

ALTERNATIVES OF THE HISTORIC COST IN THE EVALUATION PROCESS OF QUALITY COSTS

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Abstract: The presence of the competition within various fields of activity constrains the economic entities to pay increased attention to the problematics concerning the quality of the products or the services granted to consumers. In this context, the credible evaluation of the quality cost inclines to become a major concern for all economic operators. This study is based on some working hypothesis which, among others, aim the fact that, on one hand, the date which represent the base of the determinations realized in order to evaluate the quality cost are based on the principle of historic costs and, on the other hand, the specialty literature shows some failures of the information expressed under this form. Starting from these realities, the research undertaken brings into discussion the possibility of using other evaluation bases which shall be considered in order to obtain the data needed for the credible determination of the quality cost.

JEL classification: M40, M41

Key words: evaluation bases, methods based on evaluation, quality cost, advantages, disadvantages

1. INTRODUCTION

Since the environment in which the economic entities activate is a competitive one, we assist to an increase of the concern showed by it for the general problem of quality. The entities which manufacture goods and also those which carry out their activity in the services field are forced by the manifestation of the competition, more and more severe, to optimize their processes which represent the base for the increase of their quality, thus the financial results obtained, translated into increases of the market shares and of the sales volume, be as good as possible.

Although there is a tendency to think that the determination of the quality costs is a difficult approach, without benefits, both the specialty literature and the practice from the field show a series of advantages which can be generated by this process at the entity's level. Thus, Mironeasa and Mironeasa (2009, p. 59) illustrate such advantages,

among which are mentioned only few of them, more representative: the support of the grounding process of managerial decisions; the identification of processes, products or services which need improvements and the support of the approaches aiming their correction; the creation of some opportunities in order to reduce the costs from the entity's level; the control of costs and the use of resources; the identification of the losses from the entity's level and the optimization of financial results etc.

As a consequence, we can mentioned the fact that, trough the general concept of quality cost is defined an indicator which reflects, in a specific manner, the entirety of the efforts made in order to maintain and to increase the quality, but also the losses which have as a cause the non-quality, without omitting the actions to be realized in order to rectify the existent situation.

Considering the fact that the meeting of the desired quality level shall be realized in strong correlation with the obtainment of the efficiency and of financial results expected, we can state that appears the need for finding an optimum between the generated costs and the quality obtained. In this context, the quality cost is associated, for many times, with an assembly of costs referring to aspects which concern, on one hand, the conformity costs, detailed in prevention costs and evaluation and control costs and, on the other hand, the non-conformity costs, which are delimited in internal and external costs regarding the non-quality.

The quantification of these costs, as they were previously grouped, supposes the realization of some fundamental approaches on data expressed in monetary rate, supplied, for the most part, by the accounting evidence of the entity. Under these conditions, we cannot allow for the fact that the recognition process of the elements from the annual financial statements act on the quality of the information supplied by the accountancy by means of the influences exercised, equally, by the principle of the historic cost and the principle of monetary quantification. The registration, in accountancy, of the assets, of own capitals and of debts is realized, according to the historic cost principle, at the entry (origin) cost, consigned in the justificatory documents, which is unchanged until de-recognition, except the situations when it is replaced with another cost or changed through reevaluation.

This historic cost represents a true value established on their entry in the entity and, in monetary terms, it means the effort realized in order to bring the good within the company and, if we report to the General conceptual framework for financial reporting, elaborated by IASB (2011, p. 50), it represents *"the evaluation base most frequently adopted by entities in the elaboration of financial statements"*.

2. OBJECTIVES

Although it represents the evaluation base most frequently adopted for the elaboration of financial statements and it has the advantage that it indicates the true value of the elements from the date of their recognition, the historic cost can subsequently generate certain failure, especially in case of the economics affected by an accentuated fluctuation of prices, materialized in the reflection of a value which is not current (true) anymore, but a value expressed in a previous purchase power, exceeded. Under these conditions, we can find the influence of the monetary quantification principle because of the unstable feature which the monetary rate can have in time, determined by the variation of its purchase power. Thus, under the conjugated action of the two principles, the balance structures are submitted to the loss of synchronism effect between the evaluation by the occasion of the initial recognition, based on the historic

cost, and the evaluation realized by the occasion of the derecognition, based on current value.

