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ANALYSIS OF INDIRECT EXPENSES RATES

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Abstract

The requirements of management work determine the functions, objectives and methods of the cost information system. In turn, these elements (functions, objectives, methods) generate the informational structure for presenting the respective elements. Indirect expenses contribute adjacent to the support of current activities. In general, these expenses are not easily identified when manufacturing a product, providing direct services or meeting the direct requirements of a project. Instead, indirect expenses are accrued in detailed accounting records, allocated and reported by each firm. The expenses are then cumulated in centralized documents at departments level (production, quality assurance, administrative, sales, research and development) according to the organizational requirements. Their analysis can help us assess indirect spendings and control excessive spending. The key factors in monitoring these expenses are continuous surveillance, control measures and performance measurement.

***Key words*:** *indirect expenses, cost, analysis, expenses rate*

INTRODUCTION

The analysis of this paper focuses on a stock company whose main object of activity is the production, marketing and industrialization of agro-zoo technical products. The company exploits on average annually 4,000 ha of arable land of which 3,000 irrigated ha and also deals with the raising of dairy cattle whose herd varies around 1,450 head of cattle of which 800 head of herd. The company produces on the arable land surface cereals and technical plants as well as fodder necessary for the animal growing sector. In the zootechnical production, the company deals with the production of cow's milk and the fattening of cattle. The social capital of the company is 5,015 thousand lei. The company is organized in production farms and specialized service sectors of production farms. Thus, the company has the following subunits:
- 3 farms with vegetal profile;
- 1 dairy cattle farm;
- the service sector with a profile for repairing agricultural equipment and the execution of agricultural specific services towards the company's farms;
- the supply, sales, transport sector which has as an objective the assurance of the necessary materials for the production process, the sale of the products obtained by the farms and the management of the transport means necessary for the above activities;
- the financial-accounting department.

The company has a number of 219 employees, of which 184 permanent employees, 26 TESA staff, 35 seasonal workers. For the analysis of indirect expenses, it is considered that the most used methods are the following:
-the rate of indirect expenses to direct salary expenses;
-direct hourly rate;
-the rate of indirect expenses to direct expenses (direct salary expenses + material expenses + other direct expenses);
-the percentage of indirect expenses in the net turnover and in the production cost [7]:
-the hourly cost method of operating the machine;
-the rate of indirect expenses at production value

MATERIALS AND METHODS

These statistics are used to evaluate actual performance and to plan indirect expenses.

However, these expenses are generally considered uncontrollable because their allocation is governed by social protection policy and procedures and the results of negotiations with the union which may build a major consideration [4].

In this study, there were determined the following rates:

-Indirect expenses/ Direct working hours - lei/hour

-Direct salary expenses /Direct working hours - lei/Hour

-Indirect expenses/Direct expenses -%

-Indirect expenses/Direct salary expenses -% - Indirect salary expenses/Direct salary expenses -%

The data are provided by the analyzed company.

RESULTS AND DISCUSSIONS

The average rate of indirect expenses to direct wage expenses for the analyzed period is 150.44%. The rate indicates that each leu spent on direct labor generates on average indirect expenses of 1.50 lei (Table 1).

Also, we find that in 2018 there was a sensitive increase compared to 2017, while in 2019 the share reached the value of 177.02%, respectively an increase compared to 2017 by 41.8%, compared to 2018 by 41.4% and exceeded the average value by 17.6%.

Indirect expenses rate statistics can be useful when estimating the costs of products per direct labor hour and we can also use it as a planning guide for creating overall factory (total) indirect expenses budgets [1].

working hours.

In order to determine this rate we divide the indirect expenses with the direct working hours. Before applying indirect costs, we need to determine the relationship between the amount of indirect costs to be applied and the number of direct working hours involved. The rate can be determined either by cost center, department, product, service or the entire activity [2].

Table 1. Calculation of the rates of cost elements

Indicators	2017	2018	2019	2019/2017 %	Average value
Direct working hours group of harvesting machines	46.800	59.392	89.856	192.00	65.349
Indirect expenses/ Direct working hours - lei/hour	32.557	45.170	63.404	194.74	50.517
Direct salary expenses /Direct working hours - lei /Hour	26.081	36.101	35.817	137.32	33.579
Direct expenses - thousand lei -	7.781	11.522	17.787	228.59	12.363
Indirect expenses / Direct expenses -%	19.58	23.28	32.03	163.58	26,70
Indirect expenses / Direct salary expenses -% -	124.83	125.12	177.02	141.80	150,44
Indirect salary expenses/Direct salary expenses -%	9.95	7.48	11.83	118.89	10.06

Source: Own calculation based on the data from the analyzed company.

