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Enterprise Resource Planning (ERP) Package

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I. INTRODUCTION

ERP is an integrated software package that integrates all facets of the business including planning, manufacturing, sales, inventory, Human Resource Information System, finance and marketing. ERP software is multi module application that integrates cross-functional department centrally. It can be used by all level of employees - workers, supervisors, managers, executives, and top-level management. ERP evolved from MRP also known as Manufacturing Requirement Planning. Earlier, ERP software was used for automating the manufacturing units, but now it can be used for Human Resource planning, Project Planning, Appraisal, recruitment, training, and mailing features and even for share trade.

II. EVOLUTION OF ERP

There had been many changes in the last few decades in the ERP software. There are two types of evolutions found in this software Functional Evolution and Technological Evolution.

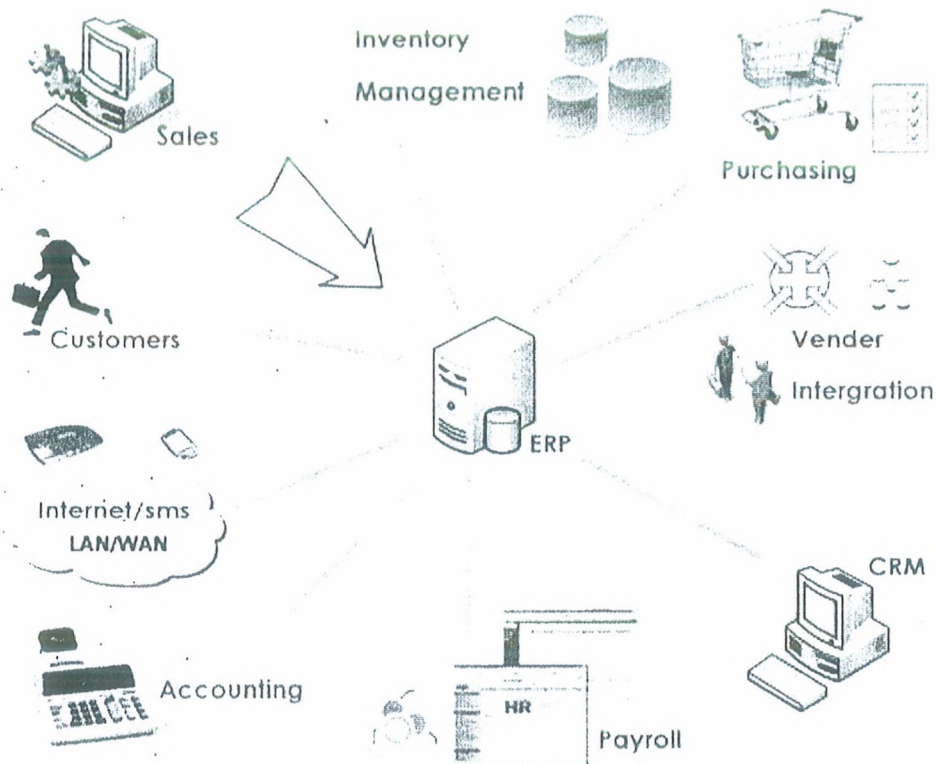
In 60's first company to launch concept of automation software was formed by IBM. At that time ERP was used mainly for the Inventory Management and Inventory Control. In 70's the material requirement planning process was introduced which is also known as MRP. It defines the schedule of operation and purchase of raw materials based on the needs of the production units. In 80's ERP software was backed by improved software and operating system. The use of this software started from the planning phases, where the quantity of item needed where production was defined and product planning was also done through this software. In 90's ERP was used for many activities. It came with multi module and multi location features. Client server technology enabled the use of servers, which was located at the remote place and the client computer were operating through user interface. In 2004 service oriented design of ERP was introduced, where the software designed on different platforms could communicate with each other and software products designed by different vendors could be merged together as per the needs of the customers.

III. FUNCTIONS OF ERP

With ERP, business can better control over it's billing to customers and receivables. With the ability to automate processes. It provides better operational, financial and accounting control over its billing operations and receivables. ERP system can be used for accomplish every task by integrating the information system, seamless flow of information across every department. It is helpful to make automation of every business process. Because ERP works on basic rules 'input - process-output'. So it is also using as Management Information System (MIS). ERP treats the organization as single entity and caters to the information needs of the whole organization because information is the key resource of every organization to win the competition. Main function of ERP system and software is to provide information updated and on real time. In ERP, provides the answer of any query by its powerful query and filtering facility.

Now advance ERP software packages are providing the facility to manage import, export, tax and fulfilling other legal requirements.

Computer aided design can also integrate with ERP software for showing design of products on real time and according to the need of customers. ERP provides also all financial analysis under finance modules and comply with India's and other international accounting standards ERP system can easily use in Government, healthcare, financial, retail and other service sectors.ERP system provides accurate, relevant and timeliness information to all department on one software system.



IV. TYPES OF ERP SOFTWARE

SAP R/3 is software from SAP, SAP is a world's leading provider of the business software. SAP software runs in more than 120 countries world wide with more than 86000 customers. SAP solution is transforming the business process into a best-run business. SAP services are so good; they provided superior service and supports.

SAP B1 (business one) software is also from SAP. It is made for SME (small and medium enterprise) segments to fulfill their requirement at lower cost. SAP B1 localization is quite good. It contains 15 core modules. Report module is discontinued in 2009 due to purchase of Business Object, XL Reporter and Crystal Report 2008 Basis (one free license per customer).

LN/BaaN is software from Info global offer the breadth and depth of support for order- driver, project-based discrete manufacturing. It increases user productivity, operational efficiency, better control of processes, better communication and collaboration, enhance performance and scalability, leverage IT infrastructure and information assets and reduce cost. LN is deal for companies in make-to-stock, assemble-to-order, make-to-order, or engineer-to-order environments.

