The Role and Implications of the Added Value as an Indicator of Financial Performance

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Abstract: The added value represents the excess of income over the value of consumptions coming from third parties, respectively the wealth created by capitalizing the technical, human and financial resources of the company. The economy is an established running after the optimal decision; so there cannot exist and economy without leadership, so there cannot be leadership without analysis, respectively the analysis of added value. This paper deals with a comparative analysis of three years, ie 2010 – 2012, of the added value from within Thomson Logistic Ltd which has 3 working points in Galati, Ploiesti and Targul Neamt. The analysis of added value is important both from the company's manager as an indicator for financial performance, and in terms of tax which is an indicator in the system of taxation. The methodology of this paper can be found in the use and application of the economical and financial analysis in order to perform an analysis of the added value that expresses the increase of wealth that is achieved through technical and productive activity. More specifically there were analyzed the added value, expenses of added value nature, structure of added value, growth indices of the corresponding elements of VA and the analysis from factorial point of view of the added value. In conclusion the growth rate of added value exceeded in dynamic the production value of the exercise (77.7>66.81; 31.21>31.17) because the intermediate consumption from third parties increased in 2011, and the added value decreases to an percentage of 22.30 % compared to the basis year in 2010. The result of exploitation had a decisive contribution to the decline in the added value, registering a drop of 88.05 % compared to 2011, respectively from 11705.2 Ron to 1399 Ron in 2012.

Keywords: added value; costs; result of exploitation; decrease

JEL Classification: M41

1. Introduction

The economy is an established running after the optimal decision; so there cannot exist and economy without leadership, so there cannot be leadership without analysis, respectively the analysis of added value. The economic and financial analysis has three main features that must be absolutely taken in highlight: the necessity, utility and perfectibility.

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The added value is one of the most important indicators of reflecting the economical and financial performance of the company. Based on the added value it is considered that it can be appreciated the true size of a company, it being the expression of its role. The added value is the excess of receipts over the value of consumptions from the third parties, created by capitalizing the technical, human and financial resources of the company.

The analysis of added value is important both from the company's manager as an indicator for financial performance, and in terms of tax which is an indicator in the system of taxation.

2. Used Methodology

This paper deals with a comparative analysis of the added value on three years, respectively 2010, 2011 and 2012, of the added value from within Thomson Logistik Ltd which owns three working points in Galati, Ploiesti and Targul Neamt.

The methodology of this paper can be found in the use and application of the economical and financial analysis in order to perform an analysis of the added value that expresses the increase of wealth that is achieved through technical and productive activity.

Te added value can be determined by two methods, as follows:

a) Synthetic method, according to which the total volume of the production and commercialization activity of the company in question, are decreasing the consumptions from third parties. For the case in which the company carries out only the production activity, the added value is determined as follows:

$VA = Q_e - M$, in which:

- Qe is the production value of exercise;

- M is the intermediate consumption. These include the expenditure for acquiring the material resources

If the company carries out and the commerce activity, in addition to the production activity, then the added value is calculated as:

$VA = (Q_e + M_c) - M'$, in which:

− M_c is margin trading;

− M' are the intermediate consumptions from third parties.

The distribution method (additive), which stipulates that the added value is the result of summing the following elements: wages and contributions concerning the insurances and social protection, provisions afferent to exploitation, interests, taxes and duties, depreciation, recalculated exploitation result.

Approaching the added value according to this method, results that is serves to compensation of the employees, shareholders, state, financial institutions, etc.

3. The Factorial Analysis of Added Value

Another aspect of studying the added value refers to the factorial analysis which allows to highlight the factors that determined its modification as well as and the directions in which it must be acted in the future.

