"Ovidius" University Annals, Economic Sciences Series
Volume XVII, Issue 2 /2017

Impact of Costing and Cost Analysis Methods on the Result of the Period: Methods Based on Partial Cost Theory

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Abstract

Cost diagnosis is a tool for controlling, regulating, and piloting an enterprise's performance in a competitive economy. Understanding the complete and complex analysis and perceived investigation of resource consumption in an enterprise requires: a good knowledge of subordinate concepts, cost typology, cost analysis methods, calculation methods and unit cost analysis, implicit the cost and strategic decision of the enterprise.
Looking from this perspective, in the present paper we have proposed that objectives, to approach the full cost calculation methods based on partial costs (direct-costing on the product or direct-costing evolved), and comparing them to determine the effect they have on the outcome of the period.

Key words: partial cost, variable cost, fixed cost
J.E.L. classification: M41

1. Introduction: theory of calculation and cost analysis methods based on partial cost theory

In economic theory and practice, highlighting resource consumption at the enterprise level or at its various specific structures is done through a system of indicators based on the "expense" and "cost" categories. *Expenses* are the amounts or amounts paid or payable for: the consumptions, works or services provided by the patrimonial entity; staff costs; the performance of legal or contractual obligations by the patrimonial entity, etc. *Cost* is the expression of all resources consumed by a particular asset or service of a patrimonial entity.

Unlike price, which is a << reality >> for a transaction, cost is << a choice >>, with the company being free to decide on the method of calculating costs. This choice is fundamental because it directly affects the outcome of the exercise.

Cost accounting information is provided by financial accounting. This allows the identification and measurement of resources consumed by the enterprise over a given period. Financial accounting only provides for a total expenditure tracking by nature, without providing any indication of the destination of these expenditures, is their distribution over products, services, units, types of activities. This identification of expenditure by destination requires an analysis of the internal value-creation process, which is the objective of analytical accounting (Toma, 2003, p.110-111).

The economic theory and practice is operational, depending on the purpose of the analysis and the specificity of the field, and the criterion of structuring the expenses according to their behavior versus the volume of activity in:

- *Variable costs*, is dependent of the volume of activity, are the consequence of the operating decision, the use of the existing production capacities;
- *Fixed costs*, is independent of the volume of activity, indispensable to the existence and operation of the enterprise, and are the consequences of the investment decision.

The importance of this grouping criterion in costing and cost analysis lies in the fact that it is the basis of the "direct-costing" method of cost forecasting and provides information necessary to substantiate price decisions and optimize the company's various strategies. Knowing the variable

and fixed costs and their evolution is essential for the strategic direction of the firm. The Fixed Expense Structure Ratio determines the firm's profitability and flexibility threshold and puts it in a more or less sensitive position as regards the variation in the volume of activity under internal and external factors.

The different methods based on partial cost theory are based on the same principle: the inclusion in the cost of a product or service of only part of the resource consumption considered pertinent to the management process.

The most common methods based on partial cost theory are:
- Variable cost method (« direct-costing »);
- Direct cost method (Niculescu, 2003, p.255)

1.1. Variable cost ("Direct-costing") method is based on the grouping of fixed and variable costs and the inclusion in the actual cost of the product of only the variable ones. Fixed expense is considered to be the period that affects the size of the margins. « Direct costing » method has undergone in the meantime modifications and adaptations to the needs of economic practice, presenting itself in the following forms:
- simplified direct-costing (product or global)
- direct-costing evolved.

In the case of the direct-costing method on the product, fixed costs are considered as an indissociable one that is not distributed over products but over a period of time. Therefore, they directly affect the result of the period without intervening in the calculation of costs on products, services, activities, etc. For each product, service, activity, etc. the turnover is diminished by the amount of the related variable expenses, resulting in the variable expenses margin. This margin must cover the firm's fixed costs and allow for a certain result.

Global direct-costing method is based on the same principles outlined above, with the exception that the investigation is made globally at the enterprise level, and variable costs are tracked in exploitation phases.

Increasing the share of fixed costs has made the notion of variable margin to lose its relevance. This has led to the development of the evolved direct-costing method, the peculiarity of which consists in identifying fixed costs of that specific part of the various products and determining the contribution margin. The hierarchy of products according to the contribution to the expenses can eliminate the unprofitable ones. But this removal is not self-sufficient, as long as the abandonment of a product does not suppress some of the structural expenditure, the margin of other items may become insufficient to offset all fixed costs.

So, direct-costing method allows for the determination of more relevant performance indicators, such as: contribution margin, variable margin, analytical result of the period. By determining the contribution of each product to the margin and by comparing the revenue with the product costs, it is the basis of the commercial and pricing policy.

1.2. Direct cost method is another limiting method whose approach is similar to the direct-costing method, it does not aim to determine the cost of each product but to calculate and analyze the total result at the level of the enterprise.

