
THE IMPROVEMENT OF MANAGEMENT ACCOUNTING AND CALCULATION METHODS IN TOURISM AND PUBLIC ALIMENTATION ACTIVITY

Eugeniu Țurlea¹, Luminița-Georgiana Achim² and Ioan-Codruț Țurlea³

¹⁾²⁾³⁾ *The Bucharest University of Economic Studies, Romania*

E-mail: eugeniu.turlea@cig.ase.ro; E-mail: luminita.achim28@gmail.com;

E-mail: turleacodrut@gmail.com

Please cite this paper as:

Țurlea, E., Achim, L.G. and Țurlea, I.C., 2020. The Improvement of Management Accounting and Calculation Methods in Tourism and Public Alimentation Activity. In: R. Pamfilie, V. Dinu, L. Tăchiciu, D. Pleșea, C. Vasiliu eds. *6th BASIQ International Conference on New Trends in Sustainable Business and Consumption*. Messina, Italy, 4-6 June 2020. Bucharest: ASE, pp. 113-120

Abstract

The traditional methods of costs calculation no longer meet the actual requirements of economic entities management regarding the informational necessities. If we refer at tourism and public alimentation activity, a sector in permanent development, to resist in front of strong competition, it is necessary to implement a method that ensures a careful monitoring of the economic operability and to detect, in real time, the changes that affect the flow of activity. The improvement of calculation methods arose also from the need to realize previsions for the future periods, because the traditional methods don't offer a future perspective of the way of organizing the activity. These benefits can be obtained by applying the direct costing method, which is considered the principal direction to modernize the management accounting. Another type of method are the indicators with forecast value because they make easier the decisional process. This article is focused to highlight the aspects which recommend the application of direct costing method in tourism and public alimentation activity, the usefulness of decisional indicators, the advantages and disadvantages of applying this method.

Keywords

direct costing method, tourism and public alimentation, variable costs, fixed costs, decisional indicators.

JEL Classification

M41, M21

Introduction

In the context of the market economy, the management accounting and calculation methods must respond to requirements of efficient organization of the undertaken activity. For this reason, was necessary to improvement the management accounting and calculation methods, especially those applied in tourism and public alimentation sector, because the managers were faced with their lack of operability and prevision. (Oprea & Călin, 2007)

The strong competition which characterizes the tourism field (Table no. 1) determined the unities from this sector to adapt permanently to new changes, diversifying the facilities offered (Table no. 2) to satisfy the tourists' preferences. In this economic branch, where an unreserved place is lost, an important role is played by expenses correlated with the activity's level, but also the period costs which, although it's not dependent of the volume of activity, in hotelier industry it's has a high value. A comparison made between the two categories of calculation – based on partial costs and complete costs – show off potential disadvantages of „full-costing” method.

The tourism and public alimentation development industry implies improvements of managerial accounting methods applies into entities with hotelier profile. This article presents the way which direct costing method is defined in specialty literature, why we can apply the method in touristic field and how it can contribute to improve the results obtained by a profile unity.

Literature review

The direct costing method was applied for the first time on 1934 in United States of America, later being taken over also by countries from the European continent, such as France, Great Britain and Germany.

On specialty literature, the direct cost (Seiler, 1959) is defined like a concept on the basis of which for the products are allocated only the expenses appeared as direct consequence of production (variable expenses), all others costs being considered costs of period in which they were incurred. Also, Robert E. Seiler mentions in same article that the notion of direct cost is not similar with techniques such as marginal cost or differential cost. The difference between concepts results from the fact that, on comparison with the other two types of costs, the direct cost constitutes a reportation tool of general efficacy of operations of an entity.

At the same time, the specialty literature (Marple, 1995) highlights the differences between direct costing method and absorption costing method. The main noted distinctions concern the way in which costs are divided and the order in which they are applied against income. In case of the absorption costing method we identify production costs and „all others costs”. The production costs are deducted from the net sales in order to obtain a value of gross profit, and all others costs are reduced to reach the desired net profit. In contrast to these, the direct costing method makes a distinction between variable costs and fixed expenses. All the variable expenses recognized by an economic entity are deducted from the net sales with the purpose to reach a certain level of marginal income. Instead, the fixed costs supports the same treatment like all the others costs inside of the absorption costing method.

