

# GROUP PROJECTS

## CASE 11: DECISION SUPPORT SYSTEM

### Breakeven Analysis

Ski-YA! is a Colorado-based company that sells high-performance ski equipment. When it comes to the serious business of sliding downhill, the Ski-YA! dudes of Colorado don't trouble themselves with petty categories; to them, all alpine snow equipment is summed up in one word, *awesome!*

This season's offerings at Ski-YA! are no exception. Skis continue to grow wider for better flotation beyond the groomers, and the sidecuts, the stick's hourglass shape, designed to help you turn, now reflect the needs of terrain skiers. Even bindings have been rejiggered: forget the drill and screwdriver; the latest fittings snap or slide into place, extending ski life and improving energy transfer.

The Ski-YA! company wants to begin selling a new pair of skis, labelled the Downhill Demons, in the upcoming ski season. It wants to know how many skis it will have to sell in order to break even on its investment in materials and equipment. The chief financial officer has provided the following information:

#### Fixed Costs

Metal molding machine	\$200,000
Milling machine	\$150,000
Sander and grinder	\$10,000
Presses	\$25,000
Silkscreen machine	\$50,000

#### Variable Costs (per unit)

Packaging material	\$5
Raw material	\$100
Shipping	\$20

The marketing department estimates that it can sell the new skis for \$400 per unit. Further projections estimate that an average of 200 units will be sold per month. The goal is for the skis to break even and start to earn a profit within the first year. Ski-YA!'s target profit level for the end of the first fiscal year is \$100,000.

### Some Particulars You Should Know

1. First, create a breakeven analysis where your goal is to determine how many units you must sell to recover all of your fixed costs.
2. Then create a target-profit analysis where your goal is to determine how many units you must sell to reach a predefined profit level. The difference between the

two is that at breakeven your target profit is zero, whereas when you specify a target profit greater than zero, you are setting your goal above the breakeven point.

3. You will want to create a table sheet that contains the data used to generate the breakeven/target profit chart. This includes ten data points on either side of the breakeven/target profit point.
4. Finally create a chart where you can visually measure your breakeven or target profit level along with total fixed and variable costs. If you choose to calculate the number of months before you reach a breakeven or target profit, those numbers will be reported here.
5. File: SkiYA.xls (Excel file).