

Process Management of Restructuring Projects – Even Sustainable Concepts are Only Beneficial when Implemented Properly

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Abstract:

Due to the current developments of the world economy many companies see themselves confronted with seemingly new challenges. Until recently the main problems in order processing could be attributed to rapid market growth and incoming orders exceeding the production capacity. With investments into additional machines and by boosting existing order processing capacities the production output could often be increased on short notice. On the other hand the design of an effective and efficient process architecture was often neglected. As a result, an additional financial burden is created through the cost structure in order processing.

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Process Management of Restructuring Projects – Even Sustainable Concepts are Only Beneficial when Implemented Properly

Jan Christian Eilers

Today, the challenge is to handle the decrease of incoming orders in the most efficient way and still run a profitable business while also experiencing decreasing profit margins. The market dynamics put additional pressure on companies because existing deficits in business processes become obvious. Under these circumstances it is crucial to quickly address critical problems such as long lead times, high inventories, and poor adherence to delivery dates. Companies need to be enabled to quickly adapt to a quickly changing market environment.

Significant parallels can be identified when comparing tools and approaches that address these two different situations. A process architecture that assures an effective and efficient order management process is the key to a successful operation. This holds true whilst experiencing excessive orders or dropping demand of customer orders. Known and approved methods built the basis to develop and implement sustainable concepts for a cost optimized process structure.

Initial Situation

Our client faced a situation as described above. The company is a manufacturer of hydraulic drives and pumps used to equip a wide variety of agricultural and construction machinery. In this business segment, the company maintains production sites in Germany and additional European countries as well as the US, Latin America and Japan. Each site is responsible for the assembly of final products and semi-finished goods. Thus each factory also acts as a supplier to the other factories. The value chain incorporating several sites thus makes specific demands to company internal logistics and order planning. Long delivery times of specific parts between sites generate a high level of complexity in the supply chain.

In order to simplify order planning and production control all customers are asked to provide forecasts of order quantities for up to one year in advance. Especially major customers have the privilege to change order quantities and cancel orders on short notice. In combination with the long and time consuming supply chain this often results in high inventories at the sites, especially when the parts of cancelled or changed orders are already in transit.

Short term changes to customer orders that have already been approved for production cause severe problems and turbulences to the internal processes. Especially the coordination of shop floor processes is complicated. Production capacities are wasted and therefore not available for the production of the “right things”. As a consequence, the production suffers from immense time pressure and the product quality drops as there is no time left for maintaining internal processes. Increasing operational losses and the absence of business success make the situation even more difficult.

Project Definition

The main objective of the project was to assure the optimal usage of installed capacities within a sixth months timeframe. The production output should be stabilized by optimizing the resource utilization and hence the cost structure. A systematic improvement of all processes for order processing, logistics and manufacturing was aimed for through the consistent increase of process effectiveness and efficiency.

When the project was started numerous initiatives for improving the situation in order processing had already been initiated. Many of them with only limited success, others completely unsuccessful. In this environment a high level of attention was paid to the overall management and implementation of improvement measures. Eventually the overall goals – high level of reliability of scheduled delivers dates as well as significantly decreased lead time, inventory and work in progress levels – should be achieved.

Approach

The project definition was kept relatively open in order to avoid a focus on an supposedly clear problems. For that reason a strategy workshop was held to reach a common understanding of the business and competitive situation the company was facing (Fig. 1).

