

Chapter 5

ERP Implementation in a Steel Major in India

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ABSTRACT

The case describes an ERP implementation in a steel major in India. The various factors which impact ERP implementation as identified in literature are discussed. The implementation of ERP systems in the organization has been described at each stage of the implementation. The activities at each stage and also the issues arising at each stage of the implementation have been discussed. The benefits identified by the managers have also been included.

INTRODUCTION

This case study was conducted to study the various phases in the implementation of an ERP system in a vertically integrated steel plant. The implementation occurred primarily in two phases. In the first phase ERP systems were implemented in the sales and distribution side of operations. Fairly positive results were achieved in the first phase, and this led to an expanded implementation across the company in the subsequent phases. The company seemed to follow the normally recommended practices for

ERP implementation, till they decided to retain their mainframe based legacy systems for production planning and shop floor control. (Parr & Shanks, 2000; Nah et al., 2001; Markus et al., 2000; Markus & Tanis, 2000; O'Leary, 2000; Prasad et al., 1999; Sumner, 2000; Wallace & Kremzer, 2001; Huang & Palvia, 2001). The company was not satisfied with the functionality for production planning and execution as provided by the vendor (SAP). The company felt that its production planning and execution functionality was much better defined in the mainframe based IT legacy systems, which were being used at the time of SAP implementa-

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tion. These were integrated into the company's IT architecture through the use of about 45 complex interfaces. (Wei et al., 2005; Markus & Tanis, 2000; Sumner, 2000; Sumner, 2004; Kim et al., 2005) These interfaces were created using SAP provided tools like BAPIs which enabled a seamless flow of information across the enterprise.

The emerging architecture is given in Appendix 2. The seamless working of the data and information flow and the benefits achieved by the company after the implementation, as a result of the ERP implementation have been brought out in the case. Also project management of the complex task of creation of interfaces with the legacy systems has been successfully handled. (Nah et al., 2001; Adam & O'Doherty, 2000; Markus et al., 2000; Markus & Tanis, 2000; Prasad et al., 1999; Sumner, 2000; Sumner, 2004; Umble & Umble, 2002; Huang & Palvia, 2001) From an implementation perspective the case is an example of a very large implementation and the execution has been handled well and without any major delays or slip ups in schedule.

Company Background: The Steel Company (TSC) under consideration is one of the few select steel companies in the world that is EVA positive (Economic Value Addition). TSC annually produces 9 million tonnes of steel¹. In the fiscal year 2005-06 the company's turnover was Rs 22,518 crores and it produced a record-breaking 5.0 million tonnes of salable steel in its Jamshedpur plant. In the year 2000, TSC was recognized as the 'world's lowest-cost producer of steel'. The company has also been recognized as the 'world's best steel producer' by World Steel Dynamics, three years in a row through 2005-07.

CHALLENGES TOWARDS THE GOAL

In the period 1997-98 to 2002-03, global steel prices were close to their 10-year lows and in many markets, prices were hovering close to the cash cost levels of major producers. However,

owing to continued overcapacity in the industry and persistent financial support (by lenders and governments) to inefficient producers, prices were not expected to recover in the near term. The managing board of the company took a strategic decision to concentrate on three areas:

1. Achieve world class operational excellence and to be amongst the world's lowest cost producers
2. Become a learning organization
3. To be the supplier of choice for the customer through world class products and services.

To maintain profitability and to remain competitive, the company decided to focus relentlessly on the on cost cutting and upgradation of the plant and machinery. To meet the objective of cost competitiveness and operational excellence, company knew that it needed to improve its processes. It also needed better business-process support, particularly in the area of sales, purchasing and financial costing and accounting. The company was wasting a lot of effort in gathering information for fulfilling customer requirements, due lack of visibility of finished goods inventory. The company had high levels of overdue debt due to low control over customer credit. In purchasing there was lack of integrated planning and procurement for items related to maintenance, repair and operations.

The company had to provide unnecessary efforts for calculating net realization values used for profitability analysis at product and product-group levels for deciding better product mixes and identifying areas which required thrust. The legacy systems could not account for cost variances and cost buildup at different stages of production, required for analyzing inefficiencies in the operations. With the absence of an integrated costing, the company's costing department had to address a lot of effort towards the reconciliation of cost and financial figures which delayed the publishing of monthly accounts. The company

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