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# General implementation stages of the ABC method in the Small and Medium-Sized Enterprises

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## ABSTRACT

*This article highlights the analysis and implementation stages of the ABC method in small and medium sized enterprises in Romania. It presents the historical development of the ABC method and its implementation issues identified in the economic entities. It stresses the importance of the ABC method to obtain relevant information to management decision-making entities. Emphasis is placed on the analysis type implementation issues: financial, behavioral, technical, informational, managerial, also performance and ownership. Also are proposed and shown the specific implementation stages of the ABC method adapted to small and medium-sized enterprises in Romania. To facilitate understanding of the ABC method implementation in small and medium-sized enterprises in Romania, have been submitted questions whose answers are accompanied by actions designed to enlighten all those involved in the implementation process. The article ends with the results of implementing the ABC method by internationally renowned experts and the author's conclusions about the stages of implementation of the ABC method in small and medium-sized enterprises in Romania. Author's vision is intertwined with visions of managerial accounting specialists offering a wide scope and successful implementation of the ABC method in small and medium-sized enterprises in Romania.*

## KEY WORDS

*Activity-Based Costing, implementation, SME, principles, management accounting*

## JEL CODES

M21, M41

## 1. Introduction

The article refers to the analysis and implementation stages of the Activity-Based Costing method (ABC) in small and medium-sized enterprises (SME's) in Romania. In the literature, most experts have identified as appropriate method for obtaining higher performance, Activity-Based Costing (ABC) method. To achieve its specific implementation according to the ABC method, it proceeds in two fundamental stages that will be examined below. Our objective consists in our attempt to explain and realize the implementation of the Activity-Based Costing method in the small and medium sized enterprises in Romania.

## **2. Literature review**

What is the basic principle of the ABC approach? Principle of the ABC method can be described as follows: *activities consuming products/services that consume resources*. Processes consuming sub-processes or activities that in exchange consume resources. Resources are needed both for carrying out and completion processes, whereas processes consist of activities. If it is possible to measure each stage of the relationship, then the cost is fully defined. It requires gathering relevant information on the consumption of resources and activities in the considered system. ABC method consists in providing more relevant cost information, obtained with much greater accuracy than traditional approaches. The historical development of the ABC method show the following features of it:

1. In the 1980s or the period before implementation of the ABC method were reported some features of the ABC method in some accounting systems, the ABC approach is not identified yet. The systems with ABC type characteristics were considered only traditional more sophisticated systems that were used only for financial and not strategic purposes, most of them being found in Europe.

2. The period between 1980-1985, also called ad-hoc implementation period provides some clarifications: the identification of the ABC approach and recognizing the differences compared to traditional cost accounting methods. The ABC method was considered an alternative to the conventional cost systems and the few existing systems have been developed on an ad hoc basis. It recognizes the fact that the information provided by ABC method is used for financial reporting and less for strategic orientation. There were fears that the full implementation of the ABC method would be in conflict with generally accepted accounting principles (GAAP).

3. The period after 1985, known as structured implementation period specifically identify targets and approaches for developing ABC systems. It recognizes the fact that the ABC method provides strategic insights and should be used as a tool for making decisions. ABC method is no longer considered just a replacement for the existing cost accounting systems, database technology helping to ABC method become much more practical. Through their researches and publications, Cooper and Kaplan have helped spread the ABC method in all business environments.

4. The period between 2000 and present is the time of integration the performance management in the ABC systems. Common aspects and differences are recognized between cost drivers (*Cokins and Capusneanu, 2010*) and critical performance factors. It is continuing the process related to a better assessment of costs, performance measurement and investment justification.

## **3. Research methodology**

### **3.1. Research questions**

This article intends to explore our attempt to identify the general stages of implementation of Activity-Based Costing method in the small and medium-sized enterprises in Romania. In this respect we measured the judgment of the professionals from the area of managerial accounting in Romania, as well as that of managers from various small and medium-sized enterprises. We tried to find answers to the following questions:

1. *Is it possible to implement the Activity-Based Costing method in the small and medium-sized enterprises?*
2. *What are the common applications problems for implementing the ABC method?*

### **3.2. Instruments**

Research planning is focused on the theoretical approach of the implications determined by the development in the issues described by the questions launched at the beginning of the study. For the relevance of the study we used the following instruments: induction, deduction and questionnaires for which two large categories of subjects were considered. The first category is

made of specialists from the area of accounting (management accountants) and the second category is represented by managers of entities (heads of departments, upper management etc.).

