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Relation ABC and ABM by Integrating EVA for A New System of Measuring Performances

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Abstract. A by-product of viewing costs by activity is that ABC allows managers to identify costs of "non-value added" activities, and thus supports total quality management efforts. Hence, ABC leads to "ABM," activity-based management. An activity-based costing approach can be considered more practical in a physician practice setting than in a hospital because the range of activities, and types of costs, is less diverse. Although each specialty and each practice is unique, it is possible to develop a list of activities that would work across all practices in the organization. A hospital, on the contrary, would typically require a unique activity list for each department ABC and EVA are useful tools that can help a company achieve greater success in the current dynamic and competitive business environment. In fact, these tools are quite complementary. ABC can help managers understand the cost and capital impact of their decisions.

Keywords: ABC (Activity Based Costing), ABM (Activity-Based Management), EVA (Economic Value Added)

1. Introduction

ABC emerged in the late 1980s as a result of the relative decline of manufacturing in Companies (E.g. outsourcing). The result was a growing overhead burden in the Organizations. As value is now generated from less tangible assets such as marketing, Product innovations and their design and development, new allocation bases had to be found for allocating those indirect costs (Ax & Bjørnenak, 2007; Northcott & Scapens, 2007). the use of "over-simplified methods of overhead cost allocation" (Otley, 2007,p.2) by means of a plant wide overhead rate or by using direct labour or direct material as allocation bases have caused problems in modern businesses (Anthony &Govindarajan,2007). With the use of non-volume related cost drivers, ABC was a more Proactive approach where the focus laid on managing all the processes (Otley, 2007). ABC evolved to activity based management (ABM), which also includes product related Actions like product pricing, the analysis of customer profitability, the possibility to substitute or redesign products and the improvement of processes and strategy (Kaplan & Atkinson, 1998).

For a long time, the enterprise managers have considered that the only way to face Competition is the one of dominating through costs, a reason for which they acted in the Direction of accomplishing a large volume of production and savings. Inverting the pyramid of costs under the impact of advanced technologies in the field Of production as well as information and communications, determines that the traditional Methods of cost calculation based on the principle of analysis centers do not agree to the Actual interests, at least for the following considerations:

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- distributing certain indirect expenses (electricity, phone calls, electricity expenses, Etc.) On the analysis centers is realized using distribution keys which contain inevitably an arbitrary part, and as a consequence, the final cost of products loses its objectiveness
- Analysis centers making a diversity of tasks and this make impossible to find a Satisfactory explicative factor; in difficult conditions, the choosing of the work unit is based On a known and easily measurable element, a reason for which it appears as being purely Conventional; the force of habit leads to keeping the work unit without taking into Consideration the causative relation which may disappear under the organizational or technical Circumstances;
- The division of the enterprise on analysis centers is not based on a economical Modeling, but on technical-economical entities from the organizational structure of the Enterprise;
- The double classification of the expenses in function of two criteria – affectability And variability - is equally conventional, because it depends on a certain reference point in Relation to which the classification is made;
- determining the accounting administration period is very conventional and does not correspond to any economical reality. The real time of the enterprise is not a conventional Time, it is a time that corresponds to the own rhythms of the enterprise life;
- A traditional accounting model may be qualified as "volumetrical" because it is based on a one and unique explicative variable: the volume of manufactured or sold products. If the "volumetrical" relation is unquestionably in what concerns direct and variable expenses, It is very contestable for the indirect expenses which have not always depended on the Production volume, but, especially, on the operations of administrative management. But the actual principles for the global economic competition are oriented more likely towards the domination of structure expenses, the conception period, the information sources and the value. The conclusion that Berliner, C. and Brimson, J.A (1988) reached was that the Essence of the added value and of the waste as well are situated in indirect expenses, expenses Which are neglected, often treated in block and conventionally distributed over products based On the consumption of direct expenses, especially the manual work. This aspect can lead to a Diagnostic error, motivated by the fact that the managers of the enterprises are interested first On the direct expenses, losing from sight that indirect expenses are generated not only by the Production process, but also by a series of transactions which take place inside the enterprise: Logistical operations, marketing operations, operations for improving the products quality, Current operations for updating the products range, fabrication nomenclature, standards, etc. (Porter, M., 1986:107)

2. ABC Method

At the middle of 1980, as a result of the issues appeared in CAM-I, the first activity Based costing systems were applied in the United States. The main objective was to remediate the costs distortions noticed in a large number of American enterprises, which used to lead to Wrong decisions. The concept of the ABC method, initiated by R. Cooper and R. Kaplan, begins from the fact that not the products are those which consume resources, but activities, and different Activities of the enterprise are used by products. We can notice that the enterprise needs to be perceived as a network of activities in the Service of the internal or external customers, and not under the form of a organism. An activity is an ensemble of elementary tasks, homogeneous, which regards the value creation for an internal or external client. A chain of activities which compete to achieve a Common objective is named "process".

Resources → Tasks → Activities → Processes → Products / Resources ← consumption ← Activities ← consumption← Products/Service

3. ABM Method

In its initial form, we can talk about "the first generation - cost system" a reason for Which many authors sustained the idea that, in essence, the ABC method did not bring Anything new and for a long time it was assimilated to the traditional methods of cost calculation. Introducing the ABC method does not imply any organizational change or managerial preoccupation. In its first stage, the method is limited to locate the activities inside the analysis or responsibility centers and of re-adding a new stage in the allotting process.

A new system of measuring performances by integrating EVA

4. Economic Value Added

EVA is the one measure that is used to monitor the overall value creation in a business. EVA is not the strategy; it is the way we measure the results. There are many values Drivers that need to be managed, but there can be only one measure that demonstrates Success. A single measure is needed as the ultimate reference of performance to help Managers balance conflicting objectives.