The indicators to be calculated and on which the conclusions of the analysis are based are those presented in the direct-costing method (gross profit margin, equilibrium threshold, safety margin, etc.), but in their calculation, the separation of expenditures in direct and indirect.

The direct cost approach has the following advantages: it avoids the difficulty of accurately separating fixed and variable expenses and avoids the difficulty of allocating indirect costs. The use of this method aims at calculating the unit cost of production based on direct costs only, its analysis contributing to the direction of the production process decisions (Ionescu, 2016, p.125-126).

2. Case study on methods of costing and cost analysis based on partial cost theory

To exemplify the impact of the partial cost method (simplified or evolved) on the result of the period, we accept the simple case of an enterprise that manufactures and markets two P_1 and P_2 products for which the following consumption was recorded:

2.1. Calculation of cost and result using the simplified direct - costing method

Table no. 1 Determination of unit production cost

Nr. Crt.	Indicators	P 1	P 2	Total
1.	Production costs variabil (ron)	24.000.000	26.000.000	50.000.000
2.	Unitary production cost (ron/pcs)	8.000	10.000	-

Source: Adaptation and processing after Niculescu, 2005, 153

Unitary production cost = Production cost / Quantity produced
Stored production = 1000 pcs * 8.000 ron/pcs +600pcs*10.000 ron/pcs =14.000.000 ron

Table no. 2 Determining the result of the period

Nr. Crt.	Indicators	P 1	P 2	Total
1.	Turnover (ron)	35.000.000	33.500.000	68.500.000
2.	Variable costs (ron)	16.900.000	21.300.000	38.200.000
	~ of production	16.000.000	20.000.000	36.000.000
	~ of sales	900.000	1.300.000	2.200.000
3.	Variable expenses margin (ron)	18.100.000	12.200.000	30.300.000
4.	Fixed costs (ron)			32.320.000
	~ of production	-	-	19.420.000
	~ of sales	-	-	12.900.000
5.	Result of the period (ron)			-2.020.000

Source: Adaptation and processing after Niculescu, 2005, 154

Variable expenses margin = Turnover – Variable costs
Fixed production costs = Direct production costs + Indirect Production Expenses =
= (4.500.000+2.600.000)+12.320.000=19.420.000 ron
Fixed out selling expenses = 7.500.000+5.400.000 = 12.900.000 ron
Period result = Variable expense margin - Fixed expenses

2.2. Calculation of cost and result using the direct - costing method evolved

Table no. 3 Determination of unit production cost

Nr. Crt.	Indicators	P 1	P 2	Total
1.	Production cost (ron) ~ variables ~ fixed direct	28.500.000 24.000.000 4.500.000	28.600.000 26.000.000 2.600.000	57.100.000 50.000.000 7.100.000
2.	Unit cost of production (ron/pcs)	9.500	11.000	-

Source: Adaptation and processing after Niculescu, 2005, 155

Unit production cost = Production costs / Quantity produced
Stored production = 1000 buc * 9.500 ron/pcs + 600 pcs*11.000 ron/pcs=16.100.000 ron

Tabel no. 4 Determining the result of the period

Nr. Crt.	Indicators	P 1	P 2	Total
1.	Turnover (ron)	35.000.000	33.500.000	68.500.000
2.	Variable costs (ron) ~ of production ~ of sales	16.900.000 16.000.000 900.000	21.300.000 20.000.000 1.300.000	38.200.000 36.000.000 2.200.000
3.	Variable expenses margin (ron)	18.100.000	12.200.000	30.300.000
4.	Fixed direct expenses (ron) ~ of production ~ of sales	10.500.000 3.000.000 7.500.000	7.400.000 2.000.000 5.400.000	17.900.000 5.000.000 12.900.000
5.	Contribution margin (specific margin) (ron)	7.600.000	4.800.000	12.400.000
6.	Common Fixed Costs (Indirect) (ron)			12.320.000
7.	Result of the period (ron)			+ 80.000

Source: Adaptation and processing after Niculescu, 2005, 155

Fixed direct production costs = 4.500.000/3.000*1000 şi 2.600.000/2.600*1000
Contribution margin = Variable expense margin - Fixed direct expenditure

3. Conclusions and Proposals

We present the synthesis of the results obtained by the two variants of the partial cost calculation method:

Table no. 5 Synthesis of the results obtained by the two methods

Method	Result of the period (ron)	Value of stored production (ron)	Fixed costs attributed to stored production (ron)
Direct-costing simplified	-2.020.000	14.000.000	0
Direct-costing evolved	+ 80.000	16.100.000	2.100.000

Source: Adaptation and processing after Niculescu, 2005, 156

The method of calculating costs directly affects the result of the period. Stored production does not affect the result of the period because it is at the same cost (production cost) on both revenue and expenses. Recent developments in development strategies highlight the general concern to optimize resource consumption under the conditions imposed by competition.

Competitive struggle wins the one that ensures the best ratio between the cost of the product and the value perceived by the consumer for which he is willing to pay.

4. References

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