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CASE STUDY

BOARD for Hein Gericke

Using Operational BI to achieve Optimum Stock Levels



“We are positively surprised that our very high and extremely individual demands in the fields of analysis, planning and decision support could be realised in a single solution. In particular, we are fascinated by the system’s simplicity of use and the straightforward integration of the highly complex underlying processes. This project has shown us that considerably more qualitative decisions can be made, in less time, on all the company’s levels, by linking the ERP system and data warehousing. That was our goal and I think we have achieved its implementation very well.”

Uwe Klinger,
Director Operations/Global
Supply Chain
Hein Gericke Germany

The company

Hein Gericke is an international trading company with a strong own-label presence. The company was founded in 1970, and sells equipment, technical products, luggage and all sorts of accessories in addition to a wide selection of clothing and helmets. Since its creation, it has opened more than 150 shops in 9 European countries, supplying around 50,000 items.

Project Definition

For a trading company like Hein Gericke, its supply chain is the core of the whole business activity, and is critical to the company’s success. The requirements in terms of flexibility and reaction speeds have increased enormously in recent years, however, with the changeover from a seller’s market to a buyer’s one. In order to be able to satisfy market requirements in this dynamic field, the company was looking for an information and planning system through which its in-house optimisation initiative could be implemented.

At the heart of the initiative was an optimisation of product availability with the smallest possible capital commitment, in order to achieve the highest possible return on capital. This involves reducing stock levels by creating a demand-based material requirements planning. This needed to be based on procurement automation, geared towards planned future volumes. Important elements in the achievement of this goal were:

- dropping the simple top-down revenue planning and introducing a rolling plan based on category management in top-down/bottom-up planning
- dropping country-specific buying on an ‘ad hoc’ principle and introducing a demand- and market-oriented central purchasing division for the whole of Europe
- ending stock management based on indiscriminate distribution



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Industry

Retail & Distribution

Application Area

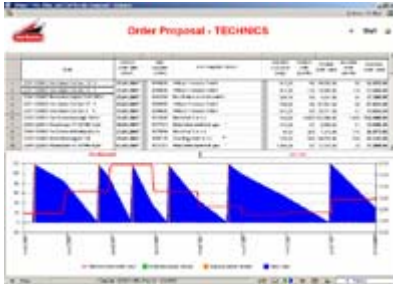
Supply Chain Management

- and moving to a demand-oriented management
- working centrally where possible, and decentralised only where absolutely necessary
- moving away from simple shop support to an efficient shop control

BOARD Solution

At the start of the project, a number of possible solutions were evaluated. These included the implementation of the required functions in the Microsoft Dynamics AX (Axapta) ERP system, the introduction of a turn-key planning and forecasting system and its implementation within a BI solution. During the evaluation stage, Hein Gericke found SDG Consulting to be the ideal partner to put its concept into practice. The BOARD Corporate Performance Management (CPM) toolkit was selected as the best platform, as its various analysing, planning and simulation functions were able to best satisfy all requirements.

Future stock trend



Most of the data were imported from Axapta. Additionally, historical data were transferred from a superseded ERP system (Porta Soft on an Oracle database). External market data were also imported, in order to be able to carry out potential analyses such as turnover per licensed motorcycle in a given region.

The main contents of the project are the easiest to illustrate, by examining a few fundamental steps from the analysis of historical data to the planning stage and the resulting purchase-order proposals. They are described below in reverse order, going through the process backwards from the purchase-order proposals to the ERP system.

Purchase-order proposals

An important characteristic of the BI system is the system's direct integration in the day-to-day operational business. Buyers can rely on the BI system's proposals, instead of generating vague purchase-order proposals for over 50,000 items on the basis of long lists, as they have been doing up to now. The purchase-order proposals are based on the extrapolation of stock and sales trends (demand-based material requirements planning). Furthermore the system eliminates the possibility of individual items not being ordered at all by automatically proposing every item for reordering in good time.

