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The ABCs of ABC

Activity-Based Costing and Activity-Based Management are two concepts that have gone beyond management theory and into the harsh world of practice.

As the names suggest, the core principle is "activity." However, very few people understand the true definition of activity. The ABC glossary, as published by the Consortium for Advanced Manufacturing International (CAM-I), defines an activity as:

- "Work performed within an organization."
- "The aggregations of actions performed within an organization that are useful for activity-based costing purposes."

The above definitions are too vague to be put into practice to actually create models. There is a lot of ambiguity about the activity-defining process and how it applies to people-based activities and equipment-based activities.

This ambiguity is compounded by the fact that speakers at seminars and workshops refer to "top-down" and "bottom-up" approaches to defining activities. Further, the strategy underlying these models is not clearly established. Instead, the number of activities is emphasized as the best measure of each model's superiority.

The main characteristics of the top-down and bottom-up approaches are:

Characteristics	Top-Down	Bottom-up
Target	Management	Operations
Number of Activities	Few	Many
Detail	Little	Lots
Model size	Small	Large

Process

It helps to first understand the difference between a process and an activity so that it becomes easier to identify them.

A process is a combination of several activities that have a collective objective. Performance measurement parameters like cost, quality and cycle time can be used to quantify a process. The different activities constituting a single process do not need to be performed by one unit of an organization - they can be distributed among several business units. The ABC model can be used to capture the cost per unit of the output of the process, which is actually the average cost of the output. Though this can help in performance measures, the actual cost is not revealed.

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Activity

An activity is more specific than a process. Again, every activity can be broken down into a set of tasks. The ABC model uses the cost of an activity as the smallest cost that can be computed.

Activity drivers are present for each activity for calculating the cost object consumption. This enables you to measure consumption independently for each activity rather than having to calculate the average cost. Understanding tasks inherent to an activity can help one to analyze the activity itself, but does not add any substantial information.

Process Costing

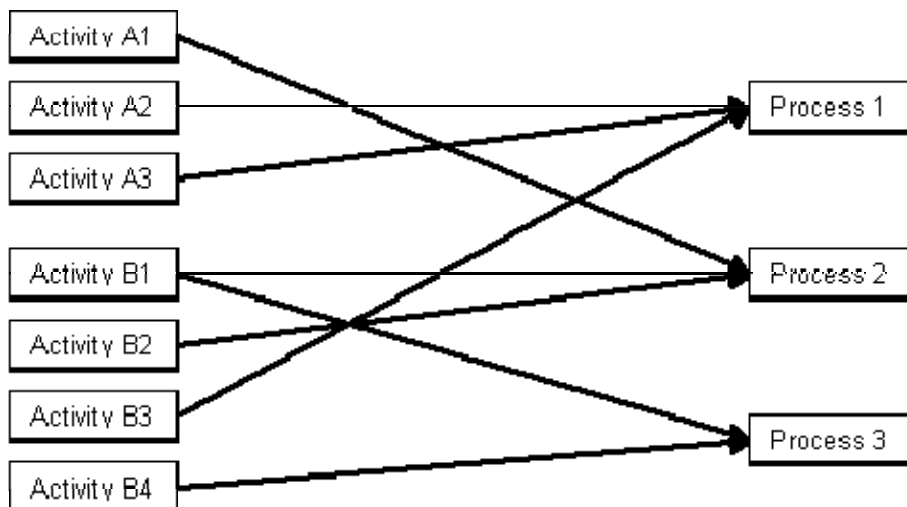
In this model resources are allocated directly to processes and correspondingly, costs are measured. However, departmental managers cannot separate the costs of their processes from those of other departments. Because of this, they do not feel responsible for the cost, and therefore they cannot plan measures to reduce costs.

Activity-Based Costing

The solution therefore is to go deeper and view the process as a set of activities. This generates a model that:

- Identifies a center for every department
- Identifies activities in the center
- Maps activities to processes with a corresponding set of properties

This mapping is made clear by the following figure:



People Activities vs. Equipment Activities

The most crucial and also confusing stage in creating an ABC model is differentiating between the activities performed by machines and those performed by people.



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The first definition of activity as given by CAM-I is "Work performed within an organization." The relevant question to be asked here is "Who or what does this work?" since any work to be done requires both men and machines. Too often, ABC models concentrate on the work done by employees since it can be easily identified and measured. All other work, including work done by machines used by employees, suppliers, subcontractors, etc. is classified as a people activity. This naturally does not reflect the true picture and may not represent the correct results.

An oft-repeated saying in organizational theory is, "Before machines became machines, they were men." This means that before machines appeared, people performed these tasks.

The true way to represent activities where machines play a major role is to ask whether people perform any important activities or are present only to operate and maintain the machines. If people activities are subordinate to those activities performed by machines, it may be better to have no people activities for this activity center.

For instance, in a chemical process industry, operators are required only to observe the process on a computer screen, monitor the progress and maintain the proper working of the system. The ABC model, in this case, would assign the resources to the equipment activities rather than to people activities.

If, on the other hand, the equipment is present to help the employee do his or her work better, then it is a people activity, since the equipment is secondary to the work being performed. For instance, people use computers now to type letters, analyze various parameters and generate reports. However, the employee performs the major role. Therefore, it is best to include only people activities in this center.