

ANALYSIS OF THE VALUE ADDED BY THE ADDITIVE METHOD

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Calculating the value added by the additive method (analytical) study concerns the component value through creative participation factors to be paid.

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Introduction

Value added (VA) is represented and expressed as the entity in the economic cycle through its activities within a specified period, usually the financial year.

The indicator measures the entity's economic- financial performance, growth of value added index to show a tendency to it than that of the production year and it is in continuous growth.

The importance of value-added analysis is reflected in the following aspects:

- Value added is the main source of self-financing economic activity;
- Value added is the source of remuneration of staff;
- Value added is the source for financing the budget;
- Value added is the source to increase reserves for the entity.

Determining the value added by the additive method

Additive or analytical method is a method which involves adding the structural distribution of newly created value, which includes: personnel expenses = wages and social protection expenditure = (PE); taxes and no VAT charges (T+C) ; financial costs (FC); depreciation of fixed assets (DFA); and net added value (NAV) after deducting depreciation.

In this respect, there are two possibilities for calculating the value added:

1) Based on net income for the year

VA = Personnel expenses + expenses, taxes, and similar taxes (including income tax) + financial expenses+ adjustments to financial expenses: tangible and intangible assets + other operating expenses (compensation expense) + extraordinary expenses+ net income. Minus: other operating income, financial income, extraordinary income and income from operating subsidies.

2) *Based on results of operations*

VA = personnel expenses + expenses, taxes, and similar taxes + other operating + value adjustments of tangible assets + adjustments on provisions+ operating result.
Minus: other operating income.

Calculation models emphasize the role of investment consumption represented by depreciation expense and provision for depreciation of assets, which reflects the contribution of production equipment along with other factors to create gross value added(GVA).

By excluding depreciation and provisions for impairment of assets (DIA), obtain net value added:

$$NVA = GVA - DIA$$

NVA = Net value added

GVA = Gross Value Added

DIA = depreciation and provisions for impairment of assets

The model for calculating the value added provided by the analytical method allows analysis of: the factors increase or decrease, the value added structure depending on the capital intake and its allocation to pay labor and capital inputs contributing to the new value created.

Value added factor analysis aims to increase or decrease factors that depend on structural elements of the indicator considered.

For example, the value added calculated by the analytical method based on net income, uses data from the following table:

Table 1

Nr. crt.	CALCULATION ELEMENTS -lei-	Financial year		Deviations (±Δ)	Indices (%)
		Previous	Current		
1.	Personnel expenses (PE)		4336434	+979056	129,16
2.	Taxes, charges TOTAL (T+C) (+)	3726156	4912292	+1186136	131,83
3.	Financial expenses (FE) (+)	1044330	1837828	+793498	175,98
4.	Value adjustments on tangible and intangible assets (VATI) (+)	1365560	1456270	+99710	107,35
5.	Value adjustments on assets (VAA) (+)	135200	121300	-13900	89,71
6.	Adjustments on provisions (AP) (+)	256300	195300	-61000	76,20
7.	Other operating expenses (OOE) (+)	159445	132273	-27172	82,96
8.	Extraordinary charges (EXC) (+)	98450	104530	+6080	106,18
9.	Net Result (+)NR	4431192	8223928	+3792736	185,59
10.	Other operating income (OOI) (-)	2277610	3592006	+1314396	157,71
11.	Extraordinary income (EXI) (-)	118930	123450	+4520	103,80
12.	Revenues from operating grants (ROG) (-)	1265400	2562456	+1297056	202,50
13.	Financial income (FI) (-)	1379870	1908670	+528800	138,32
14.	Gross value added (GVA)	9523201	13133573	+3610372	137,91
15.	Net value added (NVA)	8166641	11677303	+3510662	142,99

$$GVA = PE + (T+C) + FE + VATI + VAA + AP + OOE + EXC + NR - OOI - EXI - ROG - FI$$

1. *Changing the value added:*

$$\Delta GVA = GVA_1 - GVA_0 = 13.133.573 - 9.523.201 = +3.610.372 \text{ lei}$$

$$(\Delta r = I_{GVA} - 100 = 137,91 - 100 = +37,91\%)$$

2. Factors influencing are:

$$\Delta = \Delta PE + \Delta(T+C) + \Delta FE + \Delta VATI + \Delta VAA + \Delta AP + \Delta OOE + \Delta EXC + \Delta RH + \Delta OOI + \Delta EXI + \Delta ROG + \Delta FI, \text{ în care:}$$

$$\Delta PE = PE_1 - PE_0 = +979.056 \text{ lei}$$

$$(\Delta rPE = 979056/9523201 * 100 = +10.28\%)$$

$$\Delta(T+C) = (T_1+C_1) - (T_0+C_0) = 4912292 - 3726156 = +1186136 \text{ lei}$$

