

COST CALCULATION AS AN OPERATIONALIZATION OF MANAGEMENT ACCOUNTING: OPINIONS, OPTIONS AND REALITIES

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ABSTRACT:

Managers need accurate and timely information to carry out pricing, planning, operational exploitation and other types of decisions. Regardless of the level at which he is, the manager manages his area of responsibility, triggers actions that will lead to the realization of effects, only through the consumption of resources. Knowledge and analysis of costs is a fundamental step in establishing an optimal price policy leading to the achievement of the objectives. From this perspective, the paper addresses the importance of cost knowledge and prices calculation methods in terms of managerial advantages and disadvantages. Also, based on a research conducted on a sample of 301 organizations, we aimed to reach the objective of knowing the options regarding cost calculation as operationalization of the capitalization of the information provided through management accounting.

KEYWORDS:

Accounting, cost, management, method

1. The importance of cost determination

The cost represents the finished product obtained from data processing through management accounting, being regarded as a “spokesperson” (Bogdan, 2002) for important indicators used in management, expressing the efficiency of resource management (Ciuhureanu & Balteş, 2012). Starting from the criteria for classifying expenses (simple and complex expenses, direct and indirect expenses, variable and fixed expenses, etc.) and taking into account their managerial utility, the cost can be met in different situations, such as: acquisition cost, production cost (OMFP 1802/2014), distribution cost, administration cost, unit

cost, total cost, full cost, effective cost, default cost (standard), relevant and non-relevant cost (Ionaşcu, Filip & Stere, 2006), direct cost, indirect cost (Jiambalvo, 2020), fixed cost, variable cost, proportional variable cost, progressive variable cost, degressive variable cost, flexible cost, direct variable cost, indirect variable cost, direct fixed cost, indirect fixed cost (Weygandt, Kimmel & Ibrahim, 2021; CECCAR, 2018) average cost, marginal cost (Bătcă-Dumitru, Calu & Ponorîca, 2021).

A special category is represented by hidden costs (Kon, 2007). These are presented in the literature (Sandu, 2001) as opportunity costs (lack of gain generated by giving up a choice) (Henderson;

Caceres-Santamaria, 2019; Yücenurshen, 2021), social (generated by malfunctions involving the need to quantify indicators such as absenteeism, fluctuation, strikes, staff rotation, accidents at work, quality defects) and external. The need for this assessment comes from the fact that they generate loss, found in the account 121 “profit or loss”, by overvaluing items such as wages, time or consumption and not evaluating non-production or non-creation of potential (Henri Savall & Véronique Zardet, 1995 – read by Ionaşcu, Filip & Stere).

Viewed from the perspective of management, cost information, obtained from the application of the calculation stages and the principles of management accounting (OMFP 1826/22.12.2003), is called to translate into value expression the production process and to ensure the performance of management functions (Davis & Davis, 2020). The action of determining the cost thus plays a special role due to the functions it performs in optimizing the decisions of top managers. Maintaining the potential of the activity depends on how the organization managed to recover its cost by selling, and its profitability and pace of development are undeniably conditioned by the amount of difference between the amounts collected from the sale of the products and the costs incurred in obtaining and selling them.

Starting from the principles of cost calculation, a series of procedures used in the calculation were outlined, aimed at the distribution of indirect expenses, the delimitation of expenses into variables and fixed, the assessment and determination of costs related to interdependent production, the determination of cost per product unit.

But what is more important: the detailed calculation of late costs in providing information or a less detailed calculation but with timely information? Starting from this question, one of the primary tasks of managers and accounting professionals is to choose the calculation method that satisfies their informational needs regarding cost

identification and that responds to the information opportunity requirement.

2. Cost calculation methods: advantages and disadvantages

During the evolution of the complexity of the activities and economic globalization, the specialists have created a complex range of methods that can be used in the cost calculation so as to respond to managerial demands and expectations. The presentation of the methods for determining and tracking the costs used in management accounting will not be focused on technical details, considering that there is a diverse bibliography for this aspect. Our aim is to emphasize the managerial importance, the advantages and disadvantages that these methods have as managerial tools for calculating and capitalizing on the information provided through management accounting precisely from the perspective of adopting a pertinent decision regarding the option for one or the other of these:

- The global method, although it simplifies the work of record and calculation, which is also its main advantage, it does not provide relevant information about the internal cost structure and is recommended to organizations that have in their object of activity the manufacture of a type of product/service/work.

- Method of orders. Among its main advantages (Bogdan, 2002) we mention: Ensures the connection between production and sale when the order identifies with the customer; facilitates the organization of launch and tracking of manufacturing when the order identifies with the manufacturing lot. As disadvantages you can recall the following: large volume of work, provides historical information and the actual cost is known late.

