

## {BUS 121: Chapter 6 Vocab}

\*All Vocab can be found on page 346 of the Text.

### Absorption Costing

- The costing method where products “absorb” both fixed and variable manufacturing costs.

### Account Analysis

- A method for **determining cost** behavior that is **based on a manager’s judgment** in classifying each general ledger account as a variable, fixed, or mixed cost.

### Average Cost Per Unit

- The cost to produce a single unit of production.
- $\{(Total\ Cost) \div (Total\ Number\ of\ Units\ Produced) = Average\ Cost\ Per\ Unit\}$

### Committed Fixed Costs

- Fixed costs that are locked in because previous management decisions; management has little or no control over these costs in the short run.

### Contribution Margin

- $\{(Sales\ Revenue) - (Variable\ Expenses)\}$

### Contribution Margin Income Statement

- Income statement that organizes costs by *behavior* (variable costs or fixed costs) rather than by *function*.

### Cost Behavior

- A behavior that describes how costs change as volume changes.

### Cost Equation

- A mathematical equation for a straight line that expresses how a cost behaves.
- $y=mx+b$

### Curvilinear Costs

- A cost behavior that is not linear.

## Discretionary Fixed Costs

- Fixed costs that are a result of annual management decisions; fixed costs that are controllable in the short run.

## Fixed Costs

- Costs that do not change in total despite wide changes in volume.
- $\{\text{Fixed Costs} = (\text{Total Unit Costs}) - (\text{Total Variable Costs})\}$
- This is the y-intercept in the  $y=mx+b$  equation

## High-Low Method

- A method for determining cost behavior that is based on two historical data points: the highest and lowest volume of activity.

## Mixed Cost

- Costs that change, but not in direct proportion to changes in volume. Mixed costs have both variable cost and fixed cost components.

## Mixed Cost Line

## Outliers

- Abnormal data points: data points that do not fall in the same general pattern as the other data points.

## R-Square

- This value is referred to as the “goodness-of-fit” statistic. The value can range from 0.0 to 1.0. This measures how strong a relationship the volume (ex: number of guests in a hotel) has with the costs (complimentary breakfast, toiletries, etc.) / costing equation.
- If 0.80+, good to go.
- If 0.50 to 0.80, use with caution
- If 0.50-, should not use; consider changing the measurement of volume.

## Regression Analysis

- A statistical procedure for determining the line that best fits the data by using *all of the historical data points, not just the high and low data points*. “The line best fit.”

## Relevant Range

- The band of volume where total fixed costs remain constant at a certain level and where the variable cost *per unit* remains constant at a certain level.

## Scatterplot

- A graph that plots historical cost and volume data

## Step Costs

- A cost behavior that is fixed over a small range of activity and then jumps to a different fixed level with moderate changes in volume.

## Variable Costs

- Costs incurred for every unit of activity. As a result, total variable costs **change in direct proportion to changes in volume.**

## Variable Costing

- The costing method that assigns only *variable* manufacturing costs to products. All fixed manufacturing costs (fixed MOH) are expensed as period costs. Also known as **direct costing**.
- $\{\text{Variable Cost (Slope)} = (\text{Change in Cost}) / (\text{Change in Volume})\}$

## Volume

- The unit that correlates to costs. Example: customers in a hotel can directly relate to costs such as complimentary breakfast, toiletries, etc.

## Highlights - Things to Remember

### 1. Graph Structure for Different Costing Methods

- Mixed costs start at the point where Fixed Costs total out. This means, the origin will be the total of the Fixed Costs. In this scenario, the Mixed Cost Line will be the starting equation

## Questions

1. What is “volume” referencing? - Example: The amount of people that stay at a hotel. The amount of customers.

## Notes

- The equation  $\{f(x) = mx + b\}$  is used extensively in this chapter.
- **Research a bit more on the high-low method and its mechanics.**
- Variable Unit Costs does not change as production (volume) changes.
- Total Fixed Costs are always consistent with regards to change in production (volume).
- Variable Cost is the slope of the line/curve when using High-Low Method.

- When using High-Low method, the Total Fixed Cost is calculated using only the value from the highest cost recorded.
- When using the High-Low method, you select the highest and the lowest values from the Volume only, not the costs.

**In chapter 6**, I believe the most important concept to understand the entirety of what the scatter plot graph actually tells us. Additionally, I added a little story about my difficulty with the term "Volume" at the end of this response.

### **The Scatter Plot Graph**

In order to understand new concepts, I like to dissect them into simple parts. As I stated earlier, I believe that understanding the concepts within the scatter plot graph is most important. Reading through the chapter, I noticed that the basic equation for a line ( $y=mx+b$ ) is used quite extensively. In its most basic form, this is what the graph represents:

- The y-axis indicates the total cost.
- The x-axis indicates the volume of the units used (such as guests at a hotel), which are being directly compared to the total cost.
- $m$ , the slope of the curve (in cases so far, they have only straight line), represents the rate at which cost changes with respect to volume (the variable cost per unit). So, if volume changes, cost changes by a certain amount as well.
- $x$  is a placeholder for the quantity of any volume desired to be put into the equation, in order to calculate your potential total cost.
- $y$  is your total cost.
- $b$  is the amount of your fixed costs. In the equation, it represents your origin (starting point) on the graph's y-axis.

### The Difficulty of the Term "Volume" for Me

**At first**, the x-axis was actually a bit difficult for me to grasp because of the new term that was introduced: volume. I come from a computer science background so getting out of the old habit of automatically thinking cubic equations took a bit of effort on my part. This situation actually happened last semester in BUS 120 when the parenthetical values were introduced (where parentheses indicates a negative value). At any rate, I managed to equate the term "volume" to the term "units" and that's how I overcame that hurdle. Sorry to get off-track from the question but I felt like sharing my experience with Chapter 6.