Positives:  
•    Thorough analysis of sales and discount time series.  
•    Correctly identified products with little price variations and excluded them from consideration.  
•    Pareto analysis of product categories.  
•    Considered substitute and complement products.  
•    Demonstrated the ability to optimize product-store prices by enumeration.

Improvements:  
•    Sales/profit opportunity was not among the criteria for selection products/categories.  
•    Summing quantities, averaging list prices and averaging discounts of products in a category do not make much sense.  
•    A better criterion for determining substitute products is to check if pairs of products with the same “function” are negatively correlated in sales.   
•    Did not describe assumptions and computations on profit.  
•    When setting prices at the product level, computing price variance at the category level does not make sense.  
•    When dealing with weekly data, week 53 of a year needs to be properly defined – it can have days from 2 years.  
•    Optimization and elasticity models are disconnected: one uses logit demand while the other uses constant elasticity demand.  Should use same model for elasticity and optimization.  
•    Model used to compute elasticity had only list price as independent variable – no discount, substitute, complements or seasonality.   
•    Some price elasticity measures were positive.  
•    The logit demand model used in the optimization is the better one to use and report.  There is actually no need to explicitly compute the elasticity.  Keep in mind the following:

o    Either include a weighted average price or total sales of all complement products and all substitute products or include weighted average price or total sales of each top complement products and each top substitute product.  
o    Seasonality index used in the model should be by product category and week.

•    Setting the categories for price changes before knowing the opportunities at the product store level will not lead to the optimal set of products to change prices.  It is possible for a single product in a category to have better price change return than an entire category of multiple products.   
•    There are some typos and grammatical errors.  
•    Report can be more organized with details presented more clearly.  
•    Some comments in the code are incorrect or incomplete/not meaningful.  
•    Did not provide a list of 100 products with proposed price changes per store and report on the expected effects of price changes across products and stores.

Grading:  
•    Integration of domain knowledge/practicality into solution (15/20%)  
•    Creativity and mathematically sound application/execution of chosen technique/model (19/25%)  
•    Robustness and efficiency of solution/code (18/25%)  
•    Report and presentation flow (14/20%)  
•    Bonus (5/10%)