Starting from the reality that, on one hand, for the most part, data which is processed in order to determine the quality cost is obtained under the conditions of use, as evaluation base, of historic costs and, on the other hand, the use of this evaluation base shows considerable failures, our study aims to illustrate possible alternative solutions, whose application contributed to the significant elimination or diminution of the disadvantages previously signaled.

Among the multitude of evaluation bases which the literature brings into discussion, in our analysis we'll refer to the possibility to use the methods based on replacement (evaluation) costs, which are characterized by the fact that they present balance structures in current values, respectively in values of the present, they don't consider the historic values, use real bases for their expression and allow that the information provided by the financial statements shows the reality.

3. LITERATURE REVIEW AND PREVIOUS STUDIES

The models based on evaluation are characterized by the fact that they keep the nominal unit of measure, changing the evaluation basis of the assets, the objective aimed being that to get a result by means of which we ensure the maintenance of the operative capacity of economic entities.

A delicate aspect generated by the use of these methods refers even at their essence, respective to the change of the evaluation bases, because the replacement of the historic cost, considered an "expired" value, generates several debates both in respect to the terminology of a wide circulation, and in respect to the change and to the effective use of one of the variants possible from the theoretical point of view.

From the multitude of concepts invoked by the specialty literature, regarding to the problematics of the evaluation bases, we'll extract some examples considered suggestive, axing on the debate and on the aspect of the similitude which exists between various terms, which sometimes generates confusions.

A first category of definitions refers to the main base proposed within the accounting systems in current values, which is considered to be the replacement cost. According to its definition, the replacement cost represents the amount to be spent by the company in order to obtain an identical good or a good equivalent to that submitted for evaluation.

We meet similar definitions in the specialty literature for the notions of current cost, actual cost or current entry price, this last one being delimited, according to Lauzon (1984), in the following two variants:

- reconstitution cost, represented by the amount of money needed for the procurement, from an occasion market, of a good with the same functioning duration, which is in the same stage of use or the amount needed for the purchase of a good which offers the same potential of production as the good evaluated at the putting into service as a new one, to which is applied the related physical attrition rate, without the new good benefit from substantial technological improvements;

- replacement cost, formed of the amount needed for the acquisition of a good with a production capacity superior to the evaluated good, to which is applied the physical and moral attrition rate.

According to another point of view belonging to Belkaoui (1984, p. 229), the current entry price is separated in the following way:

- the occasion cost;
- the reconstitution cost;
- the replacement cost.

Herewith, we considered needed the presentation of the opinion of some authors, among which we mention Muțiu (2002, p. 185) and Ionașcu (1997, p. 156), according to whom, under the conditions of the existence of technical progress, the replacement cost and the current cost cannot be equal.

In what concerns us, we agree with this point of view because we think that, on one hand, the technological process doesn't allow the identical replacement and, on the other hand, the replacement cost refers to the substitution of a good with an identical one from the point of view of performances, while the actual (current) cost is associated with the introduction, inside the enterprise, of a good whose current technical performances are superior to the performances of the replaced good. We consider that this controversial discussion can appear when it's about goods submitted to the moral attrition, because in case of the stocks, for example, the effect of the technological progress doesn't exercise any influence. Eventually, it could be used the notion of current replacement cost in order to determine the financial effort made in order to replace a good with another one, of the same type, but which, because of the recent, or relatively recent, technological discoveries, has improved performances in report to the replaced good.

As a matter of fact, in respect to this problem, in the Anglo-Saxon practice appeared the concept of modern equivalent asset by means of which the current replacement cost also includes an adjustment related to the technical improvements brought to the goods which serve as replacement criteria.

Another category of terms, which are used as evaluation bases within this type of methods, includes the general concept of realizable value and its following particular forms:

- the net realizable value expresses the difference between future collections from the sale of a good and the expenses occasioned by the sale operation;
- the realizable or the clearing value represents the size of liquidities or of the equivalents of liquidities which could be obtained, at the end of the year, through the sale of an asset in normal conditions;
- the current output price expresses the output price which can be obtained in case of the sale of an asset in normal conditions.