Microsoft Dynamics AX 2009(Microsoft Axapta) is a comprehensive enterprise solution for mid-sized and larger organization to help people improve productivity. Microsoft dynamics ERP applications and services made for retailers, manufacturers, wholesale distributors, and service companies, doing business domestically or in multiple countries.

Microsoft Dynamics NAV (Microsoft Navision) is an ERP software to assist with finance, manufacturing, CRM, SCM analytics and e-commerce for small and medium-sized enterprises.

JD Edward Enterprise One is an integrated applications suite of comprehensive enterprise resource planning software from oracle that combines business value, standards-based technology, and deep industry experience into a business solution with a low total cost of ownership.

Oracle E-Business Suite Financials is easy to operate shared services across businesses and regions. It delivers pre-integrated financial and industry specific processes. It provides consistent financial and operational information, dynamic planning, budgeting and forecasting, multi-dimensional profitability analysis, etc.

Oracle PeopleSoft Enterprise applications are designed for the most complex business requirements. They provide comprehensive business and industry solutions, enabling organizations to significantly improve performance, seamlessly integrate web services into heterogeneous application environments, and a broad choice of technology infrastructure.

V. ERP VENDORS

The ERP market for large enterprises is dominated by three companies: SAP, Oracle and Microsoft. For the midmarket vendors include Infor, QAD, Lawson, Epicor, Sage and IFS. Exact Globe, Sypris, Net Suite, Visibility, Consona, CDC Software and Activant Solutions round out the ERP vendors for small businesses.

VI. ERP FOR MANUFACTURING CONCERN

Nowadays every organization hopes to achieve big. Manufacturing companies are facing so much competition. To stand and grow despite all those competition, organization must have a proper system and software that supports whole system with integrity. Enterprise resource planning is a one of the way to improve and streamline the system. ERP for manufacturing company gives support in term of data availability, decision-making time, and information based decision. It gives a seamless connectivity between product planning, product development, and material sourcing, inventory, and shop management. To synchronize all data in company, ERP have been developed to integrate all data of an organization into a unified system. The software uses multiple components of computer software and hardware to achieve the desired integration of a company's different departments.

VII. BENEFITS OF ERP FOR MANUFACTURING COMPANY

It integrates all aspects of the business processes; manufacturing, design, sales, customer services, finance and planning. It provides more efficient workflow and improved productivity. One of the great benefit- it provides everyone in the production operation on the same page looking at the same real time data. Less paper work, less input data and less repeated work. It improves organizations productivity. ERP reduces the inventory cycle time. It works well with Just In Time (JIT) and pull-production. It increases inventory turnover also. The departmental benefits include faster design, accuracy, production and efficiency. The system provides right information to the right people at the right time anywhere in the world. It enables to improve productivity, enhance decision making etc. It eliminates duplicate work, repeated data entry, and automates all processes. It provides easy access to information. The system standardizes the manufacturing processes and improves overall quality. Web based ERP software can provide flexibility and convenience in implementation and operation. Below mentioned companies are using ORACLE ERP in Coimbatore

- Lakshmi Machine Works(LMW)
- Premier Evolvics
- Suguna Poultry Farm Ltd
- Shanthi Gears Ltd
- CRI Pumps PVT Ltd

VIII. CASE STUDY

A. Lakshmi Machine Works (LMW)

LMW a 1300 Crore Company, one of the largest Textile Machinery Manufacturers in the World. LMW is also in the Machine Tools and Foundry Business. LMW works with 7 operating Units and 4000 Employees. All units of LMW are situated in and around Coimbatore. Now they are using ERP software namely oracle EBS ver. 11.5.10.1, database ver. 9.2.5, localization patch set IN60106. For VAT purpose they applied IN60107 and testing is under progress. 33 modules of EBS are implemented.

B. Modules Implemented In Oracle ERP (LMW)

Oracle Marketing Online , Oracle Quoting, Oracle Sales Online, Oracle Order Management, Oracle Configuration, Oracle iStore, Oracle Purchasing, Oracle iSupplier Portal, Oracle Inventory, Oracle Discrete Manufacturing and Oracle Field Service, Oracle Enterprise Asset Management, Oracle Depot Repair, Oracle Quality Online, Oracle Installed Base, Oracle Payables, Oracle Receivables, Oracle Cash Management, Oracle General Ledger, Oracle Human Resource, Oracle Fixed Assets, Oracle Training Administration, Oracle Self Service HR, Oracle Balanced Score Card, Oracle Time and Labour, Oracle Product Life cycle Management (PLM), Oracle Files Online (OFO), Oracle Daily Business Intelligence (DBI), Oracle Advance Supply Chain Management (ASCP).

C. Implementation Result

The company has used Oracle to automate its complete production, sales and product development cycles. Oracle's ERP tool helps boost LMW revenue. Lakshmi Machine Works Ltd (LMW) has increased its revenue by 20 per cent following the implementation of Oracle's enterprise resource planning product, the E-Business Suite.

IX. CONCLUSION

After increasing the complexity in business process, ERP has become famous among business community. ERP is the new invention of Information technology in which experts make the system for integration of all business processes. For this, they utilize different software and hardware, with this all process of business like, accounting, human resource, production and now marketing are managed. So, ERP has obtained reputation in market. Before using of ERP different business process is done by different software's and businessmen felt tension regarding co-ordination of all processes. Now, ERP whose full name is enterprise resource planning (some says enterprise resource processing) is very scientific technique of controlling whole business by co-ordination of all information on shared database.

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