

ROI Analysis

Business Problem:

Atlas, a small firm is currently experiencing financial losses and wants to evaluate the return on investment (ROI) for its advertisement strategies. The firm has invested in various advertising platforms, including podcasts, TV, and YouTube, with the goal of influencing sales. To sustain their finances and make strategic investment decisions, Atlas needs to develop a comprehensive analysis framework that assesses the effectiveness of each advertising attribute in generating sales. The objective is to identify the most impactful advertising channels and optimize the allocation of resources accordingly. By addressing this problem, Atlas aims to improve their financial performance and make informed decisions about future advertising investments.

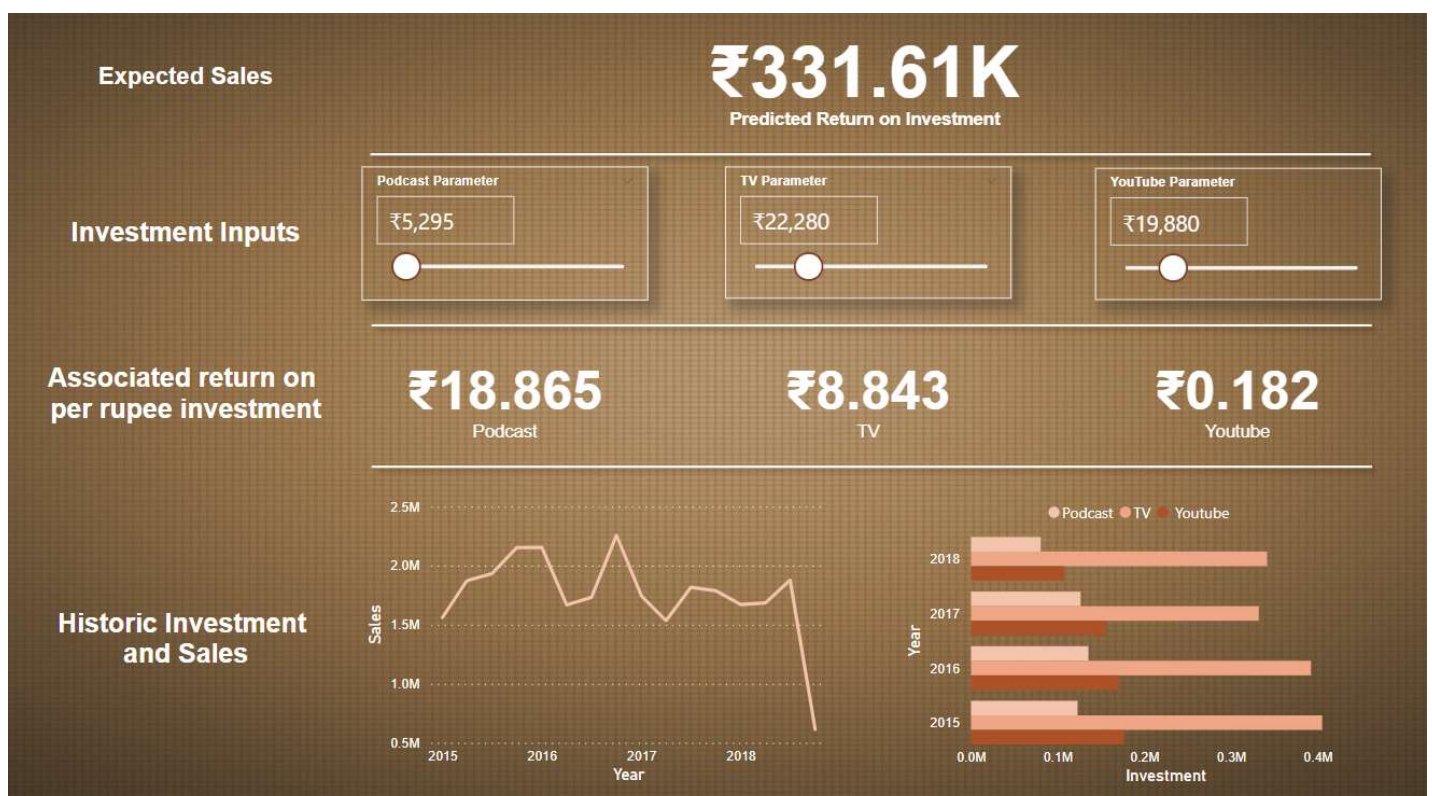
Assumptions:

- The dataset used for analysis is accurate, complete, and representative of the firm's advertising investments and corresponding sales.
- The impact of advertising on sales is assumed to be linear, meaning that changes in advertising investments have a proportional effect on sales.

Purpose:

- Utilize machine learning, specifically linear regression, to analyze the impact of advertising investments on sales and calculate the corresponding ROI for each channel.
- Identify which advertising channels (Podcast, TV, YouTube) yield the highest ROI for the firm.
- Assess the effectiveness of each advertising channel in generating sales and influencing customer behavior.
- Provide insights and recommendations to help the firm allocate resources strategically for future advertising investments.

Dashboard:



Analysis & Suggestions:

- The applied machine learning algorithm, linear regression, achieved an accuracy of 90.3% in predicting the impact of advertising investments on sales, indicating a strong performance in estimating ROI.
- Allocate more resources to Podcast advertising, as it has shown higher ROI compared to YouTube and TV.
- Optimize Podcast advertising strategy based on successful podcasts, targeting specific demographics and content themes.
- Reevaluate YouTube advertising strategy and consider collaborations or targeted placements for improved ROI.
- Fine-tune TV advertising campaigns by focusing on channels and time slots that effectively reach the target audience.
- Monitor sales data, analyze consumer behavior patterns, and explore synergies between channels for a cohesive marketing approach.