OPPORTUNITIES TO REDUCE OPERATING EXPENSES IN INDUSTRIAL ENTERPRISES

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Abstract: *Many specialty papers introduce the issue of costs and processes to reduce them. However, they do not specify the circumstances in which it is compulsory to reduce expenditure and those where this goal is optional. Also, there is not a logical sequence of reducing expenditure and a minimum value of the costs, below which they cannot be reduced without affecting the activity of the company. Based on these theoretical elements, this paper focuses mainly on reducing expenditure in an industrial enterprise. The paper is circumscribed to private legal entities, irrespective of their capital membership, size or scope of activity undertaken. Thus, the author aims to determine the situations in which decreasing the costs is compulsory, as well as to identify a methodology to reduce them by analyzing the main operational expense categories. Also is established a methodology to reduce costs by analyzing expenditure categories that have a large share in total expenditure and highlights the practical possibilities of materializing them. For this purpose there are theoretical and practical elements necessary to detach conclusions and supporting scientific endeavour. To illustrate the scientific enterprise is considered a data structure of an industrial enterprise. With it are identified categories of expenditure that can be reduced to improve the activity.*

Key words: *operating expenses, enterprise, industrial, methodology of reducing expenses.*

1. THE CURRENT STATE OF THE PROBLEM

As a general objective, permanent or temporary, cost savings are a concern that is found in the majority of families, businesses, state level and state institutions. Of the businesses listed, the article is circumscribed to private entities, regardless of their capital, business size or scope of activity undertaken. The costs are reflected in all businesses, since it is a goal that will generate a competitive advantage [2, 3].

Achieving the objects of each operator requires the use of all elements that make up the labour process. Some of these are consumed in the production process or marketing, another part is depreciating, while others must be paid. Regardless how they can be used, the material, financial resources, human or environment resources used in the enterprise generates costs [6].

2. ORGANIZATION OF RESEARCH

For research, it should start from meeting its objectives. In relation to the theme of the work, the research is aimed to achieving the following objectives:
- setting the position of the reduction in expenditure compared to the fundamental objective of the enterprise;
- determining the situations where the enterprise must reduce costs. Only some situations facing an enterprise determined reducing costs;

- identifying the categories of expenses that can be reduced. To this end the main categories of expenditure are analyzed;
- example of the scientific approach in a real data structure. Methodology for cost reduction will be applied to a real data structure.

Achieving the paper objectives is done based on theoretical and practical elements presented in the literature. A methodology is established to reduce costs by analyzing expenditure categories that have a large share in the total expenditure and highlights the practical possibilities of materializing them. For this purpose, there are theoretical and practical elements necessary to detach conclusions and supporting scientific endeavour.

3. POSITION OF EXPENDITURE ON THE MANAGEMENT OF INDUSTRIAL ENTERPRISES

The fundamental objective of the company must be identified in the economic theories or in the financial statements. Summarizing the conclusions therein, there it should be noticed that the fundamental objective of financial management is to maximize the enterprise value.

Generally, value is a complex category at the enterprise level that can be assessed in relation to the assets currently held or expected results in the future, through the use of accumulated assets. In this respect, the company is a variable that takes into account expected present value correlated with expected future revenues generated from business activities [1, 22].

From the background a conclusion is drawn, namely that reducing costs is not the primary objective of the company. If spending cuts should be the primary objec-

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tive of the company, then one should always follow their reduction over time.

For example, interest expense arising from loans made by the company in the current or previous periods is considered. These expenses may be void if the organization waives loans. Absence of leverage will leave the company only alternative equity financing activity in solution that ensures stable but slow growth.

To this conclusion it should be added that, in analyzing various types of consumption, nota bene, usually for efficient operation, making an income requires expenditure and vice versa. Expenditure-income relationship is valid default for operating activities, crucial for industrial enterprises. Exceptions to this rule occur if financial and exceptional expenses not generate revenue as revenue realization not necessarily involves items of expenditure.

From the above it results that any analysis of expenditures, total or by category of activities shall be carried out separately, but in close correlation with the income categories whose accomplishment contributes.

