

## Understanding the SAP World and the Roles and Opportunities for a Chartered Accountant



*In today's challenging business environment, the best run companies act quickly with increased insight, efficiency and flexibility because they possess clarity across all aspects of their business. Many companies are realising that SAP solutions have become extremely important to their businesses. SAP solutions have become integral to the foundation of international businesses, as almost half of the world's Fortune1000 companies have implemented ERP solutions from SAP. Over time, many companies have started to discover deficiencies in their information systems architecture. Separate systems are there to handle the general ledger, the sales processes, a separate system to manage the manufacturing or production processes, etc. In order to generate the reports that various levels of management needed to run their operations, data had to be exchanged between these sub-systems. When there were errors or inconsistencies between these sub-systems, these flowed on into the consolidation process and skewed the management reports. The benefits of using SAP for your business are numerous. SAP delivers systems that are modern and highly efficient. Their support infrastructure is unparalleled in the software industry. Read on to get an overview of various SAP modules used by the businesses and opportunities for chartered accountant professionals in the world of SAP...*

### Introduction

The first question which arises in our mind when we hear SAP is-what exactly this term means and how it works? SAP stands for Systems, Applications and

Products in data processing. It is the most widely used ERP (Enterprise Resources Planning) system in the world. ERP term is used to denote different kinds of software used by companies to control the work done by their different departments. For example, SAP, Oracle, People soft, JD Edwards, etc. are some of the top ERP software systems.

The SAP R/3 system is a business software package designed to integrate all areas of a business. It provides industry specific solutions for different industries other than its basic SAP modules. It



**CA. Anurag Pandey**

(The author is a member of the Institute who may be contacted at [ca.anurag10@gmail.com](mailto:ca.anurag10@gmail.com).)

contains various sub-modules. It is the decision of the client whether they want to buy all modules or some specific modules.

## Benefits of SAP

- SAP focuses on maximising resources, reducing costs and optimising performance.
- SAP provides real time access to timely information.
- SAP can be customised according to the evolving business requirements of an enterprise.
- It provides end to end solutions for financials, manufacturing, logistics, distribution, *etc.* All business processes are executed in one SAP system and sharing common information with everyone.
- Keeping in view the cost involved in implementation and the functionality of the SAP ERP, usually organisations with a good amount of turnover are better suited for implementing it.
- In every 2-3 years, SAP introduces new version of ERP with some very useful added functionalities for the companies using SAP.

## Facts about SAP Usage around the Globe<sup>1</sup>

SAP is the fourth largest software company in the world.

- 12 million users utilise SAP software every day.
- SAP software is found at 140,000 installations within 120 countries around the world.
- SAP employs over 53,000 workers worldwide.
- Being the world leader in ERP, SAP captures more than 60% of the ERP market.
- There are 35000+ SAP ERP customers around the world.

SAP provides customised industry specific solutions in the following sectors-

- Aerospace and Defense
- Automotive
- Banking
- Chemicals
- Consumer products
- Defense and Security
- Healthcare
- Insurance
- Mining
- Oil & Gas
- Pharmaceuticals
- Telecommunications

## How SAP Came Into Operation

In 1975, Xerox decided to exit the computer industry and asked IBM to migrate their business systems to IBM technology. "IBM got the rights to the Scientific Data Systems/SAPE software, reportedly for a contract credit of \$80,000 as compensation".

Five IBM engineers-*Dietmar Hopp, Klaus Tschira, Hans-Werner Hector, Hasso Plattner, and Claus Wellenreuther*, were working on this software and they were told that their services are no longer required. They decided to leave IBM Tech and start another company.

"In June 1972, they founded Systemanalyse und Programmentwicklung ("System Analysis and Program Development") company, as a private partnership under the German Civil Code. The acronym was later changed to stand for Systeme, Anwendungen und Produkte in der Datenverarbeitung ("Systems, Applications and Products in Data Processing") i.e. SAP."<sup>2</sup>

German branch of Imperial Chemical Industries in Östringen was their first client, where they developed mainframe programs for payroll and accounting. Instead of storing the data on punch cards mechanically, as IBM did, they stored it locally. Therefore, they called their software a real-time system.