### 3.3. Proof and data analysis

The above sample was elaborated on a number of 525 persons, according to the above mentioned categories. Following the centralization of the data, the situation is as follows (table 1):

Table 1. Category of respondents

Voting option	Category of respondents	
	Accounting professionals	Managers of entities
For	80,19%	65,72%
Against	19,81%	34,28%
Total	100%	100%

As one can notice, the largest percentage from the three categories questioned plead for the implementation of the Activity-Based Costing method.

## 4. Implementation methodology of the ABC method

The general methodology of implementing Activity-Based Costing method can be applied to small and medium-sized enterprises in Romania. It consists of two fundamental stages:

1. Analysis of implementation issues of ABC method, and
2. Conducting proper implementation stages of the ABC method.

These organizations should build around the concept underlying the ABC method, an economic model for their type of business to provide solid information, real and relevant to all types of decision making.

### 4.1. Analysis of ABC method implementation problems

The Based on studies made by researchers from European Union and United States of America also based on data collected from different companies of Romania regarding implementation of the Activity-Based Costing (ABC) method, we have been identified few common application problems, as follows (*Briciu, Capusneanu, Topor, Rof, 2010*):

a. *Informational problem*. This problem is based on three critical main factors that lead to failure to implement ABC method, as:

- Huge work volume in collecting information that requires the ABC method;
- Accuracy degree of provided information of the ABC method;
- Confusion in elaboration of other bookkeeping in addition to financial accounts.

Linked to the first factor, many of the accountants are of the opinion that, the ABC method supposes a very large work volume in collecting data, processing and elaboration of situations need different final users. But, what is the reality? First, we must think to a data volume sufficiently significant to provide more accurate information. What will be the detail level of data that should be provided by the accountants as result of processing data? We have two situations: either we choose a very simplified calculation model, and the risk of obtaining deforming information is maximum, or we choose a very complex model, and the chance we obtain accurate information is very high, but the processing costs are also very high. So, we choose none of these solutions. We will choose an intermediary solution based on a rationally model that will highlight the relations between cost relevancy, information significance, data accuracy and necessarily flexibility due to recording consumptions at activity and process level during several administrative periods. We need to have in mind what we lacked in traditionally methods, as visibility, relevance and information accuracy from the managerial accounting. In other words, to avoid a larger processing information volume

and other supplementary costs we must realize a cost calculation system which architecture should be orientated according to final decisions.

The second factor is connected directly to the first factor and depends on the degree of orientation to the final decisions. It must be retaining in this context the famous remark made by the professor Robert Kaplan: *"It is better to be approximate correct than to be precisely incorrect"*. We have two situations: one connected of provisional calculation, another connected to absorption costing. In the case of provisional calculation, the work volume necessary for its achievement is very high, but it must be very correct. In other words, the information must be accurate to be used in the second stage of the absorption costing, where the cost drivers used in the first stage must not change for not having distortion of costs. We need very precise information in any moment!

Many specialists have been wondered, since the ABC implementation method, do we need the Large Register Book? Of course we need, because the ABC method *"is a translator inserted to extract general information and other data; it is used as an optic correcting magnifier that evidences clarity"* (Shields and McEwen 1996). As is known, the ABC method is a direct result of the full costing method (absorbing) which takes into account all direct costs, and the overhead (activities) are allocated based on specific allocation keys. As result, the ABC method uses surrogate for related cost in the case of activities costs. The ABC system is considered as an interface between existent data and tools that follows to be processed with its help. The experienced accountants consider that ABC system, once implemented and adequate maintained in function facilitates enormously the collecting work and processing the obtained information. All depend on the degree of knowledge and accumulated experience in exploitation of the Activity-Based Costing system.

