

# Enterprise Resource Planning Module for Box Packaging Industry

**KHUSHBOO YEROJWAR, ROSHAN BAGDE, CHETNA PATANKAR, ASHWINI INGOLE**

## Khushboo Yerojwar

Department of Information Technology  
Rajiv Gandhi college Of Engineering,  
Nagpur, Maharashtra, India  
**Khushi.yerojwar@gmail.com**

## Roshan Bagde

Department of information Technology  
Rajiv Gandhi college of engineering,  
Nagpur, Maharashtra, India  
**iamro42@gmail.com**

## Chetna Patankar

Department of Information Technology  
Rajiv Gandhi college Of Engineering,  
Nagpur, Maharashtra, India  
**patankarchetna@gmail.com**

## Ashwini Ingole

Department of Information Technology  
Rajiv Gandhi College of engineering,  
Nagpur, Maharashtra, India  
**aashwini.ingole@gmail.com**

## ABSTRACT

*Designing an ERP module for box packaging industry to ease the way of ordering and purchasing boxes needed for various purposes.*

*Box Packing ERP module is a new idea for Box creation industries. It covers all basic and advance features of an inventory, production and account departments. In this product there are various advance features like wastage calculation by this feature we can remove the unwanted raw material losses, Backup facilities, Emailing facilities etc. This software is fully customizable, user-friendly and easy to use.*

**INDEX TERM:** ERP Module, Inventory production, Wastage Calculation, Backup facilities,

\*\*\*

## 1. INTRODUCTION

**E**nterprise Resource Planning (ERP) is a solution, which facilitates company-wide integrated information systems covering all functional areas and performs core corporate activities and increases customer service augmenting Corporate Image. ERP module integrates all the departments of an enterprise to increase the productivity.

ERP is used for better management so that it is known what is happening inside the company. It is the one solution for managing company resources. ERP

is also used to achieve cost control and low working capital. ERP is used to satisfy customers' high expectations. There are many software that helps organizations to communicate. One certain system that does this is the Enterprise Resource Planning

System, also known as ERP with technology. There are many parts of an ERP system, including manufacturing, financial, human resources, and plenty more. The system has saved organizations time and money in various ways.

ERP systems allow for integration between business organizations to be accomplished effectively and without making mistakes. Because of this, a productive ERP system needs the different features of businesses to be connected with one another. As stated above, there are many Sections of an ERP System. The manufacturing sector includes the resource and material planning, engineering bills of material, and the quality of the information being transferred. The financials are in charge of the accounts that are payable as well as received, as well

as the cash management. The human resources of ERP Systems take care of the employment, advantages of employees, payroll, and the labor rules. The supply chain management looks over the inventory management, and sales orders taken from the many companies. The last three sectors of the systems are the projects, which is the costing and billing; customer relations, which includes the sales, marketing, commissions, and services; and data warehouse, which contains the information used by the company. The ERP system allows for communication and the exchange of valuable data between departments to be done in a more continuous and orderly fashion. Its main function is to assist the flow of information between all business activities inside the organization and to administer the connections to outsiders. By integrating parts of business and technology into one, ERP allows for effective performance with all departments that are connected.

## 2. Traditional Process

Earlier the client company used to follow the old process of taking orders for boxes manually. They used to maintain the database in an excel sheet. As the total work starting from the client's requirements to the delivery of the finished product all was done manually it had become difficult to manage the things as the no. of clients increased.

Once the order was placed to the company, the company needed to estimate the cost of the finished product by calculating the amount of paper, pins, gum, type of paper which the client wanted, required for the order to complete. This was all done by the purchase department and the information was carried forward to the production department. The production department based on the demands used to produce and deliver the product. This process lead to the wastage of raw materials and the company could not track the amount of raw material wasted. Due to

this the company used to be in loss of almost 15 lakhs per year.

To overcome this problem the company wanted to have software which maintains the records of the company and give an estimate of the raw materials needed as per the clients requirement and would also generate the exact cost of the each box as well as the total order. So the company needed an enterprise resource planning module which would ease the task of the company and would also increase the efficiency of the company.

## 3. A way To Tackle

To overcome this problem the company wanted to install computerized inventory control system as a software which maintains the records of the company and give an estimate of the raw materials needed as per the clients requirement and would also generate the exact cost of the each box as well as the total order.

Box Packing ERP module is a new idea for Box creation industries. Here by box packaging it means manufacturing of boxes for any product to be packed. It is not concerned with the actual packaging of product. It covers all basic and advance features of an inventory, production and account departments. In this product there are various advance features like wastage calculation by this feature we can remove the unwanted raw material losses, Backup facilities, Emailing facilities etc. This software is fully customizable, user-friendly and easy to use.

There are 2 types of boxes that are manufactured as follows:

1. One piece box
2. Two-piece box

The raw materials used for manufacturing are paper, gums and pins.

The papers used for manufacturing of boxes are top, media, duplex and flute. These all differ on each Gramm age Square Meter (GSM) and Busting Factor (BF). The flute paper is the basic and important paper which is made in the industry itself by crumping a sheet of paper. These two factors are taken into consideration before deciding the plies (layers) to be used for a particular box ordered for product. Also the weight of the product for which the box is to be made play a crucial role in deciding the number of plies.

