CHAPTER-VII

IMPLEMENTATION OF SYSTEM APPLICATION PRODUCT (SAP) MATERIALS MANAGEMENT (MM-MODULE) FOR INVOICE VERIFICATION MATERIAL GROUP AND MATERIAL MASTER IN SUGAR INDUSTRY
7.0. INTRODUCTION

7.1. The SAP system is made up of several components linked together so that different departments within a company can cooperate with one another. The Invoice Verification component is part of the Materials Management (MM) system. It provides the link between the Materials Management component and the Financial Accounting, Controlling, and Asset Accounting components. Invoice Verification in Materials Management serves the following purposes:

- It completes the materials procurement process - which starts with the purchase requisition, continues with purchasing and goods receipt and ends with the invoice receipt
- It allows invoices that do not originate in materials procurement (for example, services, expenses, course costs, etc.) to be processed
- It allows credit memos to be processed, either as invoice cancellations or discounts
- Invoice Verification does not handle the payment or the analysis of invoices. The information required for these processes is passed on to other departments.
- Invoice Verification tasks include:
  - Entering invoices and credit memos that have been received
  - Checking the accuracy of invoices with respect to contents, prices, and arithmetic
  - Executing the account postings resulting from an invoice
  - Updating certain data in the SAP system, for example, open items and material prices
  - Checking invoices that were blocked because they varied too greatly from the purchase order
• The high degree of integration in the SAP system allows these tasks to be carried out smoothly and efficiently.

7.2 REVIEW OF LITERATURE

This paper is the first step towards an academic project leading to the implementation of SAP R/3 we intend to do. This literature review is not a critique but reflects on business process reengineering and how that may be achieved using SAP. We plan to discuss Business Reengineering and the use of SAP R/3 as a tool for achieving the best results in Business Reengineering in this paper. This literature review covers a wide range of articles that has appeared on various publications and internet related to SAP and business reengineering. The implementation project following this review is purely an academic work and there is no commercial objective driving this project.

Before going into the real aspects of what tools are available for SAP implementation, we would like to take a look at the Logistics Module that we are concerned with.

This group of modules provides support for inbound and outbound logistics as well as a variety of different manufacturing environments. There are a number of bolt-on software packages that add functionality, such as CAD and mobile data entry. Logistics includes operations from requisition of materials until the goods are delivered and the bill is sent. The following are the key areas in this module:

• MM - materials management - probably the largest module in the entire SAP system.
• PP - production planning.
• PM - plant maintenance.
• QM - quality management.
7.3 There are certain myths about SAP implementation.

- The company can hire all the SAP implementation resources necessary.
- The entire implementation can be outsourced and not take the staff's time.
- SAP R/3 is just another systems project, so the IT people can do it themselves.
- SAP R/3 can be installed in 100 days, even in a $20 billion company.

7.4 Objective of the present study:
The prime objective of the study is to implement SAP (MM-Module) in Sugar industries.

7.5.1 MATERIAL MASTER RECORDS

7.5.1.1 USE: Material costs appear in the itemization as costing items of category M. These items are determined automatically in material costing with quantity structure. In unit costing (that is, material costing without quantity structure or base planning objects), enter the materials manually as items of category M.

This can access the data of these materials in the material master record, in order to determine the prices of the materials for costing purposes. It can also transfer the results of material cost estimates into the material master record.

In addition, the material master record contains information about the determination of the quantity structure and about the procurement of the material to be costed.
7.5.1.2. FEATURES:

The material master record contains all information needed for managing a material. This data is arranged in views. The views correspond to the user departments within the company in which the material is used. For material costing, the costing, accounting and MRP views are particularly relevant.

COGM: cost of Goods manufactured
The cost estimate accesses data in the accounting and costing views of the material master record, in order to do the following:

- Determine a price for externally-procured materials (in accordance with the valuation strategy for material valuation)
- Assign the material costs of a cost element using the valuation class
- Find the currency and price unit of the cost estimate
- Establish parameters for the calculation of specific materials
- Determine a lot size for the cost estimate

The cost estimate accesses data in the costing and MRP views of the material master record, in order to do the following:

- Select parameters to determine BOMs and routings (material costing with quantity structure only), such as the BOM and routing or production version
7.6. MATERIAL MASTER

7.6.1. PURPOSE:

The material master contains information on all the materials that a company procures or produces, stores, and sells. It is the company's central source for retrieving material-specific data. This information is stored in individual material master records.

7.6.2. INTEGRATION:

The material master is used by all components in the SAP Logistics System. The integration of all material data in a single database object eliminates redundant data storage. In the SAP Logistics System, the data contained in the material master is required, for example, for the following functions:

- In Purchasing for ordering
- In Inventory Management for goods movement postings and physical inventory
- In Invoice Verification for posting invoices
- In Sales and Distribution for sales order processing
- In Production Planning and Control for material requirements planning, scheduling, and work scheduling
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7.7. MATERIAL MASTER RECORDS:

7.7.1. DEFINITION: All the information of the company needs to manage a material is stored in a data record in the material master, sorted by various different criteria.

7.7.2 USE: We can change most of the data in a material master record. However, some information can only be updated by the system. For example, the system updates the administrative data when we process a material master record, and stock balances when goods receipts or goods issues are posted.

7.7.3. STRUCTURE:

The data in a material master record can be divided into two categories:

- Data of a purely descriptive nature
  This is data with an information content such as name, size, or dimension.

- Data that the system uses to perform a control function
  This is data such as MRP type and price control.

