



## SCM ERP IN CEMENT INDUSTRIES AND ITS REPERCUSSIONS : AN OVERVIEW

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### Abstract

*ERP in Supply chain management provides the lapses of materials, information processed, and financial as they move in a process starting from purveyor to producer to wholesaler to vendor to customer. ERP software involves coordinating and integrating these flows both within and among companies. the ultimate goal of any effective supply chain management system is to reduce inventory in all the process at all the level and increases the process efficiently.*

**Keywords:** ERP, Supply chain, material, logistics, supplier, production



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### Introduction

This is the age of science and technology. Not a single organization can sustain its position in the market without being using the technological advancement. The only thing in this universe which remains same is change. Therefore manufacturing environment has also been changed by the passage of time. Companies have the pressure to produce on the right time and right quantity in-order to achieve efficiency. On the other hand competition is increasing globally. Companies have to focus on more reliable and less time consuming means for their production.

ERP which is the acronym of Enterprises Resource Planning is the solution of their problem. ERP is the set of application software which is integrated with accounting, distribution, sales and marketing, material management, human resource, logistics and several other functions of the business. This name is derived from the material requirement planning (MRP).

The ERP software supports the companies for better management of resources, execution of process, reduction in inventory, labour cost reduction and at the same time cost-effectiveness in other process .

During the initial days, the use of computer was taken in planning and scheduling ,at that the MRP idea was introduced. This was converted into MRP-II with material resource Planning,further when few more function(HR, Finance, IT, SCM, Logistics) was added its become ERP.

These days ERP provides a window to organizations, customers and suppliers. This window gives glimpses of demand supply forecasts, real time visibility, Transparency , Real time management, Real time integration, product life cycle management.

### **Technologies in cement production**

When all the business was moving towards the integration of business modules such as HR, Finance, Marketing, inventory, purchase .Production cannot be left out for that purpose Plant Wide Information Management System (PIMS) Technology has been developed as a means to integrate process information. At the plant level, the PIMS's goal is to integrate all the process information levels. To make this information available throughout the plant module to support decision making at operational, executive and management levels. Through successive levels of data acquisition and integration, the manufacturing operation is combined with the enterprise management systems in a comprehensive information management system yielding enormous power when used efficiently.

The world production of cement is increasing at a high rate with the support of new information technologies and software specially SAP/ERP .

at the same time major change happening in the Indian cement industry in last 5 yrs. All the Major Players in this Area like JK cement, Birla cement , Binani cement, ACC, Ultratech cement, Madras cement, Ambuja cement, Jaypee cement, and Wonder cement all are adopting the ERP Practices Gradually . Due to this Therefore, cement production was considered one of the major contributors in the growth of the economy in the last few years and The role of IT consultants have changed significantly in the past few years.

### **ERP practices at a cement plant**

ERP combines all the business functions together into one single integrated system with a single central database . This system serves the information needs of all the departments across geographies, while allowing them to communicate with each other. A traditional ERP system consists of modules for ,Production procurement Planning, supply chain, manufacturing, logistics Quality Management, Financial Management, Human Resource, Training and development, Inventory management and Logistics and Sales and Distribution. Once an ERP is in place, operating managers are relieved of routine decisions and they thus have the time to plan and execute long-term decisions that are vital for the growth of an

organization. It leads to significant cost savings as the health of the organization is continuously being monitored.

Prior to ERP customers primarily dealt with distributors and retailers; the manufacturer was far removed from the customers. ERP With supply chain becomes more integrated and mfg. Sell directs to customers. Production planning and manufacturing process include all the activities necessary to insure production, production system in the cement industry have following objectives.

1. Producing the production plan
2. Acquiring the raw materials
3. Scheduling the equipments
4. facilities and workforce to process these materials
5. designing product and services
- 6 producing the right quantity and required level of quantity at the time required by production goals.

All above goals can be achieved operational level and managerial level control process for this The ideal production and manufacturing environment is JIT system. Based upon the activities stated the ERP provides the following practices to be adopted in real time to have an edge over the competitor. These are:

### **SCM and ERP**

The ERP in supply chain management in cement industry has mainly three functions to check the first and for most is to check the product flow, the information flow and the finance involved in both the stages. the following SCM ERP provides the following Information

#### **1. Real-Time Visibility**

To deliver the products at an highly attractive price without sacrificing quality and delivery promised, firm are trying to be competitive and to gain competitive advantage they are trying to streamline their business process with real time visibility With the help of ERP process can be link through our customers to the users of our products and plan on real-time demand instead of an optimistic forecast. This integrates supplier, distributor and customers logistics requirement into one cohesive process for time, effort and inventory cost reduction.

#### **2. Improved Transparency**

The ERP system integrate demand planning, production forecasting ,material requisition ,order processing ,inventory allocation ,order fulfillment ,transportation logistic so that We could give further supply chain ERP visibility to customers available capacity present or in the future. They can plan their own new product discharge around our ability to supply them.

### **Process Collaboration**

As important as role-based access to ERP system is, collaboration. The ERR collaborates processes and projects across departments is becoming increasingly important these days . SCM this can translate to collaboration between you and your customer on a long term project or you and your supplier on a short term deal. The SCM is helpful in Coordination, scheduling, controlling the management, delivery of products and service to customers.

### **Life Cycle Management**

The ERP maintain the life cycle of the product till from when and what to produce, store and move, plan production based on actual demand, share the information about defect rates and returns, provide product specifications, rapidly communicate the changes in the design, orders, track the status of orders, inventory levels and many more.

Products come and go faster every day. Other products evolve and become better. We can use big data to help develop products that match real needs. supply chain ERP system manages product life cycle in a far better way than the traditional one. its pull external data to add further context to internal data sets .it helps in to get secondary variables associated with life cycle of data. It provides seasonality and information about Environmental conditions. these help in making the decision even further.

### **Real-Time Response**

When ERP is linked to smart phones for supply chain through mobile applications provides seamless procedure for all employees. They can access the all sort of information in real time . whether it incoming delivery and or start of production. A supply chain is an ever evolving system. Suppliers and customers come and go. Products evolve and materials change. Is your ERP keeping up with these change. SCM is cross functional enterprise system that uses the IT to help and support and manage the links between some of the key process of business and that of suppliers.

### **Conclusion**

ERP based Supply Chain Management system in cement industry is essential to get real-time equipped information across several departments and businesses functions. ERP module and its components play a vital role in different aspects of the formation and protection of a better Supply Chain Management procedure, which starts from Planning, Purchasing, Procurement then Execution and after wards its Monitoring ,Maintenance Measurement till the final Assessment of process .Therefore the clear insight in above in all the activities can provide a sustainable competitive advantage

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