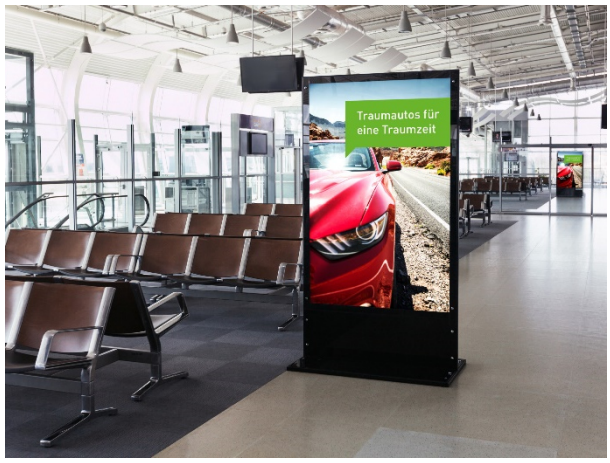
ANALYZE - SIMULATE - AUTOMATE

Abels & Kemmner

Significant reduction in net working capital



CUSTOMER

Sihl GmbH
D-52355 Düren

PROJECT

Logistical Simulation to increase Service Level and Customer Satisfaction

CASE STUDY

Content

ANALYZE - SIMULATE - AUTOMATE

A QUANTUM LEAP AHEAD

Abels & Kemmner brings the optimisation potential of supply chains to light and replaces gut feeling with facts.

Thanks to our **unique consulting approach**, we help companies to achieve sustainable concepts, which we validate and optimise and implement in a secure and agile manner.

As a pioneer in logistics simulation and automation in supply chain management, we combine strategic and operational consulting with powerful digital methods.

Picture credits, sources: www. sihl.de, A&K Group

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Sihl achieves significant reduction in net working
Significant reduction of net working capital

Creative image formats, brilliant colours, expressive packaging lay the foundation for the marketing of numerous companies. Behind them are suppliers and service providers, including manufacturers of special papers, films and nonwovens. The Sihl company from Düren is a strong partner at the side of future-oriented industries and creates innovative solutions through high-quality coatings. More than 350 employees in the Sihl Group contribute to the success of their customers from a wide range of industries in almost every country in the world. From automotive to tourism, from packaging and labels to printing and logistics, customers trust the high-quality coatings and technological know-how of the Düren-based company.

The growth and technological progress of the products led Sihl to the point of analysing how to improve the supply chain processes and the decisive competitive advantage "delivery time". On the one hand, this was triggered by different, country-specific ERP systems and the associated friction losses.

Another point was the availability of products on the one hand and high stocks of articles on the other. And last but not least, customer satisfaction in a highly competitive market, where high service level and plannability of deliveries are the order of the day.

About >>>

Sihl is the leading quality supplier of printable media in the fast-growing global digital printing market. As a high-performance, internationally active company, Sihl has crucial technological know-how and broad, in-depth industry expertise.

Sihl strengthens the market position of its customers with future-proof product solutions and makes a decisive contribution to improving value creation with innovative, process-supporting services.

www. sihl.de

The goal - transparency, right levers and motivating quick wins

"We wanted to find the way to the highest possible inventory transparency and to master the crucial starting points of our logistical challenges," recalls Supply Chain Manager Fabian Ossen. Six concrete goals were to be achieved in the project result:

- Reliable delivery dates for customers
- Delivery strategies for coordinated delivery times
- Streamlining the value streams
- Reduction of the number of variants
- Checking the item parameters with regard to disposition and forecast
- Reduction of net working capital

It was clear to all that external support should be called in for this course to analyse the processes, moderate and develop the measures. It was hoped that quick wins would provide internal motivation to develop far-reaching optimisation approaches more quickly and within the set budget.