From factorial point of view, the added value can be analyzed based on the model:

$\text{VA} = \overline{N}s * \frac{Qe}{\overline{N}s} * \frac{VA}{Qe} = \overline{N}s * \overline{Wh} * \overline{va}$ - where:

Q_e – production value exercise
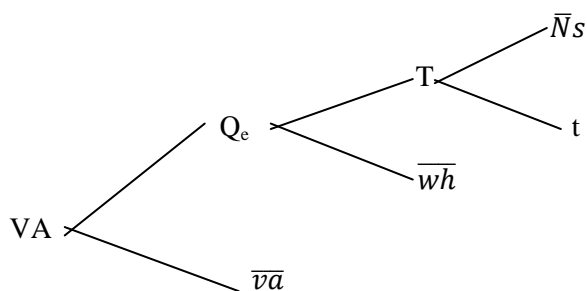
where: Q_e – production of exercise ($Q_e = T * \overline{wh}$)

T – total work time;

$\overline{Wa}$ – annual average productivity, determined on the basis of exercise of production, ($\overline{W}a = \frac{Qe}{\overline{N}s}$);

$\overline{wh}$ - average hourly productivity, determined on the basis of the exercise;

$\overline{N}s$ – average number of staff;

t – average number of hours per employee;

$\overline{va}$ - Average added value at 1 Ron production of the exercise

4. Results

Table 1 Analysis of Added Value and Production of Exercise

Nr.crt.	Indicators	Years			Indices (%)		
		2010	2011	2012	3/2	4/2	4/3
0	1	2	3	4	5	6	7
1	Qe	33183	73036.6	22770	22.10	68.61	31.17
2	VA	17442	43417.4	13553	248.92	77.70	31.21

$VA = Qe + MC - Ci$

$VA_{2010} = 33183 - (6214 + 315 + 748 + 8464) = 33183 - 15741 = 17442$

$VA_{2011} = 73036.6 - (11648 + 681.2 + 1833 + 15457) = 73036.6 - 29619.2 = 43417.4$

$VA_{2012} = 22770 - (3750 + 815 + 619 + 4033) = 22770 - 9217 = 13553$

The added value increased with 148.92% in 2011 compared to the base year 2010 and in 2012 decreased by 22.30% compared with 2010. The growth rate of added value exceeded in dynamic the production value of exercise (77.7>68.61; 31.21>31.17) because the intermediate consumptions from third parties increased in 2011.

It is recommended a decrease of staff and transport costs in a specified period that must not exceed the revenues collected during that period; therefore it is putting greater accent regarding the correlation of revenues and expenditures from within the analyzed company.
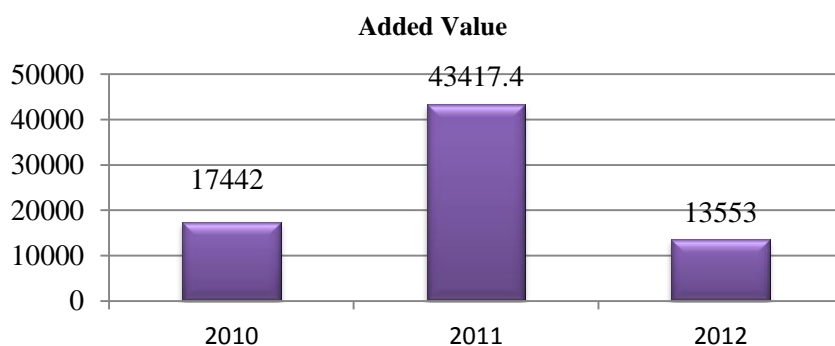
Added Value

Figure 2. Comparative Analysis of the Structure of Added Value on the 3 Years

No	Indicators	Year			Structure of VA			Δ	%
		2010	2011	2012	2010	2011	2012		
1	Costs with wages	8064	15943.2	5255	46.23	36.72	38.77	-10688.2	32.96
2	Taxes and duties afferent wages	2486	4797	1886	14.25	11.04	13.91	-2911	39.31
3	Total expenditure with staff	10550	20742.2	7141	60.48	47.76	52.68	-13599.2	34.43
4	Depreciation	6763	10912.2	4872	38.77	25.14	35.94	-6040.2	44.65
5	Other expenditure of VA nature	54	59.8	141	0.32	0.14	1.05	88.2	235.79
6	The result of exploitation	75	11705.2	1399	0.43	26.96	10.33	-10306.2	11.95
7	VA	17442	43417.4	13553	100%	100%	100%	-29864.4	3.12
8	Qe	33183	73036.6	22770				-50266.6	31.18

