



Stefan Eifler

# Quick Guide to SAP® CO-PA (Profitability Analysis)

- ▶ Successfully implementing a contribution margin analysis
- ▶ Defining the actual value flow
- ▶ Optimizing planning tools
- ▶ Includes 5 video tutorials

# Table of Contents

<b>1</b>	<b>Introduction: CO-PA—the Supreme Module</b>	<b>7</b>
<b>2</b>	<b>Structures in CO-PA</b>	<b>11</b>
2.1	The Intent and Purpose of CO-PA	11
2.2	The Operating Concern	12
2.3	Master Data in CO-PA	14
2.4	Costing-Based or Account-Based Profitability Analysis?	16
2.5	Setting Up an Example Operating Concern	17
<b>3</b>	<b>Characteristic Derivations</b>	<b>31</b>
3.1	What Are Characteristic Derivations?	31
3.2	Methods of Characteristic Derivation	32
3.3	Characteristic Derivations for Our Example	33
<b>4</b>	<b>Valuation</b>	<b>57</b>
4.1	Valuation Types	58
<b>5</b>	<b>Actual Value Flows</b>	<b>77</b>
5.1	The Most Important Interface to CO-PA: The SD Interface	78
5.2	Settlement to CO-PA	88
5.3	FI Interface	99
5.4	Cost Center Assessments	100
5.5	Direct Line Item Corrections in CO-PA	111

<b>6</b>	<b>Planning in CO-PA</b>	<b>119</b>
6.1	Shortening the Planning Process without Losing Quality	120
6.2	Fast Yearly Planning in Detail	126
6.3	Planned Cost Center Assessments	130
6.4	Distributing the Planning over Months	131
6.5	Planning Our SAP Example	133
<b>7</b>	<b>Dynamic Reporting</b>	<b>155</b>
7.1	Information System Components	157
7.2	Example Customizing of Report Components	159
7.3	Drilldown Reports	174
7.4	Line Item Layouts	175
7.5	Structure of a Profitability Report for Our Example	178
7.6	Example of Dynamic Reporting	183
<b>8</b>	<b>Tools in CO-PA</b>	<b>189</b>
8.1	Summarization Levels	189
8.2	Analyzing Value Flows	192
<b>9</b>	<b>Closing Words</b>	<b>205</b>
<b>A</b>	<b>The Author</b>	<b>208</b>
<b>B</b>	<b>Index</b>	<b>211</b>
<b>C</b>	<b>Disclaimer</b>	<b>218</b>
	<b>More Espresso Tutorials eBooks</b>	<b>220</b>

## 2 Structures in CO-PA

**In this chapter I will firstly address the actual purpose of CO-PA. I will then explain the organizational structures and master data that are required for CO-PA. The chapter closes with a presentation of the definition of an example operating concern that is the basis for all further examples in this book.**

### 2.1 The Intent and Purpose of CO-PA

In addition to mapping contribution margin accounting with actual and planned figures, the purpose of CO-PA is to answer various business questions, for example:

- ▶ Which customer do I earn the most money from?
- ▶ Which products are the key to my business success?
- ▶ Which specific products are successful with which specific customers?
- ▶ Was my last marketing campaign successful?
- ▶ What effect has my new price strategy had on the purchasing behavior of my customers?
- ▶ Should I grant a customer further discounts to increase the sales quantity?
- ▶ Are my contribution margins in a business area sufficient to cover the fixed costs assigned there?

- ▶ What do I give my customers in sales promotions—and does this lead to a higher sales quantity?
- ▶ Where do my deviations to planned figures come from?

These are just some of the questions that CO-PA can answer—provided you have customized it correctly.

As you will recognize from the various questions, CO-PA is designed as a sales controlling tool. In principle, however, it can map all of the elements of contribution margin accounting down to earnings before interest and tax (EBIT). Which CO-PA-relevant organizational structure is advantageous here?

## 2.2 The Operating Concern

In an SAP system, the operating concern is the organizational unit responsible for Profitability Analysis (CO-PA). What are organizational units in the SAP system? You usually use organizational units to map your company structure: you set up company codes for your independent accounting units; you create sales areas in SD; you define plants etc. for MM and PP. The entire remaining customizing of your SAP system is based on this organizational representation of your company structure. The organizational structure is the backbone of your system.

