# THE ANALYSIS OF TOTAL EXPENSES AT 1000 LEI TOTAL REVENUES AND OF THE RESULT OF THE GROWTH OF THEIR EFFICIENCY

### LĂPĂDUSI MIHAELA LOREDANA,

PHD ASSISTANT PROFESSOR, "CONSTANTIN BRÂNCUŞI" UNIVERSITY OF TG-JIU, FACULTY OF ECONOMIC SCIENCES AND BUSINESS ADMINISTRATION, TG-JIU, ROMÂNIA, lapadusi.mihaela@yahoo.com

#### CARUNTU CONSTANTIN,

PHD PROFESSOR, "CONSTANTIN BRÂNCUŞI" UNIVERSITY OF TG-JIU, FACULTY OF ECONOMIC SCIENCES AND BUSINESS ADMINISTRATION, TG-JIU, ROMÂNIA, caruntu\_ctin@yahoo.com

#### Abstract

The analysis of the company's expenses is mainly important in the management and control activity, because it highlights the way in which are used the resources (material, human, financial) and the impact of their allocation on the company's performances. The optimization of the level of costs or the their reduction, where it is possible, without affecting the quality of the products and working conditions of the activity, represent the primary objectives of the management of companies.[9]

Expenses have been and will remain one of the key indicators of a company requiring continuous application of a control and monitoring mechanism because when it comes to expenses we never speak of their growth, but their reduction. This reduction is the main objective of any economic agent that will result in increasing the efficiency of the entire activity.

The costs of a company reflect in cash the total consumption of material, human and financial resources used in manufacturing and selling of the products. The level, dynamics and structure of these expenses reflect synthetically the activity of industrial enterprises when using effectively the available resources.

The purpose of this article is to analyze synthetically a company's expenses efficiency based on the efficiency ratio of total expenses at 1000 lei total revenues and the purpose of the article results in a set of conclusions that will highlight a number of important issues concerning the role and the importance of the efficiency of total expenses related to total revenue, as well as the result of the growth of the efficiency of total expenses.

*Keywords:* expenses, revenues, efficiency, efficiency ratio of expenses.

JELL Classification: D61 - Allocative Efficiency; Cost-Benefit Analysis

#### 1. Introduction

The analysis based on expenses represents an important domain in the activity of a company, because in this area are produced a series of economic phenomena concerning the consumption and use of production factors. The competitiveness of products and the efficiency of the activity performed depend on the way in which are consumed and used the production factors. The reduction in the production costs is, where it is possible, a priority objective of the company. In this sense, it is necessary the detailed analysis of the main categories of expenses which compete in the creation of costs.

For obtaining the values for usage, the company uses material, human and financial resources whose consumption is materialized through expenses. So, the expenses of a company reflect, under the form of value, the entire expenditure of production factors. The level, the dynamics and structure of these expenses reflect in a synthetic way the activity of the industrial companies in what regards the efficient use of the resources they have, and the reduction of their level must represent a primary objective for all the economic agents, with the view of increasing the efficiency of the entire performed activity.BUSE

Expenses are the value expression of the consumption of human, material and financial resources that an entity uses in time, for the performance of the economic activity. No matter the object of activity, optimizing expenses is the scope of any economic agent. Expenses are perceived as amounts paid or that have to be paid for the payment of the value of raw materials, materials, merchandise, delivery of services, personnel and of other specific consumptions, for ending legal or contract obligations. The results and the performances of the company are conditioned strictly on the way resources are used and on the modality of allocating resources. The specialty

#### Annals of the "Constantin Brâncuși" University of Târgu Jiu, Economy Series, Issue 6/2013

literature identifies a variable range of expenses, classified in certain classes and categories, according to the criteria of portion used. [5]

The accounting regulations from Romania define expenses as diminutions of the economic benefits recorded in the accounting period as outputs or diminutions of the value of assets or increases of liabilities which result in decreases of the owner's equity, others than those resulted from their distribution to shareholders. [5]

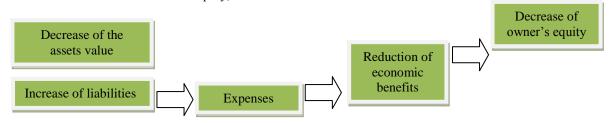


Figure no. 1.1.Defining expenses

Source: Hristea, A.M., Analiza economică și financiară a activității întreprinderii. De la intuiție la știință, vol.1, Ed. Economică, 2013, pg.152

In other words, expenses, according to article 95 from the Regulation regarding the appliance of the Accounting Law no. 82/1991, represents the amounts or values paid or to be paid for the consummation, works performed and services delivered by third parties, the payment of personnel, the performance of legal or contract obligations by the patrimonial unit, the creation of depreciation and provisions, exceptional consumptions. [10]

#### 2. Body of the paper

## 2.1. The analysis of the dynamics and structure of expenses and total revenues of a company

The characterization of the performance state of the company assumes the analysis of two categories of indicators: expenses and revenues. These represent direct elements tied to the measurement of the profit.