b. *Property problem*. This is a problem that goes beyond accounting. Not accepting and not applying the ABC method because of property lack leads to confusion among the employees and employers. In the most of the institutions and enterprises where initially it was presented the ABC method, it was a pretty big success from the interested specialists, but shortly after adoption and effective implementation of the method, it has came up periodical maintaining problems of the ABC system. Responsibility delegation regarding the ABC's management it reverts more to the workers or direct productive personnel. The difficult problem remains the collecting responsibility and updating information and here it interferes the documentation degree of the departments and direct involved persons. Each department or involved person must know the activity and cost drivers catalogue afferent of it to help to rule the specific methodology of the ABC method, avoiding any confusion and clearly establishing the responsibilities of the persons and departments involved in maintaining the ABC system.

c. *Technical problem*. This problem finds its solution in one of the factors that could lead to implementation failure of the ABC method, namely, the lack of software. The criteria underlying the choice and determination of cost drivers are very important. Two major categories that stand on base of description of different categories of cost drivers are optional (by choice) and defining (determination).

The most of the specialists think that without adequate software, we can't succeed to implement the ABC method, which from the point of view of work volume is particularly complex. It is known very well that 95% represents the effort made to achieve of the architectural ABC system and behavioral changes management and only 5% represents the effort made to implementation of the ABC system with software help. Initially, they thought that is absolutely necessary the presence of new software. If we think well the most of the software is created in a common language. Why spend more money on software if we could adapt the old databases to which we are interested?! The database administrator which is a good programmer can succeed to correlate more data levels creating this way a new program meant to adapt perfectly to the ABC method architecture. In other words we have two options: either call for a specialized firm that can create the needed software, either we use an updated existent database, making a data conversion according to the new requests specifically to the ABC method.

d. *Behavioral problem.* This problem brings out the fact that ABC system doesn't represent only a simple range of data and its analysis. It interacts through employees with of reality calculation technique, financial or behavioral. The ABC technique changes the political landscape of organization.

e. *Performance problem.* This problem is suspected by the majority of employees when it focuses on a new system as ABC. According to it, the unitary costs and benefit margins vary significantly compared with volume based costs. If ABC method is not aligned to the compensation system and performance evaluation, it tends to become in the employees perception just a threat to their jobs.

f. *Financial problem.* This problem is a delicate one. Many of specialist's studies from the area have been indicated as main cause of ABC's system failure implementation the low financial performance of an enterprise. Impossibility of some managers to understand the real nature of costs and its amplitude could lead to ABC's failure implementation before to be tested, developed and implemented as enterprise specifically medium requests. In this case, the cost can be: tangible and intangible. From the tangible costs category are included: design costs, formation, application, maintaining, and from the intangible costs category are included: employee's morale and political decline. How can we obtain a maximum benefit? Among solutions we can remind: practicing prices on products lower than competition, elimination of non-benefit products from range of products, concentration on specific product promotion, practicing product mix that contribute to obtaining of efficiency and increased effectiveness etc.

g. *The problem of competitiveness.* This problem focuses on two directions: competitive degree on internal level and competitive degree on external level. Regardless of using a traditional system or advanced as ABC it won't provide us information about the satisfaction degree of a customer or about control degree of a process from the enterprise. The ABC system can't distinguish very clearly between a new customer and a loyal and satisfied customer of its given services quality. The ABC system, in its ensemble doesn't offer the necessary time for a feedback on elements as efficiency and effectiveness of unfolding activities. The visualization of connections between processes that is unfolding in the enterprise and connective activities contribute to improvement of respective activities performances. Using operational systems along with ABC system it can contribute to successful implementation and functionally maintaining of the last one.

h. *Managerial problem.* This problem is the main reason for failure implementation of the ABC system into an enterprise regardless its size. For a successful implementation of the ABC system we need a powerful team which has to be involved in the project. This project has to be lead by a project director. The ABC project team has to dispose of adequate resources, labor, knowledge and organizational culture being available to learn and improve continuously to contribute on this way to successful implementation of the ABC system into the enterprise and obtaining superior performances. It can appeal to experts or consultants specialized into ABC implementation, so the implementation guaranty is successfully assured.

#### **4.2. ABC implementation stages**

Before starting the implementation of the Activity-Based Costing method (ABC), any manager in the small and medium-sized enterprises would ask himself:

1. *How can I pass from a traditional method such as the stage-based method or the order-based method to a much more advanced method such as the ABC method?*

2. *How shall I start the implementation? How do I reach that what I want to implement?*

The answers to the above questions can be summarized in the route to be covered in order to implement the ABC-method, as follows:

**Stage 1.** Formulation of goals. Here is a set of questions formulated by the management of a company in the small and medium-sized enterprises:

*Question 1. What is the main goal in case of the ABC method?*

Answer SME's: The goal is not a single one. Among the goals we can mention: obtaining accurate information regarding the costs and not only, flexibility, competitiveness, extension of the market share, etc.

