**INTRODUCTION**

* 1. **Company Profile :**

VidyaManohar Engineering Pvt. Ltd is private limited company formed in year 2011. All technical domains are handled by skilled Engineers including Sales & Marketing, Engineering, Production & Quality. At VidyaManohar Engineering Pvt. Ltd have always believed in team based approach to efficiently manage the common goal of complete customer satisfaction.

* 1. **Introduction :**

A customer focused company with strong knowledge about processes having an ability to understand diverse customer requirements and to provide end to end solutions to the customers under one roof.  
 Self-motivated and proficient human resources directed by highly experienced leaders are the key drivers of **VidyaManohar Engineering Pvt. Ltd.** Lean manufacturing will be “the way of life” in the organization.  
 This is a private limited company formed in year 2011 with **Mr. Yeshwant Jawdekar** and**Mr. Harshad Jawdekar** in board of directors.  
 This organization has extensive range of equipment includes CNC laser cutting machines from Trumpf, CNC plasma cutting( under procurement), CNC bending machines from Bystronic, MIG, MAG and TIG welding machines from ESAB supplemented with shot blasting, painting and powder coating processes.

* 1. **Existing System and needs of Existing System:**

The Existing System also covers every stage of the physical distribution process, from raw materials and component parts being ordered and delivered to the factory, materials handling and storage, stock control, sales forecasting from which the forecasts of individual components parts, transport and storage requirements are derived.

But Existing System needs to paid license for every year which cost is very high. We can build our system with very low cost and without any paid license. Organization only needs to pay Minimum cost for life time use of project.

* 1. **Limitations of existing system :**

A limitation of Existing System is the high cost of purchasing and implementing this program. The company must purchase the software and hardware necessary to run the programs company-wide. Costs include labor costs of internal information technology (IT) employees or external consultants overseeing the process. Once the company implements the software, employees need to be trained. This involves training each employee in the functions they have access to. Ongoing costs include software maintenance and periodic upgrades.

Another limitation of Existing System is the complexity built into the software. Most companies implement one feature or function of the software at a time, allowing employees to gain familiarity with the software before moving forward. The complete implementation process may take several years.

**PROPOSED SYSTEM**

**2.1 Problem statement**

The Logistic System affects organizations. It should improve operations efficiency, simplify business processes, and make life easier for employees. As mentioned previously, there are several factors that motivate organizations to choose an Logistic Systems. However, there are even more factors that lead organizations. Moreover, when implemented, it could majorly affect organizations negatively and move organizations backward. The purpose of this paper is to address these issues facing organizations, explore how to deal with them, and propose a scheme to overcome these problems.

**2.2 Product position statement**

What positioning strategy does is to create an image for the product that a company wants to bring in the mind of customers, in order to make them realize the current situation of market and competitors.

We started developing as Logistics Management software and today these are players in the Enterprise Logistics Software market. Our system provide all the functionalities which are already in existing software’s but they are very high paid software’s as compare to our system which will available with minimum cost which is beneficial for small as well as big organization and this system is developed in open source technologies.

**2.3 Product overview**

Typically, logistics works in two directions – forward and reverse. When we talk about logistics, we usually mean forward direction, which includes such operations as receiving and processing an order, checking and preparing inventory, packing and picking an item, dispatching it and selecting a transportation route that will deliver the product to a customer as quickly and efficiently as possible. Reverse direction means any operations with managing incorrect or damaged shipments, repairing items, and reusing or recycling.

In a digital world, to manage these processes in both ways, businesses use logistics management systems a combination of software tools that optimize all processes from making an order and delivering it to a customer’s door. Introducing and integrating LMS in your organization can be done differently: In that system we maintain purchase orders, production orders and their stocks. This system stores all the information about operations and their stocks. Basically this system is very useful for small as well as big organizations to maintain their all transactions and stocks. This system needs internet connections which user can access through browser. System will print invoice of orders confirmation.

The system no need any type of license or paid service for accessing the. We can access with free of cost this is main advantage of this system.

**2.4 Summary of capabilities**

The Order Management System is the first point of logistics management system is organization contact with customers for managing order receiving and placement. The Order Management System are closely related to checking product availability. The customer-ordered items may be available from inventories or may be seen in the production schedules. This provides information about the location of the product in the supply network, quantity available in stock. After checking product availability and accepting the delivery time by the customers. Once the order is accepted, the OMS will allocate the product to the customer order, assign it to a production location, decrement inventory, and prepare an invoice when shipping has been confirmed.

