IMPLEMENTATION OF SYSTEM APPLICATION PRODUCT (SAP) MATERIALS MANAGEMENT (MM-MODULE) FOR INVOICE VERIFICATION, MATERIAL GROUP AND MATERIAL MASTER RECORD IN SUGARINDUSTRY

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ABSTRACT

SAP has been delivering on its Sugar industry strategy by expanding its capabilities for manufacturing and supply chain management, broadening its composite package applications in areas such as emissions management, pricing management, and manufacturing dashboards, and focusing on mid-market companies. To implement an integrated system of production planning and materials management, there must have a central database wherein anyone in the company can find out all there is to know about any material passing through the plant.Everyone must use the same rules and data structures when they enter data about material details. The integration of all material data in a single database object eliminates redundant data storage. Areas such as purchasing, inventory management, material requirements planning (MRP), invoice verification, and so on, can all use the same data. By implementing SAP (MM-Module) in sugar industry for invoice verification, the product can be ordered and received within safety

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period. Based on material group classified under ABC analysis. Planning can also be done on priority by calling vendors for particular commodities through online.

KEYWORDS: Invoice verification, Material Group, Material Master Record, Material requirement Planning (MRP)

INTRODUCTION

The SAP system is made up of several components linked together so that different departmentswithin a company can cooperate with one another.The Invoice Verification component is part of the Materials Management (MM) system. Itprovides the link between theMaterials 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 purchaserequisition, continues with purchasing and goods receipt and ends with the invoicereceipt
- 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 informationrequired 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 thepurchase order
- The high degree of integration in the SAP system allows these tasks to be carried out smoothlyand efficiently.

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.
- SD - sales and distribution.
- SM - service management.

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.

OBJECTIVE OF STUDY

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

RESULTS AND DISCUSSIONS

MATERIAL MASTER RECORDS

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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), you enter the materials manually as items of category M.

You can access the data of these materials in the material master record, in order to determine the prices of the materials for costing purposes. You can also transfer the results of material cost estimates into the material master record.
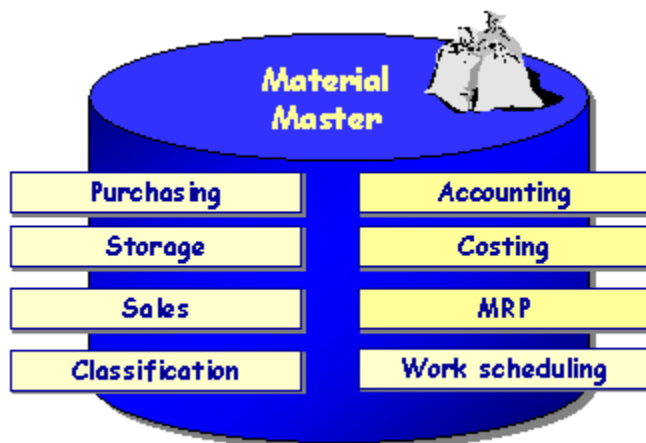
In addition, the material master record contains information about the determination of the quantity structure and about the procurement of the material to be costed.
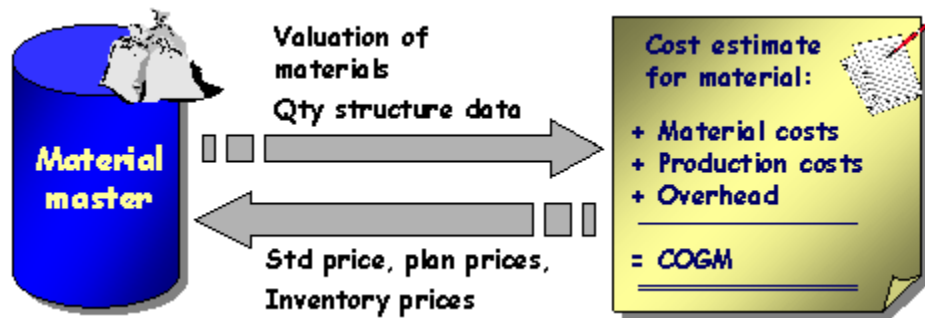
COGM: cost of Goods manufactured

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 MRPviews are particularly relevant.

The cost estimate accesses data in theaccounting andcosting 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 thecosting andMRPviews 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
- Select parameters to determine costing data in other plants

MATERIAL MASTER

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.

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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MATERIAL MASTER RECORDS:

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.

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.

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.

INFORMATION SHEET ON TRANSFERRING MATERIAL MASTER DATA (SUGAR INDUSTRY)
A. OBJECT PROFILE

OBJECT NAME AND IDENTIFICATION

Name of application object	Material master
Name of business object (BOR object)	BUS1001006
Data transfer workbench object and subobject number	0020 0000
Change document for object supported	MATERIAL- SULPHER
Long texts for object	MATERIAL (Texts at client level: Basic data text, inspection text, purchase order text) MDTXT (Text at plant level: Material memo) MVKE (Text at distribution chain level: Sales text)

Data category	Master data
Number assignment	Internal or external
SAP field for number in legacy system	MARA-BISMT

TRANSACTIONS:

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

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.

TABLES/DATABASES

Relevant tables	MARA, MAKT, MARC, MFHM, MARD, MBEW, MLGN, MLGT, MVKE, MLAN, MARM, MPOP, MPGD, MEAN, MVER, MAPR, PROP, PROW, STXH, STXL
Logical databases	MSM, CKM (Specifically for costing)
Tablespace	PSAPSTABD (Data) PSAPSTABI (Index)

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)

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

CREATING A MATERIAL MASTER RECORD

PREREQUISITES: Before you 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 you can use as a reference; that is, whose data we can copy as default values.

PROCEDURE:

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

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

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

– If we want to create a material master record of a particular material type, choose Material→Create (special)→<Material type>. This saves you having 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 we have created the material by choosing Material→Create (special)→<Material type>

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

If we are scheduling the material master record, enter the following data:

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

– Change number if we want to use engineering change management

If we have 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.

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The Organizational Levels dialog box appears.

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

If we have specified a 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 your 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 you have reached the data screen for the last user department selected.

   If we want to enter data for a user department that you 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.

RECOMMENDATIONS AND SUGGESTIONS

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.

CONCLUSION:

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Any module in the ERP system is implemented by the consultants engaged by the company. After the implementation (installation), the system has to be used by the employees of the company who are called the end-users. They have to be accustomed to the way the system works to get optimum benefit from the system. Using the software at the end or after the implementation is an End User is the one who performs transactions in SAP after it goes live.

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