4. COST REDUCTION METHODOLOGY

Enterprises in the economic environment can be delineated into three categories, depending on the economic and financial results obtained:

A) Profitable enterprises, characterized by high rates of earnings, that record permanent cash surplus over several years in a row. In their case it is not compulsory to save money, but rather their supervision. In their case it is mandatory spending cuts. More suitable are the actions that lead to their economic growth such as:
- investing in tangible assets;
- penetration on foreign markets;
- opening new branches or subsidiaries;
- allocation of resources to their own research aspect;
- assimilation of new products;
- adding value to products manufactured;
- studies and research on possible takeover or absorption processes of profitable business;
- diversifying financial investment portfolio.

B) Low return businesses or those that are easy to cover the accumulated loss of previous years. The fact that those businesses fall into such a category is because the market has brought here, due to lower revenues. Actions aimed at increasing incomes are desirable, but they are usually theoretical. For them the best is to analyze costs and identify ways to reduce some of them;

C) Unprofitable businesses experiencing significant losses which have taken equity accumulated in previous periods. The analysis may result in expenditure solutions, but they should be done in a prior period. Rather, these companies are turning to reorganization or recapitalization by shareholders or shareholders' agreement. Generally these businesses are facing a negative equity and net situation. The latter is defined as the difference between total assets and total debts:

$$Net\ situation = Total\ assets - Total\ debts. \qquad (1)$$

A negative net situation is the result of negative net loss conclusion of the current year or previous years. In this case, total debt contracted by the company exceeded the real asset. The negative value of the net shows a bankrupt situation, but cannot be installed in a very short period of time.

There are signs should not be neglected by the financial manager, for the period preceding the most important being:
- profit reducing;
- decrease of other financial indicators;
- increasing cash deficits;
- shift from profit to loss;
- gradual consummation of equity.

Many of the companies from this category go to a reorganization process. The law of insolvency stipulates two categories of judicial reorganization [6]:
- reorganization based on the partial capitalization of the debtor's assets, in view of paying off the liabilities declared and accepted at the statement of assets and liabilities;
- reorganization based on an operational and/or financial recovery having as consequence a debt satisfaction at least to the share obtained in case of bankruptcy.

Table 1

Evolution of minimum annual salary during 2000-2012 period

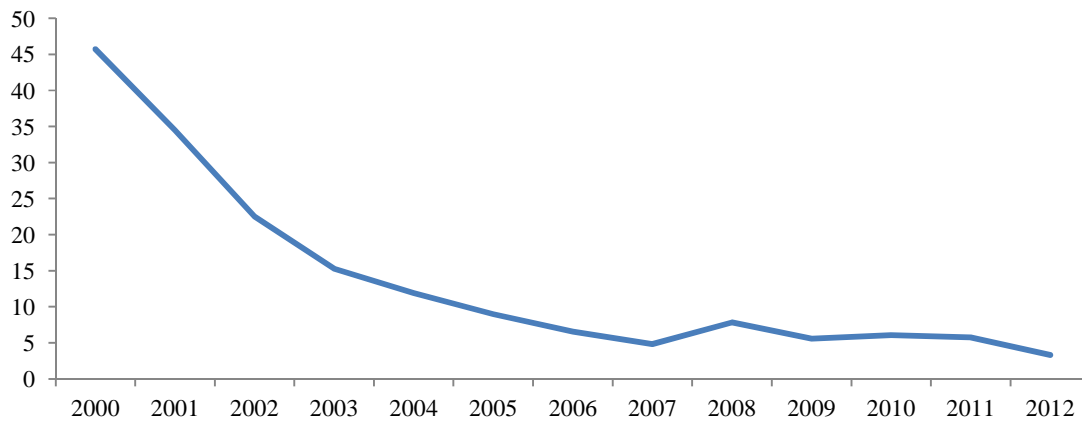| Year	The minimum annual salary (RON) [7−16]	Average exchange rate RON/EUR	Minimum annual salary (EUR)
2000	100	1.9955	50.11
2001	140	2.6026	53.79
2002	175	3.1255	55.99
2003	250	3.7555	65.56
2004	280	4.0532	69.08
2005	310	3.6234	85.55
2006	330	3.5245	93.63
2007	390	3.3373	116.86
2008	520	3.6827	141.20
2009	600	4.2373	141.59
2010	600	4.2099	142.52
2011	670	4.2379	158.09
2012	700	4.4560	157.09

Fig. 2. The average inflation rate during 2000-2012 (%).

It is important to mention that in the Romanian legislation no legal provisions exist that should automatically launch bankruptcy, as in other European countries. The reorganization and bankruptcy procedure in Romania may start either through the application addressed by the debtor himself, in insolvency, or by the creditors under the following conditions [6]:

- the creditors have not been paid for at least 30 days;
- the debts of tradesman, come from labour or civil relations, are greater than six average wages on economy, settled according to the law;
- the tradesman's debts, come from commercial relations.

