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First Steps in SAP® Controlling (CO)

- Introduction to the basic concepts of SAP CO
- Overview on all the SAP CO submodules
- SAP value flow illustrated
- Enhanced with audio and video material

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2 Controlling: What are we trying to control after all?

"He who controls others may be powerful, but he who has mastered himself is mightier still."
—Lao Tzu

The term *control* can be defined as the process of channeling efforts in a particular direction, towards a particular goal. It also includes course correction as necessary to reach the defined goal. In the context of this book, *control* refers to cost controlling, particularly in SAP Enterprise Resource Planning (ERP). In this chapter, we will look at which modules and functional areas are typically used in a manufacturing organization that uses SAP software as its system of record.

2.1 Overview of controlling

Alex sat down and opened the Finance Training Manual. He looked forward to learning about the SAP software. Alex started reading. The manual provided an overview of the SAP software system and how GCI recognized the value in streamlining processes by implementing SAP. Several pages provided step-by-step instructions on how to log into the SAP system. Alex would have to wait until he got access to GCI's system in order to try the steps out himself, but he could review the training manual until then.

The manual went into further detail on the various modules in SAP. Alex started taking notes.

2.1.1 SAP modules

Materials Management (MM)

Starting with procuring materials for the organization via a purchase order, *materials management* also deals with the movement of materials within and between various departments. MM supplies raw materials and other components for production. Once products are produced, the software enables stocking the materials in the warehouse, ready to ship when there is a need. The SAP software records a financial transaction (most of the time) when goods are moved into/within/outside the organization. Vendors submit invoices and are paid at a later date (depending on the payment terms), thereby completing the *procure-to-pay* cycle. Alex recalled that they called it a source-to-pay cycle at FLW.

Production Planning (PP)

Production planning through the materials requirement planning (MRP) functionality uses information from sales orders, demand forecasting, and available inventory in order to come up with the production/procurement plan. The production planning module tracks the production of semi-finished and finished materials and makes them ready for the next level of consumption or shipment. In doing so, the SAP system uses materials supplied by materials management and uses internal labor and machine hours as well as overheads to produce the materials in calculating numbers for reports. Here too, a financial transaction is recorded when goods are moved into/within/outside the production department. Alex could relate to the shop-floor execution cycle at FLW.

Sales and Distribution (SD)

The *sales and distribution* module tracks activity from the start of a customer inquiry, converts it into a sales order, which is later followed-up by a shipment, and finally a sales invoice is generated. The cycle ends when the customer makes a payment (FLW called it the order-to-cash cycle). Alex did not expect a financial transaction to be generated during the inquiry and sales order stages, but he could quickly relate to the shipment, billing, and payment steps and the transactions carried out at each stage.

Finance (FI) and Controlling (CO)

Now that Alex had a good understanding of supply chain functionality and how it mapped to the MM, PP, and SD modules, Alex understood how these transactions were recorded in the financials module. Each time a goods movement or a transaction impacting finance takes place, the SAP software immediately records the financial transaction. The transaction is then typically entered in the general ledger (GL), along with accounts receivables (AR) and accounts payables (AP). Each of the transactions record profit center information and provides further detail for reporting.

It all made logical sense to Alex, but he was not able to understand what role the SAP Controlling module played in the structure. The finance training manual went on to say that SAP Controlling was all about recording transactions internally within the organization. It dealt with cost element accounting (CEA), cost center accounting (CCA), overhead cost management (OCM), activity based costing (ABC), product costing (PC), and profitability analysis (PA) — all of which support internal reporting requirements. Additionally, project systems (PS) allows tracking of a capital project and its eventual conversion to a fixed asset in the asset accounting (AA) module. Both FI and CO are integral parts of the record-to-report or accounting-to-report cycles. FLW called this process finance-to-report. A different name, but the same concept.

2.2 The link with FI

"FI is all about data capture and external reporting, whereas CO is all about internal reporting" — was highlighted in big, bold font. Alex could relate to his prior experience when it came to legal entity reporting and submitting reports to external agencies. He had to prepare a trial balance, balance sheet, and income statement, along with various other reports like cash flow statements, accounting policy, and other statutory statements per his previous employer's requirement and the law of the land.

Non-financial information, such as production volume, is not recorded in trial balance. Yet, it can be an important statistic that may be required for reporting performance to management. This would mean that there should be something that records information over and above what is required for external (legal) reporting. Is this called controlling?

The difference between FI and CO

Financial accounting (FI) is all about data capture and external reporting, whereas controlling (CO) is all about internal reporting. FI and CO complement each other to a great extent. SAP software is an integrated system and all financial transactions are captured in financial accounting. Controlling supports internal reporting requirements.

Then why not have one single module and call it financials or reporting, or something? Alex thought. He continued reading. This is an integrated system and all transactions are captured in financial accounting. Controlling supports internal reporting requirements.

If Alex wanted to perform some sort of an allocation of costs for sending costs from one cost center to another FI could handle it. However, it would be too cumbersome to enter that type of allocation every time the source transaction occurs. CGI's software was programmed to perform the allocations at month end.

Okay, Alex thought, CGI must use controlling as part of month-end close purposes.

Month-end close has many tasks in addition to cost allocation. For example, depreciation calculation occurs in asset accounting (AA), foreign currency valuation, and accrual postings in the GL. Bank reconciliation also takes place in the banking and treasury (TR) modules, etc. — all of these tasks are handled in FI. CO passes along the work-in-progress (WIP) number to FI via the product costing module, and allows the capture of certain costs in further detail. For example, depreciation cost, which can be captured at the cost center level, allows a breakdown of where the costs are incurred. FI can be compared to a big river that brings data in from all of the tributaries (modules) and then allows for internal reporting via CO and external reporting via FI.

Alex wrote in his notes, "FI and CO complement each other to a great extent, but they may not be able to survive on their own because they are dependent on each other." He thought he now understood the crux of the link between the two modules. He was eager to know and learn more about FI and CO.

2.3 Links with other SAP modules

The finance training manual covered additional interesting links between various modules and controlling. There are links between the PP, SD, and the MM modules, but Alex was most interested in the links between supply chain functionality and the FI and CO modules, since that was going to be his job focus.

2.3.1 MM and CO-PC

Standard costs of procured materials are calculated at the beginning of the period in controlling-product costing (CO-PC). The standard cost is then used to valuate inventory, as well as record goods movements during the month in materials management (MM)

2.3.2 MM and FI-GL + FI-AP + CO-PC

Actual price on the purchase order (from MM) and on the invoice receipt from the vendor (from (FI-AP) tracks purchase price variance in accounting (in FI-GL) compared to the standard price of the material (part of CO-PC).

2.3.3 PP and CO-PC

Raw material cost is derived using quantities from the bill of material (BOM) multiplied by the raw material procurement price. Conversion cost is derived using activity quantity from routing multiplied by the predetermined activity rate. BOM and routing/recipe (recipe contains the steps to manufacture a product) are part of production planning (PP) module. Production and process orders record costs during the lifecycle of the orders and allow for WIP/variance calculations at month end.

2.3.4 PP and CO-ABC

Production/process orders use activity types that are confirmed during production to record labor and machine hours. They use predetermined activity rates through activity based costing (CO-ABC)

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