



SIGNIFICANT REDUCTION OF NET WORKING CAPITAL

Customer:
Sihl

Project:
Logistical simulation to increase delivery readiness and customer satisfaction

Contact

Sihl achieves significant gains with logistics simulation reduction of net working capital

Creative image formats, brilliant colors, expressive packaging lay the foundation for the marketing of numerous companies. Behind this 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 variety of industries in almost every country in the world. From automobiles to tourism, from packaging and labels to printing and logistics, customers trust the high-quality coatings and technological know-how of the Düren company.

The growth and technological advances in products led Sihl to analyse how to improve supply chain processes and the decisive competitive advantage of delivery time. The triggers for this were, on the one hand, different, country-specific ERP systems and the associated frictional losses.

Another point was the availability of products on the one hand and high stocks of items on the other. And last but not least, customer satisfaction in a highly competitive market in which high delivery readiness and the ability to plan deliveries is the order of the day.

ABOVE

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

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

www.sihl.de

The goal - transparency, the right levers and motivating quick Wins

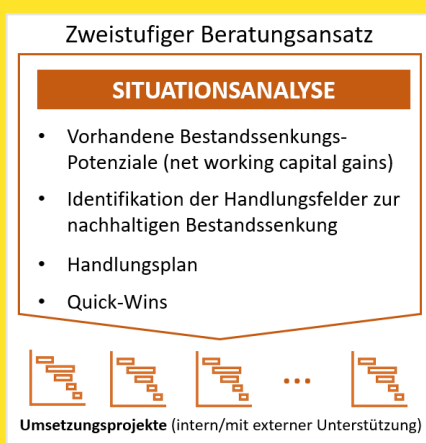
"We wanted to find the way to the highest possible inventory transparency and to master the crucial starting points of our logistical challenges," recalls Supply Chain Manager Fabian Ossen. Six concrete goals were to be achieved in the project result:

- reliable delivery dates for customers
- delivery strategies for coordinated delivery times
- streamlining value streams
- reduction of variant diversity
- review of article parameters regarding disposition and forecast
- reduction of net working capital

It was clear to everyone that external support should be used for this course to analyse the processes, facilitate the process and develop the measures. It was hoped that quick Wins internal motivation to develop far-reaching optimization approaches more quickly and within the set budget.

Logistical optimization through simulation is ahead

The management consultancy Abels & Kemmner was awarded the contract to support and implement this project. The approach of a potential analysis using a special simulation system was convincing.



In addition to the possibility of a digital twin of the ERP system, the two-stage approach of Abels & Kemmner is around 30% cheaper than traditional consulting approaches. In addition, the digital twin was hoped to enable rapid data analysis with results that could be implemented in the short term.

The potential analysis is divided into two main areas: process analysis and data analysis. In the process analysis, all of the essential processes in the supply chain are examined in detail. In the data analysis, detailed master and transaction data is extracted from the ERP systems and analyzed in the simulation system used in the project. As a rule, obvious potential is already identified during the process recording and addressed directly with appropriate measures. The focus was on checking the stockpiling strategies and classifying the materials.

Fast results and lucrative quick Wins

This made it possible to identify excessive stock levels, poor availability or unsuitable items in the product portfolio. With the support of a decoupling point analysis, in which the storage life based on the delivery promise to the customer, incorrect inventory strategies were identified. The simulation system then calculated the necessary inventory levels based on corrected strategies and used this to determine potential for inventory reduction, i.e. lower working capital.

Quick-Wins contributed to a return on investment at the beginning of the collaboration. Invest (ROI) of the consulting project. 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.

Involvement of employees promotes acceptance

The results of the process analysis and the data analysis were discussed and verified in potential workshops with the project team and the operational staff, and the details of processes and data were delved into in depth. The discussion provided clear facts about many details that were initially not mentioned 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 solutions and check their feasibility. To involve employees directly in the workshop in finding solutions participating helped to achieve a high level of acceptance of the results. With the knowledge they gained, the participants became important multipliers and ambassadors of promising project ideas.

Result – a robust action plan

After many suggestions and individual measures from the analysis phase, Sihl achieved a coordinated action plan. The individual measures were bundled and summarized into key topics. The project team had the role of supporting the design of measures and the assessment of potential. At Sihl, three of the six packages of measures are particularly noteworthy:

Measure 1: Product portfolio management

A bitter realization was that a broad (many different products) and deep (high variety of variants) product portfolio drives up process and storage costs and causes margins to melt away. 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 neglected to be eliminated from the range.

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

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

Fabian Ossen, Supply Chain Manager at Sihl GmbH

Measure 2: Developing a structured delivery strategy

At the beginning of this measure, a customer survey was carried out at short notice, which produced 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, existing market promises were reviewed and a future delivery strategy for delivery classes was developed.

- The delivery classes provide for different delivery times to customers. This means that important and high-revenue products will continue to be delivered from stock at short notice.
- Products that are less frequently requested are reproduced during the replenishment period. The finished products and semi-finished products no longer need to be stocked for these delivery classes.

In total, there were 5 different delivery classes.

- 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 resulted in an inventory reduction of over 12% of the total inventory value.

Measure 3: Systematization and optimization of planning

Until now, most decisions regarding stocking strategies and the associated planning parameters were made by the planners. Finally, it was concluded from measure 2 that in the future a system would be needed that ideally specifies the necessary settings for the planning parameters. Important parameters include the planning strategy, the forecast profile, the desired delivery readiness and the safety stocks as well as the planning method and batch size procedure.

First, essential material classifications must be determined:

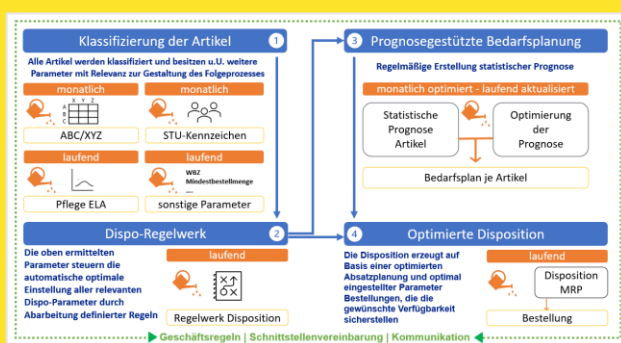
- ABC classification for economic importance
- XYZ classification for the regularity of consumption
- STU classification for the number of purchasing customers, etc.

Other material properties can also influence the disposition parameters such as life cycle (Product Life Cycle), product group, delivery time, product hierarchy, etc.

These properties are incorporated into a disposition rule set that determines 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 rules therefore have a direct impact on the forecast settings, which also include the necessary settings for the safety stock calculations.

The set of rules ultimately determines all parameters needed to ensure that the ERP system's MRP runs in a targeted manner and achieves the calculated potentials.

The basis for the systematization and optimization of planning is shown in the following figure:



Successful cooperation continues

A key advantage of the rules is the possibility of automation. This is particularly helpful for the planner, as he can now recognize the changes in the material properties himself and does not have to make the settings manually.

As a logical consequence, a sub-project with Abels & Kemmner arose, which included the IT-supported implementation of the rules. This resulted in the recommendation to select a suitable, complementary software system, since programming in the ERP environment was recognized as being too complex.