Logistics planning is the process of integrating and utilizing suppliers, manufacturers, warehouses, and retailers so that products are produced and delivered at the right quantities and at the right time while minimizing costs and satisfying customer requirements. Implementation of Logistic System has crucial impacts on a company’s financial performance and Logistic Planning optimization is essential to achieve globally optimized operations. In a logistics optimization model, the overall system wide costs are to be minimized through effective procurement, production, distribution, and inventory management.

**2.5 Assumptions and dependencies**

An assumption in requirements is an assertion on which a given requirement or set of requirements depends. This is Logistic basically designed for management of logistics of organizations. Logistic System is used to store all information about all transactions of the working of organization. This system is totally depends upon internet. We can access only one account of use in one desktop to doing operations.

**2.6 Objectives of proposed system**

Knowing real time information about business field strategies is one of the core objectives of Logistic System. Logistic System which is a blend of software modules helps in integrating data and real time information. It helps in better planning and management of resources as per the requirements of organization. Upgrading the needed software modules, better work flow and improved efficiency are some of the important benefits of using Enterprise Logistic System. It is found to be very efficient in controlling and managing organizations departments at different locations within organization. At present Enterprise Logistic System is an essential tool package used by many of the organization for achieving their long term goals. Return on Investment, best known as ROI is another core objective of Logistic System.

**2.7 Functional requirements**

There are a few things every Logistic system should contain. You can think of functional Logistic system requirements as the benefits and experiences an Logistic system provides.

These allow users to manage grouped tasks without switching applications or screens. All information needed for a certain operation should be housed in the same part of the system.

Logistic systems rely on a central database from which all applications retrieve information. This provides all users with a single source of truth, ensuring all departments and teams work with the same set of information.

The users should be able to go from one page of the system to another without feeling completely lost or like it’s a different task. This also means after every operation the system should update stock information in database. logistics work to eliminate redundancies in your system and provide up-to-the-minute information.

The following are popular Logistics modules and functions included in the system:

**Module – 1: Plan to Produce**

**Plan to Produce** is the process of aligning demand with manufacturing capacity to create production and procurement schedules for finished products and component materials. Plan to Produce is an important module of Enterprise Logistic System. It tracks and makes a record of the manufacturing process flows, for example, the planned and actual costs. Also, goods movements from the conversion of raw material to semi-finished goods.

Plan to Produce includes all of the business processes that are related to production. This includes processes in order for forecasting, material and production planning and scheduling, reporting, cost controlling, shop floor control, etc. In some cases, it can also include work in progress inventory and quality control. The whole process is examined from a budgeted sales plan point of view, since planning is based on meeting sales requirements of the company in accordance with the cycle times for production.

Plan to Produce enables organizations to plan for their manufacturing, sales, and goods distribution.

**Module – 2: Procure to Pay**

**Procure to Pay process** is required when we need to purchase materials/services from an external vendor for our company. This process includes all the business tasks starting from a purchase requisition (PR) and finishing with payment to the vendor. Procure to pay is the process of purchasing, receiving, paying for and accounting for goods and services. It gets its name from the ordered sequence of procurement and financial processes, starting with the first steps of procuring a good or service to the final steps involved in paying for it.

It is a process, not a technology, though there is the system expressly designed to handle the entire procure to pay process or components of it. Procure to pay is also sometimes called purchase to pay.

**2.8 Nonfunctional requirements**

A. Employees shall be forced to change their password the next time they log in if they have not changed it within the length of time established as “password expiration duration.”

B. Users must change the initially assigned login authentication information (password) immediately after the first successful login.

C. Employees shall not be allowed to update master date information. The access permissions for system data and update information about employees may only be updated by the system’s data administrator.

D Passwords shall never be viewable at the point of entry or at any other time. Each unsuccessful attempt by a user to access an item of data shall be recorded on an audit trail.

E. All the information about accessing the pages of the system shall be recorded on an audit trail.

**2.9 Stakeholder summary**

**2.10 Users summary**

**2.11 Scope of the system**

**2.12 Module specifications**

**2.13 Operating environment**

**REQUIREMENT DETERMINATION AND ANALYSIS**

**3.1 Fact finding methods**

**3.2 Feasibility study**

**SYSTEM ANALYSIS & DESIGN**

**4.1 Use Case Diagrams**

**4.2 Sequence Diagram**

**4.3 Activity Diagram ERD**

**4.4 Class Diagram**

**4.5 Object Diagram**

**4.6 Module Hierarchy Diagram**

**4.7 Component Diagram**

**4.8 Deployment Diagram ( in case of Web Deployment ) Page**

**4.9 Module Specifications**

**4.10 Interface Diagram ( in case of WAP and Embedded Systems )**

**4.11 Web Site Map Diagram in case of Web Site )**

**4.12 User Interface Design (Screens etc.)**

**4.13 Table specifications (in case back end is a database)**

**4.14 Test Procedures and Implementation**