

Madras Cements Streamlines Production and Improves Delivery and Customer Satisfaction

Overview

Country or Region: India

Industry: Manufacturing

Customer Profile

Madras Cements Limited (MCL), a flagship company of the Ramco Group, is a major player in the blended cement category in south India. It is one of the most-efficient manufacturers of cement.

Business Situation

To streamline business processes and ensure optimum capacity utilization, MCL decided to implement Ramco e.Applications™ on Microsoft® Windows Server System™.

Solution

MCL implemented Ramco e.Applications in the Microsoft environment, using Microsoft Windows® Small Business Server 2000 and Microsoft SQL Server™ 2000. MCL has seen an increase in interoffice efficiency and business productivity.

Benefits

- Improved bottom line
- Streamlined transactions
- Better financial control



“The system helps tracking of costs on a day-to-day basis, and this enables the top management to take necessary corrective actions immediately.”

A. V. Dharmakrishnan, Senior Vice President of Finance, Madras Cements Limited

Madras Cements Limited (MCL) started its first manufacturing facility with a 200 tons per day (TPD) capacity in 1962. Today with a combined annual capacity of 6 million tons, MCL is one of the largest manufacturers of Portland Cement in India. To stay competitive and retain its healthy installed base, it was necessary for the company to increase its capacity. Each of its four manufacturing facilities had islands of information in disparate systems, leading to problems in capacity planning. Implementing Ramco e.Applications™ in the Microsoft® environment, using Microsoft Windows® Small Business Server 2000 and Microsoft SQL Server™ 2000 has helped Madras Cements streamline its information flow online. This has resulted in efficient capacity planning, optimum capacity utilisation, reduced downtime of equipment, and elimination of wastage.



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V. Jaganathan, Senior Vice President of Manufacturing, Madras Cements Limited

Situation

India is the second largest producer of cement with a total installed capacity of 150 million tons per year. Andhra Pradesh, Madhya Pradesh, Gujarat, Rajasthan, and Tamil Nadu are flushed with limestone reserves and account for the major installed capacity. With the highest fixed capital investment of about U.S.\$1 billion/Rs.46.20 billion, the cement industry is the third-largest employer.

The demand of cement is directly linked to the economic growth of the country. With the national gross domestic product (GDP) expected to grow at 7 to 8 percent annually, the demand for cement is expected to grow at 10 percent.

The housing sector is the largest consumer of cement in India, accounting for about 60 percent of the total consumption. Infrastructure (including roads, urban development, dams, etc.) accounts for another 25 percent of the total demand. Others account for the balance of 15 percent. With the boost given by the government to the housing sector, and the emphasis on infrastructure development, cement consumption is anticipated to grow sharply in the coming years.

Madras Cements Limited (MCL) manufactures and markets cement under the brand name Ramco Cements. MCL has four manufacturing facilities at Alathiyur, Jayanthipuram, RR Nagar, and Method with a corporate office in Chennai and marketing offices across four states. MCL is an ISO-9002 company.

MCL had several “islands” of systems running across its manufacturing plants and the corporate office in Chennai. To gain a competitive advantage, it had begun investing in computerizing its payroll, inventory, invoicing, and finance systems in 1985. However, over the years, every MCL manufacturing facility had its own systems, platforms, and processes. Due to a lack of integration and different

reporting formats across the facilities, reports got delayed. The flow of information to the top management at corporate office was not timely. Key information, such as financial and production details, were not uniformly available and this resulted in unnecessary delays in taking timely corrective actions.

Solution

Once the MCL management decided to go in for an enterprise resource planning (ERP) system, the first choice was Ramco Systems' e.Applications™ in the Microsoft® environment, using the Microsoft Windows® Small Business Server 2000 operating system and Microsoft SQL Server™ 2000 database, both part of Microsoft Windows Server System™ integrated server software. It was also felt that by implementing Ramco e.Applications in the Microsoft environment, MCL would ensure smooth integration with other applications. MCL is the first company to implement a full-fledged ERP system in the cement industry and one of the early adaptors among corporations in India.

To begin with, the ERP system was rolled out at MCL's RR Nagar plant in Tamil Nadu. A phased approach was adopted to iron out duplication of any implementation problems. This was replicated at other manufacturing facilities and also at the corporate office in Chennai and marketing offices. MCL is the first multilocation ERP implementation in India. All the locations were completely linked using V-SAT connectivity and Ramco Systems executed the project.

The first phase of the implementation was undertaken in November 1999 and completed in about eight months. The major task was to map existing processes across nine functional modules including ore management systems, continuous process production (CPP), logistics, maintenance, sales, human resources, finance, and so forth. The team included

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staff from the manufacturing facilities and the corporate office. It took a month, per module, to map the existing processes and convert them into “to be” processes.