- The phased method, although it requires more work and attention, has as main advantage the highlighting of resource-intensive organizational structures, polarizing managers' attention on them.

- The Georges Perrin method (G.P.) ensures the calculation of a cost per product more precisely, allows the optimization of the production structure, draws attention to the hierarchy of costs per product but requires a large volume of work.

- The rate-hour-machine method (THM), the utility of which derives from the fact that it links the cost calculation to the technical equipment of the organization and highlights the cost of operation of the basic machinery, but complicates the accounting and calculation system.

- The standard-cost method fully capitalizes on the concept that potential efficiency is decided in design and carried out in execution. Among the many advantages that it offers: support for the development of budgets; facilitates the delimitation of production expenses to be controlled and the evaluation of the performance of managers and employees; contribute to the establishment of realistic prices and allow for the simplification of cost accounting and calculation procedures; creates the most favorable framework for the introduction of the driving system by exception.

- The per-cost method offers as main advantages (Oprea & Cârstea, 2002) clear establishment of technological links between activities, allocation of responsibilities in each organizational structure, the possibility of rational programming of the activity in relation to the contractual provisions and the possibilities of the organization, identification of critical points, choosing the optimal variant of budgetary forecasts, real-time accounting of production expenses and the timely termination of post-calculation. The main disadvantage is the difficulty of applying the method, which requires a large amount of work, which can be eliminated by implementing an efficient information system.

- The target-costing method involves estimating a cost calculated by a forecast selling price, based on the relationship: Target cost = target price – target profit

(Ansari, Bell & Okano, 2007) and a series of postulates derived mainly from planning (Ionescu, 2009). The advantage lies in establishing the target cost as a starting point for planning and a basis for negotiation between the functions of the organization, being a cost-reducing tool for achieving future competitive prices while increasing the return on investments (Ogushi, 2007).

- The direct-costing method is based on the division of expenses into variables and fixed and consists in the inclusion in the calculation of only direct variable expenses plus general variable expenses, fixed ones being presented only in CPP (Chandra & Paperman, 1976). The method allows the calculation of the contribution margin of each product, thus allowing for detailed profitability analysis with implications for financial performance analysis and decision-making (especially for the substantiation of the investment decision), simplifies the calculation, allows for better control of expenditure. The main drawbacks derive from the large workload, prioritizing the actual cost over the projected one

- The developed direct-costing method (specific cost method) determines a partial cost by withholding for the calculation both variable and fixed own expenses, direct to a product. Thus, the application of the method requires both the separation of expenses into variables and fixed ones and their collection as such, and the sectorization of fixed expenses on the stages constitute in relation to the organizational links (product, place of expenses, section, sector of activity, organization).

- The ABC (Activity Based Costing) method is perhaps the most modern method of cost reduction in correspondence with the optimization of the organization's performance. It is based on the principle that products/services consume activities, activities consume resources and resources consume costs (Gupta & Galloway, 2003) and has as main advantage the fact that it allows the determination of costs by activities

carried out, he is considered “one of the most important innovation in management accounting of the twentieth century” (Gosselin, 2007). “ABC is a powerful tool – but only if managers resist the instinct to view expenses at the unit level” (Cooper & Kaplan, 1991).

Knowing the costs is not enough. Cost can be regarded as a real support of management only to the extent that it is determined on time, realistically, reliably, reliably, relevant and timely, it is considered a management tool. Although it is in the interest of managers to know the costs, research has found that there are currently many organizations that do not have a cost calculation system.

3. Objectives, hypotheses and variables of selective research

Cost information is not the only necessary factor, but it is an important, if not crucial, factor that the manager cannot ignore. The fact that the decision-making process does not involve all costs, but only those that are dependent on the parameters of the problem, the management accounting information subsystem must ensure that information is obtained and provided on time and in quality conditions.

In order to know the perception regarding the knowledge of the options regarding the calculation of costs, the Q1 objective was formulated in the selective research, conducted on a sample of 301 organizations in the Center Region.

The objectives, hypotheses and variables used to conduct the research are presented in Table no. 1.