$$(\Delta r(T+C) = 1186136/9523201 * 100 = +12.46\%)$$

$$\Delta FE = FE_1 - FE_0 = 1.837.828 - 1.044.330 = +793.498 \text{ lei}$$

$$(\Delta rFE = 793498/9523201 * 100 = +8.33\%)$$

$$\Delta VATI = VATI_1 - VATI_0 = 1.456.270 - 1.356.560 = +99.710 \text{ lei}$$

$$(\Delta rVATI = 99710/9523201 * 100 = +1.05\%)$$

$$\Delta VAA = VAA_1 - VAA_0 = 121.300 - 135.200 = -13.900 \text{ lei}$$

$$(\Delta rVAA = -13900/9523201 * 100 = -0.15\%)$$

$$\Delta AP = AP_1 - AP_0 = 195.300 - 256.300 = -61.000 \text{ lei}$$

$$(\Delta rAP = -61000/9523201 * 100 = -0.64\%)$$

$$\Delta OOE = OOE_1 - OOE_0 = 132.273 - 159.445 = -27.172 \text{ lei}$$

$$(\Delta rOOE = -27172/9523201 * 100 = -0.29\%)$$

$$\Delta EXC = EXC_1 - EXC_0 = 104.530 - 98.450 = +6080 \text{ lei}$$

$$(\Delta rEXC = 6080/9523201 * 100 = +0.06\%)$$

$$\Delta NR = NR_1 - NR_0 = 8.223.928 - 4.431.192 = +3.792.736 \text{ lei}$$

$$(\Delta rNR = 3792736/9523201 * 100 = +39.83\%)$$

$$\Delta OOI = OOI_0 - OOI_1 = 2.277.610 - 3.592.006 = -1.314.396 \text{ lei}$$

$$(\Delta rOOI = -1314396/9523201 * 100 = -13.80\%)$$

$$\Delta EXI = EXI_0 - EXI_1 = 118.930 - 123.450 = -4.520 \text{ lei}$$

$$(\Delta rEXI = -4520/9523201 * 100 = -0.05\%)$$

$$\Delta ROG = ROG_0 - ROG_1 = 1.265.400 - 2.562.456 = -1.297.056 \text{ lei}$$

$$(\Delta rROG = -1297056/9523201 * 100 = -13.62\%)$$

$$\Delta FI = FI_0 - FI_1 = 1.379.870 - 1.908.670 = -528.800 \text{ lei}$$

$$(\Delta rFI = -528800/9523201 * 100 = -5.55\%)$$

By summing, we verify the equality:

$$\Delta PE + \Delta(T+C) + \Delta FE + \Delta VATI + \Delta VAA + \Delta AP + \Delta OOE + \Delta EXC + \Delta RH + \Delta OOI + \Delta EXI + \Delta ROG + \Delta FI = 979.056 + 1.186.136 + 793.498 + 99.710 - 13.900 - 61.000 - 27.172 + 6.080 + 3.792.736 - 1.314.396 - 4.520 - 1.297.056 - 528.800 = +3.610.372 \text{ lei} = \Delta$$

$$(10,28 + 12,46 + 8,33 + 1,05 - 0,15 - 0,64 - 0,29 + 0,06 + 39,83 - 13,80 - 0,05 - 13,62 - 5,55 = +37,91\% = \Delta r)$$

Conclusions

Changing the value added is the consequence of the increase or decrease of the elements of distribution.

Taxes, as items of expenditure are factors influencing the net result of the company and hence, are influential factors in increasing or decreasing the value added. Structural analysis of the value added concerns shares of participation of the allocation of elements to create added value, which reflects the contribution of each input corresponding intake.

Labour contribution

$$LC = \text{Personnel expenses/Value added} * 100$$

Contribution to State

$$CS = \text{Taxes, charges} / \text{Value added} * 100$$

Contributing to creditors

$$CC = \text{Financial expenses} / \text{Value added} * 100$$

Contribution to investment

$$CI = \text{Depreciation and provisions} / \text{Value added} * 100$$

Contribution to business

$$CB = \text{Net result} / \text{Value added} * 100$$

The structure of the value added reflects shares of participation from the capital intake to achieving new value created, given the fact that the increase in value added cointerests all participants in the life of the entity.

- 1) *Personnel undertaking*: the personnel costs directly attributable to the form of salaries or indirect form of social benefits and shares profits
- 2) *Intake capital*: the interest paid to creditors and dividends paid to shareholders
- 3) *State*: through taxes and corporation tax receipts
- 4) *Undertaking*: depreciation and wear itself by offsetting assets through depreciation and provisions for depreciation and self-financing their development

Factors of value added incorporate two distinct parts: one corresponding added cost for the enterprise and another that is a sampling of results. Added cost is the cost of the undertaking's activity, which it added to goods and services purchased from outside.

Sampling result is net income component and it is distributed to the inputs in the form of dividends, income tax, self-financing.

Analyzed as a sum of added costs and interest in the result, the value added provides an insight into the evolution of these costs, hence useful for management.

The structure of value added depending on the contribution of capital intake, on components, given the costs of product additions and deductions, is made by a scheme that requires prior knowledge of the distribution of the net profit by destination: legal reserves, their sources of financing (self-financing), worker participation in profits and dividends to shareholders.

Intake capital are: working with personnel costs and employee participation in profits; creditors and shareholders through dividends and financial costs; the state through taxes including income tax and enterprise, through depreciation and provisions for depreciation, the result put in question reserve self-financing.

Table 2

Value added	=	Added costs	+	Shares in the result
I. Work	=	Personnel expenses	+	Profit participants
II. Capital shareholders	=	Financial expenses	+	Dividends
III. State	=	Taxes, charges	+	Tax income
IV. Enterprise	=	Depreciation	+	Self-financing

Distribution of added value, calculated by the analytical method, based on equity and share intake according to the structure pattern leads to: added costs and levies in each corresponding product.

Value added structured like this, is on one hand a performance indicator, since it allows to assess the effectiveness of the company for its actions, and the second is an indicator of the degree of economic integration, given the external input consumption.

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