The direct costing method (Hosick, 1986) represents a technique used in order to expose the costs and the expenses of a business, so that to be presented to the management their impact on the operations, because, in this way, all the costs factors are taken into account in the moment of adopting decisions. In the same time, the direct costing method is based on the idea of knowledge and analyse of general profitability of global results and not full cost, thus contributing to the benefit for each product, contribution given by the result of difference between sale price and cost variables. (Lepădatu, 2013) The costs determined applying the direct costing method are considered more useful in order to establish the prices and the management's decisions and, furthermore, helps to cost controlling.

Although it's also known under the name of variable cost method (Chandra & Paperman, 1976) because in order to determine the cost of products are taken into account only the variable costs in report with production, a major importance must be allocated to fixed expenses. The fixed costs are expenses that don't vary according to the volume of business, but exists in literature the notion of semi-fixed expenses. (Hosick, 1986) Another treatment of fixed costs we find in the book „Managerial accounting”, where the authors groups them in two categories: committed or uncontrollable expenses – remounting at this expenses impacts

the activity of production (rents, depreciations, subscriptions) and relative or controllable expenses – these can be reduced without generate significant modifications and with immediately impact on the activity (publicity, personnel training expenses).

The direct costing method is considered a technique applied in order to satisfy the requirements of modern management. This concept was utilized for a long period of time internal managerial purposes, but in last years has become a basic principle of costs favorable also for external financial reports. (Seiler, 1959) If we ask what determined a quick acceptance of direct costing method in making decisions, Wilmer Wright, in article „Why direct costing is rapidly gaining acceptance?“ presents from the beginning three essential reasons: the information is offered in suitable form in order to establish the decisions, guaranties an improvement control and assure a measure more exactly of income in comparison with traditional methods.

Others arguments that support applying direct costing method make reference to following aspects (Neilsen, 1954): the simplicity of the way of calculation that permits to prepare the reports in a shorter period of time, applies a realist approach into analyze of commune costs, permits both the allocation of costs in time and in accordance with their lines of responsibility, avoid focusing on the production side only, without taken into account all the activities realized at entity level.

Direct costing method in tourism

In order to efficient administration of activity, the managers need to have opportune information's regarding the return and profitability. This information can be obtained only through some specific indicators. The method which offers the necessary indicators to act knowingly is direct costing method.

Another particular aspect of tourism and public alimentation sector is represented by the number of tourists which appeals at hotelier services. The variation of client's number influences the volume of production, which, in turn, is a determining factor in planning of expenses and obtaining the final result. Therefore, all expenses must be analyzed according to their behavior towards the activity level. This is another reason for that the direct costing method is considered the most indicate in touristic segment, because includes in production cost's structure only the expenses which depend by activity volume.

The management effectiveness is demonstrated if to turn to others modern alternatives by which the results of undertaken activity to be knows before finishing the management period. This requirement is not fulfilling by traditional methods of costs calculation, because they don't have a predictive character and don't offers the possibility to make futures analyses. The direct costing method presents indicators with forecast value. Furthermore, to increase the informational power, it takes over elements from the others two methods based on prevision – standard cost and costs center method.

Into the below tables, are presented, on the one hand, figures to highlight a strong concurrence in this economic sector (Table no. 1) and, on the other hand, the facilities types by the managers offers to customers with the purpose to satisfy their actual requirements (Table no. 2).

Every one of these accommodation units is classified by the facilities offered to clients. The degree to fulfil the standards varies from one to five stars (for hotels) and daisies (for pensions), but exist also, tourist structures unclassified on stars or daisies. From the table above, it is noticed an evolution of the numbers of accommodation units between July 2016 and July 2018, with a slight decrease on July 31, 2019. This decrease does not affect the tourism segment, the competitiveness being as high.

