

AGENCY ERP FOR STORE MANAGEMENT

Varsha M. Mhaske, Neha P. Shinde, Laxmi D. Naidu, Akshaya M. Burate

Department of Computer Engineering
G. S. Moze College Of Engineering Pune, India

Abstract : *The world has become more digitized. Businesses are depending on technology to help them enhance their business processes. Companies are looking for an information system that can handle massive workloads. This is where Enterprise Resource Planning (ERP) systems come into play. An ERP integrates different subsystems into one huge system that shares one database. It enhances productivity and brings more profit to companies.*

The system creates a web based manufacturing system that enables a manufacturing industry to schedule its manufacturing operations based on the daily update of sales from its dealers. Once the sales figures of items for the past week are entered by the dealers over the internet along with the orders for then extend delivery, the schedule for the next weeks production will be drawn up. A report of the required raw materials or parts will be drawn up with the product requirements over the internet & asked to quote their rates. Once the rates are quoted, the order will be placed with the required delivery schedules. Once the parts the parts are supplied the stocks will be updated. Then a production plan will be drawn up taking the bill of materials into consideration. Once the production plan is approved, the stock will be updated when the material is issued. Once the finished products are available the delivery schedules will be drawn up based on the orders placed by the Dealers. The stocks with the dealers will also be maintained

Keywords: *Back end- My-sql/Hibernate ,ERP, Front-end JSF ,Inventory management.*

1. INTRODUCTION

The world has become more digitized. Businesses are depending on technology to help them enhance their business processes. Companies are looking for an information system that can handle massive workloads. This is where Enterprise Resource Planning (ERP) systems come into play.

An ERP integrates different subsystems into one huge system that shares one database.. The system creates a web based manufacturing system that enables a manufacturing industry to schedule its manufacturing operations based on the daily update of sales from its dealers. Once the sales figures of items for the past week are entered by the dealers over

the internet along with the orders for then extend delivery, the schedule for the next weeks production will be drawn up. A report of the required raw materials or parts will be drawn up with the product requirements over the internet & asked to quote their rates.

Once the rates are quoted, the order will be placed with the required delivery schedules. Once the parts the parts are supplied the stocks will be updated. Then a production plan will be drawn up taking the bill of materials into consideration. Once the production plan is approved, the stock will be updated when the material is issued. Once the finished products are available the delivery schedules will be drawn up based on the orders placed by the Dealers. The stocks with the dealers will also be maintained.

ERP Evaluation

- In 1960s, Inventory Management & Control
- In 1970s, Material Requirement Planning(MRP)
- In 1980s, Manufacturing Requirements Planning(MRP II)
- In 1990s, Enterprise Resource Planning(ERP)
- In 2000s, Extended ERP

2. EXISTING SYSTEM

The Existing System Of the targeted is agency ERP. Currently uses FoxPro System for maintaining the data individually Department wise. Over Here the entire business Processes are communicated physically among the departments which is a slow and inefficient way. Each Department has its own local database and hence there is no integration among them. With the use of the current system delays creep into the factories schedule of providing the end products to their customers. Delays occur since the data is not centralized and any change in the local database of a particular department takes time to be reflected to all the concerned and dependent departments. Data Entry into the system is also difficult due to the use of weak GUI provided to the employees. Manual Errors are very high during the data entry and there are no proper validations enforced during the data entry. Report Generation is a very time consuming and difficult task while using the existing system. The data from each department must be collected separately and then a cumulative report can be generated. In the Targeted Agency the current system slows down the working of the business processes and hence the overall Profit to the organization.

2.1. Limitation of existing system

- Problem in registering the Customers information at an organizational Level.
- Problem in keeping the data of various departments together.
- Lack of Good Graphical User Interface.
- Problem of Integrity among the organization due to sets of local Data.
- Difficulty in scalability due to use of old technologies.
- Report Generation is very slow.

3. PROPOSED SYSTEM

The Proposed System will significantly enhance the ability to coordinate the functions of the organization electronically. The system provides significant new functionality in keeping of several functions, managing the flow of the information and interacting with the management. The system provides the effective mechanism for integrating many of these tools into a single interface and is an ideal tool for managing the organization resources effectively. The Proposed System will simulate each department and its functionalities as separate modules which are as follows:-

3.1 Module Description

The System has following Module:

- Purchase
- Inventory
- Sales
- Management Information System
- Reports

a. Purchase

The Purchase module handles all the functionalities related to the materials to be purchased, the available suppliers and their quotations. The Administrator enters the following information related to this module :

- The Group to which a material belongs.
- Under it the subgroup and then the related items.
- The admin also makes entries of the parties who are the suppliers and categorizes them based on the materials they provide.