Through the dynamics and structural analysis of revenues and expenses of the company, is confirmed the existence of the efficiency of the activity only by respecting the principle of reducing expenses and increasing revenues. From this point of view, an important role is played by the way it is managed the consumption of human, material and financial resources, which once managed inefficient lead with certainty at the redaction of the productivity of the activity of a company. But, in order to reduce this risk, it should be taken into consideration a series of measures as: the use of sources of supply which offer the best price, the efficient management of liquidities, the acceleration of the inventory turnover, ensuring security and the regularity of the deliveries, etc.

The definition of expenses, includes two types of expenses, and these are: [9]

- expenses appeared in the course of the current activities, as cost of sales, salaries, depreciation, which correspond, usually, to some outputs or decreases of the value of assets;
- losses, which represent diminutions of the economic benefits and that can be: realized (resulted from disasters or from the outputs of assets on long-term) or not realized (resulted from the national currency depreciation in the case of some debts in currency).

In the financial accounting, the company's expenses are structured according to their nature, on categories of expenses, as it follows: [10]

- a) Operating expenses, representing the consumption performed with the purpose of realizing the object of activity: raw materials and consumable materials; electric energy and water; works and services performed by third parties ( repairs, maintenance, rents etc.), taxes, fees, similar contribution; salaries and expenses similar to them; depreciations and provisions.
- b) Financial expenses, which comprise: losses from fixed liabilities concerning the fund shares; the net loss from the sale of securities; the unfavorable differences of currency exchange; the interests paid for the afferent contracted credits.
- c) Extraordinary expenses, representing those expenses which are not related to the normal, usual activity of the patrimonial unit. They comprise:
- expenses concerning management operations (compensations, fines, losses from calamities, losses from various debtors etc.);
- expenses concerning equity operations (accounting value of fixed assets and of the extraordinary expenses).

Focusing the attention in the direction of a systematic analysis of the volume, structure and tendencies which are recorded by the different categories of expenses, offers the possibility of identifying measures which are needed for reducing costs. Also, it must be taken into consideration the correlation that exists between revenues and expenses; obtaining revenue assumes the creation of an expense or vice versa. Exceptions from this

rule are met in the case of financial expenses which do not generate revenues, as the achievement of revenues does not imply necessarily an expense. A similar situation is met in what regards the exceptional expenses and revenues.

The revenues of the company represent the amounts or values cashed in or to be cashed in during the current exercise. According to the accounting regulation, similarly to the expenses, the revenues of the company are structured on revenues categories according to their nature, as: [10]

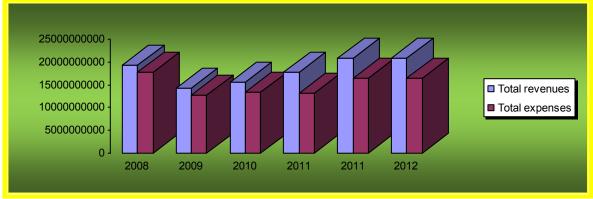
- a) operating revenues, which include: revenues from the sale of products, merchandise, works performed or services delivered; revenues from the stored and fixed production, other revenues related to operations;
- b) financial revenues in which we include: revenues from fund shares; revenues from other financial assets; revenues from fixed liabilities; revenues from securities; revenues from the currency exchange differences; revenues from interests etc.
- c) extraordinary revenues, representing those revenues which are not related to the normal, usual activity of the patrimonial unit and which refer to operating activities, equity operations, as: compensations and penalties cashed; revenues from selling assets; cote parts of subsidies for the investments send to the result of the exercise; other extraordinary revenues (donations, salaries not taken and other revenues).

The level, dynamics and structure of these expenses reflect in a synthetic way the activity of industrial company in what regards the efficient use of the resources they have, and the reduction of their level must represent a main objective for all the economic agents, with the aim of increasing the efficiency of the entire activity performed. The structural analysis of the expenses involves monitoring the following aspects:

- the variation of expenses, totally and on activities, in absolute and relative size;
- the different pace of the modifications of expenses;
- the modifications which appeared in the structure of total expenses and on activities;
- the correlation of expenses, totally and on activities, with revenues obtained and the highlight of the economic efficiency of expenses.

