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Reconciling SAP® CO-PA to the General Ledger

- Learn the Difference between Costing-based and Accounting-based CO-PA
- Walk through Various Value Flows into CO-PA
- Match the Cost-of-Sales Account with Corresponding Value Fields in CO-PA
- Identify and Solve Reconciliation Issues between CO-PA and FI

2 Overview of CO-PA

This chapter provides an overview of CO-PA and describes the two types of profitability analysis – account-based and costing-based. Both types of CO-PA can be activated at the same time, but due to potential data volume issues, most companies use only one of the options. If you are reading this book then it is very likely that you already use CO-PA and are looking to validate its data against the general ledger. For that reason, this chapter does not provide an exhaustive overview of the module because it is assumed that you already have basic knowledge of it. However, it is good to set the premise for the remaining chapters by describing some of the standard functionalities that are inherent in the module.

2.1 Definition of CO-PA

Let us start by defining the term CO-PA, because there are a several ways that people refer to this module. CO-PA stands for *Costing Profitability Analysis*. The "CO" part of the acronym refers to its association with the Controlling module (also referred to as the CO module) and the "PA" part refers to Profitability Analysis. The other names that are used are as follows:

- COPA (pronounced as one word: think *Copacabana*)
- Profitability Analysis
- PA

The CO-PA module is used to analyze the results of internal and external segments of the organization. It collects revenues, costs and quantities from various parts of the system along with any related characteristics that are associated with those values. It then allows you to analyze the results according to single or multiple dimensions of the organization. Examples of these dimensions are products, customers, regions, plants, etc. These dimensions are known as characteristics and the key figures that are reported for them are known as value fields.

Traditionally, a profitability report was displayed using a two-dimensional approach. This means that you could only display a report by company code and value (by general ledger account). This was useful for analyzing the overall results of the company, but was not really effective for understanding the segments of the business that were contributing to the company's overall profit. Information at this level will help the business obtain a better view of the key profitability areas and perhaps concentrate its efforts on the non-performing segments.

The main organizational unit in CO-PA is the operating concern. This is the four-character code that encompasses all the data that is transferred to CO-PA tables. The operating concern is linked with the Financials module through the Controlling area. The company code is assigned to the controlling area on a many to one basis and the controlling area is assigned to the operating concern on a many to one basis. This makes the operating concern the highest organizational unit in the FI/CO module. There is normally no need to have more than one operating concern in an organization unless it is a large multinational with different market segments and a total separation between these segments.

The two main objects in CO-PA are characteristics and value fields. Characteristics are the fields that are derived from master and transaction data tables, such as customers, materials, sales orders and production orders and are used as reporting dimensions. Value fields store the quantities and values for these characteristics and can be reported in detail, such as revenue, material costs, labor, variable overhead, etc., or summarized (for example, representing a summary of cost element balances in a cost center). These need to be created and assigned to an operating concern. Depending on which type of profitability analysis you have implemented (we'll cover this in more detail in sections 2.2 and 2.3), you may also need to define cost elements (using category 11 or 12) for account-based CO-PA.

Another key feature of CO-PA is profitability segments. These are the combination of characteristics that can be reported on. For example, the combination of customer, product and plant is a profitability segment. Also, the combination of plant, region and salesperson is a profitability segment. The profitability segment is normally presented as a Rubik's Cube structure because of the various ways that you can *slice and dice* the data according to various characteristic combinations.

2.2 Costing-based CO-PA

Costing-based CO-PA is the form of CO-PA that groups costs and revenues into value fields. The groupings of these cost and revenue items into value fields can be accomplished in a variety of ways depending on the source of the data. In fact, it is this inconsistent mapping of various SAP objects into CO-PA value fields that is one of the key reasons why the reconciliation of costing-based CO-PA with the general ledger is not very straightforward. As we all know, most accountants think in terms of general ledger accounts and if you give them a report, they will never feel satisfied until they are successfully able to reconcile the numbers back to the general ledger. This trait (which I believe is fully justified) causes a lot of angst with other members of the organization because it means that every report that contains financial information needs to be scrutinized and verified before it is accepted by the finance team. The value fields that are available in costing-based CO-PA take the place of general ledger accounts, therefore it is very important that the mappings to these value fields are well-defined and that there are no gaps in the setup process.