Table no. 1 Number of touristic units from Romania between 31 of July 2016 – 31 of July 2019

Accommodation unit	Period of time			
	31 of July 2016	31 of July 2017	31 of July 2018	31 of July 2019
Total:	6.946	7.905	8.449	8.402
Hotels	1.551	1.597	1.633	1.625
Touristic pensions	1.530	1.666	1.709	1.669
Other structures of tourist reception	3.865	4.642	5.107	5.108

Source: National Institute of Statistics, Brochure „Tourist accommodation capacity at 31 of July” 2016/2017/2018/2019 (Capacitatea de cazare turistică existentă la 31 iulie” 2016/2017/2018/2019)

Based on the below table, it is noticed that the tourist structures have substantially diversified their service types, so as to adapt to market requirements. After accommodation, the most important services are, according to the data presented by INS (National Institute of Statistics Romania), parking and restaurant services. A special attention is allocated to business, more and more hotel units make available to visitors their rooms suitably equipped for conferences or other similar activities. The last places in the top of the facilities are occupied by the medical treatment rooms, the food or non-food stores and the cosmetic services.

Table no. 2 Types of services offered by the tourist structures, others than accommodation

Service type	Period of time			
	31 of July 2016	31 of July 2017	31 of July 2018	31 of July 2019
Restaurant and similar	3.932	4.246	4.475	4.391
Pool, sauna	991	1.157	1.259	1.284
Halls or sports fields	811	866	941	925
Conference rooms	1.831	1.921	1.897	1.923
Medical treatment rooms	164	234	237	196
Parking	5.879	6.761	7.208	7.194
Food or non-food stores	191	249	233	194
Cosmetic Services	102	111	107	112

Source: National Institute of Statistics, Brochure „Tourist accommodation capacity at 31 of July” 2016/2017/2018/2019 (Capacitatea de cazare turistică existentă la 31 iulie” 2016/2017/2018/2019)

Direct costing method - primary indicators

Direct costing method arose from the necessity to identification certain calculation procedures in order to guarantee the relative obtaining of production cost and to determine some indicators based on which to be adopted economic decisions suitable to an efficient management of economic activity. The basic indicators of direct costing method with forecast value are unit cost, gross contribution to profit and final result.

The unit cost, calculated as a report between the total variable expenses and the total production obtained, represents a relevant indicator in order to adopt the final decisions, but the analyzes performed based on it need to reflect a faithful image, two aspects are important:

the differentially behavior of the variable costs according to realized analyses (on cost objects or for all activity) and the nature of activity.

The most important indicator of direct costing method is the gross contribution to profit. This indicator reflects the contribution for each cost object to obtain the result or, in other words, the amount remaining from the total value of sales after eliminating variable costs. A special attention must be accorded to fixed costs because, although in basic form of method it's are eliminated from costs calculation, its cannot be considered, entirely, like expenses without any connection with the productive activity of entity. Within the tourism and public alimentation sector certain expenses can be noticed that can be correlate with some phases of the productive activity (these expenses reported to level of production have a fix character): expenses with the salaries of the directly productive personnel, expenses with the amortization of the directly productive equipment's etc. Generally, the gross contribution to profit has positive values. But, when the sale prices cannot cover the variable expenses, the contribution is negative. The negative values of this indicator suggest that the entities unfold an unprofitable activity, lacking the ability to cover the fixed expenses and generate profit. The gross contribution can be calculated on object costs or by total unit.

The last primary indicator of direct costing method is the result calculated as a difference between the gross contribution to profit and fixed costs recorded by the entity. In order to obtain the maxim result, should be respected the next two conditions:

- i. The gross contribution to profit to be maxim;
- ii. The fixed expenses to be minimis (the decrease of fixed costs to minim level not should have consequences on the realization of production activity of unit).

The primary model of direct costing method helps the management of economic entities to adopt the decisions which leading to development and improvement. An added value is offered to this method by price-cost-volume analyze from which results a number of indicators with prevision value.

Price-cost-volume analyze – decisional indicators

The management of economic entities can formulate rational decisions by which obtain the optima results, if starts from idea that both expenses categories – variable and fixed – are in dependence with the volume of activity. This dependence is illustrating through four indicators: the point of equilibrium, the factor of covering, the interval of safe and the dynamic coefficient of safe:

- The point of equilibrium represents the point where the incomes obtained from the production sale are sufficient to cover entirely the variable costs and fixed costs of period recorded by an economic entity, thus, it has not profit, not loss. In other words, the incomes and the expenses are equals, and the result is null.

