-over-year in 2042 and 2047, respectively
- Expense to Revenue Ratio reaches periodic high in 2042 at 4.88

(* = Signed values in Relative Growth can produce counter-intuitive results)

Revenue declines for Saturn 18 and Atomic Eve, coupled with new product releases, serve as main drivers in Gross Profit loss



Liquid Nitrogen shows promise with declining fuel rates with low product fuel cost, while Atomic Eve leads product efficiency



Takeaways

- Liquid Nitrogen fuel rates are projected to decline at an average rate of 22.59% from 2050 to 2052
- Atomic Eve leads in fuel cost and payload count followed by Seattle EXP
- Seattle EXP leads in Sales Commission Rate (%)

| Fuel Type | Avg Pct Change (Projected Cost) |
|-----------------|---------------------------------|
| Uranium 235 | 11.77 |
| APCP | 8.84 |
| Liquid Hydrogen | -22.59 |

| Rocket Model | Sale Price | Sales Commission Rate (%) |
|--------------|------------|---------------------------|
| Seattle EXP | 24000000 | 4.17 |
| Falcon 5000 | 24000000 | 3.12 |
| Titan 2043 | 18000000 | 2.78 |
| Saturn 18 | 12000000 | 2.08 |
| Atomic Eve | 100000000 | 2.00 |

Recommendations

Profitability Improvement

- Reduce expenses on Seattle EXP (operations, material, labor) to improve Gross Profit
- Potential restructuring to sales commission rate by favoring declining products to drive sales

Product Marketing Strategy

- FRC should select **Seattle EXP** to push to the public in their first marketing initiative
 - Promise for customers using Liquid Nitrogen fuel, along with innovative product efficiency
 - Current best seller, Falcon 5000, exponentially decreased Expense to Sales Ratio post-launch
- Atomic Eve considered next best option due to high revenue yield and potential rebound in global market

Questions