

ACC Ch 7 Activity-Based Costing: A Tool to Aid Decision Making

-**Activity-based costing (ABC)** is a costing method that is designed to provide managers with cost information for strategic and other decisions that potentially affect capacity and therefore “fixed” as well as variable costs

Activity-Based Costing: an overview

-Activity-based costing differs from traditional cost accounting in three ways:

1. Nonmanufacturing as well as manufacturing costs may be assigned to products, but only on a cause-and-effect basis
2. Some manufacturing costs may be excluded from product costs
3. Numerous overhead cost pools are used, each of which is allocated to products and other cost objects using its own unique measure of activity

-In ABC, products are assigned all of the overhead costs – nonmanufacturing as well as manufacturing – that they can reasonably be supposed to have caused

- *Organization-sustaining* costs are treated as period expenses rather than product costs

Cost Pools, Allocation Bases, and Activity-Based Costing

-In ABC, an **activity** is any event that causes the consumption of overhead resources

-An **activity cost pool** is a “bucket” in which costs are accumulated that relate to a single activity measure in the ABC system

-an **activity measure** is an allocation base in an activity-based costing system

-two most common types are *transaction drivers* and *duration drivers*

-**transaction drivers** are simple counts of the number of times an activity occurs, such as the number of bills sent out to customers

-**Duration drivers** measure the amount of time required to perform an activity, such as the time spent preparing individual bills for customers

-ABC costing defines 5 levels of activity – unit-level, batch-level, product-level, customer-level, and organization-sustaining – that largely do not relate to the volume of units produced

1. **Unit-level activities** are performed each time a unit is produced

2. **Batch-level activities** are performed each time a batch is handled or processed, regardless of how many units are in the batch

3. **Product-level activities** relate to specific products and typically must be carried out regardless of how many batches are run or units of product are produced or sold

4. **Customer-level activities** relate to specific customers and include activities such as sales calls, catalog mailings, and general technical support that are not tied to any specific product

5. **Organization-sustaining activities** are carried out regardless of which customers are served, which products are produced, how many batches are run, or how many units are made

Designing an Activity-Based Costing System

Steps for implementing ABC:

1. Define activities, activity cost pools, and activity measures

2. Assign overhead costs to activity cost pools

3. Calculate activity rates

4. Assign overhead costs to cost objects using the activity rates and activity measures

5. Prepare management reports

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Step 1: Define activities, activity cost pools, and activity measures

Activity Cost Pools at Classic Brass	
Activity Cost Pool	Activity Measure
Customer Orders	Number of customer orders
Product design	Number of product designs
Order Size	Machine-hours
Customer Relations	Number of active customers
Other	Not applicable

Step 2: Assign Overhead Costs to Activity Cost Pools

Product Department:			
Indirect factory wages	\$500,000		
Factory equipment depreciation	300,000		
Factory utilities	120,000		
Factory building lease	<u>80,000</u>	\$1,000,000	
General Administrative Department:			
Administrative wages and salaries	400,000		
Office equipment depreciation	50,000		
Administrative building lease	<u>60,000</u>	510,000	
Marketing Department:			
Marketing wages and salaries	250,000		
Selling expenses	<u>50,000</u>	<u>300,000</u>	
Total overhead cost		<u>\$1,810,000</u>	

-The **first-stage allocation** in an ABC system is the process of assigning functionally organized overhead costs derived from a company's general ledger to the activity cost pools

Step 3: Calculate Activity Rates

Step 4: Assign Overhead Costs to Cost Objects

-Second-stage allocation

- in **second-stage allocation**, activity rates are used to apply overhead costs to products and customers

Step 5: Prepare Management Reports

-product and customer profitability reports help companies channel their resources to their most profitable growth opportunities while at the same time highlighting products and customers that drain profits

-Find the customer margin of each of your customers and cultivate relationships with the most profitably and reduce the negative impact of unprofitable ones

Comparison of Traditional and ABC Product Costs

- Action analysis report** provides more detail about costs and how they might adjust to changes in activity
- Activity-based management** involves focusing on activities to eliminate waste, decrease processing time, and reduce defects
- Benchmarking** is a systematic approach to identifying the activities with the greatest room for improvement

- Ease of adjustment code** reflects how easily the cost could be adjusted to changes in activity