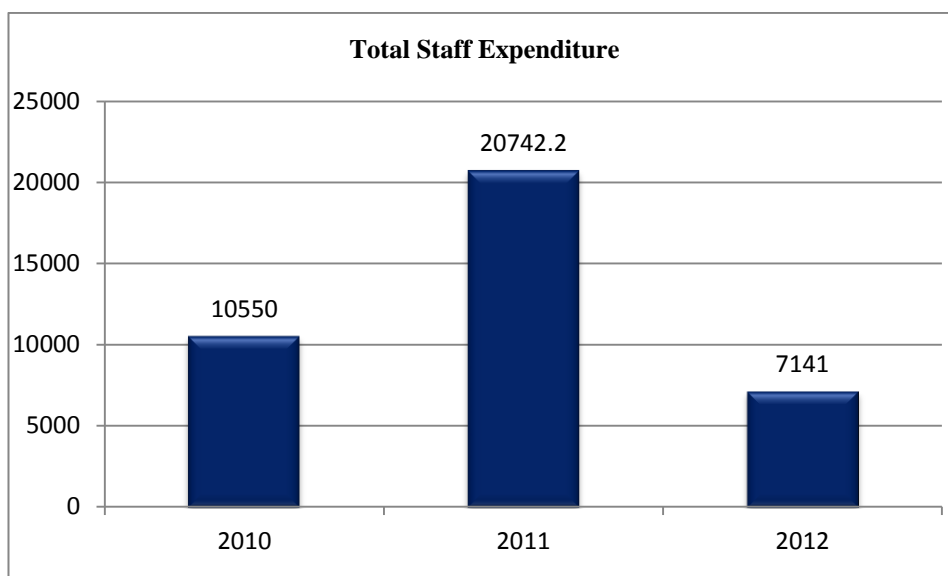Other expenditure of VA nature = VA – Staff expenditure – Am – Rez.$_{expl.}$

Other expenditure of VA nature $_{2011}$= 174442 – 10550 – 6763 – 11705.2=59.8

Structure of VA:

Total expenditure with staff $_{2010} = \dfrac{10550}{17442} \bullet 100 = 60.48\%$;

Total expenditure with staff $_{2011} = \dfrac{20740,2}{43417,4} \bullet 100 = 47.76\%$;

Total expenditure with staff $_{2012} = \dfrac{7141}{13553} \bullet 100 = 52.68\%$

Total Staff Expenditure

Figur3. Total Expenditure with Staff

Depreciation:

$$\text{Depreciation}_{2010} = \frac{6763}{17442} \cdot 100 = 38.77\% ; \quad \text{Depreciation}_{2011}$$

$$= \frac{10912,2}{43417,4} \cdot 100 = 25.14\%$$

$$\text{Depreciation}_{2012} = \frac{4872}{13553} \cdot 100 = 35.94\%$$

Other expenditure:

$$\text{Other expenditure}_{2010} = \frac{54}{17442} \cdot 100 = 0.32\% ; \quad \text{Other expenditure}$$

$$_{2011} = \frac{59,8}{43417,4} \cdot 100 = 0.14\%$$

$$\text{Other expenditure}_{2012} = \frac{141}{13553} \cdot 100 = 1.05\%$$

Result of exploitation:

$$\text{Result of exploitation}_{2010} = \frac{75}{17442} \cdot 100 = 0.14\% ;$$

Result of exploitation $_{2011} = \dfrac{11705,2}{43417,4} \bullet 100 = 26.19\%$

Result of exploitation $_{2012} = 10.33\%$

Expenditure with wages:

Expenditure with wages $_{2010} = \dfrac{8064}{17442} \bullet 100 = 42.23\%$;