Analyzing all these definitions we can notice a similar content determined by the following elements:

- is supposed that the cession of the evaluated asset is realized under the conditions of meeting the principle of the continuity of the activity, but not in extreme situations, such is the liquidation;
- represent an uncertain, theoretical value, which can be defined depending on certain strict conditions, even for the same good;
- the determination of these values is difficult and leads to several interpretations, because it supposes to call the experts and to consult some specialized databases (customs, fiscal, of financial capital markets, etc.), as Țuguî states (2000, p. 108).

Herewith, we also keep the point of view expressed by Muțiu (2002, p. 186) according to which, because of the fact that the adjustment based on evaluation has in consideration the retraction of the assets of the type of immobilizations and stocks, the

realizable value assigned to the stocks aimed for the sale will be maximum and that assigned to the immobilizations will be minimum, this failure making that the realizable (from the market) value not be accepted as evaluation base.

Continuing with the study of the concepts used as evaluation bases within the accounting systems based on the evaluation, we identify a third group of terms, which in the specialty literature received equivalent or quasi-equivalent definitions. We refer to those values which express the updated flows of liquidities to be generated as a consequence of the exploitation of a good in normal conditions, met in the specialty literature with the following denominations:

- updated value;
- economic value;
- current value of net treasury flows;
- net updated value.

The problems imposed by these evaluation bases, under the conditions of their use refer especially to two aspects, namely:

- subjective determinations of future treasury flows which can be generated by a good, with direct influences on the credibility of the evaluation based on the economic value;
- difficulties in establishing the treasury flows for each asset in part, if there is a diversity of units which generate cash.

Among all the values which can be possibly used as alternatives of the historic cost, we appreciate that the most objective one is the current cost, reason for which the methods based on evaluation are also called methods in current costs. In order to determine this current cost, we can use various techniques, among which we mention:

- the most used way for determining the current cost consists in the multiplication of the value of the good to be evaluated with an index of the prices for the respective category of goods;
- the direct appreciation of the current cost by taking information which refers to a certain category of goods from the most recent sources, such as: official or producers price lists, specialized databases, prices from the market of the respective good, price devices etc.;
- the indirect appreciation of the current cost which is principally based on the method of the comparison of the production capacity, the method of the unitary cost on input or output unit and the evaluation method of the productive function, but which, because of the high degree of subjectivity, is less used;
- the updating of the financial flows which will be generated by an asset during its life span remained, at an updating rate specific to the field.

4. THE SPECIFIC METHODOLOGY OF THE MODELS BASED ON EVALUATION

In general, the methods based on evaluation are characterized by some definitive elements, which make them different from the other categories of methods, their general features referring, in essence, to the following more important aspects:

- the adjustment of the values of immobilizations and stocks belonging to the entity, following the calculation of the result adjusted with the influences of certain monetary elements;
- the re-treatment of the value of immobilizations and stocks follows their expression in the current cost from the performance date of the adjustment operation,

by taking into calculation the depreciations, the cost of the sales and of the consumption of corrected stocks;

- in order to perform adjustments, are used specific price indexes of the assets submitted for evaluation;
- the re-treated value of the assets is obtained through the multiplication of their historic cost with the conversion factor calculated as report between the specific index of the prices of the respective assets from the adjustment date and the same index from the entry date into entity of the evaluated elements, the resulting value being compared with the net realizable value of its stock, in case of immobilizations, with their true value, among which the lowest is chosen;
- the generation of two types of gains from the holding of assets, the realized holding gain (CDAR) and the non-realized holding gain (CDAN), which is calculated according to the following relations:

$$\begin{aligned}
 \text{CDAR} &= \begin{array}{c} \text{Expenses corresponding to the} \\ \text{realized revenues, evaluated in} \\ \text{current costs} \end{array} - \begin{array}{c} \text{Expenses corresponding to} \\ \text{the revenues realized in} \\ \text{historic costs} \end{array} \\
 \text{CDAN} &= \begin{array}{c} \text{Assets which weren't consumed in} \\ \text{current costs} \end{array} - \begin{array}{c} \text{Assets which weren't} \\ \text{consumed in historic costs} \end{array}
 \end{aligned}$$

The realized holding gain, named and resulting from the holding of consumed assets, appears as a consequence of the evaluation at current cost, in respect to the historic cost, of the cost of sales, consumptions and depreciations, the difference between the two costs representing for the company a realized economy, because of the accounting of the expenses at historic cost. We shall mention that the value pulse found will affect, meaning will increase, the own capitals by means of a specific account and it won't be recognized in the profit and loss account, in order to maintain the productive capital.

