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#### Abstract

Globalization, the significant changes in internal and external markets competition, national economy has changed significantly at the micro and macro. Company today is automated and computerized production is high tech, products change and renew continuously, constantly adapts services needs of consumers. Moreover, product life cycle tends to decrease and the competition has evolved from exclusively quantitative criteria (price) to complex criteria, mainly qualitative - product quality, security services. All these changes in the external environment have produced major changes in business management and development of production technologies have often ineffective traditional methods of calculation. Traditional costing methods, in addition to establishing a cost not provide real information and capacity have reduced, not being able to provide information Operative Management of the company to take the best decisions.


JEL classification: M41, M52


## 1. Introduction

Globalization, significant changes in internal and external markets, competition, national economy has changed significantly at the micro and macro. The company today is automated and computerized production is high tech, products change and renew continuously, constantly adapts services needs of consumers.

Moreover, product life cycle tends to decrease and the competition has evolved from exclusively quantitative criteria (price) to complex criteria, mainly qualitative product quality, security services. All these changes in the external environment have produced major changes in business management and development of production technologies requires adaptation of methods of calculation and management as a management tool.

## 2. METHODS OF COST CALCULATION- GENERAL CONSIDERATIONS

In the literature, the method of cost calculation is defined as the set of methods and computational techniques used in a certain sequence for cost carriers affect only production costs incurred to obtain or produce them.

Over the costing methods have evolved in conjunction with the specific activity and development of production techniques and technologies are divided into two main categories:

- classical methods (method global phase method, the method controls) and
- modern methods (advanced) costing (standard-cost method, direct method costing, marginal cost method, the method PERT - cost, method THM, GP method, etc..).

Regarding the choice of method of calculation of costs for businesses of fruit and vegetable canning industry, the approach should take into account the specific features of business and technology of production, namely:

1. Production is closely linked to agricultural production period of business is seasonal, realizing only in those times of the year generally corresponding to the periods in which the raw material.
2. The raw materials are mostly biological products, perishable and degradable, are subject to rapid depreciation which requires the processing to be done in short time and with maximum efficiency.
3. The raw material used is physical, chemical and biochemical, which requires the initiation of heterogeneous technology with the operation of mixing - mix of raw material composition of two or more lots with different quality indicators, in order to ensure uniform processing of point quality. Moreover, the wide range of characteristics of raw materials requires continuous change and hence the production parameters used in calculation of cost indices.

The approach of choosing the optimal method for calculation of costs for undertaking the production of canned vegetables and fruit to start with the analysis of different costing methods, namely:

Global Method - Calculation method or simple known as division method is applied according to the literature by producing a single product entities to which the rule at the end of the reporting period, semi-finished or unfinished production there, and if There are the same from one exercise to another.

The method is not applicable to enterprise production of canned vegetables and fruit because it produces many types / kinds of products made from different mixes of raw materials.

Phase method, according to the literature is used in economic units whose purpose is mass production, where to get finished products in the manufacturing process to go through several phases, such as light industry, food, chemical, mining, ore. The method is applied in many industry cases of canned vegetables and fruits.

The method applies to orders according to the literature in units with individual or small series production, ie where production has a unique character.

Given the wide range of characteristics of the raw materials necessary to modify the parameters of production continues, it is difficult to apply a method for making canned vegetables and fruits.

The direct method - costing is difficult to apply in the production of vegetables and fruit conerve, since the method involves, according to the literature, fixed expenditures into a separate collection account and passing them on Calculation results by avoiding costs.

Marginal cost method is applicable to small businesses vegetables canned fruit as it allows the study of variation in all types of expenses, depending on fluctuations in activity, to assess the incidence, to the comprehensive income. The method is used for limited periods of time / limited production lots to determine at what price can launch additional production batch / command and how to maximize the result further in this case.

Method PERT - cost is primarily aimed at establishing minimum or optimal cost of the work or product in terms of a fixed duration of execution and has reduced scope for undertaking the production of vegetables and fruit conerve.