Table no. 1
Objectives, hypotheses and variables of the research

Main objective (Q) / Secondary objective (Qs)	Main hypothesis (IP) / Secondary hypothesis (IS)
Q1 knowledge of the options regarding cost calculation as operationalization of the capitalization of the information provided through management accounting.	IP40 – most have implemented a cost calculation system. IP41 – the overall method is most often used for cost calculation and hidden costs are included in the calculation of a very low weight.
QS1 determining the degree to which the implementation of a cost accounting system is influenced by the category of organization and the field of activity.	IS27 – the implementation of the cost calculation system is dependent on the category of the organization and the field of activity.
Variable 64. is a cost calculation system (management accounting system) implemented within your organization? Dichotomic/single response ☐ da ☐ no, but we intend, why? ☐ no, why?	
Variable 65. What are the methods used by your organization? in the cost calculation?/ Multihotomic/ mixed with multiple response ☐ standard-cost method; ☐ target-costing method ☐ method of orders; ☐ direct-costing ☐ phase method; ☐ global method. ☐ ABC method; other, which?	
Variable 66. In the cost calculation, your organization does it also take into account the hidden costs (opportunity, social, external)? Dichotomic/single response ☐ da; ☐ no, but we intend, why ☐ no, why?	
Variable 2. Organization category	
Variable 1. Field of activity	

4. Research results: knowledge of cost calculation options

To begin with, we aimed to *identify the degree of implementation of a cost calculation system* through the operational variable v64. The primary information

obtained is presented in Table no. 2. Within the central objective, we formulated the secondary objective **QS2**, to achieve which we associated the variable v64 cu v2 and v1, the information obtained being rendered in Tables no. 3 and 4.

Table no. 2
Implementation of a cost calculation system

Valid	301	Percent	Valid percent
	Yes	48.50	48.50
	No, but we intend, why?	30.23	30.23
	No, why?	21.26	21.26
	Total	100	100

Table no. 3
Cost calculation system by category of organization

Opinion	Category				Total %
	micro	small	medium	high	
Yes %	24.32	48.81	100.00	100	48.50
No, but we intend %	39.19	36.90	0.00	0.00	30.23
Not %	36.49	14.29	0.00	0.00	21.26
Total %	100	100	100	100	100

Table no. 4
System of calculating costs according to the field of activity

Opinion	Field of activity				Total %
	trade	industry	services	agriculture	
Yes %	39.34	88.00	32.26	60.00	48.50
No, but we intend %	13.11	12.00	46.45	20.00	30.23
Not %	47.54	0.00	21.29	20.00	21.26
Total %	100	100	100	100	100

Data processing reveals that only 48.50% of surveyed organizations say they have implemented a cost calculation system, 30.23% do not have such a system but plan to implement while 21.26% do not show any future interest.

The analysis by category of organizations shows that the large and medium-sized organizations have a total calculation system, while in the case of small organizations the share drops sharply to 48.81% and reaches 24.32% for micro. The intention to implement is manifested in the case of 36.90% of small organizations and 39.19% for micro. We note the high 36.49% share of micro organizations that say they do not intend to resort to cost calculation, a situation that we consider unacceptable from a business perspective.

Industry-based analysis shows that industry organizations are most aware of the need to know costs, 88% of them capitalizing on accounting information in this direction and 12% showing their

intention in the future. For managers of trade organizations, the cost issue is not a priority, with only 39.34% using calculation methods, while 47.54% do not consider it necessary. We recall that a mere percentage application of trade add-on does not mean trade. Every activity has a multitude of other expenses, usually indirect (salary and related contributions, utilities, rents, interest expenses, expenses on the provision of services performed by third parties, depreciation of assets, etc.) which, if not identified and included in the final cost, remain uncovered and translated into the loss recorded. The services sector is better off, as 32.26% of organizations calculate their costs and 46.45% plan.

The correlated analysis of the data leads to the validation of the secondary hypothesis IS27 – *The implementation of the cost calculation system is dependent on the category of the organization and the field of activity.* However, the final conclusions lead, unfortunately, to the

invalidation of the general hypothesis *IP40 – Most organizations have implemented a cost calculation system.* However, it is interesting to note that despite the fact that many of the surveyed organizations do not calculate their costs, they still regard management accounting as an informational necessity for management.

The organization of management accounting must be one of the main

objectives of managers to determine, as accurately and in a timely manner, the costs related to the achievement of the organization's object of activity. In order to identify the cost calculation methods used in the investigated organizations, the operational variable v65 was formulated in the questionnaire, the collected data being centralized in Table no. 5.