This was followed by a comprehensive training programme, which covered the basic overview of ERP and details about the impact of ERP on each of the nine e.Applications modules. Once all processes were in place and fully tested, Ramco Systems started deploying e.Applications in the Microsoft environment at the RR Nagar plant in November 1999. A month after this implementation, the other two facilities (Alathiyur and Jayanthipuram) went online. In a few months, all the manufacturing facilities and the corporate head office at Chennai were successfully running Ramco e.Applications in the Microsoft environment, using Windows Small Business Server 2000 and SQL Server 2000.

Apart from standard ERP reports, comprehensive online MIS reports cutting across human resources, finance, sales, inventory, purchase, production, and maintenance were developed in-house using Microsoft tools.

Benefits

Ramco e.Applications in the Microsoft environment has helped the manufacturing processes at MCL flow more smoothly. It has also improved the visibility of the order fulfilment process inside the company.

Streamlined Transactions

The ERP implementation in the Microsoft environment has streamlined transaction systems across the plants. It has helped MCL develop an in-house management information system (MIS), which helps the management get accurate online information from each one of its manufacturing facilities, head office, and marketing offices across the states.

Financial Management

“The system helps tracking of costs on a day-to-day basis, and this enables the top management to take necessary corrective actions immediately. Maintenance costs are also analyzed so that the workforce can understand the operating cost and work toward bringing down maintenance expenses. All this resulted in substantial cost savings,” says A. V. Dharmakrishnan, Senior Vice President of Finance at Madras Cements Limited.

Improved Capacity Utilisation

There is a substantial improvement in capacity utilisation across the organisation. For instance, it was found that some costly mining equipment was underutilised. After comprehensive analysis of mines, equipment, and shift (labour) performance, 60 percent of heavy equipment was withdrawn due to underutilisation. The number of shifts was reduced from three to two without affecting output.

“We are able to continuously monitor and synchronize our production and processes. The Ramco e.Applications in the Microsoft environment, using Windows [Small Business Server 2000] and SQL Server database has helped to increase efficiency and productivity of our plants, processes, and workforce,” comments V. Jaganathan, Senior Vice President of Manufacturing at Madras Cements Limited.

Improved Logistics

“The ERP implementation in the Microsoft environment has also improved the logistics at MCL. All the marketing offices can book orders in the system, and the same is available to the respective shipment departments at the factories online. The orders are executed within 24 hours, and the goods are directly shipped to the customer from the factories. Any delay in shipment is tracked online and corrective measures taken immediately. This has resulted in enhanced customer satisfaction.

"The transporters' freight is analyzed on a daily basis, based on which logistic requirement is determined. Stock transfers to depots are processed with very little rehandling. Analysis of ERP data has also led to the closure of many stock points, which has enabled the company [to] save millions of rupees on stock holding, transportation, and rehandling," explains Balaji K. Moorthy, Senior Vice President of Marketing at Madras Cements Limited.

Increased Productivity

Productivity per hour has risen. The power consumption per ton of cement produced has reduced by continuously monitoring factory operations using real-time data in the ERP system.

The production department is able to monitor and capture minute-by-minute performance of the equipment, and the consistency of equipment performance is analysed.

Preventive maintenance schedules are strictly adhered to, resulting in phenomenal reduction in unplanned stoppages and equipment downtime. All this contributed to an increase in productivity.

Effective Materials Management

Ramco e.Applications enables MCL to monitor the inventory levels and the material movements across plants on a day-to-day basis. The application also helps to take stock of nonmoving items.

Due to accurate material requirement planning across locations, MCL is now able to negotiate better credit terms and discounts with vendors resulting in better vendor management.

Better Employee Morale

The application has empowered the users to have better management over systems

and processes, resulting in improved employee morale.

Online availability of all employee records has given the human resources department better control over manpower planning and enabling quick decision making in human resources-related issues.

Future Plans

MCL is planning to extend its ERP system in the Microsoft environment, using the Windows Small Business Server 2000 and SQL Server 2000 database to its dealer network, so that its top dealers across the country can access the ERP system to place orders and view the relevant details online.

For More Information

For more information about Microsoft products and services, call the Microsoft Sales Information Center at 1600 111100. To access information using the World Wide Web, go to:
www.microsoft.com/india

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Microsoft Windows Server System

Microsoft Windows Server System integrated server infrastructure software is designed to support end-to-end solutions built on Microsoft Windows Server™ 2003. It creates an infrastructure based on integrated innovation, Microsoft's holistic approach to building products and solutions that are intrinsically designed to work together and interact seamlessly with other data and applications across your IT environment. This allows you to reduce the costs of ongoing operations, deliver a more secure and reliable IT infrastructure, and drive valuable new capabilities for the future growth of your business.

For more information about Windows Server System, go to:
www.microsoft.com/windowsserversystem

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Software and Services

- Microsoft Windows Server System
- Microsoft Windows Server 2003
- Microsoft SQL Server 2000
- Microsoft Windows Small Business Server 2000

Hardware

- Compaq Proliant 5500 Server (Pentium III dual Processor)