Expenditure with wages $_{2011} = \dfrac{15943,2}{43417,4} \bullet 100 = 36.72\%$

Expenditure with wages $_{2012} = 38.77\%$

$\dfrac{2012}{2011} = \dfrac{5255}{15943,2} \bullet 100 = 32.96\%$

Taxes and duties afferent to wages:

$2010 = \dfrac{2486}{17442} \bullet 100 = 14.25\%$; $2011 = 11.04\%$; $2012 = 13.91\%$

Δ (comparison of the last two years)

Salary expenditure decreased with 10688.2 Ron from 2011 in 2012, and in percentage the added value decreased with 67.04%.

Taxes and duties decreases with 2911 Ron in 2012 compared to 2011, and in percentage with 60.69%.

Staff expenditure decreased with 13599.2 Ron and with percentage of 65.67%

The depreciation decreased with 6040.2 Ron and in percentage with 55.35%

Other expenditure of VA nature increased with 81.2 Ron, and in percentage increased with 135.79%

The result of exploitation decreased by 10306.2 Ron, in percentage it has decreased with 88.05 %

VA decreased with 29864.4 Ron, and in percentage with 96.88%

Q_e decreased with 50266.6 Ron, and in percentage with 68.82%.

These data must be interpreted in the light pf the correlations between the growth indices of the corresponding elements of VA (added value):

- $I_{Ch.\ sal.} < I_{Qe}$ 44.65>31.18 it is an unfavorable situation because the index of salarial expenditure exceeds the index of revenues from the achieved production

- $I_{Am} < I_{Qe}$ 55.35>31.18, it is an unfavorable situation because it has been invested more than it was produced

Table 3. Analysis of Added Value from Factorial Point of View

No.	Indicators	Simbol	2010	2011	2012
1	Production value of the exercise	Qe	33183	73036.6	22770
2	Expenses with materials	M_{at}	6529	12329.2	4565
3	Average number of employees	$\overline{Ns}$	35	48	33
4	The total fund of working time	T	95200	120560	80760
5	Average number of hours per employee	t	2720	2512	2447
6	Average productivity per hour	$\overline{Wh}$	0.3485	0.6058	0.2819
7	Average added value at 1 Ron output per product	$v\bar{a}$	0.5256	0.5944	0.5952
8	Added Value	VA	17442	43417.4	13553

$T = \overline{Ns} \bullet t$ (average number of hours per employee= hours x woking days)

$$t = \frac{T}{\overline{Ns}} \Rightarrow t_{2010} = \frac{95200}{35} = 2720$$

$$\overline{Wh} = \frac{Qe}{T} \Rightarrow \overline{Wh}_{2010} = \frac{33183}{95200} = 0.3485$$

$$\overline{Wh}_{2011} = \frac{73036,6}{120560} = 0.6058 \; ; \; \overline{Wh}_{2012} == 0.2819$$

$$v\bar{a} = \frac{VA}{Qe} \Rightarrow v\bar{a}_{2010} = \frac{17442}{33183} = 0.5256$$

$$v\bar{a}_{2011} = 0.5944 \; ; \; v\bar{a}_{2012} = 0.5952$$

It will be used the model: $VA = \overline{Ns} \bullet \dfrac{Qe}{\overline{\overline{Ns}}} \bullet \dfrac{VA}{Qe}$

Comparing the last two years: $\Delta VA = VA_1 - VA_0 = 13553 - 43417.4 = -29864.4$

1) Influence of the number of employees

$\Delta VA_{(\overline{Ns})} = \overline{N}s_1 \bullet \dfrac{Qe_0}{\overline{\overline{Ns}}_0} \bullet \dfrac{VA_0}{Qe_0} - \overline{N}s_0 \bullet \dfrac{Qe_0}{\overline{\overline{Ns}}_0} \bullet \dfrac{VA_0}{Qe_0} = (33 - 48) \bullet \dfrac{73036.6}{48} \bullet \dfrac{43417.4}{73036.6} =$