Table no. 5
Cost calculation methods used

A. Standard-cost method				
Total	301	Frequency	Percent	Valid percent
	Unmentioned	119	39.53	81.51
	Mentioned	27	8.97	18.49
B. Phased method				
	Unmentioned	142	47.18	97.26
	Mentioned	4	1.33	2.74
C. Method of orders				
	Unmentioned	68	22.59	46.58
	Mentioned	78	25.91	53.42
D. Target-costing method				
	Unmentioned	141	46.84	96.58
	Mentioned	5	1.66	3.42
E. Global method				
	Unmentioned	83	56.85	56.85
	Mentioned	63	43.15	43.15
F. ABC method				
	Unmentioned	127	86.99	86.99
	Mentioned	19	13.01	13.01
G. Direct-costing method				
	Unmentioned	144	98.63	98.63
	Mentioned	2	1.37	1.37
Total		146	48.50	100
Missing system		155	51.50	

The analysis carried out highlights that of all the organizations that have implemented a cost calculation system, the global method is most often used (43.15%), the option being followed at a considerable distance by the order-by-order method (mentioned by 25.91% of respondents) and the standard-cost method in the case of 8.97% of the surveyed organizations that calculate their costs. Although the ABC method is considered particularly useful, being regarded as a performance management tool which led to the development of ABM, only a share of 13.01% of the valid surveyed

organizations use it.

At the basis of the managerial decision are also the so-called “hidden costs”, which can be individualized in the form of opportunity, social or external costs. In order to establish *the degree of integration of hidden costs in the calculation system and in management accounting*, the operational variable v66 was formulated, the information obtained being presented in Table no. 6. The analysis was detailed by associating v66 with v2 - Table no. 7, and v66 with v1 – Table no. 8, to achieve the secondary objective QS1.

Table no. 6
Integration of hidden costs into the cost calculation system

Total	301	Percent	Valid percent
	Yes	26	8.64
	No, but we intend, why? _____	34	11.30
	No, why? _____	86	28.57
Total valid		48.50	100
Missing system		51.50	

Table no. 7
*Integration of hidden costs in the cost calculation system
depending on the category of the organization*

Opinion	Category				Total %
	micro	small	medium	high	
Yes %	0.00	4.88	21.15	76.47	17.81
No, but we intend %	0.00	34.15	32.69	17.65	23.29
No %	100	60.98	46.15	5.88	58.90
Total %	100	100	100	100	100

Table no. 8
*Integration of hidden costs in the cost calculation system
depending on the field of activity*

Opinia	Field of activity				Total %
	trade	industry	services	agriculture	
Yes %	12.50	24.24	14.00	0.00	17.81
No, but we intend %	29.17	21.21	24.00	16.67	23.29
No %	58.33	54.55	62.00	83.33	58.90
Total %	100	100	100	100	100

The processing of the obtained data highlights that out of all the organizations that have implemented a cost calculation system, only 8.64% highlight the hidden costs. The limitation of highlighting is primarily due to the fact that until now this possibility has not been realized. In the category of other reasons, the probable calculation difficulties due to both the information technologies and the human resources involved, the non-identification of these costs were also mentioned. The respondents also mentioned that they were not aware of this possibility.

Through the analysis according to the category of organizations, we find that most of the large ones (76.47%) take into account the hidden costs in the calculation system, the weight decreasing as the size of the organization decreases (21.15% of medium-sized organizations, 4, 88 from small organizations). Depending on the

field of activity, organizations from industry are the ones that most often include hidden costs, with a weight of 24.24%, followed by those from services (14%) and trade (12.50%). The comparison of the variables leads to the validation of the secondary hypothesis *IS28 – The integration of hidden costs in the calculation depends on the category of organizations and depending on the field, their finding is identified especially for the industry.*

In conclusion, the hypothesis formulated before the research (*IP41 – For cost calculation, the global method is most often used and hidden costs are included in the calculation by a very small percentage of organizations*) is validated.

5. Final conclusions

Following the surprised aspects, the general conclusion is that the management

accounting must be one of the main objectives of the managers in order to determine, as accurately and in a timely manner, the costs related to the achievement of the organization's object of activity.

Although the usefulness of cost information is indisputable for management, the research revealed that only 48.50% of the surveyed organizations declare that they have implemented a cost calculation system, 30.23% do not have such a system but intend to implement it, in while 21.26% do not show their future interest either. The implementation of the cost calculation system depends on the category of the organization and the field of activity. Most often, the global method is used and the hidden costs are not

integrated, the main reason being that until now this possibility has not been realized.

However, a simple knowledge of the costs is not enough. The cost can be appreciated as a real influencing factor on the managerial decision, only to the extent that it is determined in a realistic and timely manner, thus materializing in a pertinent cost. Considering the confidential nature of the information provided by management accounting and implicitly those related to costs, we believe that there is no impediment for managers of organizations to ensure that they obtain real and correct information. We recommend managers to try to focus more on using the ABC method because it is not just a calculation method but a performance management tool.

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