2.2.1 Advantages and disadvantages of costing-based CO-PA

The advantages of costing-based CO-PA are as follows:

- Cost component split: In costing-based CO-PA you can split the cost estimate of a product or service into its originating cost components. This means that, for example, if a product cost is $10 per unit and you sold 5 units of the product, instead of the cost of sales in CO-PA being shown as $50, you can break it down into its different elements of cost such as: Raw Materials - $12; Packaging - $8; Freight - $5; Labor - $15; Overhead - $10. This provides a more accurate understanding of the components of cost that are significantly affecting your contribution margin.
- Classification of production variances into their different categories: Production variances occur when the components that have been issued in a production order (i.e. raw materials, labor, overhead, etc.) vary from the standard cost of the finished product. These variances can occur due to several factors that took place during production. SAP categorizes them as follows: input price variance, input quantity variance, resource usage variance, scrap variance, output price variance, output quantity variance, mixed price variance, and remaining

variance. These categories help you to further explain why the variances occur. In costing-based CO-PA you can map variances to separate value fields and use them in profitability reports. Therefore, instead of seeing your production variance as a single amount, you get a more detailed analysis of why the variance occurred and can take measures to mitigate these variances or, modify the standard cost accordingly.

- Better visibility of contribution margin as fixed and variable costs can be broken out: Most businesses like to separate their product costs into their fixed and variable components. The reason for this is that variable costs are directly related to production activity (such as labor, direct overheads, etc.), while fixed costs are incurred regardless of production activity (such as indirect overheads, corporate services, etc.). In costing-based CO-PA, you can map variable and fixed costs to separate value fields and analyze the contribution margin that is generated by various changes in sales units and the financial impact of certain sales and marketing strategies.

The disadvantages of costing-based CO-PA are as follows:

- Difficult to setup: As mentioned previously, costing-based CO-PA requires mapping several objects to value fields. However, this setup process is not contained in a single configuration transaction or table. Depending on the source data that you are mapping to CO-PA, you will need to use a different transaction to implement the configuration settings. Additionally, you need to carefully plan the source data that needs to be pulled into CO-PA and where it comes from in order to decide which tables the derivation rules should be based on. It is also pretty easy to omit a specific setting if you have not thoroughly mapped out all the scenarios of data flows into CO-PA.
- Not easy to reconcile to the general ledger: This issue is perhaps the biggest disadvantage of CO-PA and is one of the main reasons (along with speed) that more companies are not utilizing this functionality, even when it has been set up in their system.

SAP HANA addresses speed but not reconciliation

The speed issue is being addressed with new SAP technologies such as HANA, however, the reconciliation issue is still yet to be addressed, hence the need for this book!

As costing-based CO-PA uses value fields and the value fields are not always directly related to a single general ledger account, any discrepancies between CO-PA and the general ledger are very difficult to unravel.

2.3 Account-based CO-PA

Account-based CO-PA is the form of CO-PA that groups costs and revenues into cost elements. This grouping requires all profit and loss accounts (or at least all the accounts that you want to be displayed in CO-PA) to be created as cost elements. Initially this may seem intuitive in the SAP context, because we have always been told that all profit and loss accounts should be set up as cost elements. However, for the more astute user, you will know that some accounts (such as the production variance account, the work-in-process account and the cost of sales account should not be set up as cost elements. When using account-based CO-PA these accounts should also be set up as cost elements if you plan to use them in CO-PA reports. A typical example is with the cost of sales account (this is the account that is debited when a *Post Goods Issue* is performed on a sales order delivery). If you are using account-based CO-PA you will need to create this account as a cost element and assign it in transaction OBYC to transaction key GBB and account modification VAY. You can group the cost elements in CO-PA reports using cost element groups such as *revenues*, *discounts*, *cost of sales*, etc. which are created using transaction KAH1.

Introduction of account-based CO-PA

Account-based CO-PA was introduced after costing-based CO-PA to help facilitate the reconciliation of CO-PA to the general ledger.

The advantages of account-based CO-PA are the following:

- Easier to reconcile to the general ledger: Since account-based CO-PA uses cost elements (which are quite simply, account numbers in the CO module) it is easier to spot any differences between the general ledger and CO-PA by simply lining up the accounts in CO-PA with the accounts in the general ledger.
- Comparison with costing-based CO-PA: Just as account-based CO-PA can be compared with the general ledger by

lining up the individual accounts, it can also be compared with costing-based CO-PA by lining up the profitability segments and matching up the results. Therefore, account-based CO-PA can be seen as a hybrid of the general ledger (due to its account-based display) and costing-based CO-PA (due to the ability to report by characteristics).

The disadvantages of account-based CO-PA are basically the advantages of costing-based accounting, such as the inability to classify costs into components like raw material, labor, fixed and variable overhead; and the inability to break out production variances into their various categories. Account-based CO-PA is therefore not a replacement for costing-based CO-PA, but a complement to costing-based CO-PA and helps accountants to understand the account significance of their profitability analysis reporting.

The reason why the remainder of this book is based on costing-based CO-PA is because the real benefit of using the CO-PA module is effective contribution margin reporting according to market segments (which costing- based CO-PA provides). If this feature is combined with seamless reconciliation with the general ledger, then this would combine the advantages of both costing and account-based CO-PA.