OPERATIONS INSIDER

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# VALUE ANALYSIS AND VALUE ENGINEERING QUICK START CHECKLIST

Score your product cost work in one hour, with documents you can point at.



COST. FUNCTION. IDEA. TARGET.

START HERE

# How to Use This Check

One product or one product family, one hour with design, purchasing, sales and controlling, twenty-five statements, one number.

| 01 LOOK | 02 SCORE | 03 ACT |
|---|---|---|
| Put the real documents on the table: the cost calculation of the product, the last cost reduction list, the specification and the customer complaints of the last year. | Score each statement from 0 to 4. Without a document, a list or a table you can point at, the score is 2 or lower. | Pick the weakest block and agree one action with an owner and a date before you leave. |

## The Scoring Scale

| POINTS | MEANING |
|---|---|
| 0 | Not in place. |
| 1 | Happens occasionally, depends on individuals. |
| 2 | Partly in place, not consistent across products or projects. |
| 3 | Mostly in place and visible in the documents. |
| 4 | Consistently in place, visible, reviewed and improved. |

> **WHY FUNCTIONS**
>
> **Customers do not pay for parts. They pay for what the product does for them. A cost reduction that starts from the parts cuts everywhere a little. A cost reduction that starts from the functions cuts where cost is high and the customer does not care, and leaves alone what the customer pays for.**

## Before You Start

- **Scope:** one product or one product family with a known annual quantity and a cost calculation.
- **Evidence:** cost calculation per component, bill of material, specification, customer requirements, list of past cost ideas.
- **Tone:** you check how the company works on product cost, not the people who designed the product.

THE CHECK

## 01 Object and Cost

| NO. | CHECK | SCORE 0 TO 4 |
|---|---|---|
| 01 | The products for a value study are chosen by written criteria such as annual cost volume, margin gap and remaining life, not by the loudest complaint. | |
| 02 | Every study has a sponsor, a target cost per unit in EUR with a date, and a team from design, manufacturing, purchasing, sales, quality and controlling. | |
| 03 | A cost statement per component exists, with material, manufacturing and overhead in EUR per unit, and its total equals the standard cost. | |
| 04 | The annual quantity, the price and the margin of the product are known to everyone in the team. | |
| 05 | The team has the product on the table, taken apart, together with the nearest competitor products where they can be bought. | |

## 02 Functions

| NO. | CHECK | SCORE 0 TO 4 |
|---|---|---|
| 06 | Every function of the product is written as a verb plus a noun, in words that leave the solution open. | |
| 07 | Functions are sorted into basic functions, supporting functions and unwanted effects. | |
| 08 | A function tree shows how the functions depend on each other, read from left to right by asking how and from right to left by asking why. | |
| 09 | Every component is linked to at least one function, and components without a function are questioned. | |
| 10 | The function list was reviewed with people who know the customer: sales, service or the customer. | |

THE CHECK

## 03 Function Cost and Importance

| NO. | CHECK | SCORE 0 TO 4 |
|---|---|---|
| 11 | The cost of every component is spread across the functions it serves, in percent, and the result is a cost in EUR per function. | |
| 12 | The importance of each function was rated from the customer point of view by paired comparison or by customer interviews. | |
| 13 | Cost share and importance share are compared per function, and a value index is calculated. | |
| 14 | Functions that cost far more than they matter are named as the search fields for ideas. | |
| 15 | Functions that matter more than they cost are protected from cost cutting, and this is written down. | |

## 04 Ideas and Requirements

| NO. | CHECK | SCORE 0 TO 4 |
|---|---|---|
| 16 | Ideas are collected per function, not per component, and collection is separated from rating. | |
| 17 | Every idea has a saving in EUR per unit, a one-time cost, a risk rating and an owner for the rating. | |
| 18 | Customer requirements are listed with a weight and linked to measurable technical characteristics with a unit and a target value. | |
| 19 | Every idea is checked against the technical characteristics it touches before it is decided. | |
| 20 | Rejected and parked ideas are kept in the list with the reason, so that nobody has to discuss them again. | |

THE CHECK

## 05 Target Cost and Tracking

| NO. | CHECK | SCORE 0 TO 4 |
|---|---|---|
| 21 | The target cost is broken down to functions and components, and each has an owner. | |
| 22 | Decided ideas run through the regular engineering change process with tests and approvals. | |
| 23 | A saving counts only when it is in the bill of material, the routing or the purchase price and controlling has confirmed it. | |
| 24 | A savings tracker shows planned and confirmed savings per unit and per year, and it is reviewed monthly. | |
| 25 | New products get a target cost per function before the design is fixed, and the cost is checked at every design review. | |

## Your Result

| BLOCK | POINTS | OUT OF |
|---|---|---|
| **01 Object and Cost** | | 20 |
| **02 Functions** | | 20 |
| **03 Function Cost and Importance** | | 20 |
| **04 Ideas and Requirements** | | 20 |
| **05 Target Cost and Tracking** | | 20 |
| **TOTAL** | | 100 |

YOUR RESULT

# Read the Number

The total tells you how much of your cost work follows the customer. The weakest block tells you where to start.

| TOTAL | WHAT IT MEANS | WHAT TO DO FIRST |
|---|---|---|
| 0 to 39 | Cost cutting by feel. Savings are demanded as a percentage, part by part. | Choose one product. Write the cost statement per component. |
| 40 to 59 | Costed. The cost per component is known, functions are not. | Describe the functions. Build the function cost matrix. |
| 60 to 79 | Function based. Cost and importance are compared, ideas follow the gaps. | Check ideas against requirements. Track confirmed savings. |
| 80 to 100 | Value managed. Targets per function exist before a design is fixed. | Hold the level. Bring the method into every new product. |

## Your Three Priorities

| NO. | WHAT TO IMPROVE | FIRST ACTION | OWNER | DUE |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

THE RULE FOR EVERY ACTION

**Owner and date, or it did not happen. Repeat the check after the first completed study and compare the blocks, not the feeling.**

## What to Do Next

| NEXT STEP | WHAT YOU GET |
|---|---|
| **STARTER KIT** | The guide for the first 30 days on one product, plus the Function Cost Workbook in Excel with cost statement, function list, function cost matrix, value index and chart. |
| **EXCELLENCE BUNDLE** | The full playbook, a two-day workshop pack, six templates, the Excel system with paired comparison, idea list, requirements matrix, target cost and savings tracker, and a workshop deck. |

Both are available at operationsinsider.com.