

# THE ENTERPRISE THEORY - CALCULATION



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# CALCULATION

- calculation of costs, margin, profit, price or other value quantity for a product, work or service or for an activity or operation (calculation unit)
- displays in relation to each other both in kind and value-expressed performance unit
- the most important tool of economic management



## Purpose of costing

- assign costs to the cost bearer (product, service, order), i.e. to the calculation unit
- **direct costs:**
  - direct allocation per unit of output or per cost center
- **indirect costs:**
  - before scheduling on the performance unit of their allocation to end centers
  - they cannot be directly assigned to the performance unit - use of the costing schedule base



## Simple division calculation

- in the case of linear dependence of costs in single-type production of products or services (energy production, lemonade, mineral extraction)
- the cost per unit  $n_j$  can be found directly by dividing the cost  $N$  by the output  $Q$

$$n.e._ = C / Q$$



## Example:

The selected company deals with the packaging of Grilling Mixture per 25g of the delivered spice mixture. Material costs were CZK 14,000 for 54 kg of seasoning mixture. The company incurred wage costs in the amount of CZK 10,000 and other overhead costs (depreciation of the packaging line, share of administrative staff costs) in the amount of CZK 15,000. What will be the cost of producing one 25g bag of the mixture?



## ***Solution:***

We add up all incurred costs (material, wages and other costs) and divide them by the required calculation unit of 25 g /bag.

$$TC = 14,000 + 10,000 + 15,000 = 39,000 \text{ CZK}$$

$$\text{Number of units per 25 g} = 54,000 \text{ g} / 25 \text{ g} = 2,160 \text{ bags}$$

$$\text{Cost per unit} = 39,000 / 2,160 = \text{CZK } 18.05/\text{pc}$$

# Typical calculation formula

1.	Direct material (raw materials, material, semi-finished products, purchased products)
2.	Direct wages (wages of operating workers, bonuses, bonuses, allowances, additional payments)
3.	Other direct costs (technological fuels and energy, depreciation, transport costs, repairs, technical development costs, etc.)
4.	Production overhead (technological and general) (costs related to the management of production activities, process maintenance)
$\Sigma$ (1st-4th)	Own production costs
5.	Administrative overhead (may include supply overhead) (related to the management and administration of the organization)
$\Sigma$ (1st-5th)	Own performance costs
6.	Sales costs (may be part of administrative overhead) (shipping, advertising, promotion, sales)
$\Sigma$ (1.-6.)	Full cost of performance
7.	Business result - profit/loss + margin
$\Sigma$ (1.-7.)	Price (production)





**The following production items for a medium-sized candle are given:**

- the production plan is 10,000 units,
- material consumption is 0.05 kg of beeswax at 1000 CZK/kg per 1 piece,
- time consumption is 18 min/piece,
- hourly wage rate = 150 CZK/hour,
- manufacturing overhead budget = CZK 45,000 for the entire production plan,
- administrative overhead budget = CZK 60,000 for the entire production plan,
- other direct costs 31.5% of social and health insurance,
- the margin is 30% of the full own cost of performance.

Create a preliminary calculation:

Calculation formula line	Type of cargo	Calculation of the load per unit	Cost per unit (CZK/piece)
1	material		
2	employee salary		
3	other direct costs		
4	manufacturing overhead		
Σ			
5	administrative overhead		
Σ			
7	Margin - profit margin		
Σ	costs		





Calculation formula line	Type of cargo	Calculation of the load per unit	Cost per unit (CZK/piece)
1	material	$0.05 \cdot 800$	50
2	employee salary	$150/60 \cdot 18$	45
3	other direct costs	$0.315 \cdot 45$	14,175
4	manufacturing overhead	$45,000/10,000$	4.50
$\Sigma$			113,675
5	administrative overhead	$60,000/10,000$	6
$\Sigma$			119,675
7	Margin - profit margin	$119.675 \cdot 0.3$	35.9025
$\Sigma$	price		155.58