

MODERN COST ACCOUNTING MEASURES AS A METHOD FOR THE EFFICIENT SUPPLY MANAGEMENT

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Summary

Account the costs of control sometimes TDABC as a modern method of construction cost accounting, is a highly efficient tool in the management of supplies. Compared to conventional ABC method accurately reflects the time and cost of adverse. The article presents the essence and meaning of the method TDABC and the possibility of its application in the processes of sourcing service companies.

Keywords

Model of cost accounting, cost accounting control activities over time, supply management, TDABC method, equations of time

Introduction

There are many management methods. Methods of supply management and purchasing are also a large scientific discipline. The evolution of the methods, techniques and tools in the management did not omit the issues related to the cost management in the enterprise. The supply of some of the most important determinants of effective management is to optimize the cost and time flexibility. Modernising the ABC method by being able to control sometimes causes that the supply management especially in service companies becomes a factor affecting the efficiency of the service. By obtaining the possible agility and flexibility of supply chain costs to the demand exhibit exceptional flexibility in time. Thus they arise when they need to.

1. Imperfect ABC method in the management of supplies

The TDABC method reveals the inadequacy of classical ABC method by demonstrating several critical points:

- As a result of the development of enterprises there is the need to expand the cost items covering a wider area than just the purchase.

- Increased competition, the rate of exchange of information and globalization processes affect the functioning of service companies in the market, gaining competitive advantage must therefore be associated with reducing the cost and flexibility in time.

- To the variability of the environment there is also the need to make purchasing system supply more flexible, forced adaptation of costs in time and processes that appear in the controlled supply chain.

In practice, TDABC method enable to control the supply processes in the supply chain allowing the use of time as a determining factor to achieve the desired level of efficiency. In the processes of supply, which now form a separate business area of the enterprise in obtaining the good to perform the service, becomes a decisive factor for the implementation of the service on time. The cost of the purchase, supply and storage through the use of a modern approach to budgeting can be scheduled almost exactly to the minute of their occurrence. Equipment, as a business process becomes the part of the evaluative services.

2. The nature and use of Time-Driven Activity Based Costing (TDABC) in the supply of service companies

The approach called Time-Driven Activity Based Costing (TDABC) gives companies the opportunity to determine the costs of processes and the use of their production capacity and the profitability of orders in a practical way. This bill improves the cost accounting systems to rationalize them and not their abandonment. [1] Time-driven control in the supply seems to be necessary, because of the existence of an offsetting cost in time and that cause difficulty in their later location in the pattern of costs in the budget. Translating the use of time for concrete action and the ability to define the cost of such an action in time is a supply chain flexibility as a key element of the process of supply in the company. It should also be noted that TDABC

simplifies calculating the cost by excluding the need to seek destinations of incidence cost (as facilities' costs - such as procurement) through surveys or interviews, for example, among employees. Thus, this model uses a relatively simple structure, because in practice, it only contains two sets of costs, places the cost of resources directly to cost objects. [1,2] In fact, this calculation shows the ability of the supply chain to shape efficiency of production capacity and enable to adapt the size of the order in proportion to the relation of using the resources in a given time. Time diagram shows the figure 1.