7.8. INFORMATION SHEET ON TRANSFERRING MATERIAL MASTER DATA (SUGAR INDUSTRY)

A. OBJECT PROFILE

7.8.1. OBJECT NAME AND IDENTIFICATION

<table>
<thead>
<tr>
<th>Name of application object</th>
<th>Material master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of business object (BOR object)</td>
<td>BUS1001006</td>
</tr>
<tr>
<td>Data transfer workbench object and sub object number</td>
<td>0020 0000</td>
</tr>
<tr>
<td>Change document for object supported</td>
<td>MATERIAL- SULPHER</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Long texts for object</td>
<td>MATERIAL (Texts at client level: Basic data text, inspection text, purchase order text)</td>
</tr>
<tr>
<td></td>
<td>MDTXT (Text at plant level: Material memo)</td>
</tr>
<tr>
<td></td>
<td>MVKE (Text at distribution chain level: Sales text)</td>
</tr>
<tr>
<td>Data category</td>
<td>Master data</td>
</tr>
<tr>
<td>Number assignment</td>
<td>Internal or external</td>
</tr>
<tr>
<td>SAP field for number in legacy system</td>
<td>MARA-BISMT</td>
</tr>
</tbody>
</table>

### 7.9 TRANSACTIONS:

- **Create**  MM01
- **Change**  MM02
- **Display**  MM03
- **Flag for deletion**  MM06
- **Archive**  MM71

### 7.10. OTHER PROGRAMS

- **Reports for displaying and analyzing the data transferred**  None
- **Deletion program for mass data**  RMMMDE00
  - Deletes all materials in a client.
- **Change options for mass data**
  - Mass maintenance tool can be used.
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7.11. TABLES/DATABASES

Relevant tables: MARA, MAKT, MARC, MFHM, MARD, MBEW, MLGN, MLGT, MVKE, MLAN, MARM, MPOP, MPG, MEAN, MVER, MAPR, PROP, PROW, STXH, STXL

Logical databases: MSM, CKM (Specifically for costing)

Table space: PSAPSTABD (Data), PSAPSTABI (Index)

7.12. CUSTOMIZING:

IMG activities influencing data transfer:
- Make Global Settings (Transaction OMT0)
- Maintain Field Selection for Data Screens (Transaction OMS9)
- Define Attributes of Material Types (Transaction OMS2)

7.13. TIME AND SEQUENCE:

Time of transfer: Material master records can be transferred to the R/3 System at any time.

Dependencies regarding other data:
Before material master records are transferred to the R/3 System, the following basic data should already exist:

- Company codes
- Plants
- Other organizational levels for which material master data is to be transferred
- Material types
- Units of measure
7.14. CREATING A MATERIAL MASTER RECORD

7.14.1. PREREQUISITES: Before create (not extend) a material master record, check that one does not already exist for this material. We can check this using the search help or by calling up the material list.

Check whether a material master record exists for a similar material that can use as a reference; that is, whose data we can copy as default values.

7.14.2. PROCEDURE:

1. In the Material master menu, choose one of the following options:

   – want the data to be available immediately, choose Material→Create (general)→immediately.

   – want to schedule the material master record, choose Material→Create (general)→Schedule.

   – want to create a material master record of a particular material type, choose Material →Create (special)→<Material type>. This saves to enter the material type on the following screen. However, it is not possible to schedule material master records of this kind.

   The initial screen for creating a material master record appears.

2. Enter the following data:
Material number (only in the case of external number assignment and if allowed by the material type; otherwise leave this field blank)

Industry sector

Material type (unless created the material by choosing Material→Create (special)→Material type>

Want to use another material master record as a reference, enter the number of the reference material under Copy from.

Scheduling the material master record, enter the following data:

Key date from which the material master record is to be valid

Change number to use engineering change management

If entered a key date, the system checks that it does not precede the valid-from date of the change number. If we have not entered a key date, the system uses the valid-from date of the change number. In both cases, the date must be in the future.

Choose Enter.

The Select View(s) dialog box appears. The views displayed at this point depend on how the material type has been configured in Customizing for the Material Master in Define Attributes of Material Types.

3. Select the views, that is, the user departments, for which we want to enter data and choose Enter.
The organizational Levels dialog box appears.

Specify the organizational levels as required and, if appropriate, enter a profile.

For a specified reference material, also specify under *Copy from* the organizational levels of the reference material whose data is to be copied as default values. If we do not do this, the system will copy only the data at client level.

Choose Enter. The data screen for the first user department appears.

4. Enter the material description and the base unit of measure in the appropriate fields (if not already copied from the reference material). This information is mandatory and identical for all user departments.

5. Enter the data for user department as required.

Choose *Enter* to access the data screen for the next user department and enter the data for the other user departments selected in the *Select View(s)* dialog box. The system issues a message telling that they have reached the data screen for the last user department selected.

Enter the data for a user department that did not select in the *Select View(s)* dialog box, we can access the user department direct by choosing it, but only if we are authorized to process data for this user department and if the user department is allowed by the material type.

6. Save the data.

The initial screen appears where we can start to create the next material master record.
7.15. RECOMMENDATIONS AND SUGGESTION

It is common for companies to jump into an SAP implementation without first conducting the due diligence and planning required to make the project successful. Often times, organizations select an SAP ERP package simply because of SAP’s longstanding, prestigious image and its broad industry focus. However, organizations first need to “get their house in order,” which means to analyze exactly who they are as an organization, what they want to be in the future, as well as pinpoint their strengths and weaknesses and core competencies.