Predict Sales for a Catalog Launch

A home-goods manufacturer wants to predict expected profits from a catalog launch.

Apply a framework to work through the problem and build a Linear Regression model to provide results and a recommendation.

Business Problem

You recently started working for a company that manufactures and sells high-end home goods. Last year the company sent out its first print catalog, and is preparing to send out this year's catalog in the coming months. The company has 250 new customers from their mailing list that they want to send the catalog to.

Your manager has been asked to determine how much profit the company can expect from sending a catalog to these customers. You, the business analyst, are assigned to help your manager run the numbers. While fairly knowledgeable about data analysis, your manager is not very familiar with predictive models.

You've been asked to predict the expected profit from these 250 new customers. Management does not want to send the catalog out to these new customers unless the expected profit contribution exceeds $10,000.

Details

- The costs of printing and distributing is $6.50 per catalog.
- The average gross margin (price - cost) on all products sold through the catalog is 50%.

Data

- customers.xlsx - dataset includes information on about 2,300 last year's customers.
- mailinglist.xlsx - dataset includes information on 250 customers. This is the list of customers that the company would send a catalog to.

Tasks

- Predicted or expected profit

- Recommendation to whether the company should send the catalog or not.