The advantages resulted following the researches carried out as well following the consultation of the companies having confronted themselves with such a situation are:

- the insolvency procedure is a solution for the debtors as, ever since the date of its opening, the rise of the liabilities is stopped and the assets of the companies are conserved, due to the most important effect of the procedure, which is the interdiction upon the interest flow. delay penalty and increase at not guaranteed debts;
- the debt recovery by the debtor is done with the exemption of the stamp taxes;
- all judicial and extra-judicial actions launched upon the debtor are stopped;
- the maintenance within the business circuit of the honest debtor, in a repairable financial situation (the debtor has the possibility to continue his activity, however complying with the conditions established through the reorganization plan);
- recovering debts, to a higher extent than in the case of bankruptcy;
- maintaining the working places, at least for part of the employees;
- in the relation with the debtor within the judicial reorganization procedure, the suppliers should not be affected.

At the same time, several disadvantages were identified, where of the most important are:

- the confirming procedure of the reorganization plan proves to be particularly complex;
- real inconveniences for the creditor: suspending the individual pursuits against the debtor, freezing the debt at its nominal value during the procedure opening;
- the practice shows that the debtors with reduced turn-

over and with limited assets have no real reorganization chances;

- situations existed wherein a creditor introduced the procedure opening application, and the debtor, being solvent and not wanting to enter the procedure, until the first peremptory date, paid off his debt. If the creditor's position is considered, there has to be very well known whether the procedure is efficient to this purpose, as a solvent debtor will never accept to enter this procedure and will obviously pay off promptly the back debt (the treasury exposure. already submitted to pressure. because of the lack of cashing and of liquidities).
- inflexibility of the contractual partners; a company within reorganization no longer benefits from the support of the contractual partners, who count many times in increasing the recovery chances;
- the procedure is public, which leads to the creation of a negative situation upon the company: you are labelled "you are in reorganization" – which, in the opinion of many companies, means bankruptcy.

To increase the competitiveness, many works commend cutting costs. The challenge can hardly be translated into practice in an emerging economy where inflation shown in Fig. 1 remains stubbornly high and the minimum wage (or average) the economy is growing. The presence of inflation causes price increases of raw materials, materials and energy resources is often, fundamental to any product containing material.

Table 1 shows the value of the minimum wage established under the Romanian legislation. Average exchange rate of the national currency against the euro currency quotations media is announced by the National Bank of Romania for some time. It is calculated as the simple arithmetic average of daily exchange rates for a period of one year [23].

It is found an increase of the minimum wage, which represents the wage policies of public and private employers. Data on annual minimum wage expressed in RON taking into account that 1 July 2005 was held domestic currency [18]. The data presented shows that market due to objective causes increases the manufacturing costs of industrial products, while the literature shows the need to reduce their.

A few rules for the identification of undertakings and where it is necessary to reduce costs were previously detached. Before reducing the costs, the first direction in

taking action will be in the area of incomes, aiming to increase them.

Of course, these actions will be accompanied by reduction of costs according to what logic will be removed. Reducing costs will start from total expenditure. In this respect, the procedures made available by literature are [19, 20]:

A) Dynamic analysis of costs;

B) Study of the structure and composition of expenditure;

C) Calculation of efficiency of expenditure rates;

D) The application of factor analysis models.

Among the most effective there are the processes listed under points C and D. To this end, calculate and model the dynamic efficiency rates of total expenditures by reporting their volume, total revenues for the respective periods [17]. Since the process will always lead to the need to increase revenue, such solutions are not listed as they were previously treated.

The first examined are the total expenditure to be reported the total revenues constituting an efficiency rate. Tracing the evolution of the expenditure total revenue is at an average rate of efficiency of the overall expenditure (or cost per 1 000 RON total revenue) determined by the relationship:

$$R_{ET} = \frac{\sum\limits_{i=1}^{n} E_i}{\sum\limits_{i=1}^{n} R_i} \cdot 1000, \qquad (2)$$

where R_{ET} represents the average rate of efficiency of the total expenditure; $\sum\limits_{i=1}^{n} E_i$ – amount of expenditure by category of activities; $\sum\limits_{i=1}^{n} R_i$ – amount of revenue by category of activities.