A ply is a thick sheet of paper which is a combination of alternate layers of different paper types with flute paper in the middle.

This ERP module helps to calculate the rate of a single box according to the paper type used and raw materials needed. It also provides to keep a track of all the orders of clients and also helps to handle the accounts of each client.

All the Modules related to this product are following:-

#### 1. Purchase Module :-

- Add Company (New Company/ Distributor).
- Purchase raw material (Paper, Pins, and Gums etc).
- Notification panel for out of stock materials and new orders.
- Searching for stock (According to date, month, and year).
- Add, Update and Delete facility in every module.

#### 2. Production Module:-

- Add new company for new production.
- Reorder for previous registered companies. Calculations to make box (single or multiple Boxes) (Features included like: - Automatic total weight of box calculation, paper description, additional charges calculation, Average Reports.
- Raise order to purchase module.

#### 3. Sale Module:-

- Release Product to Customer.
- Invoice creation.
- Stock management of all sold out products.
- Separate panel for new sale.
- Add, update, and delete facility.

#### 4. Accounting Module:-

- Account list
- Active parties
- Non-Active parties
- Receipt Voucher
- Payment voucher
- General Voucher
- Post dated cheque list.
- Journal Vouchers Printout
- Vouchers tally
- Account ledger
- Profit & Loss.
- Balance sheet

#### 5. Reports:-

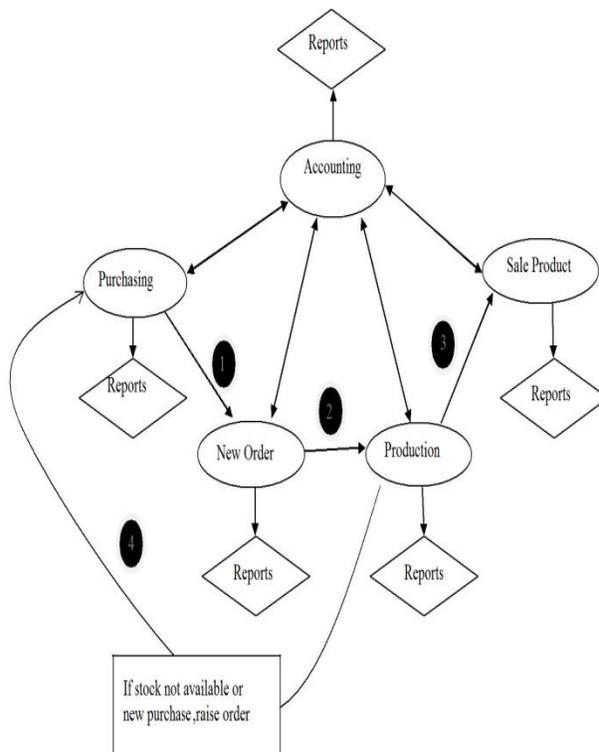
- Stock Report
- Order Report
- Purchase Report
- Sale Report
- Item issued Report
- Trial Balance Report
- Balance Sheet Report

#### 6. Additional Features:-

- Safe Backup
- Restore Backup
- Email Reports
- Update Facility
- Customizable

#### 4. METHODOLOGY

For the front end dot net is the technology used which make this module of ERP easy to use . For the back end Microsoft Access 2007 is used.



#### 5. CONCLUSION

This module will help you lower total cost of procurement through improved efficiency, better packaging design to maximize spend, and enhanced productivity, while providing the best customer service experience.

This ERP is a stand-alone system and hence can be operated on multisystem using LAN.

This module also has some additional features like wastage calculation which will help to discard unwanted raw materials etc

#### ACKNOWLEDGEMENT

We are thankful to our guide **Prof. Alok Chauhan** under whom our project took the shape of reality from mere media. We are also thankful to our co-guide Mr. Sudhir Deshmukh for enlightening us with his precious guidance and constant encouragement. We thank our guide who constantly provided us with ample support and stimulus to reach our goals.

We are grateful to Prof. M. M. Goswami, HOD IT Department RGCER, for his kind co-operation and timely help. We express our gratitude toward Principal RGCER, for his support and motivation.

Lastly we would like to thank all those who were directly or indirectly contributed to make this software successful by their extended support.

#### REFERENCES

[1]. A Chervenak," The data Grid: Towards an architecture for the distributed management and analysis of large scientific datasets", Journal of Networks and computer application," July 2000 Vol. 23(3).

[2]. David S. Platt," "Introducing Microsoft .NET", 2nd Edition, Microsoft" Press Redmond, WA, USA, 2002.

## BIOGRAPHIES



### **Khushboo Yerojwar**

Department of Information Technology

Rajiv Gandhi College of Engineering, Nagpur, Maharashtra, India.

Khushi.yerojwar@gmail.com



### **Roshan Bagde**

Department of Information Technology

Rajiv Gandhi College of Engineering, Nagpur, Maharashtra, India.

Khushi.yerojwar@gmail.com



### **Chetna Patankar**

Department of Information Technology

Rajiv Gandhi College of Engineering, Nagpur, Maharashtra, India.

Khushi.yerojwar@gmail.com



### **Ashwini Ingole**

Department of Information Technology

Rajiv Gandhi College of Engineering, Nagpur, Maharashtra, India.

Khushi.yerojwar@gmail.com