TRADITIONAL ACTIVITY-BASED COSTING METHOD VERSUS TIME-DRIVEN ACTIVITY-BASED COSTING

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Abstract: ABC traditional method is a reliable instrument for the allocation of costs on customers and products that use the services of a compartment. The practice, however, showed that it can be difficult to implement and maintain. The solution to the problems of the ABC method is not abandoning the concept but a new approach, simplified, called Time-Driven ABC. TD ABC method does not represent the replacement of the traditional ABC method, but one of its complementary methodology.

Time-driven activity-based costing should be considered complementary to, not a replacement for, traditional activity-based costing. After decades of proven success, activity-based costing (ABC) has recently come under fire from its earliest and most active proponents. Robert S. Kaplan and others are promoting a “new, innovative, time-driven methodology” that presumably “delivers great improvements to the older systems of 15 years ago.”(1). Companies are replacing their current costing solutions to try to get strategic information faster and with less maintenance.

Traditional ABC is a “push” model of costing. You start with total expenses spent on various types of resources, such as salaries or supplies, and then determine what percentage of that resource is associated with each product or service. Then you apply that ratio to the total cost to generate a cost allocation for a given product. In contrast, time-driven ABC is a “pull” model of costing. You start with estimates of two parameters: units of time required to
perform an activity and the cost per unit of time. You then multiply this information by the quantity of the product.

For resources not measured by units of time, the costing methodology can accept other measures. For instance, the capacity of a distribution center could be measured by available area and priced at cost per cubic meter. The capacity of a computer server would be measured by available gigabytes and priced at cost per gigabyte.

From the point of view of its accomplishment, TDABC method can be decomposed into six phases, namely: 

1. Identifying resources that contribute to the achievement of an activity;
2. Estimating the total cost of each resource;
3. Estimating the normal capacity of each resource regarding to the working hours;
4. Calculating the cost of each resource (the total cost of the respective resource is divided by the normal capacity in working hours);
5. For each activity, the required time based on time parameters and on the action characteristics;
6. Calculating the cost of the time parameters by multiplying the unit cost of resources with the time needed to conduct business.

“Push ABC” computes actual activity costs and aggregates them into the outputs, such as products, that consume those activities. “Pull ABC” computes activity costs at standard rates and leaves a “leftover efficiency” and/or unused capacity cost variance. But both ABC methods account for the same amount of spending during a time period.

At present there are voices according to whom Traditional ABC method is not feasible but should be replaced, compulsory, by the time-driven ABC method.
Some of researchers` statements regarding to the advantages provided by Time-driven ABC method may be structured as follows:

Statement No. 1

Time-driven ABC is a revolutionary new methodology. Consulting firms, software vendors and the media have been eager to promote time-driven ABC. They love something “new.” One software vendor even sought to patent its spin on this methodology. Some organizations are rushing to change their existing ABC solutions, hoping to capitalize on the purported merits of the new methodology – said to be a simpler, less expensive, one-size-fits-all solution. Seasoned practitioners in the cost management field recognize that this “new” methodology is anything but new. The idea of time- or event-driven ABC has been around in many forms for two decades, including output measurement methodology, “reverse-push” activity-based budgeting and bill-of-cost methodology.

Today’s time-driven ABC is simply a bottom-up approach to ABC principles, complementing instead of replacing the traditional top-down approach. The full-absorption costing calculation is “pushed” through a model (but logically and causally traced without broad averages). The other approach is a cost calculation using rates and quantities that are “pulled” through a model. Both methods have their place, depending on the purpose or type of decision the cost calculation will help you make.

Statement No. 2

Time-driven ABC is the panacea for cost estimation. The primary purpose of ABC is to provide information that executives, managers and employee teams need to make better decisions – particularly decisions that will keep the company in alignment and on track with strategic goals.

Both ABC methodologies achieve this by identifying key strategic factors (i.e., product profit
margins, channels and customers) and operational areas (i.e., costs and capacity for processes). The objective is to measure, monitor, manage and improve these areas quickly and easily. Because the two methodologies arrive at their calculations from different directions – accounting for the same expenses – they each have merit for providing a variety of insight:

- To understand unused or estimated capacity issues, the time-driven approach will provide more clarity.
- To identify potential areas of cost savings, traditional ABC will provide broader perspective.
- To determine what things cost, and why, either method will deliver accurate results.