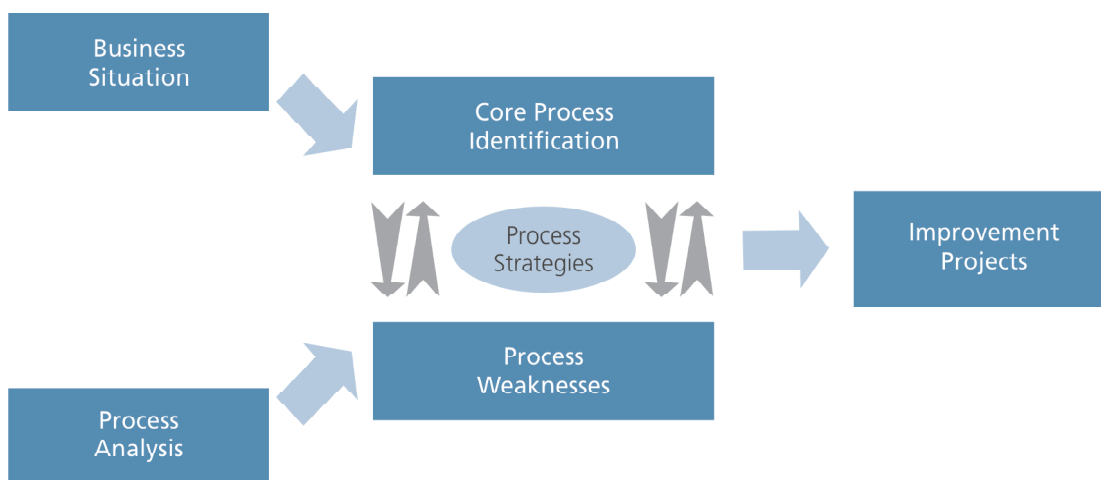


Figure 1: Approach for derivation of improvement projects

The strategy definition was supported by the identification of all relevant core processes needed to implement the strategy. At the same time an analysis of the processes regarding order processing was conducted with the purpose of identifying the main process weaknesses. Improvement projects were deduced based on the resulting process strategies. The focus of these measures was to sustainably improve production output and reliability to scheduled delivery dates and at the same time to generate a process architecture consistent with market needs and the higher-level strategy.

The discussions showed that even though many business process improvement initiatives were already underway, no overview regarding contents and responsibilities was available. An astonishingly high number of improvement projects, approximately 50, were being conducted simultaneously. Not surprisingly as a consequence of the tie-up of resources most of these initiatives were not successfully completed. The measures that were identified in the analysis were aligned with the existing initiatives and prioritized with help of the management team (Fig. 2).

The objective of this prioritization was to classify the improvement projects regarding their relevance in contributing to the business success and their urgency. The team agreed to conduct only 10 projects in parallel in order to assure a prompt implementation with existing personal. Only after completing an existing project could another initiative get top 10 project status.

Schuh & Company was asked to perform the overall management and coordination of the implementati-

on of the top 10 projects. For this reason contents, objectives and performance indicators were defined for each project. The availability of sufficient resources for the planned implementation time frame was assured. The progress of the implementation was checked in a weekly review meeting where, if required, supporting activities were defined by the management team. Each project was supported by involving expert knowledge and external resources, with the aim to not jeopardize daily business.

Results

By introducing the previously described control structure it was assured that all top 10 projects could be implemented rapidly. Quickly, first payoffs became obvious and showed that within a short time immense progress had been made. The previously encountered skepticism, caused by many unsuccessful and uncompleted improvement projects, was substituted with enthusiasm among the workforce.

In order to identify and further eliminate weaknesses, one main objective was to create transparency in all business processes. Consequently a new type of reporting was introduced. During a daily production meeting all departments had to report their key performance indicators and publish them, thus making them accessible to every employee. Through these means it was assured that daily numbers and production results, including their consequences for subsequent process steps, became transparent. Furthermore this system enabled an easy location of further weaknesses in the process and facilitated deducing appropriate improvement measures.