In an operating concern, you define all operating concern-relevant master data that you need for your subsequent work with CO-PA. You then assign the operating concern to one or more controlling areas. Here I would recommend a 1:1 relationship—i.e., assign the operating

concern to only one controlling area. You may wonder whether it makes sense to define a 1:1 relationship here when you will want to evaluate data across the group or company later on. Your thinking is correct, but the clue is in the assignment of controlling areas to company codes: a controlling area is the organizational unit of the CO module—you can assign one or more company codes to one controlling area. To enable you to perform evaluations across the group or company (and not only in Excel or a business warehouse, which would lead to further costs), you have to assign all of your “live” company codes to one controlling area. You then assign this controlling area to the operating concern. This ensures that you can see not only your costs across the group, but also your revenues, contribution margins, and of course, your profit.

#### Common error in practice



If you do not think through the mapping of the organizational structure in the SAP system thoroughly from the very beginning, meaning that you have to make changes later, you will have to check the customizing that is based on this structure whenever you make changes. SAP projects often take longer and become unnecessarily expensive because the management thinks about changes to organizational structures during the SAP implementation phase. The SAP implementation is later deemed to have taken very long and been too expensive, but in reality, it is the management decisions that have caused the extended time frame. Consultants, on the other hand, are very happy.

### Anecdote/common error



A fellow consultant once told me that he was called to a customer who had already gone live with SAP but was having problems with his Report Writer reports. The customer wanted to evaluate his costs across the group, but the reports did not allow him to do this. Unfortunately my colleague could not help him: the customer had set up one controlling area for each company code, meaning that he could only see the costs of this company code in the Report Writer reports for this controlling area. This example shows how important it is to think about your organizational structure in the SAP system thoroughly in advance.

However, to work with only one operating concern, all controlling areas and company codes must work with the same fiscal year variant, generally K4 (here, the fiscal year corresponds to a calendar year with four special periods). All company codes must also use the same chart of accounts.

In the next section I will explain the master data in CO-PA.

## 2.3 Master Data in CO-PA

There are two forms of Profitability Analysis: costing-based and account-based Profitability Analysis. The costing-based form works with value fields and the account-based form works with accounts.

As the name indicates, a value field is a field in which values are entered. For example, for each line of contribution margin accounting (unless the line can be calculated as a formula), you define a value field. This field is then filled with data “automatically,” regardless of whether you are compiling actual or planned figures. In the same way, quantity fields, as the name indicates, are filled with quantities, e.g., sales quantities.

Mapping contribution margin accounting is part of management accounting. In contrast to financial accounting, there are no legal requirements as to the presentation of contribution margin accounting—each company maps its structure in accordance with its own needs. This individuality in mapping contribution margin accounting is (naturally) possible in our supreme module CO-PA.

In account-based Profitability Analysis, you would define your contribution margin structure using accounts that you also create as cost elements.

Both forms of Profitability Analysis work with characteristics. But what is a characteristic? You use characteristics to enter selections for your Profitability Analysis dataset. SAP has a number of predefined characteristics, such as company code, sales organization, distribution channel, customer, or product, to name just a few. You can also define characteristics that are important for control in your company yourself. For example, if you want to look at the data of customer XY in a period to see whether he purchased products from product group 4711, you can use the characteristics to select your data and present it in reports. You will see not only the sales quantity and the sales, but also all costs that you can directly assign to this customer and the related products, product groups etc. We will look at this more closely later on in the book.