$= -13566.5856$

Influence of $\dfrac{Qe}{\overline{\overline{Ns}}}$

$\Delta VA_{\left(\frac{Qe}{\overline{Ns}}\right)} = \overline{N}s_1 \bullet \dfrac{Qe_1}{\overline{\overline{Ns}}_1} \bullet \dfrac{VA_0}{Qe_0} - \overline{N}s_1 \bullet \dfrac{Qe_0}{\overline{\overline{Ns}}_0} \bullet \dfrac{VA_0}{Qe_0} = 33(690 - 1521.6) \bullet 0.5944 = -16312$

Influence of $\dfrac{VA}{Qe}$

$\Delta VA_{\left(\frac{VA}{Qe}\right)} = \overline{N}s_1 \bullet \dfrac{Qe_1}{\overline{Ns}_1} \bullet \dfrac{VA_1}{Qe_1} - \overline{N}s_1 \bullet \dfrac{Qe_1}{\overline{\overline{Ns1}}} \bullet \dfrac{VA_0}{Qe_0} = 33 \bullet 690(0.6 - 0.6) = 0$

Verification:
$\Delta VA = \Delta VA_{(\overline{Ns})} + \Delta VA_{\left(\frac{Qe}{\overline{Ns}}\right)} + \Delta VA_{\left(\frac{VA}{Qe}\right)} = -13566.5856 - 16312 = -29878.6$

After the analysis of added value results that in the future there must be taken a number of measures such as: the organization, work and creating favorable working conditions for the workers left.

5. Conclusions

The process of economic and financial analysis is the reverse of the real evolution of the studied phenomenon. The analysis starts from the results of the closed process towards elements and factors, proceeding to the decomposition of the whole into its component parts.

The process itself has an evolutionary character and consists in unitary combining of the results of the analysis with the synthesis, which gives content, and it is conditioning the scientific character of the analysis.

The added value expresses better than any indicator the efficiency of combining the production factors: work and capital. The added value is the expression of wealth created by a company, a wealth that is distributed between five partners and namely: staff, state, the creditors, shareholders and the company.

Tool of management, in this case the economical and financial analysis is to provide information for the decisional process at all hierarchical and organizational levels; substantiates the operational, tactical and strategic decisions. The quality of a decision is influenced decisively by volume, quality, efficiency and opportunity of information provided by the analysis.

The added value is one of the most important indicators of reflecting the economic and financial performance of a company. Based on the added value is considered that it can be appreciated the real dimension of company's activity, it being the expression of its role. The added value is the excess of receipts over the value of consumptions from the third parties, created by capitalizing the technical, human and financial resources of the company.

One aspect of studying the added value refers to the factorial analysis which allows to highlight the factors that determined its modification as well as and the directions in which it must be acted in the future.

In conclusion the growth rate of added value exceeded in dynamic the production value of the exercise (77.7>66.81; 31.21>31.17) because the intermediate consumption from third parties increased in 2011, and the added value decreases to an percentage of 22.30 % compared to the basis year in 2010.

From the point of view of comparative analysis of the structure of the added value on the last two years there were found the following:

- The salary expenditure decreased by 67.04%;
- Taxes and duties decreased as percentage with 60.69%;
- Expenditure with staff decreases by 65.67%;
- Depreciation decreased as percentage with 55.35%;
- Other expenditure of the nature of added value increased as percentage with 135.79%;
- The result of exploitation decreased with 88.05%;
- The added value decreased with 96.88%;
- Production value of exercise decreased as percentage with 68.82%.

What led to the decrease of added value is explained because:

- The staff expenditure recorded a decrease from 20742.2 from 2011, to 7141 in 2012, respectively with 65.67%l;

- The depreciation expenditure decreased with 55.35%;

- The result of exploitation had a decisive contribution at the decrease of the added value, registering a decrease from 88.05% compared to 2011, respectively from 11705.2 ron to 1399 ron in 2012.

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