



Media Investment Impact on Sales

UNDERSTANDING THE RELATIONSHIP BETWEEN MEDIA SPEND AND SALES OUTPUTS

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INTRODUCTION

This report provides an analysis of how different media investments, specifically in TV, Radio, and Social Media, impact the sales performance of a company. It is crucial for strategic decision-making and optimizing marketing spend. Insights derived from the analysis help in understanding which media channels are most effective and ensure a higher return on investment.

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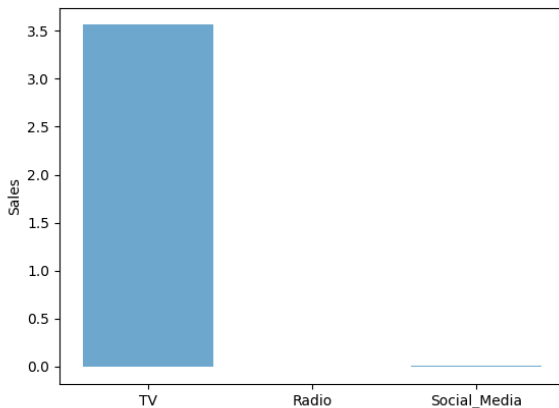
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OVERVIEW OF ATTRIBUTES AND THEIR IMPACT ON SALES

Impact of Different Media on Sales

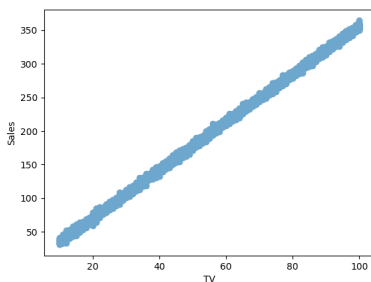


TV: 3.564 Indicates a strong positive impact on sales for every unit spent on TV advertising.

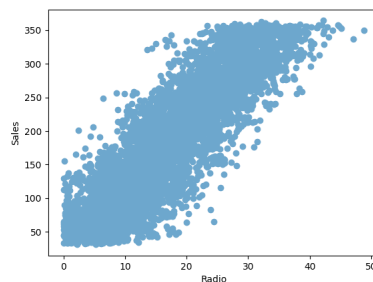
Radio: -0.008 Suggests a negligible but slightly negative effect on sales per unit spent on Radio advertising.

Social Media: 0.003 Shows a small positive influence on sales per unit spent on Social Media advertising.

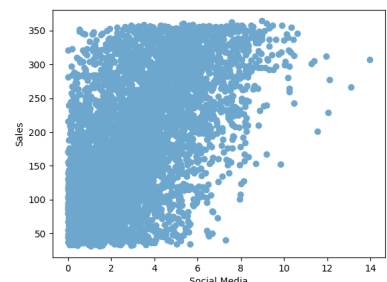
Visual Insights



The first image shows a strong positive linear relationship between TV advertising spend and sales, indicating that increases in TV spend generally lead to proportional increases in sales.



The second image depicts a less clear, scattered relationship between Radio advertising spend and sales, suggesting that Radio spend does not consistently impact sales.



The third image portrays a scattered plot for Social Media spending against sales with a very mild positive trend, indicating only a slight impact of social media spend on sales increases.

Model Performance Indicators

- **R2: 0.999** - Demonstrates the model's high accuracy in predicting sales based on media spend.
- **MAE: 2.447** - Represents the average deviation of the predicted sales from the actual sales in absolute terms.
- **MSE: 9.256** - Indicates the average squared deviation of predicted sales from actual sales.
- **RMSE: 3.042** - Illustrates the model's prediction error in the same units as the sales.

AI WARNING

This document contains content that has been generated by an artificial intelligence model. While the information presented is based on data-driven analysis, it is important to exercise caution and critical thinking when interpreting the results. Human oversight and expert judgment are essential to ensure the accuracy and relevance of the insights provided.