Indirect expenses rate to the number of direct

In the table the average value of the rate is 50,517 lei/hour. The lowest value of the rate was 32,557 lei/hour in 2001, 45,170 lei/hour in 2018 (an increase of 38.7%) and 63,404 lei/hour in 2019, which is 25% above the average value. The increase in rates over the three years was due to both the increase in the number of employees, as well as the tariff wages.

The advantages of using this rate are: ease of use; it is a basis for realistic application when labor is the main factor in production.

The disadvantage of this procedure is similar to that of direct salary expenses: it ignores the contribution of other factors to the realization of the product [5].

For example, for the mechanical workshop of the company that includes a series of machines (drills, hammer drills, lathes,

threading machines) it is unrealistic to apply indirect costs only to the number of hours worked without considering also other expenses.

Indirect expenses rate calculated on direct expenses. The firm can use such a rate if it proves useful for measuring planning and economic performance.

The table shows the average rate for the three years whose value is 26.7%. In 2017 the rate reached the value of 19.58, registering in 2018 a slight increase to 23.28%, but reaching in 2019 the value of 32.03, exceeding the average by 5.33% due to the renewal of labor means (the company purchased new machinery and equipment). In order to use such a rate effectively, we must perform a detailed analysis of the specific causes that led to changes in the categories of expenses, as well as the unusual circumstances that caused the fluctuations.

The advantages of this method are: it is easy to use; all necessary data are easily accessible from the accounting reports [9].

Disadvantages include:

-does not make use of the time factor in the allocation of indirect expenses;

-there is no logical relationship between most indirect costs and the value of raw materials;

-an accurate determination of indirect costs is unlikely to result from the use of direct labor due to potential errors that may occur in the design of material costs over time;

-the use of this rate is restricted in situations where there are no extreme variations in the realization of products;

-this method may prove to be more useful only in certain departments than at the level of the whole company.

Hourly cost method of operating the machine.

In order to calculate the rate of indirect expenses during the hours of operation of the machine, we must first determine the relationship between the sum of indirect expenses to be allocated and the number of hours of operation of the machine. Indirect expenses are then allocated to the task or process by multiplying the operating hours of the machine involved in a particular activity at that rate. To obtain the hourly running cost of the machine, we divide the indirect costs for a specific machine (or for a group of machines if they are identical in activity and cost) by the relevant operating hours of the machine:

Hourly operating cost of the machine = Indirect expenses/Operating hours of the machine

In general, the hourly cost of operating the machine is an estimate of the amount of indirect costs per hour for the activity performed by each machine. Calculating the hourly operating cost of the machine involves the following steps:

1.The departments involved design the estimated indirect expenses for the period under review in the form of a budget plan.

2.We regroup the expense items into three categories: (a) expenses specific to each machine in terms of current, maintenance and depreciation; (b) heat, light and costs of the building; and (c) all other general and service costs, including various categories of activities.

3.We determine the total indirect expenses projected for the operation of each machine during the year. The car rate is the result of dividing this total by the number of operating hours.

When machines represent the most important factor in production, the hourly operating method of the machine undoubtedly has multiple advantages in allocating indirect expenses:

cost accounting provides the most accurate means of applying indirect expenses to each task or activity [3].

If the application of the hourly cost of operating the machine uses time as the basis for the allocation of indirect expenses, the rate is realistic even when an operator has to operate several machines or when several operators are required to operate a single machine.

The hourly operating costs of the machine allow the final fixation of the estimated sales prices for each task.

It is a realistic procedure for estimating the cost per product, with a high degree of accuracy.

The method of determining the indirect expenses involved in this rate is both logical and scientific.

Management can therefore rely on high-accuracy cost reports and be confident of the price offer to the customer. With such insurance, management can avoid either operating losses or failure in obtaining contracts. Moreover, the method provides a solid basis for measuring the monthly cost of unused machines.

The main disadvantages of the hourly cost method of operating the machine include:

the procedure increases costs because additional reports, which would not normally be required, must be produced and kept for the time required for each operation [8].

increases the number of operations in detailed cost accounting because a general rate cannot be used for each individual machine or group of machines [6].

As only a few companies can use only machine operating rates, also other types of rates must be used.

CONCLUSIONS

Analysing the indirect expenses, we determined their average rate at the production cost of 21.07% for the period of the three years: in 2017 – 16.38%, in 2018 – 18.89% and in 2019 – 24.26%.

Analyzing the indirect expenses of the financial year 2019, we notice an increase in depreciation expenses due to the acquisition of tangible assets according to the policy of modernization and refurbishment of production.

The information obtained from the cost analysis is being used in the elaboration of the company's strategy.

The cost domination strategy is the most widespread of all microeconomic strategies [10]. The purpose of this strategy is to determine a cost as low as possible and implicitly finding those ways to achieve cost savings.

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