## Different Versions of SAP

### SAP R/1- First Version launched in 1972

"R" stands for real-time data processing. It is one-tier architecture in which three layers- Presentation, Application and Database are installed in one system/ server. (Presentation + Application + Database)

### SAP R/2- Second Version launched in 1979

This version was designed to handle different languages and currencies. R/2 was a two-tier architecture in which three layers - Presentation, Application and Database were installed in two separate servers. (Server one – Presentation, Server two – Application + Database)

### SAP R/3- Upgradation from R2 to R3

SAP R/3 is the client/server version of the software and it is three-tier architecture in which three layers- Presentation, Application and Database are installed in all the three servers/systems. (Server one – Presentation, Server Two – Application, Server Three – Database)

<sup>1</sup> Reference from Google

<sup>2</sup> Reference from Wikipedia

# Information Technology

The below table lists down all the Functional and Technical Modules in SAP-

SAP Functional Modules	SAP Functional Modules		SAP Technical Modules	SAP Technical Modules	
	Module Name	Description		Module Name	Description
SAP Functional Modules	FI	Financial Accounting	SAP Technical Modules	ABAP	Advanced Business Application Programming
	CO	Controlling		Basis	Basis Admin, administration of SAP
	APO	Advanced Planner Optimizer		BI	Business Intelligence
	CRM	Customer Relationship Management		BPC	Business Planning and Consolidation
	CS	Customer Service		BODI	Business Objects Data Integrator
	EC	Enterprise Controlling		EP	Enterprise Portal
	EHS	Environment, Health & Safety		GRC	Group Risk Compliance
	EWM	Extended Warehouse Management		MDM	Master Data Management
	FM	Fleet Management		Netweaver	The technical foundation for SAP applications
	FSCM	Financial Supply Chain Management		Security	Security for enterprise operations
	HR	Human Resources		Solution Manager	Manages technical support for distributed systems
	IM	Investment Management		XI	Allows the implementation of cross-system processes on services
	MM	Materials Management		PI	Enterprise application integration (EAI) software
	PLM	Product Lifecycle Management			
	PM	Plant Maintenance			
	PP	Production Planning			
	PS	Project Systems			
	QM	Quality Management			
	RE	Real Estate			
	SCM	Supply Chain Management			
	SD	Sales and Distribution			
	SEM	Strategic Enterprise Management			
	SM	Service Management			
	TR	Treasury			
	WM	Warehouse Management			
	LO	Logistics General			

**SAP FI (Financial Accounting) records, collects, and processes financial transactions or information on a real-time basis to provide the necessary inputs for external (statutory) reporting purpose. SAP FI takes care of accounting, year-end adjustments, preparation of financial statements, tax computations, etc. A new patch provided by SAP also supports XBRL, useful for new reporting norms.**

## Overview on SAP FI-CO Module

SAP FICO stands for FI (Financial Accounting) and CO (Controlling) and is a very important module of SAP related to both finance and controlling that stores the financial transactions data.

SAP FI (*Financial Accounting*) records, collects, and processes financial transactions or information on a real-time basis to provide the necessary inputs for external (statutory) reporting purpose. SAP FI takes care of accounting, year-end adjustments, preparation of financial statements, tax computations, etc.

A new patch provided by SAP also supports XBRL, useful for new reporting norms.

SAP CO (*Controlling*) module takes care of all the costing related issues as well as internal or management reports. Among others, it covers

budgeting, internal orders, and cost sheet, inventory control, cost centres, profit centres, cost allocation and ABC (Activity Based Costing).

SAP CO plays an important role for the management decision making purpose and internal reporting purposes.

## Sub-Modules under FICO Module – Basic Overview

### General Ledger Accounting

The central task of G/L accounting is to provide a comprehensive picture of external accounting and accounting system. Supports real-time evaluation of and reporting on current accounting data, in the form of account displays, financial statements with different financial statement versions and additional analysis.

This module serves as a complete record of all business transactions. The SAP FI General Ledger has the following features:

- Free choice of level: corporate group or company.
- Automatic and simultaneous posting of all sub-ledger items in the appropriate general ledger accounts (reconciliation accounts).
- Recording all business transactions (primary postings as well as settlements from internal accounting) in a software system that is fully integrated with all the other operational areas of a company ensures that the accounting data is always complete and accurate.
- It is the centralised, up-to-date reference for the rendering of accounts. Actual individual transactions can be checked at any time in real-time processing by displaying the original documents, line items, and transaction figures at various levels.

