



Overview

1. Basinger vs Main Line
2. Terminology
3. Cost Drivers
4. Breakeven Analysis
5. Other problems
6. Summary



Basinger vs Mainline

To read the Basinger vs. Mainline case, see:

Barton, Thomas L., William G. Shenkir and Brian C. Marinas.
*Instructional Case - Main Line vs. Basinger: A Case in Relevant
Costs and Incremental Analysis. Issues in Accounting
Education.* Sarasota: Spring 1996. Vol. 11, Iss. 1, pp 163, 2 pgs.



Cost Behavior

How do total costs change with changes in units of production?





Cost Behavior

How do per unit costs change with changes in volume?





Terminology

Fixed Costs

Variable Costs

Average Costs

Marginal Costs

Opportunity Costs

Sunk Costs

Avoidable Costs

Period Costs

Product Costs

Direct costs

Indirect Costs

Direct Materials

Direct Labor

Overhead



Cost Drivers

- Up until this point we have focused on how costs change with changes in output or units sold.
- There are other “cost drivers” that may better describe the behavior of a cost than the output of the manufacturing process.
- Consider the following manufacturing process for insect traps (which I was involved in as an undergraduate.)



Cost Drivers

Most insect traps work because of Pheromones.

Each insect has a different Pheromone, thus to make a particular type of insect trap, you need to mix different chemicals.

We can break up the production process into the following activities.

To make an insect trap you must:

1. Set up for mixing
2. Mix chemicals
3. Kiln chemicals
4. Make the traps.



Cost Drivers

To set up to mix 16 ounces to 1600 ounces of a pheromone for kilning takes 50 hours of labor @ \$20 per hour.

An individual Kiln can only handle up to 100 pounds of a pheromone, then a new kiln has to be setup.

Thus setup costs are fixed cost for up to 100 pounds of a pheromone.

So how much would it cost (in terms of labor dollars) to make 250 lbs of fruit fly pheromone?



Cost Drivers

What was your first inclination to do in calculating the cost of making the fruit fly pheromone?

What happens in costing this product when we add layers to the production process like assembly, disposal, shipping, receiving?

ABC costing suggests that instead of tracking set-up costs per pound of pheromone, it makes more sense to track set-up costs per batch kilned.



Breakeven Analysis

Consider the following format of the income statement

Revenues
-Variable costs
Contribution Margin
-Fixed Costs
Profit

Where the contribution margin equals fixed costs, we have hit the break even point.

If we have some desired profit level, we can “work backwards” to determine the number of units we need to produce and sell to reach the desired profit.



Operating Leverage

Operating Leverage represents the ratio of fixed costs to total costs.

Firms with higher operating leverage will experience relatively larger changes in income when there are changes in volume.

This because firms with more operating leverage have relatively larger per unit contribution margins.



Amy's Boards (Prob 2-41)

**See the exercise “Amy’s Boards”: Problem 2-41
in Zimmerman, Jerold L. *Accounting for Decision Making and
Control (4th Edition)*. McGraw-Hill/Irwin, 2002, pp 94-5.**



Emrich Processing

See the exercise “Emrich Processing”: Problem 2-11
in Zimmerman, Jerold L. *Accounting for Decision Making and
Control (4th Edition)*. McGraw-Hill/Irwin, 2002, pp 75-6.



X Corporation Jet (Prob 2-16)

The exercise “X Corporation Jet” is not available in the fourth edition of the textbook (the one this class uses). It can be found in the third edition:

Problem 2-16 in Zimmerman, Jerold L. *Accounting for Decision Making and Control (3rd Edition)*. McGraw-Hill/Irwin, 1999, pp 68.



Eastern University (P2-26)

See the exercise “Eastern University”: Problem 2-26
in Zimmerman, Jerold L. *Accounting for Decision Making and
Control (4th Edition)*. McGraw-Hill/Irwin, 2002, pp 84.



Summary

1. Focus on how managerial accounting information is used in a decision making process:
 - Incremental analysis
 - Contribution margin
 - Break even analysis
2. Review of cost terminology
3. Highlight the importance of relevant range, and cost drivers
4. Once again reinforce the idea that we need to “Be aware of reported costs”