Decision Making Model Solution

Goal: To Maximise Income (Quantitative) (Objective).

Constraints: Only has $10,000 to spend (only a notional constraint as none of the machines cost more than this amount).

Analysis:

1. Super Soft

Net income = $3 - $1.50 = $1.50 per ice cream

950 x $1.50 = $1,425

+ $3,000 ($10,000 - $7,000) x 1% interest = $30

= Predicted monthly income **$1,455**

2. Family Special

Net income = $2.50 – 80c = $1.70 per ice cream

950 x $1.70 = $1,615

+ $5,000 ($10,000 - $5,000) x 1% interest = $50

= Predicted monthly income **$1,665**

3. Budget Ice

Net Income = $2 – 60c = $1.40 per ice cream

950 x $1.40 = $1,330

+ $6,000 ($10,000 - $4,000) x 1% interest = $60

= Predicted monthly income **$1,390**

Given that Allan's only stated goal is to maximise his income on the evidence provided he should purchase the **Family Special** machine. This recommendation is obviously only as good as the cost and sales volume estimates provided.

You may wish to consider a few other points, for example:

- How quickly can the ice creams be made?
- What is the quality of the ice cream (c/f other options – repeat business impact?)
- What are the maintenance costs for the machines?
- Can the machines be maintained here or do they need to be sent overseas?
- Allan will have more money in the bank after the purchase if he buys the budget ice as it costs less than the alternatives. This may also assist him in achieving his goal of taking a yearlong holiday.
- Any others?