In respect to the non-realized holding gain, also called result from the holding of the assets which weren't consumed, this is generated by the fact that the assets submitted for adjustment weren't consumed, the value pulse thus obtained being transferred in order to keep the capital.

The stages of the methodology which are based on the use of the current cost, as they are showed by various authors, among which we mention Muțiu (2002, p.188-191), are presented, in a suggestive way, as it follows:

1. The re-treatment of the tangible assets and of the stocks from the opening balance consists in the multiplication of the final balance of the accounts of tangible assets and stocks from 31.12.N-1, expressed in historic costs, with the conversion factor calculated as report between the specific index of the prices of the assets evaluated on the opening date of the financial year (31.12.N-1) and the specific index of the prices of the same elements from the entry date into entity.

For re-treatment, the amortization related to the tangible assets (in balance on 31.12.N-1), expressed in historic costs, is multiplied with the same conversion factor with which the respective assets were re-treated.

In respect to the adjustment of stocks, we consider necessary to mention the fact that, depending on the frequency of the entries during the year, the nominator of the conversion factor can be represented by the specific index of the average prices during

the year, if the entries are found during the entire financial year or by the specific index of the prices of each category of stocks from the deliveries date, if the entries are aleatory. Herewith, in case of a certain rhythm of the deliveries can be taken into account the rotation speed of the stocks in order to establish the date of the entry in the company.

The plus difference resulting from the adjustment will be accounted through the delivery of the assets accounts and the lending of the account regarding the capital maintenance reserve.

2. The re-treatment of the elements of the profit and loss account for the current financial year depending on the current cost of the assets which were consumed, of sold stocks, taking into account the conservation of the necessary of monetary floating asset.

a. For the re-treatment of the expenses with amortization is considered that this expresses a linear consumption during the entire year the adjustment being performed according to the relation showed below:

$$\begin{array}{ccccc} \text{Amortization in} & & \text{Amortization in} & & \text{ISP on 30.06.N} \\ \text{current cost on} & = & \text{historic cost on} & \times & \hline 31.12. N & & 31.12. N & & \text{ISP on the entry in the} \\ & & & & \text{company} \end{array}$$

where ISP = specific prices index

b. For the adjustment of the expenses regarding the stocks sold and consumed, we start from the relation:

$$\text{Starting balance (Si)} + \text{Inputs (I)} - \text{Final balance (Sf)} = \text{Outputs}$$

From where results:

$$\begin{array}{ccccccc} \text{Expenses} & & \text{Starting balance} & & & & \\ \text{regarding row} & & \text{in current costs x} & & \text{Deliveries x} & & \text{Final balance x} \\ \text{materials,} & & \text{ISP on 30.06.N} & & \text{ISP on 30.06.N} & & \text{ISP on 30.06.N} \\ \text{materials and} & = & \hline & + & \hline & - & \hline \text{goods in current} & & \text{ISP on the entry} & & \text{ISP on the entry} & & \text{ISP on the entry} \\ \text{costs on} & & \text{in the company} & & \text{in the company} & & \text{in the company} \\ 31.12.N & & & & & & \end{array}$$

c. The determination of the result from the holding of the monetary exploitation floating asset needs, for the beginning, the calculation of the monetary exploitation floating asset (FRME) as difference between exploitation receivables and debts.

