



## Notes – Chapter 3

### Product Costing and Activity-Based Costing

- I. Cost Behavior
  - a. Cost Driver: Activity that causes incurrence of cost.
    - i. Ex: Unit production → Manufacturing Costs
    - ii. Ex: Purchase Orders Processed → Purchasing Expense
  - b. Variable Costs
    - i. Vary with production level
    - ii. Unit cost stays the same but total cost goes up
  - c. Fixed Costs
    - i. Independent of production level
    - ii. Total cost stays the same but unit cost goes up.
- II. Product Costing
  - a. Take direct and indirect costs and apply them to specific products.
  - b. Dealing with indirect costs is decidedly the more difficult.
  - c. Start with a crude approach (easy and straightforward) then get a little more refined.
  - d. Process Costing
    - i. Used for mass-produced, identical units.
    - ii. No logic in pegging individual products with particular costs.
  - e. Job-Order Costing
    - i. Production of low volume, more unique items.
    - ii. Batches of low-volume, but identical items.
    - iii. Very common in the service industry.
    - iv. Capture costs involved with individual cases.
  - f. Job Cost Record
    - i. Remember the subsidiary ledger in relation to accounts receivable.
      - 1. Track the details of individual accounts separately.
      - 2. Accounts Receivable becomes the summary.
    - ii. WIP inventory the summary and the Job-Cost record is the detail about the WIP inventory balance.
    - iii. No “standard” form, but generally the same information
      - 1. Reference ID for the specific job.
      - 2. What it is, when it was started.
      - 3. Cost details under DL, DM, Overhead
      - 4. Summary for DM, DL, OH
    - iv. Direct Material
      - 1. Derived from material requisition forms.
      - 2. What's needed? For what job? Who needed it? When?
    - v. Direct Labor
      - 1. Source document is the time ticket.
      - 2. Which individual? What hours? What rate?
    - vi. Manufacturing Overhead
      - 1. Harder to apply.
      - 2. Apply using pre-determined rate.
      - 3. For every hour worked on the job, for example, add some amount to overhead.
      - 4. Determining the Rate
        - a. Take budgeted manufacturing costs (usually over longer periods of time to improve accuracy) and divide by the budgeted amount of a selected cost driver (usually labor-hours).
        - b. Called “Predetermined Overhead Rate” or POHR
      - 5. Applying the rate against actual use of the cost driver.

- g. Journal Accounts
  - i. DR Raw Materials for all materials purchased, CR Cash or A/P
  - ii. CR Raw Materials, DR WIP for applicable amount.
  - iii. CR Raw Materials, DR Manufacturing Overhead for the remainder.
  - iv. Now apply the overhead by DR WIP, CR Manufacturing Overhead using the predetermined rate.
  - v. If a balance remains (which it almost always will), a year-end adjustment is needed.
    - 1. Applying too much leaves a CR balance in Manufacturing Overhead.
    - 2. Option A: DR Manufacturing Overhead, CR Cost of Goods Sold
    - 3. Option B
      - a. Apply the balance to WIP, FG, and Cost of Goods Sold
      - b. Prorate as a percentage over each category.
  - vi. Once a WIP balance is established, the amount can flow directly through finished goods and Cost of Goods sold without further hassles.
- h. Actual vs. Normal Costing
  - i. Normal → Using a predetermined rate as production occurs
  - ii. Actual → Wait until everything is accumulated and then create a perfectly accurate rate.
    - 1. Vast majority of firms do this.
    - 2. Nobody has time to wait around for costs to be incurred.

### III. Activity-Based Costing

- a. Plant-Wide Costing
  - i. Companies tend to use DL as the cost driver in their rate
  - ii. Creates distortion because labor doesn't really correlate with the incurrence of overhead costs.
  - iii. Process was discussed above.
- b. Departmental Overhead Rates
  - i. More accurate
  - ii. Distribute all costs to the appropriate department.
  - iii. Consider heat: Break down by square footage.
  - iv. Once allocated to individual departments, let each department allocate costs to individual products.
  - v. Same procedure is used, but now in smaller blocks, so it's more accurate.
  - vi. Each department can use different *units* for its predetermined rate, depending on what it uses more!
- c. Activity-Based
  - i. Same thing as with departments, but now it's split up into individual activities.
  - ii. The key is to pick "correct" cost drivers to use.