Ultimately, organizations are best served by a modeling tool that makes it easy to apply either or both methodologies depending on the desired outcomes. Admittedly, traditional ABC does not distinguish used from unused capacity, so destination cost objects (such as products or customers) may have some idle capacity factored into the calculation, which results in slight over-costing. However, this effect is generally accepted because users believe that managers are vigilant about ensuring a match between resources and workload demand. Also, some traditional ABC methods are made “capacity-aware” by isolating estimable idle capacity in the resource and assigning it to a business-sustaining cost object, thus removing over-costing effects.

**Statement No. 3**

A time-driven ABC model is easier to develop and maintain. Part of the allure of time-driven ABC is the promise that employee surveys to quantify time spent on specific activities will become simpler and less frequent. Managers will estimate the units of time required to perform an activity for a specific product, and that calculation will go into the model to be multiplied by the volume of outputs as reported by automated systems and databases.
However, any estimation process is prone to error. A one-minute flaw in a time estimate multiplied by thousands of transactions can greatly skew results. In fact, such a modest estimation error could possibly be greater than it would be under traditional ABC. Another assumption is that after implementation, a time-driven ABC model will be virtually maintenance-free. Activity cost drivers reference formulas, the thinking goes, so it’s easy to modify the formula. For instance, if employees get an 8 percent raise, simply modify the cost driver to reflect that 8 percent.

In reality, organizations change constantly and should update models to reflect every change. Kaplan advises an update to time-driven ABC models with every event – whether it’s cost of a resource, a change in required resources or a change in efficiency. That’s a lot of change. In a perfect world, if everything in the model was based on rules-based driver relationships, the updates would indeed be simple. But in the real world, a time-driven ABC model contains components of traditional ABC to address areas of the business where that methodology is more appropriate. So, resurveying activity costs would still have take place.

Consider also that the real work of effective decision making begins after a model is created, calculated and used. Time and energy spent worrying about perfect cost drivers and third-decimal-point precision will commit too much of the ABC project team’s time to building models. The true value of ABC comes from the post-modeling analysis that will generate the best management decisions, which leads us to the next myth.

Statement No. 4
Time-driven ABC drives faster, better business decisions. It can, but it can also drive a myopic focus on time, to the exclusion of other cost factors. Focusing on time standards can direct too much attention to reducing the duration and
weight of time in the activity cost driver, instead of investigating other, more effective cost reduction factors.

For example, a modem manufacturer used time-driven ABC to understand the complexities of its business and identify cost-cutting and efficiency opportunities. Its model showed that costs were too high for the process of attaching rubber feet to the bottom of the modem case, a case shipped from an external supplier. Process engineers focused a lot of time and effort to reduce the time standard for this task – even timing experienced and inexperienced workers. They simply could not reduce the amount of time to add the rubber feet.

By focusing so narrowly on reducing the time standard – emphasized in time-driven ABC – the team wasted a lot of time before reaching a much better decision: having the supplier add the feet to the case before shipping. A traditional ABC model could have revealed this option much earlier. Also, we can often conceptualize the language of quantity more easily than time for costs. For example, a bank loan officer more naturally estimates the number of credit reference checks instead of how many minutes a credit check takes. It’s easier to relate to a metric of $35 per credit check than 14.5 minutes per credit check. The dollar figure readily suggests ways to cut costs – performing five credit checks per loan application instead of seven. The metrics time-driven ABC would produce are less intuitive for this purpose.

Statement No. 5

Only certain vendors can do time-driven ABC. Several major costing software vendors can calculate costs based on multiple assignment methods that can either push costs based on collected driver quantities or pull costs through a cost model based on equations that reference automatically updated, dynamic databases. Users have the option to choose either method for different parts of their model.
Time-Driven ABC Isn’t One-Size-Fits-All

Organizations should be able to choose resource and activity cost drivers – push or pull – that best fit their situations. They should be able to build sustainable costing models that support the real goal of ABC: better decision making. If you want to track used and unused capacity and associated costs, a time-driven ABC model can “back into” the cost of idle capacity: for example, helping to identify redundant or inefficient employees. Time-driven ABC may also be useful for situations of highly repetitive work (creating interest in standards) and paper-thin profit margins, such as retail distribution. In contrast, if you want to answer questions about what things cost and why, a traditional ABC model continues to be the fastest, easiest way to get those answers. The time and effort of implementing and maintaining time-driven ABC may simply not be worth it.

Time-driven ABC offers advantages over traditional ABC costing to meet certain goals, but it doesn’t dramatically simplify the process of creating and managing models. It should be considered complementary to, not a replacement for, traditional ABC. Traditional ABC is still a proven way to trace and assign costs, and identify cause-and-effect relationships.

Reference:

3. www.ifac.org