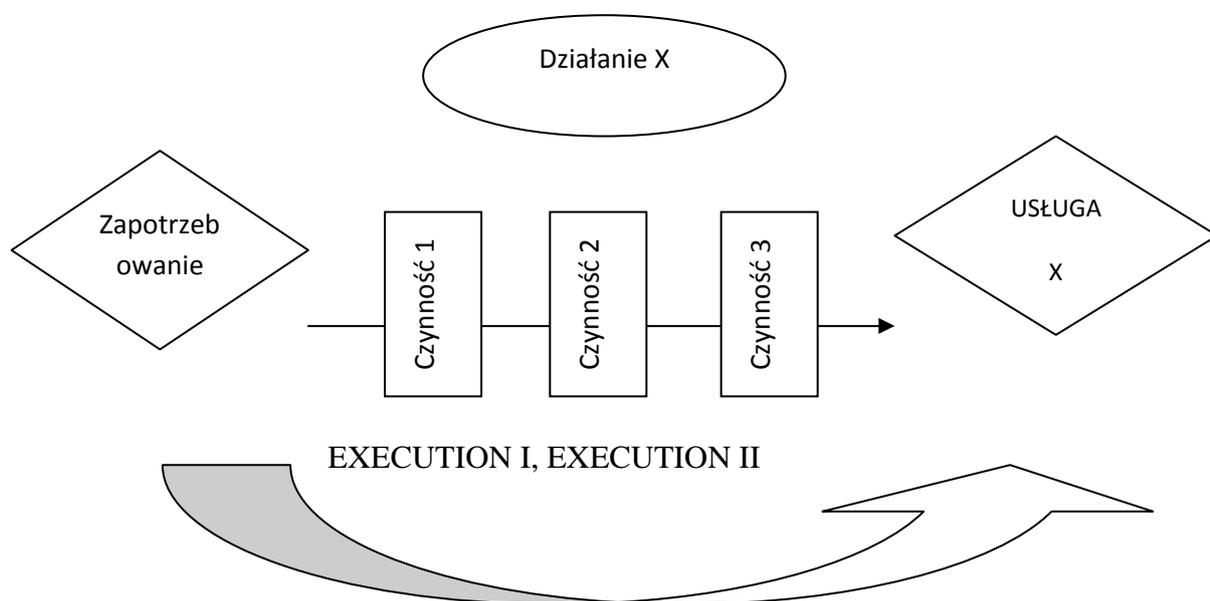


Figure 1. Use of the same amount of resources for different implementation

Source: Own calculations based on. COST ACCOUNTING ACTIVITY BASED ON TIME - Upgrade the standard version of activity based costing, A.Bojnowska Institute of Organization and Management, University of Technology

In contrast to traditional methods, TDABC uses only one type of media - media duration. The main element of the use of such an account, and its task is essentially to determine the cost per time unit. It is the time based on the above method is a unit of the denominator to demonstrate the value and valuation of individual actions. According to the authors of the duration of the media may have a greater cost effectiveness mainly in the field of measurement, but also the opportunity to achieve sav-

ings as a result of their use may be immeasurably higher. [3] The measurement of the unit of time makes possible the construction of equations of time, and these are part of the building block model concept costs of operations. [3,4]

To illustrate the use of time for example in production capacity the following examples of equations in time may be helpful. The unit cost of production capacity is defined based on the TDABC account as follows:

$$\text{Unit cost of production capacity} = \frac{\text{Cost of providing capacity}}{\text{Practical production capacity of provided resources}}$$

So if for example the cost of providing the capacity is 100 000 PLN. and the practical production capacity of supplied resources e.g. 600 000 minutes [1].

$$\text{Unit cost of production capacities} = \frac{100\,000 \text{ PLN}}{600\,000 \text{ min}} = 0.17 \text{ PLN / min}$$

Similarly, for the supply:

$$\text{Unit cost of providing supply} = \frac{\text{The cost of material resources}}{\text{Practical time delivery}}$$

For example:

$$\text{Unit cost of ensuring delivery} = \frac{200\,000 \text{ PLN}}{563\,000 \text{ min}} = 0.36 \text{ PLN / min}$$

The accuracy of the model TDABC proves itself in opportunities in taking into consideration the demand for resources generated by various operations in a simple way of adding more items to the equation of time for the given department. [1,3] For example, the time equation is presented of fine materials shipments in a package: [1]

$$\begin{aligned} \text{Packaging Time} &= 0.5 + 6.5 \text{ (if special packaging is required)} \\ &+ 0.2 \text{ (e.g. shipment by air)} \\ &+ 30 \text{ (for example, when the material is dangerous)} \end{aligned}$$

The main characteristics desired in the use of Time-Driven Activity Based costing in supply are possibilities to eliminate difficulties in their role as tools for effective and efficient management e.g. the classic ABC method. The possibility of overcoming such difficulties and the level of the calculation response for current updating is most evident through:

- Faster and more accurate construction of the model.
- Use of specific features of individual orders, processes, suppliers and customers.
- Ability to activate at any time.
- Transparency in the efficiency of the use of the production capacity.
- Forecasting the demand for resources.

3. TDABC tool in the management of supplies

The efficiency of the supply is in fact a functional and flexible management processes in the supply chain including purchase management in the service enterprise. The measurement of this efficiency causes problems in the area of cost. To minimize the blockade on the way of placing the supply costs in the business processes of the enterprise, skillful use of the tools of costing and budgeting should be employed. The flexibility and agility of the purchase and delivery will depend on the ability to control the time by using the TDABC method especially in the design of time equations and schedule of cost objects.

If we assume that purchase supplies as a key cost-driving element in the supply process is a function responsible for obtaining and providing equipment, materials, parts' components and support services through acquisition or in other legal way, [5] can be stated that they have a direct impact on the production process. Due to the drafting about a broad sense of the costs in production, the production itself is an economic factor that creates usefulness, and therefore it is the decisive factor in formation of the services. Budgeting in the supply, therefore, is based on determining the volume of production, or for example, based on sales. In this cost group may therefore be specified:

+ 5 (e.g. exceeding the credit limit)

+ 2 and so on ...

This example shows that the length of the model will increase linearly in proportion to the complexity of operations, rather than the traditional model exponentially. Therefore it can be concluded that the greater the ability to control time is, the greater seems to be the efficiency of the supply management process.

Summary

TDABC method has to be unique in its approach to budgeting and time control. Unlike the conventional method of accounting cost makes it possible to estimate the costs in a particular time. The ability to control time using the equations of time is directly related to the management skills. The supply and service time is crucial, because determines the emergence of the service. The management of supplies based on the method TDABC defines the efficiency of management to extent of efficiency by creating economies of “do not waste time”. Imposing view of market requirements to companies seeking ways to reduce costs and accelerate the activities fulfillment, the tool of the action costs bill which is controlled by the time is the sign of a functional, spatial and accurate positioning of the objects expenditure cost and the full use of the resource requirements.

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