The above information is then used by the department head to perform the following:

- Purchase enquiries to the related suppliers.
- Entering the Quotation given by the supplier.
- Making a comparative analysis of all the quotations.
- Creating the purchase order against an enquiry.

The managing director works in this module by getting the desired reports.

b. Inventory

This module represents the store of the targeted agency. It deals with the information of storing the raw materials, the products, forecasting the demand and creating the invoices for the materials to be supplied.

The following activities are carried out in this module:-

- Inventory approval memos

- Inventory return
- Inventory issue
- Inventory transfers

c. Sales

This module deals with all the selling of the products and Byproducts to various customers. The Accounts module directly credits to the system once the sales are done. The Administrator enters the following information related to this module:

- The Group to which a material belongs.
- The Group includes a product and also a Byproduct.
- Under it the subgroup and then the related items.
- The admin also makes entries of the parties who are the customers and categorizes them based on the materials they take.

d. Management Information System

This module allows easy reporting to be viewed by the managing director of the purchase, sales and other modules.

e. Reports

This module allows easy reporting to be viewed by User.

3.2 System Diagram

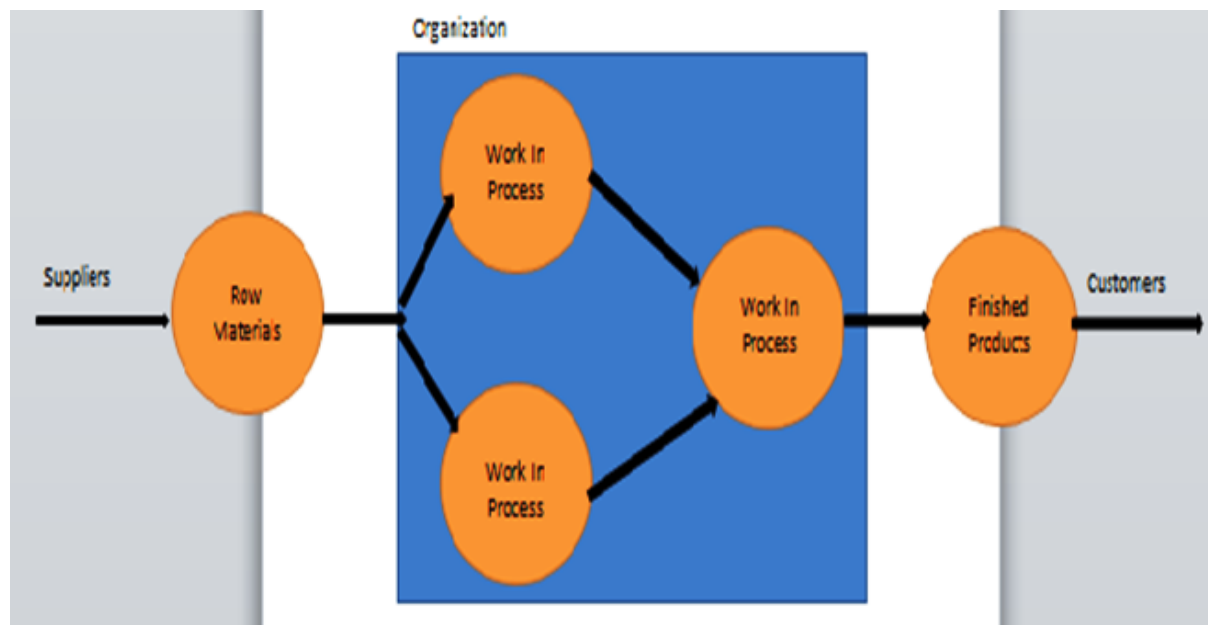


Fig.1: System Diagram

3.3 Work Flow

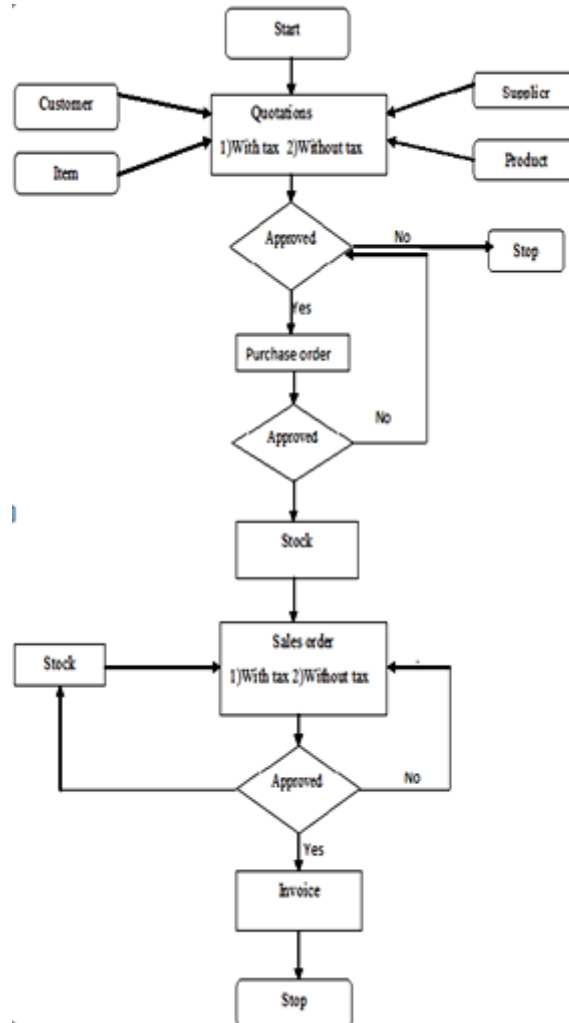


Fig.2: Flow of System

Description: As shown in the above figure our system software involves four primary components i.e.

- **Customer:** One who provides requirements and to whom finished products are delivered by the developer.
- **Supplier:** One who provides raw materials to the developer.
- **Item:** Raw materials.
- **Product:** Finished Product.

Firstly, the person operating the system software will send quotations to their customers according to their requirements with tax and without tax facility, whenever these quotations are approved by the customers the purchase order is generated.