## **Accounts Receivables**

The accounts receivable is also an integral part of sales management. This process involves the posting of accounting data to customers in accounts receivable. From there, when you post data in accounts receivable, the system creates a document and passes the data entered to the general ledger.

General ledger accounts and customer accounts are then updated according to the transaction concerned (receivable, down payment, credit memo and so on).

All business transactions are posted to and managed by means of accounts and for this, customer master records are created. One time customers are used for avoiding building up of huge master data volume.

## **Accounts Payables**

The accounts payable is also an integral part of the purchasing system. This process involves the posting of accounting data to vendors in accounts payable. From there, the data is sorted by vendor and made available to other areas such as the purchasing system.

When you post data in accounts payable, the system creates a document and passes the data entered to the general ledger. General ledger accounts and vendor accounts are then updated according to the transaction concerned (payable, down payment, credit memo and so on) vendor payment activities. This payment can be done for

both the following cases: when the PO is released by the Material Management System and when the PO is not released by the Financial Accounting System.

## **Asset Accounting**

The asset accounting (FI-AA) component is used for managing and supervising fixed assets with the SAP system. In financial accounting, it serves as a subsidiary ledger to the general ledger, providing detailed information on transactions involving fixed assets.

As a result of the integration in the SAP system, asset accounting (FI-AA) transfers data directly to and from other SAP components. When you purchase an asset or produce an asset in-house, you can directly post the invoice receipt or goods receipt to assets in the asset accounting component.

Process in asset accounting involves:

- Asset master data naming convention.
- External asset acquisition integrated with accounts payable (FI-AP).
- External asset acquisition without integration with accounts payable.
- In-house acquisition.
- Asset transfer.
- Asset disposal/write-off of asset.
- Assets write up/write down (revaluation).
- Asset depreciation.
- Closing business processes.

## **Bank Accounting**

This component is used to handle accounting transactions that you process with your bank. It includes the management of bank master data, cash balance management (check and bill of exchange management) and the creation and processing of incoming and outgoing payments.

It is possible to freely define all country-specific characteristics, such as the specifications for manual and electronic payment procedures, payment forms, or data media.

**The asset accounting (FI-AA) component is used for managing and supervising fixed assets with the SAP system. In financial accounting, it serves as a subsidiary ledger to the general ledger, providing detailed information on transactions involving fixed assets.**



## Consolidation

“This module contains consolidation functions which can be used for external (statutory) rendering of accounts as well as internal (management) reporting. This module offers different consolidation types that are based on user-definable organisational units. Specifically, one can perform consolidation for companies, divisions, business areas or profit centers.”<sup>3</sup>

Different types of consolidation are represented by dimensions. For example, one can define one dimension for company consolidations and at the same time, another dimension for profit center consolidations.

The component features the ability to use different consolidation charts of accounts. One can use consolidation versions to maintain different categories of data, such as actual data, prognostic data or budget data.

## Special Purpose Ledger

In this module, we can define different ledgers for reporting purposes. These ledgers enable us to report at various levels using the values from the various sub-modules.

“The functions available in the special purpose ledgers enable us to collect and combine information, create and modify totals, and distribute actual and plan values. The values are transferred to the special purpose ledgers from other SAP applications and external systems.”

Using the special purpose ledger has no effect on the functions of other SAP applications.

## Travel Management

This module of SAP supports all processes involved in handling business trips. We can request, plan, and book trips, create travel expense reports and transfer expense data to other functional areas and this is integrated with settlement, taxation, and payment processes.

The following three areas of SAP travel management can be combined in different ways to reflect individual requirements and the organisational structure of the company:

- Travel Requests
- Travel Planning
- Travel Expenses

Travel Expenses sub-module can be used independently of travel requests and travel planning.