- The factor of covering express how many percent from all sales are necessary to cover the fixed costs and generate profit. With help of this indicator it can be appreciated the degree of profitability. It is calculated for all production or on object costs.

- The interval of safe shows in monetary units with how much can be diminished the activity so as to not reach the loss area. When the indicator is highest than zero, the production and the sale are profitable, and if it presents negative values, it can reach in loss area. Also, exists the situations when the safe marge is zero, meaning the production and the sale are in point of equilibrium.

- The dynamic coefficient of safe shows in relative figures with how much can be diminished the volume of sales so as to not reach the loss area. This indicator has an important role in decisions regarding the assure the profitability of activity and the establish the capacity of production.

The specific indicators of price-cost-volume analyze presents clear significations and pertinent interpretations which facility the decisional process and contributes to create new improvement directions of undertaken activity by the economic units. The point of equilibrium indicates the stage from which any increase of volume of production generate profit for entity and any decrease of level of sales determines losses, thus the activity become unprofitable. (Oprea & Călin, 2007) Because the factor of covering is calculated both globally and on cost items, this is used to improvement the techniques which assure the manufacturing and the selling of production and presents a substantially contribution to get profit. The last two indicators are utilized in order to determine the risk that an entity to enter in unprofitability area.

The application of direct costing method – advantages and disadvantages

Similar to any other method of management accounting and costs calculation, the direct costing method is associated with a wide range of advantages and disadvantages set out in this section (Oprea, Man, & Nedelcu, 2008).

One of the most important advantage of utilization direct costing method in tourism and public alimentation is confers by three fundamental attributes who governs it: simplicity, efficiency and cost saving. The simplicity derives from the fact that, on establish the cost per product unit, are takes into account only the variable costs, without considering the distribution of fixed costs. This characteristic allows the obtaining, in reasonable time, the necessary information in order to adopt the final decisions. At the same time, the method is efficient and economical since transmits promptly aspects regarding the final result, especially in case of units which have a wide range of products and services and decreases the labor consumption related to the determination of the cost and the final result, thus reducing the expenses generated by getting all of these information's.

Easiness with which are available to management the good information's in order to adopt some pertinent decisions about the occupation policy of accommodation capacity and development policy of activity represents another benefit of applying the direct costing method. Moreover, the direct costing method is a calculation and analyses method, which emphasizes on report between the evolution of expenses and the variation of the physic volume of production, through them classification in variables and fixed. In this way, the control of the management is ensured not only from the perspective of the productive efficiency regarding the center of responsibility, but also from the point of view of the return of the offered services.

Price-cost-volume relationship, applying in direct costing method, favors the management of economic societies because can be calculated certain indicators of return of provided services which contributes at establishing some short-term action strategies. The series of related indicators of price-cost-volume relationship is completed by the point of equilibrium optimizes entirely production and distribution process. The determination of critic point creates the necessary permissions to identify the impact manifested on profit by the volume of activity, on one hand, the variables and fixed costs, on the other hand.

The series of benefits obtained applying direct costing method includes a significantly advantage reported at concurrence from tourism field since can be calculated indirectly tariffs of accommodation at hotel units and sale prices as offer price. Also, this method of calculation assures the bases to formulate some long-term decisions, through determining the point of equilibrium (which helps to conceive short-term action perspectives). These decisions aim, among others, policy of investment, automation of fabrication process, increasing of capacity production (Oprea et al., 2002).

Although it enjoys a large number of advantages, the direct-costing method also presents a number of disadvantages that affect, to some extent, its efficiency.

Thus, must be mentioned the fact that, although are knows many procedures of classification the expenses of production in fixed and variables, such division cannot be made with maxim precision, always existing a certain level of relativity. The justification of the anterior affirmation results from fact that one part from expenses cannot be considered neither fixed, neither variables, they being included on category of semi-fixed or semi-variables expenses, because its change from one interval to another. As a consequence, the unit cost of production and the end result of activity cannot be accurately determined.