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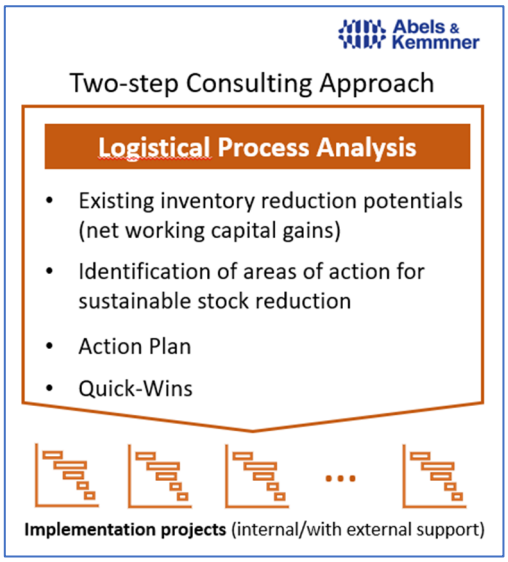
Logistical optimisation using simulation is ahead

The management consultancy Abels & Kemmner was awarded the contract to support and implement this project. The approach of a potential analysis with the help of a special simulation system was convincing. In addition to the possibility of a digital twin of the ERP system, Abels & Kemmner's two-step approach was about 30% cheaper than classic consulting approaches. In addition, it was hoped that the digital twin would enable a quick data analysis with results that could be implemented in the short term.



With the process analysis and the data analysis, the potential analysis is divided into two focal points. In the process analysis, all essential processes of the supply chain are scrutinised. In the data analysis, detailed master and transaction data are taken from the ERP systems and analysed in the simulation system used in the project. As a rule, obvious potentials are already uncovered in the process analysis and directly addressed with appropriate measures. The review of stocking strategies and classification of materials were in the foreground.

Rapid results and lucrative quick wins

In this way, excessively high inventories, poor availabilities or unsuitable items in the product portfolio could be uncovered. With the support of a decoupling point analysis, in which the stockholding was determined on the basis of the delivery promise to the customer, incorrect stocking strategies could be uncovered. The simulation system then calculated the necessary inventory levels on the basis of corrected strategies and determined the potential for inventory reduction, i.e. lower working capital.

Quick wins contributed to a return on investment (ROI) of the consulting project at the beginning of the cooperation. Typical examples of quick wins were uncoordinated processes, especially in the interfaces between areas of responsibility, or incorrect system settings, such as safety stocks or batch sizes.

Employee involvement promotes acceptance

The results from the process analysis and the data analysis were discussed and verified in potential workshops with the project team and with the operational forces and went deep into the details of processes and data. Descriptive facts provided many details in the discussion that initially remained unmentioned in interviews. In particular, personal notes or additional information that was not included in the ERP data came to light.

Furthermore, the potential workshops provided a platform to discuss initial approaches to solutions and to test their feasibility. Involving the employees directly in finding solutions in the workshop

helped to achieve a high level of acceptance of the results. With the knowledge they gained, the participants became important multipliers and ambassadors of the promising project ideas.

Result - a robust action plan

After many suggestions and individual measures from the analysis phase, Sihl obtained a coordinated action plan. The individual measures were bundled and combined into focal topics. The project team had the role of supporting the design of measures and the assessment of potential. At Sihl, of the six packages of measures, three focal points for action stand out:

Measure 1: Management of the product portfolio

A bitter realisation was that a broad (many different products) and deep (high variety) product portfolio drives up process and storage costs and melts away margins. Sihl's existing product portfolio showed the typical signs of an unregulated product development process: while new product ideas were implemented, old or less profitable products were not removed from the range.

The product portfolio management measures are intended to prevent this from happening in the future. For this purpose, so-called market teams were created, which regularly analyse the product portfolio, determine start-up and phase-out phases and define successor products. Essential to the success of this measure was the definition of a regular process that specified what had to be done and when, which decision-making bases had to be available and how the decision-making and escalation process would work.

"The simulative analysis of our global value chain by A&K showed us the decisive starting points for improving our service level and significantly reducing our inventories. The fact that A&K also implemented and achieved the results together with us was a decisive factor for us."

Fabian Ossen, Supply Chain Manager of Sihl GmbH

Measure 2: Establish a structured delivery strategy

At the beginning of this measure, a customer survey was conducted at short notice, which yielded the following results:

- More than half of the customers surveyed were dissatisfied with the delivery service level
- Customers expect shorter delivery times for selected products

As part of this measure, the existing market promises were reviewed and a future delivery strategy of delivery classes was developed.

- The delivery classes provide for different delivery times to the customers. In this way, important and high-turnover products continue to be delivered from stock at short notice.
- Products that are in less frequent demand are replenished during the replenishment period. The finished and semi-finished products no longer need to be stocked for these delivery classes.

In total, 5 different delivery classes resulted.

- Delivery class A: X days
- Delivery class B: X+3 days
- Delivery class C: X+7 days
- Delivery class D: X+21 days
- Delivery class E: on request

This measure alone involved a stock reduction of over 12% of the total stock value.