THM method involves, according to the literature, rational distribution of indirect costs on each car or group of machines and requires the correct time cost of operating your car, THMs. The method has reduced scope for undertaking the production of vegetables and fruit conerve.

Georges Perin method (GP) requires the specific methodology according to the literature to find a commensurate small production units, called GP, which is an index of equivalence established in advance by calculation and production costs necessary to express a unit of production most representative of enterprise product, the product considered. Since all of the enterprise products in production of vegetables and fruit are conerve main products, with no by-products, such equivalence does not have application.

## 3. METHOD OF CALCULATION ON PHASES AND WORK STAGES

Among the different types of methods discussed above, the method of calculation the phases and stages is the easiest to apply in companies in production of canned vegetables - fruits because they are directed towards mass production, as to obtain the finished product takes up in the manufacturing process more phases.

Calculation object is the product / canned fruits and vegetables covered stages in the manufacturing process it. Production costs are recorded in accounts monthly on each phase, so that the end of the reporting period, by aggregating all costs, the last phase of production to obtain the actual unit cost of the finished product.

Calculation steps are working on phase calculation method are:

- establishment and delineation phases costing, direct costs, collection phase of the indirect calculation and homogeneous sections; indirect cost allocation between two or more products final phase obtained in the same calculation; calculating the unit cost of domestic semi-phase calculation, production expenses, determination in progress; calculate the cost per unit of product.


## 4. The features of the enterprise from the fruit canning industry

Analysis of the cost calculation method chosen - the phase calculation method described below gelificate preserved by sugar products (jams, marmalades, etc, with added pectin).

Gelificate sugar canned product, manufacturing process technology includes the following phases: washing, automated process, sorting and cleaning, automated process, division, automated process, product preparation, automated process, washing containers, automated process, pasteurization, packaging containers full, automated process, storage.

Preparing the product is the most important phase of the process and includes the following steps: composition batches, prepare solutions of pectin, boiling fruit with sugar direct (or sugar syrup) or, prior distribution of fruit and sugar, concentration the product.

Collecting direct costs calculation phase involves the collection costs fruits, sugar, pectin, citric acid, production department staff wages, consumption of natural gas and electric power technology in the preparation stage of the product, collecting expenditure stage dosing containers and closing.

Collection of indirect costs on sections involve homogeneous water distribution technology spending in the washing stage, amorisment; conditioning costs containers full pasteurization, storage costs, staff salary expenses TESA.

Allocation of indirect costs between two or more finished products obtained in the same stage of calculation. Calculation of unit cost of domestic semi-phase calculation;

Method of calculation phases is easy to implement and use at the level of canned vegetables and fruit production but with the diversification of production in several varieties, usefulness and applicability of the method has certain limitations.

Like all traditional costing methods, the method of calculation phases, in addition to establishing a cost not provide real information has a low capacity, being able to provide information for decision-operative Management of enterprise most good decisions.

If the phases Calculation method, calculation of costs is delayed, leading to a late information management, lack of efficiency and to reflect on past production issues which can not act. Because of this drawback is cost effective historical cost.

Practicing the method of calculation the phases as in the other classical methods of calculation, require a considerable volume of work, at the expense of analysis time required. Thus, knowing the actual cost is reached with a delay of 10-20 days after the end of the reporting period, which it reduces informational character. In this case, the information provided may be used only in the long run, production processes referred to them are already closed

## 5. The limit of the clasical methods of calculation

Due to these reasons, the problem of calculation of costs, if firms canned vegetables and fruit production is sidelined, being seen more formally, as an obligation and not as a demand management. It comes thus in a position to know the real cost is not timely, which can have negative implications on economic activity of the entity.

As a reaction to changes in the business and competitive environment, the main challenge facing management accounting is continuous improvement of calculation techniques and stage of training adapted to the production technology.

## 6. Conclusions

Moreover, management accounting information system should integrate aspects besides quantitative and qualitative, its role is not only to determine the costs but to help make decisions and solve problems: the various solutions, which is the good?, question that we try to respond by finding the most appropriate costing methods in fruit and vegetable canning industry so that management accounting to join the field through cost management.

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