# B Index

## A

ABAP 45, 72, 116, 132  
Account assignment 16  
Account assignment  
proposal 88  
Account determination  
16  
Account-based  
Profitability Analysis  
14, 16, 28  
Accounts 15  
Activating Profitability  
Analysis 28  
Actual line item 177  
Actual point of valuation  
64  
Actual valuation 61  
Alternative quantity 20,  
46, 72, 74, 135  
Alternative quantity unit  
46  
Analyze value flows 200  
Analyzing value flows  
192  
Assessment 100  
Assessment cost  
element 103  
Assessment cycle 100

Assignment 28, 32, 34,  
90, 91  
Automatic planning 127  
Auxiliary field 51

## B

Balance sheet 58, 66  
Basic formula 160  
Batch input 116, 123,  
132, 144  
Bill of material 64  
Billing document 59, 80  
Business questions 11  
Business warehouse  
13, 156

## C

Calculation of imputed  
costs 69  
Cash discount 19, 68,  
70  
Characteristic 15, 22  
Characteristic derivation  
31, 37, 46, 136, 141  
Characteristic derivation  
strategy 32, 33, 39,  
41, 48  
Characteristic value 44,  
51

- Chart of accounts 14
  - Classic drilldown 180
  - Client-independent objects 24
  - Client-specific objects 24
  - Column 137, 138, 168
  - Company code 12, 13, 14, 15, 17, 26
  - Component COPA0002 73, 135, 144
  - Condition 69
  - Condition record 71
  - Condition type 68, 70, 81, 84
  - Contribution margin accounting 15, 31, 59
  - Contribution margin structure 19
  - Controlling area 12, 13, 14, 17, 26, 28
  - Conversion factor 46
  - CO-OM-CCA 100
  - CO-OM-OPA 92
  - CO-PA document 44, 52
  - COPA0001 46
  - COPA0002 73
  - CO-PC 58, 61, 143
  - Correcting line items 112, 115
  - Cost center 104, 107
  - Cost Center Accounting 110
  - Cost component 59, 64
  - Cost components 58
  - Cost element 81, 86, 90
  - Cost element type 81, 91
  - Cost elements 15
  - Cost object controlling 89
  - Cost of goods sold 58
  - Costing 58
  - Costing key 62, 63
  - Costing lot size 64
  - Costing variant 62
  - Costing version 62
  - Costing-based Profitability Analysis 14, 16, 17, 28, 57, 84
  - Costs 31
  - Customer 15, 18, 31, 38, 52, 59
  - Customer group 18, 31, 33, 51, 52, 126
  - Customer hierarchy 18, 33, 34, 36, 38, 113, 126, 134
  - Customer hierarchy level 38
  - Customer master record 33, 36
  - Customizing monitor 193
- D**
- Data backup 17
  - Date field 176
  - Default characteristic 21

Derivation 39, 50  
Derivation date 134  
Derivation rule 32, 37,  
51  
Derivation step 36, 37,  
42, 49  
Derivation strategy 52  
Detail list 186  
Direct material costs 58  
Direct production costs  
58  
Discounts 19  
Distribution 132  
Distribution channel 15,  
18, 37  
Distribution column 139  
Distribution key 131  
Division 18, 37  
Drilldown 145, 155, 173,  
174, 185, 199  
Drilldown list 181, 182,  
185  
Drilldown report 156,  
174

## **E**

Enhancement 46, 72  
Environment 25  
Error message 54  
Excel 13, 122  
Executing a profitability  
report 183  
EXIT\_SAPL\_KEAB\_002  
136

## **F**

FI 16, 69, 81, 99  
FI interface 99  
Financial accounting 15  
Fiscal year 14  
Fiscal year variant 14,  
25  
Fixed characteristics 17  
Form 157, 165, 178,  
179  
Formula 19, 159, 170  
Formula editor 170

## **G**

General selections 137,  
139, 172

## **H**

Hierarchy assignment  
36  
Hierarchy nodes 35

## **I**

Include ZXXKEU03 73  
Include ZXXKEU04 136  
Include ZXXKEU11 46  
Include ZXXKEU14 144  
Incoming sales order  
61, 78, 83  
Information system 155  
Initialization 32, 51  
Internal order 88, 89, 93  
Inventory valuation 66

Invoice 59  
Invoicing 78

## K

Key account  
    management 122  
Key figure scheme 157,  
    159, 163, 167  
Kind of product 18, 40,  
    41, 126

## L

Layout 138  
Line 137, 138, 167  
Line item layout 116,  
    175

## M

Make-to-order  
    production 78  
Make-to-stock 17, 78  
Make-to-stock  
    production 78  
Management accounting  
    15  
MARA 42  
MARA-PRDHA 40  
Marketing costs 89  
MARM 74  
Mass activation 24  
Material costing 58, 60,  
    61, 62, 64, 127, 135  
Material master 42, 62