As, the purchase order is generated it is added in the stock and further sales order is generated again with tax and without tax facility. Once the sales order is approved invoice is generated where actually the item details information, accepted and rejected quantities are managed.

4. CASE STUDY: ABOUT THE ORGANIZATION

The ABC Company is the only flashlight plant of the parent company. This is the light engineering industry. Most of the metal sheet work is being done along with some plastic components molding. The Plant manufactures the full Range of DigiLed, Brass, aluminum and plastic torches. Inventory mainly classified into three categories:

- Raw material - items
- Processing on row materials
- Packaging material
- Finishing product

4.1 Main objective of the present work is to develop software package for inventory management system. inventory transaction mainly classified into three modules

- Items received in side
- Items issue in-side
- Items issue (outside)

Inventory report generation are stock statement, issue resister, receive resister.

5. ADVANTAGES

- Easy analysis information available to the Managing Director.
- Integration of all business processes.
- Integration of all Departments and their working.
- Easy Graphical User Interface.
- Division of roles which provides Data Security.
- Quick access to data.
- Provide Comparatives for deciding the right customers and suppliers .
- To reduce manual work.
- Generation of quick report based on the departments.
- Prevent and reduce human error

6. CONCLUSION

We have learned various concepts of ERP ,its work area ,its functionality and working on store management which is one of the work area in ERP system.

6.1 Future Scope

- Making Online Application For Store Management.

REFERENCES

- [1] Alexis L., *ERP Demystified* (Tata McGraw- Hill Publishing Company Ltd., New Delhi, 2000)
- [2] Yadav, P.K., *Database management system* (Publication S.K. Kataria & Sons 2009)
- [3] Choudhary, S. K., Suman, R., Gupta, N., *Designing the Process of Stores Management for Implementing ERP in Manufacturing Organization: Case Study*, *Industrial Engineering Letters*, *International Institute of Science Technology & Education*, 4(3), 2014, 49-66.
- [4] Gargeya, V.B. & Brady, C. (2005): *Success and failure factor of adopting SAP in ERP system Implementation*, *Business Process Management journal*, 11(9), 2005, 175-197.