## Contract Accounting (FICA Module)

SAP contract accounts receivable and payable is a subsidiary ledger that is focused towards the requirements of industry sectors with a high volume of business partners and a large number of documents for processing, such as electronic toll collection, banking, leasing, retail, posting services, railways, *etc.*

Key functions of SAP contract accounts receivables and payables include the following:

- Mass data processing,
- Reduction of memory space for storing open and cleared items,
- Flexible input format,
- Business process enhancements and seamless integration of customer-specific data without modification,
- Separation of user interface, checks, data storage, *etc.*

This module is generally implemented in companies engaged in utilities industry like gas, power, oil, water, *etc.*

## Cost Centre Accounting

Cost centre is an organisational unit within a controlling area that represents a defined location of cost incurrence. All expenses or cost is posted to either specific cost center or overhead cost centre. Overhead can be allocated to specific cost centre. The definition of cost center can be based on:

- Functional requirements
- Allocation criteria
- Physical location
- Responsibility for costs

Cost centres are grouped together into decision, control and responsibility units.

“We use cost centres for differentiated assignment of overhead costs to organisational activities, based on utilisation of the relevant areas (cost determination function) and for differentiated controlling of costs arising in an organisation (cost controlling function).”

Cost centre structures and characteristics depend on the accounting objective which we are following and the cost accounting system we decide to use. We can group cost centres according to various criteria into groups. This enables us to use cost centres to depict the structure of the organisation in the SAP System.

<sup>3</sup> Reference from Help.sap.com

“We can use the groups to build cost center hierarchies which summarise the decision-making, responsibility, and control areas according to the particular requirements of the organisation. The individual cost centres form the lowest hierarchical level.”<sup>4</sup>

There must be at least one group that contains all cost centres and represents the entire business organisation. This cost centre group is described as the standard hierarchy. We can assign more cost centre groups to the standard hierarchy. You can assign each cost centre to only one group in the standard hierarchy.

### ***Profit Centre Accounting/Profit Centre (New GL)***

Profit Centre Accounting (EC-PCA) lets us determine profits and losses. It also lets us analyse fixed capital and so-called “statistical key figures” (number of employees, square meters, and so on) by profit center.

Profit centre accounting is closely integrated to FI module in new GL concept. No reconciliation is needed between the general ledger and profit centre accounting. Real-time integration enables immediate transfer of all controlling documents to financial accounting, together with the detail information required for the general ledger. As a result, financial accounting and controlling are always reconciled.

Profit centre is posted in each transaction either manually, derived from other account assignments like from cost centre, material master, etc.

### **Role of CAs In the Field of SAP**

The role of a CA in this field is to understand client’s business processes and map these processes to SAP standard practices. Chartered accountants can provide their services as a SAP consultant or by working in a core-finance team of an organisation having SAP ERP or as a SAP auditor.

CAs are well aware of all the functional aspects of accounting and financial knowledge which helps

**Profit centre accounting is closely integrated to FI module in new GL concept. No reconciliation is needed between the general ledger and profit centre accounting. Real-time integration enables immediate transfer of all controlling documents to financial accounting, together with the detail information required for the general ledger.**

**The role of a CA in this field is to understand client’s business processes and map these processes to SAP standard practices. Chartered accountants can provide their services as a SAP consultant or by working in a core-finance team of an organisation having SAP ERP or as a SAP auditor.**



them in understanding the client’s overall accounting structure and this helps them to perform better.

### **How to Gain Knowledge of SAP**

Some companies provide internal trainings related to SAP to the new joiners in the field of SAP. One can go for SAP certification in different modules like FI, CO, etc. to get the basic level of knowledge.

SAP certification would be a path-breaker for a person who is not a chartered accountant. By learning SAP, one gains a unique skill-set of core financial knowledge plus an understanding of how SAP system works and behaves for different financial scenarios. The certification will help any person to start his/her career into SAP.

### **Conclusion**

CAs are also involved in functional configuration (non-technical) and testing of the software on the predetermined set of regression/non-regression scenarios. They are also a part of the team looking out for the best ERP model as per the organisation structure of a prospective client. A SAP consultant and IT company’s relation with the client implementing SAP ERP does not end on implementation of the ERP. Consultants are needed for supporting ERP users working in the client organisation and the service agreement can go on forever. ■

<sup>4</sup> Reference from Help.sap.com