It is said in the specialty literature that the best control of costs requires reporting the resources to the results, because, costs do not appear themselves, there are used for obtaining a certain result, and, therefore, what matters is not the absolute level of costs but the ratio between efforts and results. That is why, in analysis, together with the dynamics of expenses their efficiency is followed too, in correspondence with the revenues which it generates. [7]

Synthetically the evolution of revenues and expenses of S.C. OMV PETROM S.A. in the period 2008-2012 is presented as:



Graph no. 1

The evolution of total revenues and total expenses at S.C. OMV PETROM S.A. in the period 2008-2012 Source for the data: www.mfinante.ro

For the graphical representation of the structure of the revenues and expenses at S.C. OMV PETROM S.A. in the period 2011-2012 we shall use the sectoral diagram:

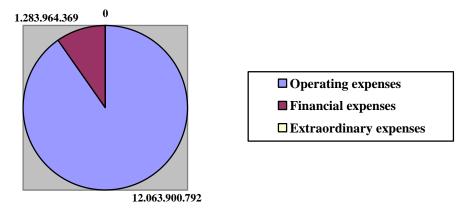


Diagram no. 1
The structure of expenses in value expression for the year 2011

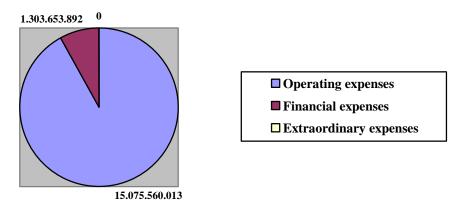


Diagram no. 2
The structure of expenses in value expression for the year 2012

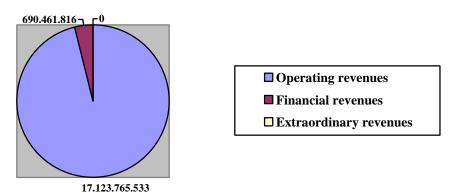


Diagram no. 3
The structure of revenues in expression value in the year 2011

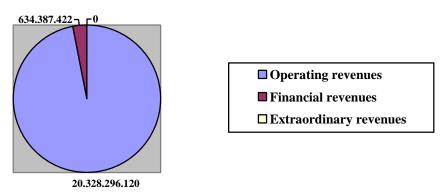


Diagram no. 4

The structure of revenues in value expression in the year 2012

#### 2.2. Theoretical aspects concerning the efficiency of total expenses afferent to total revenues

The analysis of the expenditure efficiency is achieved by directly comparing the efforts with the resulting effects from the execution of the business. As the expenses diagnosis is achieved by correlating it with the income, it is considered important to present also the main concepts regarding the enterprise's income. [6]

Any entrepreneur (considered to be rational, which taking into account the resources that it holds takes the decision to produce that goods that enables the better use of them) knows that in order to maximize the profit it is necessary either to minimize total costs used to obtain a certain level of production or to maximize the production that can be obtained (and sold) with a given level of costs. Therefore, it should be optimized the volume and the structure of production and also the consumption of resources so that costs are minimized for a maximum return. [9]

In the analysis of the expenses evolution is useful to pursue also the average expenditure indicator or, as the literature calls it, the efficiency ratio of total expenditure to 1000 lei total revenues. The computation of this indicator (at total level) can be done using the following:

$$R_{CT} = \frac{CT}{VT} \cdot 1000 \tag{1}$$

$$R_{CT} = \frac{\sum_{i=1}^{n} ch_{i}}{\sum_{i=1}^{n} vt_{i}} \cdot 1000$$
 (2)

$$R_{CT} = \frac{\sum_{i=1}^{n} g_i \cdot rch_i}{100} \tag{3}$$

where:

$$\sum_{i=1}^{n} ch_{i}$$
 - the amount of expenditure by category of activity (operating, financial, extraordinary);

$$\sum_{i=1}^{n} vt_i$$
 - the amount of revenues by category of activity (operating, financial, extraordinary);

$$gi$$
 - the structure of revenues by activity:  $g_i = \frac{vt_i}{Vt_i} \cdot 100$ ;

$$rch_i$$
 - the average rate of expenses by activity:  $rch_i = \frac{ch_i}{vt_i} \cdot 1000$ ;

### 2.3. Analysis of the expenditure efficiency based on the efficiency rate of expenses at 1000 lei total revenues at S.C. OMV PETROM S.A. during 2011-2012

To achieve an efficient activity, total expenditures must grow at a slower pace than total revenues. To obtain more relevant information on the activities at SC OMV Petrom SA, the cost effectiveness is determined for each category of expenditure and for each type of activity (operating, financial and extraordinary).