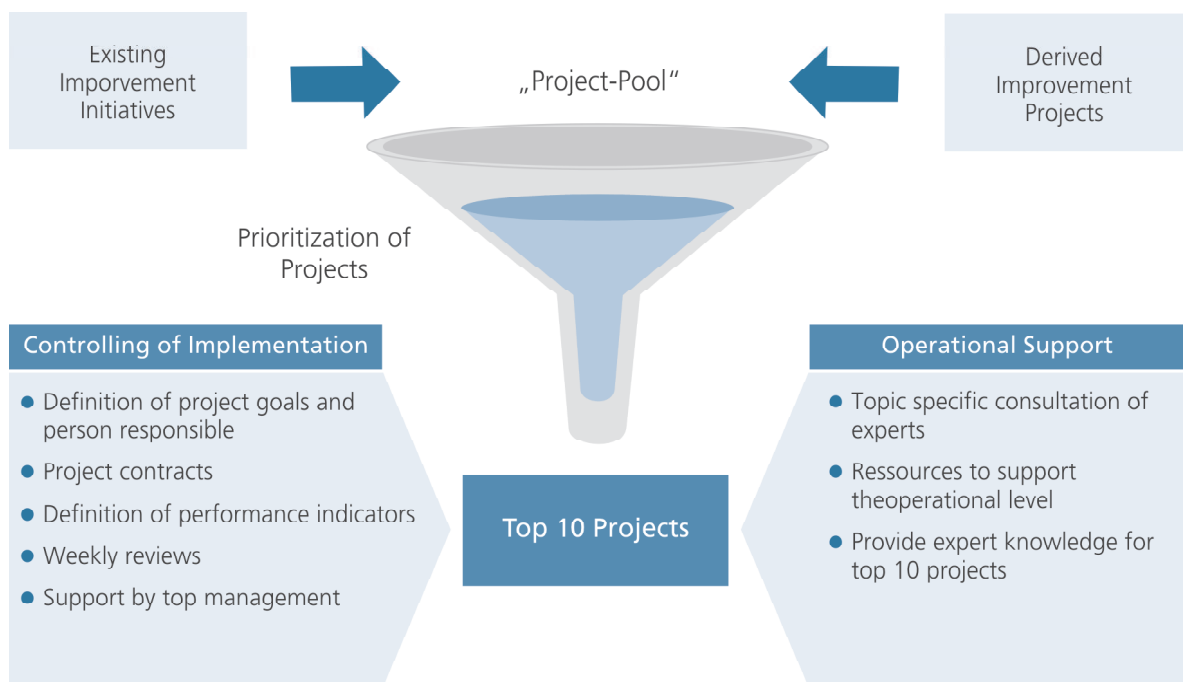


Figure 2: Elements of project implementation

These improvement measures were especially used to systematically optimize bottle neck processes. The first process that was identified as a capacity bottle neck and improved was the material supply process in logistics. One main objective was to reduce the order specific amount of parts needed for assembly. The goal was to change the material supply process in a way that 80% of all the parts required for the assembly of different final products can be provided independent from the production order. This goal was achieved through the implementation of a Kanban controlled supply loop. As a result the availability of material was greatly improved and efforts within the logistics department were reduced. The counting of parts specific to orders was almost eliminated and stock transfers in the SAP system were automated using the back flushing option.

Through these means the logistics efficiency was increased, therefore freeing manufacturing capacity. In order to further harmonize the process an additional project focused on increasing assembly capacities. A semi-automated assembly line, that was available from another site, replaced some manual workbenches. The remaining workbenches were needed for the flexible assembly of a wide variety of different final products, mainly with small order sizes. The material flow was optimized to enable a one piece flow in that particular area.

The described measures conducted within order processing allowed for further increases and harmonization of capacities in different departments. They were followed by an improvement in the reliability of scheduled delivery dates and a higher production output. Especially the adjustments in the material flow concept and the introduction of pull principles lead to a significant reduction of work in progress and associated cost savings.

Experiences and Success Factors

Particularly in restructuring projects it is crucial to start improvement measures at the customer interface and then proceed along the value chain. In the case at hand that would have meant to begin in sales planning and ask especially large customers to adjust their forecasts to realistic numbers and to refrain from making late changes of order quantities and cancellations (Fig. 3).

