

Startup Profit Analysis

REGRESSION ANALYSIS & DASHBOARD INSIGHTS

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Objective of the Analysis

Content:

- Perform regression to understand how R&D, Marketing, and Admin spending affects profit
- Visualize data using Power BI to gain insights
- Provide actionable recommendations to improve profit

Regression Analysis

► **$\text{Profit} = 50122.19 + (0.8057 \times \text{R\&D Spend}) - (0.0268 \times \text{Administration}) + (0.0272 \times \text{Marketing Spend})$**

Coefficient	Value
Intercept	50122
R&D Spend	1
Administration	0
Marketing Spend	0

Predicted Profits

► Prediction for Given Inputs:

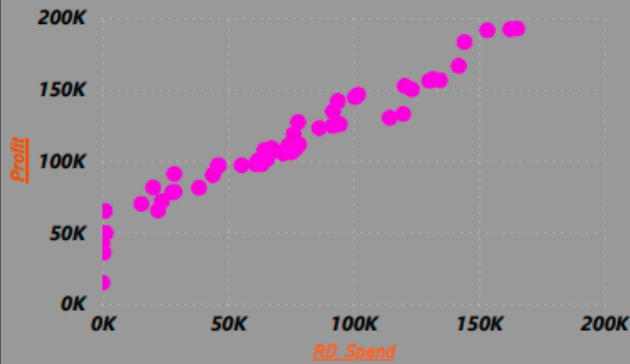
R&D Spend	Administration	Marketing Spend	Predicted Profit
\$21,892.92	\$81,910.77	\$164,270.70	\$70,038.00
\$23,940.93	\$96,489.63	\$137,001.10	\$70,555.00

Regression Insights

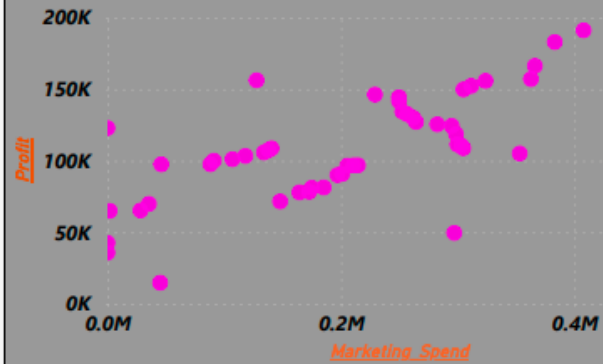
1. R&D Spend has the strongest positive impact on Profit.
2. Marketing Spend has a moderate influence.
3. Administration Spend shows little to no correlation with Profit.
4. Focus should be on optimizing high-impact areas.

Dashboard

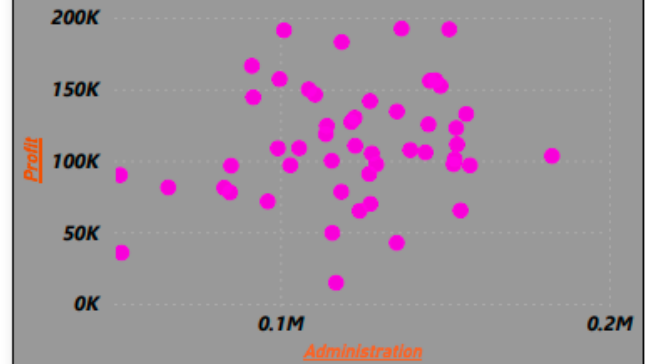
Correlation between R&D_Spend and Profit



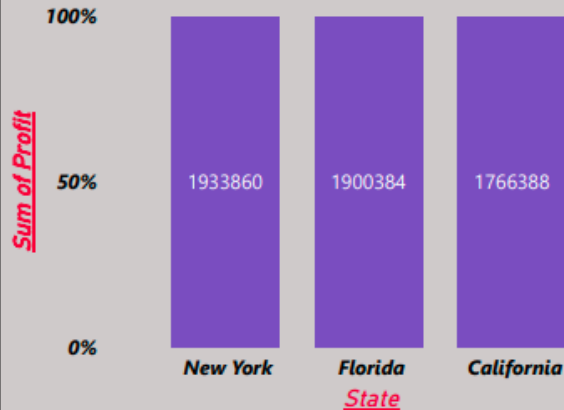
Correlation between Marketing_Spend and Profit



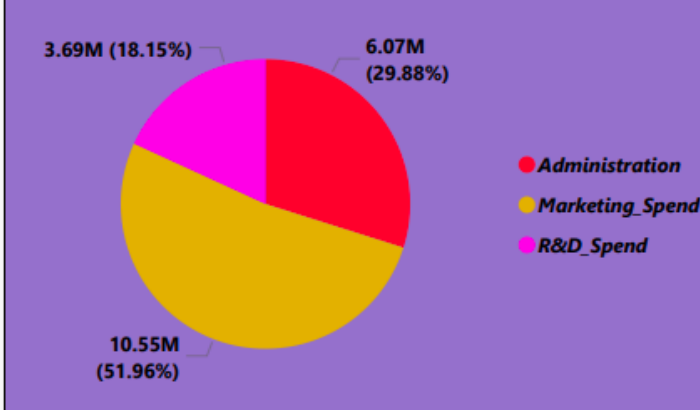
Correlation between Administration and Profit



Profit as per the states



Spend in Administration, Marketing and R&D



Insights from Dashboard:

- R&D vs Profit Shows Strong Positive Correlation
- Marketing shows variable returns
- Admin spending does not increase profit
- Some companies achieve high profit with lower spend

Based on Analysis:

- Increase investment in R&D for better profitability
- Reevaluate marketing strategies to improve ROI
- Streamline administrative expenses
- Track high-performing companies for strategy alignment



Thank You!

Feel free to ask any questions.