Reduction of the rate level equals with an increased efficiency with which financial, human, material and environmental aspects of the company were used. Similarly, increasing the value of the report shows a decline in the efficiency of the enterprise [21]. Such a procedure does not usually lead to solutions, but rather an overview of the company's revenue and expenditure and on the formation of the gross income. Therefore, analysis should continue, observing previously identified.

One should proceed to analyze operating expenses, whereas they held at the industrial enterprises, the largest share in total expenses.

As a result, their sum is in close dependency with the objects of the company. The average efficiency of operating expenses will be calculated by the relationship:

$$R_{OE} = \frac{\sum\limits_{i=1}^{n} OE_i}{\sum\limits_{i=1}^{n} OR_i} \cdot 1000, \qquad (3)$$

where R_{OE} represents the average rate of efficiency of

operating expenses; $\sum\limits_{i=1}^{n} OE_i$ – amount of operating expenditure by types of activities; $\sum\limits_{i=1}^{n} OR_i$ – amount of income from exploitation by types of activities.

Categories of expenditure shall be determined with the largest share in the total of those in service. Any solution to reduce them will result in an economy that will result in relative profitability. From the structural point of view, the running costs comprise the following items:

A) Expenses relating to the consumption of raw materials, auxiliary materials, fuels etc.

B) The costs of the work and services performed by third parties;

C) Expenses with taxes, fees and similar payments incurred by the patrimonial unit;

D) Staff expenditure;

E) Expense with depreciation of fixed assets;

F) Other operating expenses.

From the previous enumeration one can see the large number of operating expenses. Theoretically, we can create efficiency rates or other computational models and analysis. Next it will examine each element to identify the practical possibilities of finding solution.

A) The analysis of raw materials and the materials will be performed using a rate set efficiency against a consistent income category. Thus, also an efficiency ratio is obtained called the costs of materials to 1 000 RON operating revenue (or turnover):

$$E_{rm}^{1000OR} = \frac{E_{rm}}{OR} \cdot 1000, \qquad (4)$$

where E_{rm}^{1000OR} – costs of raw materials to 1000 RON operating income; E_{rm} – costs of raw materials and materials; OR – operating income.

The relationship of computation shows that the directions for action are: raising revenues placed in the numerator and/or denominator costs decrease. As the first solution has already been identified, it remains the reduction of raw materials and materials which can be expressed as:

$$E_{rm} = \sum_j c_{sj} \cdot p_j, \qquad (5)$$

where c_{sj} – specific consumption of material resources j; p_j – price of the resource materials supply j.

The form of expression indicates that any possible reduction in material costs by reducing specific consumption and / or supply to obtain lower prices. The first solution is more consistent and should be a constant concern. Solutions are mainly technical and engineering concerns many aspects of design and technology, manufacturing and purchasing. The second one is conditional on quantities purchased, payment and bargaining power;

B) Expenditures generated by the services rendered by third parties shall be expressed as a rate of efficiency as follows:

$$E_{ws}^{1000OR} = \frac{E_{ws}}{OR} \cdot 1000, \qquad (6)$$

where E_{ws}^{1000OR} – costs of the works and services to 1000 RON operating income; E_{ws} – costs of the work and services executed by third parties.

The thinking is similar and will lead to reduced expenditure on these activities. The solutions can be: waiving of some services or works insofar as they do not affect production or investment activity, or finding service providers or performers of works which offer lower rates.

C) Expenditure with taxes, fees and similar payments incurred by the patrimonial unit conduct, according to the same reasoning, to the desire to reduce their amount. Although theoretically may consist of analysis of models for the reduction and their application will result in the need for legal changes, unable to look, or speculative, unethical behaviours which, even being legal, are not advisable.

D) Staff expenses can be expressed as:

$$E_s^{1000OR} = \frac{E_s}{OR} \cdot 1000, \qquad (7)$$

where E_s^{1000OR} – expenditure on staff to 1000 RON operating income; E_s – staff expenditure.

Staff costs analysis will be done in conjunction with the annual average labour productivity. Labour productivity growth and that of the average salary constitute an integral part of the salary policy of the enterprise. Advancing growth of the average wage by average labour productivity leads to savings on the wage bill, which is reflected positively in increasing the rate of efficiency of the overall expenditure [5].

E) The analysis of depreciation expense relates to the issue of depreciation, physical wear monetary value of fixed assets included in cost of products. Depreciation is an element of production costs in general and administrative expense in particular.

