BAYESIAN DECISION MAKING IN THE SKI EQUIPMENT INDUSTRY: A CASE STUDY

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ABSTRACT

Avalanche Corporation produces a variety of ski equipment including skis, bindings, poles and boots. The company markets its products primarily over the Internet. The firm has been experiencing considerable difficulties in matching supply with demand. As a result the company has been overproducing and had to sell the excess at a loss. Product demand fluctuates considerably prior to and during the ski season as a function of both the economy and the weather. In the past Avalanche management used historical data as basis for developing a production strategy. This approach has proven to be less than satisfactory. At a recent board meeting the vice president of marketing reported on a new snowboard product called the *Avalanche Racer*. She presented her rationale for introducing the new product at this time by talking about the growth rate of ski equipment sales over the past five-years. The director of operations indicated that the company was looking at several different production strategies for the upcoming winter season in conjunction with the *Avalanche Racer*. Prior to finalizing the production strategy the director had recommended retaining a local economics firm to develop an updated demand forecast. He indicated that the firm had an excellent track record on both predicting weather and economic conditions. The director said that the cost for developing a forecast would be on the order of $20,000. This case summarizes some of the managerial and technical challenges associated with production decision-making under risk with additional information. The primary objective of this teaching case is to introduce the student to the rationale and mechanics behind Bayesian analysis.