Material overhead costs  
    58  
Material type 63  
MM 40, 63

## N

Number range 133

## O

Operating concern 12,  
    13, 14, 17, 20, 21, 24,  
    26, 28  
Operating concern  
    currency 25  
Order type 92  
Organizational structure  
    26  
Organizational unit 12,  
    13  
Output type 179  
Overview of Derivation  
    196  
Overview of Valuation  
    195

## P

P&L 16  
PA transfer structure 89,  
    90, 92, 99  
Performance 182  
Period/year 168  
Pivot table 124  
Plan version 83, 126,  
    134, 171

- Planned assessment cycle 131
- Planned condition 121
- Planned point of valuation 64
- Planned prices 121
- Planned quantity 125
- Planned sales quantity 121
- Planned/actual indicator 168
- Planning 120
- Planning framework 119
- Planning layout 123, 126, 136, 139, 140, 143
- Planning line item 133, 177
- Planning method 119
- Planning process 119, 120, 121
- Planning transaction 128
- Planning valuation 143
- Planning valuation strategy 134
- Plant 12, 18
- Point of valuation 60, 127, 136
- Pricing procedure 58, 68, 70, 81, 84, 85, 127, 130, 135
- Print setup 182
- Product 15, 18, 31, 59, 74
- Product Cost Accounting 58
- Product group 18, 23, 40, 43, 126
- Product hierarchy 40, 41, 44, 126
- Product master 40, 49
- Production cost collector 89
- Production order 89
- Production overhead costs 58
- Production variance 89
- Profit Center Accounting 16
- Profitability report 178
- Profitability segment 82, 88, 92
- Project 89
- PS 89
- Q**
- Quantity field 20, 60, 79, 86
- Quantity structure 64
- Quantity unit 46, 49
- R**
- Rebate 68
- Rebate agreement 69
- Receiver tracing factor 104, 107
- Receiver weighting factor 107, 108

Record type 18, 61, 77,  
83, 115, 134, 136  
Release upgrade 17  
Report 179  
Report Overview 197  
Report Painter 156  
Revaluation key 131  
Revenue 19  
Revenues 31, 86  
Reversal document 111

## S

Sales area 12, 37  
Sales deductions 86  
Sales employee 18, 33,  
126  
Sales order quantity 80  
Sales organization 15,  
18, 37  
Sales quantity 20, 46,  
80  
SAP enhancement 32,  
45  
SD 34, 61, 68, 69, 78,  
86, 89, 111, 130  
SD customer hierarchy  
38  
SD interface 78  
Secondary cost element  
100  
Segment 102  
Segment header 105  
Selection option 164

Settlement 69, 82, 88,  
97  
Settlement profile 88, 92  
Settlement rule 92, 93,  
94, 95  
Simulate a business  
transaction 38  
Simulating a valuation  
201  
Simulation 44, 52  
Source 42, 52, 90  
Source field 37  
Standard cost estimate  
62  
Standard hierarchy 35  
Standard price 66  
Standard report 155  
Statistical 16, 70  
Storage requirement 16  
Substitution 16  
Subtotal 162  
Summarization level  
174, 182, 183, 189  
Summarization Level  
Overview 199

## T

Table lookup 32, 40  
Target 42, 52  
Target characteristic 40  
Target field 37  
Template table 43  
Term of payment 68  
Tracing factor 100, 107

Transaction code 20

## U

User exit 45, 46, 48, 49,  
58, 72, 73, 74, 128,  
135, 143

user-defined

characteristic 18

User-defined

characteristic 20

USERTEMP1 51

## V

Validation 16

Valuation 57, 68, 72, 88

Valuation step 60

Valuation strategy 57,  
59, 60, 65, 68, 72, 73,  
74, 82, 127

Value field 15, 19, 20,  
22, 24, 90, 91, 103

Value maintenance 23

Variable 157, 163, 180

Variable type 163

Variance category 89

Variance determination  
89

Variant 150

Variant configuration 78