Whatever form of expression of the indicator is taken as the basis of comparison, depreciation analysis will be performed throughout the activities of the company. If depreciation expense is reported in operating income a different rate of efficiency is obtained:

$$E_d^{1000OR} = \frac{D}{OR} \cdot 1000, \qquad (8)$$

where E_d^{1000OR} – depreciation expense to 1 000 lei operating income; D – amount of depreciation expenses.

On amount of depreciation there is influence from the average annual value of fixed assets, fixed assets and an average rate of depreciation has been recorded.

$$D = \frac{A_f \cdot a}{100}, \qquad (9)$$

where A_f average annual value of fixed assets; a – average rate of depreciation.

Continuing the approach will lead to lower deprecia-

tion expenses, something which, according to the relationship can be achieved by reducing the value of fixed assets and / or average rates of depreciation. Reducing the volume of fixed assets is not desirable (only in certain circumstances) otherwise it appears as a process of disinvestment, or equipped with lower level technologies. Then, the solutions can only be achieved by reducing the average rates of depreciation. Since they are calculated as weighted arithmetic average, it would mean that times have changed average depreciation of fixed assets governed by the legal elements! It still identifies a category of expenditure that cannot be reduced, but their content translates to better capitalization of fixed assets owned by the enterprise.

E) Other operating expenses such as losses from a theoretical claim can be theoretically analyzed but their share is small, the solutions will have negligible impact on business profitability.

For example, consider a data structure presented in Table 2. In columns 2 and 3 data from the profit and loss account of a company on two consecutive years [4] was extracted. Columns 4 and 5 include efficiency rates for each category of expenditure. Respecting the theoretical elements presented above, the following conclusions could be drawn:

- operating costs expressed per 1 000 RON operating income accounting for a larger share of 672.478 RON (period 0) to 797.409 RON (period 1). This shows of profitability of service degradation and the need to reduce costs;
- the largest share is accounted for by expenditure on raw materials and materials in both periods. The increase in value from 430.674 RON in the period 0 to 462.850 RON in the next period, their reporting to the same category of revenue;
- staff expenditure is significant and increasing from 132.649 RON in the period 0 to 169.547 RON in the period 1. They can be analyzed with the aim of finding solutions to reduce them. according to the productivity of those two periods;
- other expenses have little clout, having little impact on reducing their profitability of the enterprise, while others cannot be reduced.

5. CONCLUSIONS

Reducing costs is not an objective itself, but rather as one particular provision under certain circumstances these could be at the enterprise level. In situations where we have to reduce expenses, the article makes available some logic to this approach that applies to finding concrete solutions. In most cases, in order to reduce the costs, it proceeds to their analysis. Always spending it will report revenue and not vice versa, causing the emergence of revenue expenditure. The starting point is the total expenditure and the approach continues with the categories of expenditure that hold the largest share, up to finding solutions.

Table 2

Average efficiency of operating expenses between 0 and 1 period

Name	Amount (RON)		Efficiency rates for each category of expenditure (RON)	
	Period 0	Period 1	Period 0	Period 1
1.a. The costs of raw materials and consumable materials	539 878	591 602	430.674	462.850
Other material costs	28 484	2 950	22.722	2.307
b. Other expenses from outside	14 426	18 556	11.507	14.517
c. Expenditure on goods	12 147	8 670	9.689	6.783
2. Staff expenditure	166 285	216 711	132.649	169.547
a. Salaries	125 890	168 914	100.425	132.152
b. Expenditure on social protection and insurance	40 395	47 797	32.224	37.394
3.a. Depreciation and provisions for depreciation of fixed assets amounted	14 508	55 448	11.573	43.380
a.1. Expenses	14 508	55 448	11.573	43.380
a.2. Revenue	0	0	-	-
b. Adjustment of the amount of circulating assets	0	0	-	-
b.1 Expenses	0	0	-	-
b.2 Revenue	0	0	-	-
4. Other operating charges	67 267	125 290	53.660	98.022
4.1. Expenditure on external services	58 409	118 675	46.594	92.847
4.2. Expenditure on other taxes. fees and similar payments	4 673	4 476	3.727	3.501
4.3. Compensation expenses. donations and assets will be transferred to	4 185	2 139	3.338	1.673
Total operating expenses	842 995	1 019 227	672.478	797.409
Total operating income	1 253 565	1 278 172	-	-

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