*Question 2. Why have we decided on this method?*

Answer SME's: The advantages of the method represent the forte in the choice of the ABC method.

*Question 3. What are the advantages and disadvantages of this method?*

Answer SME's: The above-mentioned ideas highlighted in the paragraph concerning the possibilities of implementation of the ABC method in the SME's of Romania have been taken into account.

*Question 4. What changes can this method bring about in the SME's?*

Answer SME's: There are many changes and on several levels. One of the organization factors refers to the transversal organization of the small and medium-sized enterprises.

*Question 5. Are the end-users of the information satisfied with the accuracy of the data supplied by the ABC system?*

Answer SME's: Taking into account the manner of calculation, by the suitable allocation of the activity costs to the products, on the basis of the cost drivers, the obtained information reflect a cost that is much closer to reality. This cost can be used in the analysis of the steering indicators, used in the SME's dashboard that lies at the bedrock of making efficient decisions by the company management.

After the company management has validated the answers to these questions, it will be probably determined to proceed to the working out and communication of an operation plan (the so-called ABC project) by which the whole enterprise will be involved, starting from the workers to the management.

**Stage 2.** The drawing up of the organization chart according to the transversal organization of the company. In this organization chart there will be included the functional departments or offices grouped according to processes and within the processes, the component activities. A selection technique will be used, meant to reduce the too large number of activities, possibly a reorganization of the activities within the processes. The detailed level of the operations within the activities should not be too deep, but also not too scarce. On the basis of questionnaires collected from the company employees, the centralized information is analyzed by the ABC project team and, based on it; a dictionary of the most important activities is drawn up preliminarily. Besides, data on the cost drivers are collected. At this stage, the following centralizing documents are drawn up: *the activity list (catalogue), the cross matrix activities/offices, and the activity list on strategic segments.*

**Stage 3.** The identification of the possible difficulties met after covering the two stages and the search for future opportunities. In connection with the two aspects, a parallel table containing the following items is drawn up:

*Aspect 1. If the two stages have developed according to the expectations and no problems have occurred.*

Answer–Action: The other stages left until the successful implementation of the ABC method are covered. Further on, the goals are chosen, that will have priority in the new changes necessary for the implementation of the ABC method within the companies of the steel industry. All the established goals will be turned into actions meant to achieve the desired changes in the internal and external environment of the company in the steel industry: the cost determination on strategic customer segments, the determination of much lower costs on the manufactured goods, performed work, rendered services, etc.

*Aspect 2. If problems have occurred after the covering of the two stages.*

Answer–Action: The causes of the nonconformities are searched for. Each stage is analyzed carefully and efforts are made to find the causes that contributed to the occurrence of problems, by using different specific diagnoses.

This stage is of a special importance because it represents that point which can lead us to a successful implementation or to the failure of the implementation of the ABC method. We must make the decision if we continue the implementation of the ABC method (Activity-Based Costing) or if we turn to another method.

**Stage 4.** Testing the correct implementation manner of the ABC method using the information supplied by means thereof. On this occasion, the impact of each initiative, action or project is tested by recording the saved costs as a result of their application or avoidance of their application, the income obtained by the correct application of the activity management principles. Depending on this stage, certain changes are going to be made. These changes can be of various kinds: product designing, cost planning, change of the employees' attitude, team cooperation by exchanging visions and opinions regarding the good development of the activity, the hierarchic reorganization, the change of the suppliers' and customers' behavior.

## 5. Conclusions

In the mentioned article we resorted to simplify the itinerary developed by the ABC method implementation in small and medium-sized enterprises in Romania, as a breakdown by increasing the number of steps should be taken to create an image far too complicated to scroll the whole process. Given the experience of countries that have implemented ABC method in various sectors and in companies of different sizes and performances from practicing this method, we advocate the implementation of Activity-Based Costing method (ABC) in small and medium-sized in Romania that could be an ideal solution for the future.

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