Measure 3: Systematisation and optimisation of scheduling

Up to now, most of the decisions regarding the stocking strategies and the associated disposition parameters were made by the dispatchers. Finally, it was concluded from measure 2 that in the future a system is needed that ideally prescribes the necessary settings of the disposition parameters. Essential parameters are, for example, the planning strategy, the forecast profile, the desired service level and the safety stocks as well as the disposition method and lot-sizing procedure.

First, essential material classifications had to be determined:

- ABC classification for economic significance
- XYZ- Classification for regularity of consumption
- STU- Classification for the number of buying customers, etc.

Other material properties can also influence the MRP parameters such as product life cycle, material group, delivery time, product hierarchy etc.

These properties are incorporated into a set of MRP rules that make the settings for the materials. In this way, it is precisely specified for each individual material whether a make-to-stock or make-to-order strategy is applied and how the numerous parameters (see above) are to be assigned. The results of the set of rules thus directly affect the forecast settings, which also include the necessary settings for the safety stock calculations.

With the set of rules, all parameters are finally determined to allow the planning run (MRP) of the ERP system to run in a targeted manner and to achieve the calculated potentials.

The basis of the systematisation and optimisation of disposition is shown in the following figure:

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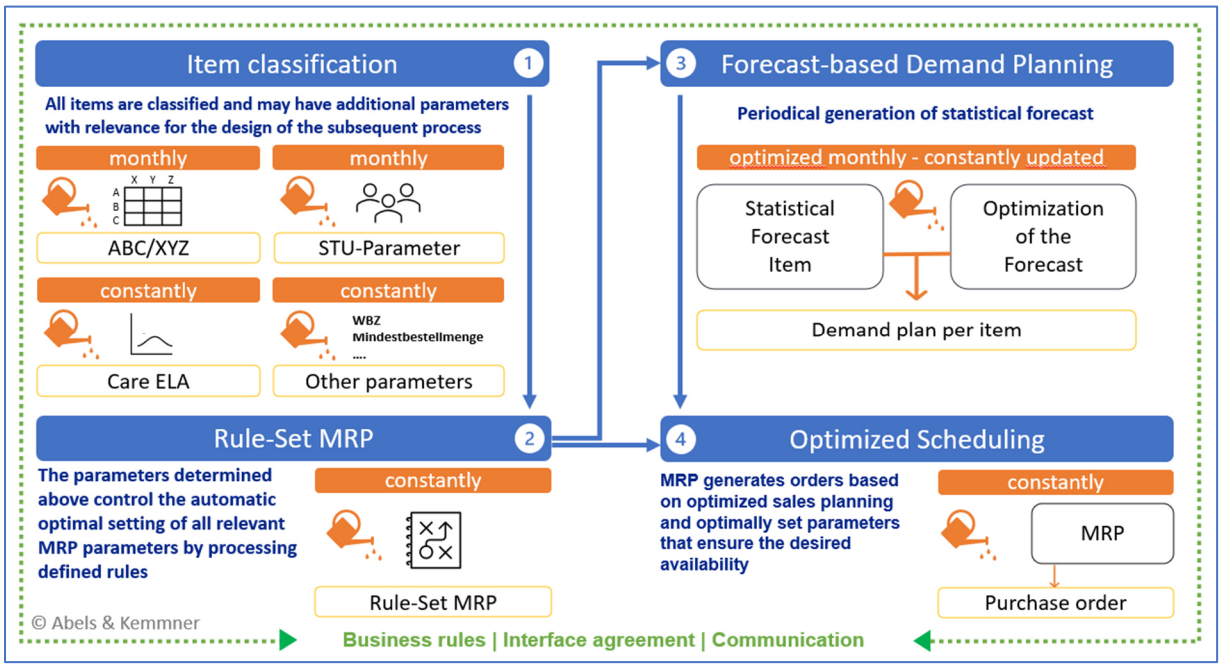

Successful cooperation continues

A significant advantage of the set of rules is the possibility of automation. This particularly supports the dispatcher, as he now recognises the changes in the material properties himself and does not have to make the settings manually.

As a logical consequence, this resulted in a sub-project with Abels & Kemmner, which included the IT-supported implementation of the rules and regulations. This resulted in the recommendation for the selection of a suitable, supplementary software system, as programming in the ERP environment had been recognised as too costly.

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