Stock analysis



Forecast of stocks

The starting point for purchase-order proposals is the simulation of future stock trends for every item in the central warehouse. This is done on the basis of the current stock, the existing purchase orders with the supplier and the planned bottom-up sales, broken down into daily



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Top-down planning at shop and product-group level



Adjustment of top-down/ bottom-up plan



amounts. The result is future 'stock-out dates' that can be used bearing in mind the respective replacement times. This process of 'stock-out dates' identification and derivation of the necessary goods receipts or purchase orders is carried out iteratively. The result is a sawtooth curve for the stock trend for the next twelve months that takes into consideration the purchase-order proposals calculated by the system itself. The future purchase orders obtained in this way can be used to calculate a liquidity forecast or, aggregated into months, as an order forecast.

Rolling forecast

The calculation of the 'stock-out dates' is based to a large extent on future sales estimates. These are planned in the BI system by the respective product managers. As a precaution, a rolling forecast is also inserted between the input of the bottom-up planning and the final calculation of purchase-order proposals. This compares the original sales plan with the sales actually achieved and corrects the future sales estimates up or down by the calculated variance factor. This prevents a purchase order proposal being made for an item whose sales are not going as well as was originally expected.

Bottom-up unit sales planning on the basis of trajectories

Another factor that is characteristic of Hein Gericke's business and has significant ramifications for the company's planning logic is the great dependency on seasonal trajectories. In order to manage this fact, a category was defined within Category Management to contain the items that have a similar annual trajectory. New products, which are assigned a category when they are created in the ERP system, therefore already have a seasonal trajectory that can be used to spread the total planned for the year over the twelve months.

Top-down revenue planning

In addition to the product managers' bottom-up unit sales plan, there is also a top-down revenue plan. As far as product detail is concerned, this plan only shows the product classes; it serves as a target for the product managers, whose product totals are compared to the product-class figures. In order to be able to compare the two plans, the sales plan is converted into a bottom-up revenue plan by assigning a monetary value based on sales prices. With this mixed top-down/bottom-up planning, the management's general goals can be matched to the detailed product-level planning. Discrepancies identified between the two plans should be corrected so that an overall annual plan can be agreed.



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2. Platz



**BEST PRACTICE
AWARD 2007**

Business Intelligence & Data Warehouse

"We are particularly pleased that, with the Hein Gericke project, a medium-sized business qualified for the final. What is special about the Hein Gericke solution is its strong focus on operations, and the associated two-way interaction with the ERP system: planning and analysis are fully integrated on all management levels and directly influence the company's success."

Dr. Wolfgang Martin,
*Independent analyst and
jury member of the BI Award*

Customer benefits

With the BI system, it has been possible to fully link all the components of the supply chain and, to a great extent, to centralise planning and analysis. Thanks to the consistent standard of knowledge across all management levels, whether company management, global supply chain, product management, purchasing or sales, all divisions can work together transparently and confidently. Furthermore, the company now works in a more market-oriented, faster and flexible way. Thus purchase-order proposals are automatically generated by the BI system, for example, based on the extrapolation of stock and sales trends. Trajectory-based sales planning can now be carried out significantly faster than before. With BOARD's help the ordering system has been optimised, resulting in a 20% improvement in stock turnover ratio over the last year.

In the meantime the system has become the central fulcrum for all decisions. The BI system currently supports all the important functions and departments along the supply chain: company management, global supply chain, sales, product management, purchasing, warehouse and shipping, and marketing. In total, over seventy users have access to the system.

Other modules are under development, such as shop modules for in-store range-control optimisation and automation. A financial-controlling module is also planned.

BOARD Partner

SDG Group is a global Management Consulting firm specialising in Business Performance Management and Business Intelligence, Data Warehousing and Analytical Application design and development.

SDG has a consistent track record of successful projects in diverse industries, such as manufacturing; banking; insurance; pharmaceutical; chemicals; retail; FMCG; utilities and telecom.

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