

Employee involvement increased the gains from SAP APO

Challenge

At the end of 2002, the case company experienced problems with the forecast accuracy of their recently installed APS solution (Advanced Planning System). The decision to optimise the supply chain through the implementation of APS had already been under consideration as early as 1999. The choice fell out in favour of the APS system Advanced Planner and Optimizer (APO) developed by the German software company SAP, which also delivered the ERP system that the case company was already using.

In 2002, this was realised in connection with an extensive restructuring of the entire SAP system, where the original ERP solution was upgraded and supplemented with a CRM solution, a Business Warehouse solution and an APO Supply Chain Management solution.

According to the Planning Executive, the company failed to transform the investment into more accurate forecasts, which led to too many faulty deliveries and poor capacity utilisation.

Diagnosis

"The upgrade alone was quite a handful," the Planning Executive says. "In addition, there was the introduction of the three new systems, which were to interact and which the organisation was now to learn to use. It was ambitious – maybe even too ambitious in retrospect – as regards reaping all the advantages in connection with the

upgrade." At any rate, the APO part did not work optimally.

"The employees were really demotivated, and it was a widely held view that the new system had been forced upon them without them being properly involved. Furthermore, in their opinion, they had not received a sufficient amount of training, and they had begun to evade the system because they did not trust its results," the Planning Executive continues.

Considerable resources had been invested in the project, and, thus, the Planning Executive was of the opinion that it deserved a second chance. First of all, it was important to him to establish whether it was the system, the users or the entire concept which gave rise to the lack of precision. Thus, for a period of time, he worked on equal terms together with the other planners in day-to-day operations, and he quickly established that the system was not able to deliver the required precision in its suggestions.

Solution

"It all becomes painfully clear when the manager from the Aabenraa depot calls to inform us that his demand for the next 12 months has been met considering the 18 pallets of vintage beer he has just received," the Planning Executive says. Consequently, it was evident that the system in its current form was not capable of delivering

MAIN REASONS

- An ambitious project consisting in upgrading combined with the introduction of new programmes and processes
 - Lack of employee involvement in the planning of new work processes
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the desired results. This was primarily due to the fact that the concept was designed to pull goods through the system based on a sales forecast, and that the subsequent distribution of goods – with 17 production and packing lines and more than 300 items to be distributed to two terminals and 16 depots – was very complex.

The Planning Executive decided to involve the employees in how to solve the problem, and in cooperation they established three basic challenges they needed to solve:

- The quality of the system's suggestions needed to be improved considerably
- The work load and the time pressure in the department needed to be decreased
- The transport capacity needed to be utilised more optimally – especially in relation to mixed loads

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In cooperation, they designed their own demo system in Excel. As the starting point with a sales forecast did not hold water, the Planning Executive decided that the starting point was to be a simple replenishment system based on open sales orders. This system produced much more valid suggestions, especially when supported by a report on the last two weeks' activity history. Thus, the Planning Executive and his employees had begun solving the first challenge. The high work pressure was managed by moving forward the generation of suggestions for the distribution of goods for a subset of the product range until two hours before the order deadline. This gave the department two more hours, and empirical data showed that the order intake at 10:00 am represented approx. 60% of the order intake at 12:00 pm - a factor which was subsequently implemented in the demo version in Excel.

Results

Subsequently, the case company has reduced the number of depots from 16 to 5 as well as invested in picking robots at the terminals in Taastrup and Fredericia.

In combination with the improved utilisation of the APO investment, the reliability of delivery has improved from 98.5% in 2002 to 99.3% at the time of writing, the average stock time has decreased from 12 to 10 days, and now there is a solid foundation for decreasing safety stocks.

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