Table no.1 Overall presentation of revenues and expenses at S.C. OMV PETROM S.A

Indicator	Period		Absolute deviation	Relative deviation	
	2011	2012			
Operating revenues	17.123.765.533	20.328.296.120	+3.204.530.587	18,71%	
Financial revenues	690.461.816	634.387.422	-56.074.394	-8,12%	
Extraordinary revenues	0	0	0	-	
Total revenues	17.814.227.349	20.962.683.542	+3.148.456.193	17,67%	
Operating expenses	12.063.900.792	15.075.560.013	+3.011.659.221	24,96%	
Financial expenses	1.283.964.369	1.303.653.892	+19.689.523	1,53%	
Extraordinary expenses	0	0	0	-	
Total expenses	13.347.865.161	16.379.213.905	+3.031.348.744	22,71%	

Source: www.mfinante.ro, www.bvb.ro

The relative deviation of the revenues and expenses at S.C. OMV PETROM S.A. records the following values:

#### • revenues by category of revenues and the overall value:

$$RC_{Ve} = \frac{Ve_{2012}}{Ve_{2011}} \cdot 100 - 100 = \frac{20.328.296.120}{17.123.765.533} \cdot 100 - 100 = 18,71\%$$
(4)

$$RC_{Vf} = \frac{Vf_{2011}}{Vf_{2011}} \cdot 100 - 100 = \frac{634.387.422}{690.461.816} \cdot 100 - 100 = -8,12\%$$

$$RC_{VT} = \frac{VT_{2012}}{VT_{2011}} \cdot 100 - 100 = \frac{20.962.683.542}{17.814.227.349} \cdot 100 - 100 = 17,67\%$$
(6)

$$RC_{VT} = \frac{VT_{2012}}{VT_{2011}} \cdot 100 - 100 = \frac{20.962.683.542}{17.814.227.349} \cdot 100 - 100 = 17,67\%$$
(6)

$$RC_{Ce} = \frac{Ce_{2012}}{Ce_{2011}} \cdot 100 - 100 = \frac{15.075.560.013}{12.063.900.792} \cdot 100 - 100 = 24,96\%$$
(7)

• expenses by category of expenses and the overall value:  

$$RC_{Ce} = \frac{Ce_{2012}}{Ce_{2011}} \cdot 100 - 100 = \frac{15.075.560.013}{12.063.900.792} \cdot 100 - 100 = 24,96\%$$

$$RC_{Cf} = \frac{Cf_{2012}}{Cf_{2011}} \cdot 100 - 100 = \frac{1.303.653.892}{1.283.964.369} \cdot 100 - 100 = 1,53\%$$

$$RC_{CT} = \frac{CT_{2012}}{CT_{2011}} \cdot 100 - 100 = \frac{16.379.213.905}{13.347.865.161} \cdot 100 - 100 = 22,71\%$$
(9)

$$RC_{CT} = \frac{CT_{2012}}{CT_{2013}} \cdot 100 - 100 = \frac{16.379.213.905}{13.347.865.161} \cdot 100 - 100 = 22,71\%$$
(9)

The structure of revenues and expenses at S.C. OMV PETROM S.A. is as follows:

#### • revenues structure:

Feverales structure:  

$$g_{Ve2011} = \frac{Ve}{VT} \cdot 100 = \frac{17.123.765.533}{17.814.227.349} \cdot 100 = 96,12\%$$

$$g_{Ve2012} = \frac{Ve}{VT} \cdot 100 = \frac{690.461.816}{17.814.227.349} \cdot 100 = 96,97\%$$

$$g_{Vf2011} = \frac{Vf}{VT} \cdot 100 = \frac{20.328.296.120}{20.962.683.542} \cdot 100 = 3,88\%$$

$$g_{Vf2012} = \frac{Vf}{VT} \cdot 100 = \frac{634.387.422}{20.962.683.542} \cdot 100 = 3,03\%$$
(13)

$$g_{Ve2012} = \frac{Ve}{VT} \cdot 100 = \frac{690.461.816}{17.814.227.349} \cdot 100 = 96,97\%$$
 (11)

$$g_{Vf2011} = \frac{Vf}{VT} \cdot 100 = \frac{20.328.296.120}{20.962.683.542} \cdot 100 = 3,88\%$$
 (12)

$$g_{Vf2012} = \frac{Vf}{VT} \cdot 100 = \frac{634.387.422}{20.962.683.542} \cdot 100 = 3,03\%$$
 (13)