This would have led to a sustainable stabilization within the order processing process as priority changes to production orders that were already released would have been eliminated. For fear of a possible loss of existing customers this step of stabilizing the front end was not implemented consistently. Improvement projects in subsequent process steps were started prior to the completion of stabilizing the front end.

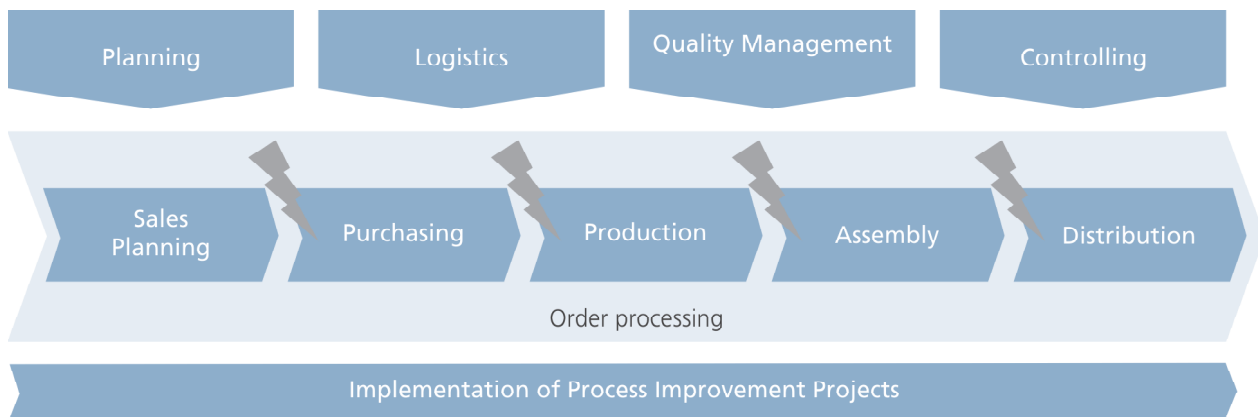


Figure 2: Implementation is following the value chain

In order to avoid failures during the implementation phase, pilot areas were defined for each project. The experiences gained eased the implementation of measures in other business areas and increased confidence in the new tools and processes among employees.

Previously existing resources and expertise were complemented by Schuh & Company. We managed and controlled all improvement projects as well as gave advice on specific topics such as the introduction of Kanban control. Support was also provided on an operational level. In the case of the relocation of the semi-automated assembly line the complete project management was taken over and a smooth integration into the overall project concept and coordination was realized.

In order to gain the confidence and commitment of all personnel that was directly involved with the newly designed processes and work flows, they were integrated to participate in the conceptual project phase. They were responsible for all aspects regarding content and communication of achieved results and changes. Through these means misunderstandings and possible fears were avoided and they consequently lead to a higher level of acceptance. Especially during the implementation phase this internal communication is a crucial success factor.

Conclusion

The results achieved during the scope of the project clearly show that the development of sustainable concepts alone is not enough to generate a successful improvement of the business situation. Moreover the feasibility and the implementation itself are key success factors of each improvement project.

A common and intense understanding of the business and competitive situation on the one hand and in-depth knowledge of all internal processes and their weaknesses are the starting point for the definition of the right improvement measures. With this approach the improvement projects with the highest contribution to business success can be identified. Focus on a manageable number of critical projects is assured by a prioritization process and increases the probability of successful implementation. Appropriate project setups and control structures assure the implementation of the selected measures making optimal use of the available resources and speed up the implementation process.

Without conscientious planning and availability of required resources every process improvement project runs a high risk of being unsuccessful. If required instruments and resources are made available in a focused manner, changes and sustainable success will also be generated during hard economic times.

Abstract

Especially during economically difficult times process optimization evolves into one of the key success factors for many companies. This case study aims to illustrate how the right tools can be used to successfully identify and implement process improvement measures.

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