

# Best Selling Product and Category Prediction Using Sales Analysis

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**Abstract:** *A sales analysis is a detailed report that tells about more profound understanding of a business's sales performance, customer data, and the revenue. This tells you which deals are worth chasing and which are better left behind. Also, for the deals your sales team does decide to pursue, they'll have a good approach ready to make the lead or customer more receptive to the sale. Using Sales Analysis helps to take retailers towards profit in this world of competition. Nowadays shopping malls keep the track of their sales data of each and every individual item for predicting future demand of the customer and update the inventory management as well. These data stores basically contain a large number of customer data and individual item attributes in a data warehouse. Further, anomalies and frequent patterns are detected by mining the data store from the data warehouse. The resultant data can be used for predicting future sales volume with the help of different machine learning techniques for the retailers like Big Mart. A predictive model is build using different algorithms. In this paper, we investigate forecasting sales for a Big Mart, with four machine learning algorithms (Random Forest, Linear Regression, Decision Tree and XG Booster Algorithms). The results show that the Random Forest algorithm performs better than the other two models.*

**Keywords:** Sales Analysis, Machine Learning, Random Forest, Linear Regression, Decision Tree Regression, XG Booster etc.

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