EVA can be the single metric used in all of these management processes. When Decisions are made, performance is measured and compensation is determined using the same measurement you get accountability. Operating managers also find that.

EVA Simplifies their job, as they barely understand the interaction between the multiple Existing measures. The concerns for finding a new system for measuring the cost and financial Performances lead to opinions regarding the possibility of integrating the ABC method with EVA (Roztocki, 2000).

EVA is an indicator that appears as a value excess which is resulted from the operation profit after covering the expenses with the invested capitals. EVA is Determined as a difference between the operational profit after taxes (Pe) and the cost of the capital invested (Cci), as follows:

EVA = Pe – Cci (6)

If we consider that the report between the cost of the capital invested (Cci) and the Size of the capital invested (Ci) represents the cost of the capital invested ratio (Rci), and the Report between the operational profit (Pe) and the capital invested (Ci) represents a form of The return on the invested capital (Re), then:

EVA = Ci x (Re – Rci) (7)

The invested capital includes the amount of financing sources used by the enterprise for which it has to pay remuneration and therefore, the invested capital (Ci) has two components: the equity (Cp) and the borrowed capital or total debts (Dt) which involves interest cost. Thus, the cost of the invested capital, in absolute terms, has its own two components: the cost of the equity (Ccp), respectively the dividends expected by the shareholders and the cost of the borrowed capital (Cdt), respectively the interests which have to be paid to the creditors. If we consider that the medium rate of the invested capital (Rci) is determined as an average between the rate of the equity (Rccp) and the rate of the borrowed capital (Rcdt), it results that the rate of the cost of the invested capital may be calculated as follows:

$$R_{ci} = \frac{Ccp}{Ci} + \frac{Cdt}{ci}(1\text{-}Ri)$$

Where: Ri = the income tax.

In case of the postfactum calculation, the cost of the equity is the opportunity cost of it, respectively the medium profitability which could have been obtained if this capital were invested elsewhere. The cost of the borrowed capital is settled on the credit market and it depends, especially on the medium interest rate of the economy. In these conditions, it can be said that the interest rate for a credit given to a firm is determined by adding the interest rate of some financial assets without any risk (usually the interest rate afferent to the treasury bonds) with the risk bonus afferent to the respective firm. For establishing the cost of financing through credits, we have to consider that using borrowed resources generates financial expenses with interest, which are deductible fiscal, determining a reduction of the income tax, what makes the real level of borrowed sources to be smaller than the nominal level, where the next Relation comes from:

Cdt = Dt x Rcdt x (1 – Ri) (9)

Narcyz Roztocki (2000) expresses his opinion that measuring performance based on value helps to determine the minimum level of profitability which a firm has to maintain to satisfy its current investors and attract new investors. This minimum level of profitability may be calculated with the relation:

Cci = Ci x Rci (10)

Where the signification of the notations are the mentioned ones. Apparently things are simple and allow integrating EVA in the ABC system, as it is demonstrated by N. Roztocki. In reality, things are more complicated practically if we consider, on one side, the calculation relations presented earlier, and on the other side, the work volume that is implied by applying such a cost modeling. Also, the expenses which the ABC method refers to are indirect expenses attached to the activities. This separation –direct/indirect expenses - does not have the importance which the traditional method of calculating costs revealed. What is important inside the ABC method is knowing if an expense is attachable to a cost-bearer or not. Attachable activities do not necessary own a direct relation with the products, but they may be inducted by a direct activity: for example, the products unleash the activity on a fabrication line (direct activity), which it's found itself at the origin of the intervention or maintenance activity (support activity). There may be said that the maintenance activity is attachable, because it may be attached to products in a significant way. But not all support activities may be thus attachable, a reason for which we have to face the non attachable activities and as a result, there appear difficulties in correct determination of EVA for the products.

Of course, EVA remains a performance presentation indicator through a new perspective, being useful especially to the firms which see the capital as a source of funds without any cost and where the financial results are measured only through some profit indicators. This situation can be found also in the Romanian economy.

5. Conclusion

Activity-based costing, by definition, assigns costs to activities based on their use of resources, and assigns costs to products (i.e., encounters, units of service) based on their use of activities. ABC varies from traditional costing in two ways. First, ABC maintains that costs that were traditionally treated as fixed or overhead should receive more attention in a costing effort, and should be assigned on a true "cause-and-effect" basis. This entails the assignment of fixed and indirect costs at two levels; from support departments to the patient care areas (i.e. at the department level), and from patient care areas to the product (i.e. unit of service) level. The second differentiation between ABC and traditional cost accounting is that in ABC, costs are viewed by activity, rather than by financial category. This introduces a common language to be used by the cost accountant and the clinician, who already views costs by activity. A by-product of viewing costs by activity is that ABC allows managers to identify costs of "non-value added" activities, and thus supports total quality management efforts. Hence, ABC leads to "ABM," activity-based management.

An activity-based costing approach can be considered more practical in a physician practice setting than in a hospital because the range of activities, and types of costs, is less diverse. Although each specialty and each practice is unique, it is possible to develop a list of activities that would work across all practices in the organization. A hospital, on the contrary, would typically require a unique activity list for each department ABC and EVA are useful tools that can help a company achieve greater success in the current dynamic and competitive business environment. In fact, these tools are quite complementary. ABC can help managers understand the cost and capital impact of their decisions.

EVA provides a link between decisions, performance measures and rewards, which focuses managers on creating value. These frameworks help focus managers on performing better. Regardless of whether

One of these tools has been implemented, the other two should be considered. Managers perform best when they have the information, decision frameworks, performance measures and rewords that motivate them to behave like owners. It is important to have a good strategy, but it is just as important to have managers who are motivated to execute the strategy and produce results.

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