Another restriction that limits the efficiency of direct costing method refers at calculating of gross contribution. Indicator with complex character which is composed from fixed expenses of period and from final result, it is not sufficient to supply the complete information's necessary decisions regarding to obtaining and distribution of offered products and services. Although gross contribution has positive values, exist situations when the fixed costs (whose value is known at the end of period) are the highest and the unit presents losses. One solution to avoid such cases would be the correlated application of several indicators that act in administration of the society. Applying direct costing method supposes to evaluate the stocks at variable cost. Because this practice is not accepted by the financial rules which are the basis of the elaboration of the annual financial statements, additional calculations are required. This disadvantage not only characterizes the presented method, so is specific to all the methods that involve the calculation of partial costs.

Based on the above affirmations, the principal conclusion would be that the offered advantages of applying direct costing method weigh more than its limits. In tourism field, applying to this method confers an added value which contributes to improvement the management accounting and calculation of costs. By improving the method would can be eliminated last two mentioned disadvantages, and the advantages satisfy the information needs faced by the management of tourism.

Conclusions

The tourism has developed in the last years, the competition in this sector (according to table no. 1) and the tourists preferences was increasing, all of this determined the entities to diversify the offered services (according to table no. 2).

Applying direct costing method in activity of tourism and public alimentation facility the decisional process through the indicators offered of this. The basic model of method includes three indicators, but the most important of them is the gross contribution to profit. This indicator reflects the extent to which every cost object contributes to achieving the final result and masking the fixed costs. The gross contribution to profit is used in economics analyses because it has as purpose the valuation of obtained performance. The point of equilibrium should not be excluded from the analyses. Starting from the basic formulas, can be calculated other two indicators in order to reach a certain profitability target: the volume of activity so as to achieve a certain profit and the turnover required to achieve a certain rate of profit. Besides the three indicators with decisional value, a series of attributes are associated with the basic model of the direct costing method that reinforces its position as a cost calculation method. Among them, we can find the following: can be considered a method of calculating the results on short time intervals and an easy tool for the management of economic entities and groups the expenses into fixed and variables, the delimitation criteria being their behavior in relation to the variation of the productive volume.

The price-cost-volume relationship in direct-costing method increases the informational power with the following indicators: the point of equilibrium, the factor of covering, the interval of safe and the dynamic coefficient of safe. Although each of them has a substantially contribution to trace the ways to improve the activity, the principal pylon is the factor of covering, which permits, directly or indirectly, obtaining the others indicators.

The direct costing method presents, like any other method of calculation, advantages and disadvantages, but, during all this time period in which it has undergone many transformations, most of the restrictions that limited its operability have been eliminated. Thus, the indicators with decisional and predictive power and the benefits of using it gives the direct costing method a leading place in the category of modern calculation methods applied in the activity of tourism and public alimentation.

References

- Antony, R. N. and Govindarajan, V., 2007. *Management Control Systems*. Twelfth Edition. New York: McGraw-Hill, International Edition.
- Berland, N., 2009. *Mesurer et piloter la performance*, [e-book] Available at: <<http://management.free.fr/publications/Contenu/ebook/bibliotheque.htm>> [Accessed at 14 March 2020].
- Brummet, R. L., 1955. Direct costing - Should it be a controversial issue? *The Accounting Review*, 30(3), pp.439-443.
- Caraiani, C., Dascălu, C., Lungu, C. and Gușe, R., 2010. *Contabilitate managerială*. București: ASE.
- Edwards, D. J., 1958. This new costing concept - Direct costing? . *The Accounting Review*, 33(4), pp.561-567.
- Gotze, U., 2010. *Kostenrechnung und Kostenmanagement*. Berlin: Springer.
- Marple, R.P., 1995. Direct costing and the uses of cost data. *The Accounting Review*, 30(3), pp.430-430.
- Neilsen, O., 1954. Direct costing - The case "For". *The Accounting Review*, 29(1), pp.89-93.
- Oprea et al., 2002. *Contabilitatea de gestiune*. București: Tribuna Economică.
- Oprea, C. and Călin, C.F., 2007. *Contabilitate managerială*. București: Tribuna Economică.
- Oprea, C., Man, M. and Nedelcu, M.V., 2008. *Contabilitate managerială*. București: Didactică și Pedagogică.
- Seiler, R.E., 1959. Improvements in external reporting by use of direct costing. *The Accounting Review*, 34(1), pp.59-66.