#### • expenses structure:

$$g_{Ce^{2011}} = \frac{Ce}{CT} \cdot 100 = \frac{12.063.900.792}{13.347.865.161} \cdot 100 = 90,38\%$$
 (14)

$$g_{Ce^{2012}} = \frac{Ce}{CT} \cdot 100 = \frac{15.075.560.013}{16.379.213.905} \cdot 100 = 92,04\%$$
 (15)

• expenses structure: 
$$g_{Ce^{2011}} = \frac{Ce}{CT} \cdot 100 = \frac{12.063.900.792}{13.347.865.161} \cdot 100 = 90,38\%$$
(14) 
$$g_{Ce^{2012}} = \frac{Ce}{CT} \cdot 100 = \frac{15.075.560.013}{16.379.213.905} \cdot 100 = 92,04\%$$
(15) 
$$g_{Cf^{2011}} = \frac{Cf}{CT} \cdot 100 = \frac{1.283.964.369}{13.347.865.161} \cdot 100 = 9,62\%$$
(16) 
$$g_{Cf^{2012}} = \frac{Cf}{CT} \cdot 100 = \frac{1.303.653.892}{16.379.213.905} \cdot 100 = 7,96\%$$
(17) The efficiency rate of the expenses at S.C. OMV PETROM S.A. records the following values: 
$$P_{CF} = \frac{Ce}{CT} \cdot 1000 = \frac{12.063.900.792}{12.063.900.792} \cdot 1000 = 704.51 \, kg$$

$$g_{Cf2012} = \frac{Cf}{CT} \cdot 100 = \frac{1.303.653.892}{16.379.213.905} \cdot 100 = 7,96\%$$
 (17)

$$RE_{Ce^{2011}} = \frac{Ce}{V_o} \cdot 1000 = \frac{12.063.900.792}{17.123.765.533} \cdot 1000 = 704,51 \ lei$$
 (18)

$$RE_{Ce^{2012}} = \frac{Ce}{Ve} \cdot 1000 = \frac{15.075.560.013}{20.328.296.120} \cdot 1000 = 741,60 \ lei$$
 (19)

$$R E_{Cf2012} = \frac{Cf}{Vf} \cdot 1000 = \frac{1.303.653.892}{634.387.422} \cdot 1000 = 2.054,98 \ lei$$
 (21)

$$RE_{CT2011} = \frac{CT}{VT} \cdot 1000 = \frac{13.347.865.161}{17.814.227.349} \cdot 1000 = 749,28 \ lei$$
 (22)

$$RE_{CT2012} = \frac{CT}{VT} \cdot 1000 = \frac{16.379.213.905}{20.962.683.542} \cdot 1000 = 784,35 \ lei$$
 (23)

The synthetic representation of the absolute and relative deviation of the structure of revenue and expenditure and of the efficiency rate of expenses at SC OMV Petrom S.A. is as follows:

Table no.2

Indicator	Absolute deviation (lei)	Relative deviation (%)	The stru revenu expe	es and	The efficiency rate of expenses (lei)	
			2011	2012	2011	2012
Operating revenues	+3.204.530.587	18,71	96,12	96,97	-	-

#### Annals of the "Constantin Brâncuși" University of Târgu Jiu, Economy Series, Issue 6/2013

Financial revenues	-56.074.394	-8,12	3,88	3,03	-	-
Extraordinary	0	0	0	0	-	-
revenues						
Total revenues	+3.148.456.193	17,67	100	100		
Operating expenses	+3.011.659.221	24,96	90,38	92,04	704,51	741,60
Financial expenses	+19.689.523	1,53	9,62	7,96	1.859,57	2.054,98
Extraordinary	0	0	0	0	0	0
expenses						
Total expenses	+3.031.348.744	22,71	100	100	749,28	784,35

The factorial analysis of the total expenses efficiency is as follows:

I. The deviation of the total expenses efficiency:

$$E_{CT} = E_{CT2012} - E_{CT2011} = 784,35 - 749,28 = +35,07 \ lei$$

II.1.Influence of the revenues structure by category of revenues:

$$\Delta_{S_{Vi}}^{E_{CT}} = \left(\frac{\sum S_{Vi2012} \cdot E_{Ci2011}}{100}\right) - \left(\frac{\sum S_{Vi2011} \cdot E_{Ci2011}}{100}\right) =$$

$$= \frac{(96,97 \cdot 704,51) + (3,03 \cdot 1859,57)}{100} - \frac{(96,12 \cdot 704,51) + (3,88 \cdot 1859,57)}{100} =$$

$$= \frac{(68316,33 + 5634,50)}{100} - \frac{(67717,50 + 7215,13)}{100} = 739,51 - 749,33 = -9,82 \ lei$$
2. Influence of the efficiency rate of expenses by category:

$$\Delta_{E_{CI}}^{E_{CI}} = \left(\frac{\sum S_{Vi2012} \cdot E_{Ci2012}}{100}\right) - \left(\frac{\sum S_{Vi2012} \cdot E_{Ci2011}}{100}\right) = \\
= \frac{(96,97 \cdot 741,60) + (3,03 \cdot 2054,98)}{100} - \frac{(96,97 \cdot 704,51) + (3,03 \cdot 1859,57)}{100} = \\
= \frac{(71912,95 + 6226,59)}{100} - \frac{(68316,33 + 5634,50)}{100} = 781,40 - 739,51 = +41,9 \ lei$$

#### 2.4. The analysis of the result of the growth of the efficiency of total expenses at S.C. **OMV PETROM S.A.**

Any company has as aim the procurement of profit, respectively at 1000lei revenues obtained, this aims to have as few expenses as they can. The difference between the expenses performed and the revenues obtained represents the economic benefit which any company searches for, materialized in the result of the efficiency of total expenses at 1000 lei total revenues.

The general relation of calculus of the benefit is:

$$B = \frac{VT}{1000} \cdot \left(1000 - Ef_{CT}\right)$$

where:

B-benefit;

VT-total revenues;

 $Ef_{CT}$  – the efficiency of total expenses.

Further we shall present the necessary data for the determination of the economic benefit of total expenses:

Table no.3

Indicator	Per	iod	Changes	
	2011	2012	Absolute	Relative (%)
Operating revenues	17.123.765.533	20.328.296.120	+3.204.530.587	18,71%
Financial revenues	690.461.816	634.387.422	-56.074.394	-8,12%
Extraordinary revenues	0	0	0	-
Total revenues	17.814.227.349	20.962.683.542	+3.148.456.193	17,67%
Operating expenses	12.063.900.792	15.075.560.013	+3.011.659.221	24,96%
Financial expenses	1.283.964.369	1.303.653.892	+19.689.523	1,53%
Extraordinary expenses	0	0	0	-
Total expenses	13.347.865.161	16.379.213.905	+3.031.348.744	22,71%
The weight of operating revenues in total	96,12	96,97	+0,85	=

#### Annals of the "Constantin Brâncuşi" University of Târgu Jiu, Economy Series, Issue 6/2013

revenues (S <sub>Vexp</sub> ) - %				
The weight of financial revenues in total	3,88	3,03	-0,85	-
revenues (S <sub>Vfin</sub> ) - %				
Operating expenses at 1000 lei operating	704,51	741,60	+37,09	5,26
revenues - lei				
Financial expenses at 1000 lei financial	1.859,57	2.054,98	+195,41	10,50
revenues- lei				
The efficiency of total expenses (Ef <sub>CT</sub> ) -	749,28	784,35	+35,07	4,68
lei				
The efficiency of the effective growth of	4.466.383.080,94	4.520.602.705,83	+54.219.624,89	1,21
the expenses (Benefit - B) - lei				

The determination of the benefit at S.C. OMV PETROM S.A. is performed as it follows:

$$B_{2011} = \frac{VT}{1000} \cdot (1000 - Ef_{CT}) = \frac{17.814.227.349}{1000} \cdot (1000 - 749, 28) = +4.466.383.080, 94 \ lei$$
 (26)

$$B_{2012} = \frac{VT}{1000} \cdot (1000 - Ef_{CT}) = \frac{20.962.683.542}{1000} \cdot (1000 - 784.35) = +4.520.602.705,83 \ lei$$
 (27)

The absolute change of the benefit:

$$\Delta B = B_{2012} - B_{2011} = 4.520.602.705, 83 - 4.466.383.080, 94 = +54.219.624, 89 \ lei$$
 (28)

The factorial analysis of the benefit is realized as:

1. The influence of the benefit afferent to the efficiency of total expenses afferent to total revenues:

$$\Delta_{Ef_{CT}}^{B} = \left[ \frac{Vt_{2011}}{1000} \cdot \left( 1000 - \frac{\sum S_{Vi2012} \cdot Ef_{Chi2012}}{100} \right) \right] - \left[ \frac{Vt_{2011}}{1000} \cdot \left( 1000 - \frac{\sum S_{Vi2011} \cdot Ef_{Chi2011}}{1000} \right) \right] =$$

$$= \left[ \frac{17.814.227.349}{1000} \cdot \left( 1000 - 784,35 \right) \right] - \left[ \frac{17.814.227.349}{1000} - \left( 1000 - 749,28 \right) \right] =$$

$$= \left( 17.814.227,35 \cdot 215,65 \right) - \left( 17.814.227,35 \cdot 250,72 \right) =$$

$$= 3.841.638.128,02 - 4.466.383.081,19 = -624.744.953,17 \ lei$$
(29)

1.1.The influence of the modification of the structure of revenues on categories of activities:

$$\Delta_{S_{Vi}}^{B} = \left[ \frac{Vt_{2011}}{1000} \cdot \left( 1000 - \frac{\sum S_{Vi2012} \cdot Ef_{chi2011}}{100} \right) \right] - \left[ \frac{Vt_{2011}}{1000} \cdot \left( 1000 - \frac{\sum S_{Vi2011} \cdot Ef_{chi2011}}{100} \right) \right] = \\
= \left[ 17.814.227, 35 \cdot \left( 1000 - 739, 51 \right) \right] - \left[ 17.814.227, 35 \cdot \left( 1000 - 749, 28 \right) \right] = \\
= 4.640.428.082, 4 - 4.465.492.369, 82 = +174.935.712, 58 \ lei$$
(30)

1.2. The influence of the modification of expenses at 1000 lei revenues on categories of activities:

$$\Delta_{Ef_{chi}}^{B} = \frac{Vt_{2011}}{1000} \cdot \left(1000 - \frac{\sum S_{Vi2012} \cdot Ef_{chi2012}}{100}\right) - \frac{Vt_{2011}}{1000} \cdot \left(1000 - \frac{\sum S_{Vi2012} \cdot Ef_{chi2011}}{100}\right) =$$

$$= \left[17.814.227, 35 \cdot \left(1000 - 784, 35\right)\right] - \left[17.814.227, 35 \cdot \left(1000 - 739, 51\right)\right] =$$

$$= 3.841.638.128, 02 - 4.640.606.224, 67 = -798.968.096, 65 \ lei$$
(31)

2. The influence of total revenues:

$$\Delta_{VT}^{B} = \left[ \frac{Vt_{2012}}{1000} \cdot (1000 - Ef_{CT2012}) \right] - \left[ \frac{Vt_{2011}}{1000} \cdot (1000 - Ef_{CT2012}) \right] = 
= \left[ 20.962.683, 54 \cdot (1000 - 784, 35) \right] - \left[ 17.814.227, 35 - (1000 - 784, 35) \right] = 
= 4.520.602.705, 4 - 3.841.638.128, 02 = +678.964.577, 38 lei$$
(32)

2.1The influence of operating revenues:

$$\Delta_{V \exp}^{B} = \frac{V \exp_{2012} - V \exp_{2011}}{1000} \cdot (1000 - Ef_{CT2012}) = \frac{3.204.530.587}{1000} \cdot (1000 - 784.35) = +691.057.019,57 \ lei \ (33)$$

2.2. The influence of financial revenues:

$$\Delta_{V \exp}^{B} = \frac{V \exp_{2012} - V \exp_{2011}}{1000} \cdot (1000 - Ef_{CT2012}) = \frac{-56.074.394}{1000} - 215,65 = -12.092.443,07 \ lei \ (34)$$

Interpretation of results:

In both periods of analysis, the efficiency indicator of the total expenses has values which do not exceed the limit of 1000 lei, fact for which S.C. OMV PETROM S.A. records profit at 1000 lei revenues, respectively 215,64 lei (1000-784,35) and respectively 250,72 lei (1000-749,28). It is noticed the increase of the benefits afferent to total revenues with 54.219.624.89 lei, fact explained through the influence of the following factors:

- the increase of the efficiency of total expenses with 35,07 lei, fact which has determined the diminution of the benefit afferent to total revenues with 624.744.953,17 lei;
- the growth of total revenues in the period analyzed with 3.148.456.193 lei has determined the increased of the total benefit with 678.964.577,38 lei.

