Chapel Hill Shoe Company (CHSC) is a high end retailer of men's shoes, apparels, and accessories. It has been in existence for more than 150 years. Over the years CHSC has added several transaction channels to its portfolio. For past decade they have been selling their products through Catalog, Web, and Store. They promote their products through a monthly catalog that they mail out to their customers. In addition, they mail out coupons to customers on a selective basis. The Vice President Marketing at CHSC, Michael Shoemaker, has been trying to analyze customer transactions data captured by the CRM system implemented by CHSC. His aim is to understand factors determining three key customer decisions: *whether to buy or not in a given month*, *how much to spend*, and *whether to return a product or not*. He randomly chose 100 customers and tracked them for a period of 16 months. In addition to the three outcome variables of interest: purchase (0/1), spending ($), and product return (0/1), there are several other explanatory variables on which data was collected. Please see data file for detailed variable definition.

**Questions**

1. What factors explain customers' (a) decision to purchase CHSC products (b) spending behavior and (c) decision to return a purchased product? Please interpret model fit statistics and provide behavioral explanation for each significant coefficient.

2. How should Michael Shoemaker target customers for sending catalog and coupons? Please perform expected profit calculations. Please use a 50% margin and $3 for cost of each catalog and coupon sent to the customer (e.g. if a customer received one catalog and one coupon the cost of marketing is $6).

3. What are the shortcomings of this analytical approach? How can you improve quality of decision making (e.g. additional data, alternate approach etc.)?

**Directions**

The write up should not exceed 3 double spaced (1 inch margin, 12 font size) pages excluding references, tables, figures etc. Please save the JMP scripts you used to create your models and analyses and turn in the JMP file.