FRME variation is due, on one hand, to the increase of the volume of the exploitation necessary of the company and, on the other hand, to the price variations. The first component of FIRME variation is known as a consequence of the adjustments to which the tangible assets and the stocks were submitted. The second component, due to the change of the prices (ΔFRMEP) is determined as a difference between the total variation of FRME expressed in historic costs (ΔFRME) and FRME variation due to the increase of the volume of the exploitation necessary (ΔFRMEV) thus:

$$\Delta FRMEP = \Delta FRME - \Delta FRMEV$$

where:

$$\Delta FRME = \frac{\text{FRME in historic cost on 31.12N}}{\text{ISP on 30.06.N}} - \left(1 - \frac{\text{ISP on 30.06.N}}{\text{ISP on 30.06.N-1}}\right)$$

As a consequence of the performance of all the adjustments, the result of the current year expressed in current costs is determined in the following way:

The result from exploitation in historic costs
(-) The difference from the re-treatment of the expenses regarding the amortization
(-) Differences from the re-treatment of the expenses regarding the stocks consumption
(±) The difference from FRME variation
(=) Result from exploitation in current cost
(+) Financial revenues (inclusively those from the indebtedness rate)
(-) Financial expenses
(=) Current result
(±) Extraordinary result
(=) Gross result
(-) Profit tax
(=) Result of the year

3. The re-treatment of the closing balance of the current financial year involves the adjustment of the assets and the stocks starting from their re-treated value on the opening date of the financial year. In order to get through this stage, we can also start from the value of the assets in historic cost, case in which their value adjusted on the ending of the financial year will also include the adjustments related to the previous year.

5. CONCLUSIONS

Starting from the methodology previously presented we can illustrate certain advantages and disadvantages which it can generate for the entities which take into account the possibility of using other evaluation bases than the historic cost. Their comparative analysis shall be realized considering certain factors, among which we consider that are important those which aim the objectives followed by the entity, the resources from which it disposes, the report costs-benefits, the reporting to the legislation applicable to the entity in cause, the effective implementation possibilities of the methodology, etc.

The conclusions of the analysis performed, regarding the advantages and the disadvantages of using the models based on the replacement cost are presented, in a systematized way, in table no. 1.

The decision regarding the replacement of the historic cost through the calling of this type of methods shall be implemented after the rigorous study of the benefits and failures which they can generate for the entity in cause.

Table no 1 Advantages and disadvantages of the methods based on evaluation

Analysis and comparison criteria	Methods based on evaluation		
	Specific criteria of the method	Advantages	Disadvantages
Objectives followed	To maintain the physical capital.	Allow the conservation of the productive capacity of the company; Meet the requirements of the managers and of the priority employees.	Don't stimulate the investments in conditions of accentuated fluctuation of prices.
Instrument used for re-treatment	Specific index of prices (ISP)	Use specific indexes of the field in which the company operates; ISP use confers objectivity to the method.	Monthly and/or delayed publication makes difficult the implementation of specific accounting treatments.
Complexity level of adjustment techniques	Environment	The effort occasioned by the performance of adjustments is compensated by the procurement of some synthesis documents which reflect more correctly the financial position and the performances of the entity.	Relatively high difficulty degree; Important costs occasioned by the performance of some specific treatments.
Evaluation basis used	Current cost	Allow a permanent re-evaluation of the assets and the debts of the entity.	A high degree of subjectivity; The net realization value cannot be always taken into account, the economic (current) value is determined with difficulty, the replacement cost is used with difficulty in case of the goods for which there isn't a market; It's difficult to determine, in practice, a cost for an identical replacement, because of the technical progress.
Compatibility of data in time and space.	Is ensured the compatibility in time, but not in space.	Ensures a good compatibility in time of the accounting information.	Allow the realization of comparisons only for the entities which are part of the same economic sector, because of the specific price indexes used.
IT processing	-	-	Since needs non-procedural processing, the IT processing of data is not possible.
Fiscal involvements	-	The obtainment of a result inferior to that calculated according to the historic cost, which would favor the entities from the fiscal point of view.	The fiscal legislation is not favorable to the entities which apply the adjustment in respect to the profit tax.
Miscellaneous	-	Is allowed the calculation of some more realistic financial flows.	A large number of inputs and outputs lead to a high volume of work; Suppose the continuation of all the operations regarding the stocks, the immobilizations and the amortizations at the end of each year; Need a complicated analysis of the transfers of stocks and immobilizations between financial years; Certain non-monetary and monetary balance structures aren't taken into account, although the prices fluctuation influences them.

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Acknowledgement: This work was partially supported by the grant number 4C/27.01.2014, awarded in the internal grant competition of the University of Craiova.