### 2.5. Conclusions regarding the analysis of the expenses efficiency at S.C. OMV PETROM S.A.

The structure of revenues of activities influences the modification of the level of expenses at 1000 lei revenues, due to the different level of revenues on categories of activities. The modification of the structure of revenues on categories actions on expenses at 1000 lei revenues through the expenses from the base period. The influences is distributed as: [9]

- if the weight of activities increases with a level of expenses at 1000 lei revenues higher than the average level of expenses at 1000 lei revenues from the base period (and decreases the weight of activities with a reduced level of expenses at `1000 lei revenues in the base period), then it will take place an increase of the level at 1000 lei revenues in the current period;
- if it weight of activities increases with a level of expenses at 1000 lei revenues smaller than the average level of expenses at 1000 lei revenues from the base period (and increases the weight of activities at a reduced level of expenses with 1000 lei revenues in the base period), then it will take place a reduction of the level at 1000 lei revenues in the current period.

The factorial diagnosis analysis of the efficiency of total spending at SC OMV Petrom S.A. it can be seen that the results obtained show that in 2012 compared to 2011 total expenditures efficiency increased by 35.07 lei. But in relation to total revenue, their effectiveness decreased, this is due to the faster increase of total expenditure compared to total revenues (ICT > IVT).

To form a complete picture we determine the elasticity coefficient of expenditure, which will record the following value:

$$E_{Cht/Vt} = \frac{I_{CT} - 100}{I_{VT} - 100} = \frac{22,71}{17,67} = 1,28\%$$
(35)

The value of the coefficient elasticity of total expenses compared to total revenues ( $E_{CT/VT}$  =1,28%) shows that at an increase of 1% in total revenues, total expenses increase by 1,28%, which explains the decrease in the efficiency of total expenses.

The reduction in total cost efficiency ( $\Delta E f_{CT} \rangle 0$ ) was achieved due to a lower share of effective activity ( $\Delta Svi\langle 0\rangle$ ) for which the efficiency indicator for operating costs had lower values than the total expenditure efficiency indicator ( $E f_{Cexn} \langle E f_{CT}\rangle$ ).

The financial activity is characterized by a lack of efficiency as the financial expenses at 1000 lei indicator has much higher values than the total expenditure efficiency indicator:  $Cf_{2011}^{1000Vf} \rangle CT_{2011}^{1000VT}, Cf_{2012}^{1000VT} \rangle CT_{2012}^{1000VT}$ .

Measures to reduce total expenses at 1000 lei total revenues are:[9]

- manufacturing of products, services provided and work performed in compliance with the criteria of economic efficiency, the sale prices and the tariffs to cover costs and to allow the creation of a profit that is stimulating for shareholders;
- adoption of a funding structure for economic means to allow achievement of long-term objectives (development of the ethnic potential of the enterprise) and of short-term ones with financial costs as low as possible;
- recovery of assets at high values (through proper organization of auctions), honoring obligations to customers (compliance with contractual terms) and those to the state budget, etc

#### 2.6. Bibliography

[1]Achim, V., Analiză economico-financiară, Ed. Risoprint, Cluj Napoca, 2010;

[2]Buşe L., Analiză economico-financiară, Ed. Economică, București, 2005;

[3] Căruntu, C., Lăpăduşi, M.L., Analiza economico-financiară la nivel microeconomic. Metode. Concepte. Tehnici., Ed. Universitaria, Craiova, 2010;

[4]Ciora, C., Analiza performanței prin creare de valoare, Ed. Economică, București, 2013.

#### Annals of the "Constantin Brâncuși" University of Târgu Jiu, Economy Series, Issue 6/2013

- [5] Hristea, A.M., Analiza economică și financiară a activității întreprinderii. De la intuiție la știință, vol.1, Ed. Economică, 2013;
- [6] Păvăloaia, W., Păvăloaia D., Analiza economico-financiară, Ed. Tehnopress, Iași, 2009;
- [7]Drucker P., Managementul Strategic, Ed. Teora, Bucureşti, 2001;
- [8]Petrescu, S., Analiza economico-financiară, Ed. Sedcom Libris, Iași, 2003;
- [9]Popa, I.L., Miculeac, M.M. Analiză economico-financiară. Elemente teoretice și studii de caz, Ed.Mirton, Timișoara, 2012;
- [10]Robu, V., Georgescu, N., Analiza economico-financiară, curs în format digital, http://www.biblioteca-digitala.ase.ro/biblioteca/pagina2.asp?id=cap3.