CLIENT STORY

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Global Business Consulting

New Product Development (NPD) Application for Glass Manufacturing Company

Industry Dynamics - Changing NPD in the Glass Packaging Sector

Our client is one of the largest glass bottle producers in India and is very prominent in the global glass packaging market. Cosmetology and perfumery, specialty food and beverages, and pharmaceuticals compose their product offering. The client's business operations are impressive, with their products being exported to over 50 countries.

The glass packaging market is faced with high competition coupled with fast technological changes. This means that manufacturers must come up with new and better approaches to stay in the same position. The present case study explores the ways of coping with the changes in NPD and the efforts our client took to streamline the processes and improve the level of competition.

Challenges in NPD Process Management

The client's business comprised the production of glass in addition to the decoration of glass containers in different units. Even though this was required for operational purposes, it posed major challenges in the New Product Development (NPD) management process. The corporation had managed to evolve to a multiparty NPD ex post facto to include these two aspects of production. Deterioration of this situation had been brought about by an increased demand for NPD which had burdened the systems and processes in place.

This missing information was compensated by such an unnecessary piece of information as the positioning of NPD within organizational processes. Interactions among different stakeholder communities have proved challenging as tracking the status of inquiries and projects at any point in time was difficult which led to inefficiencies, breakdowns in communication, and delays. Actual amendments can only be made based on the available and appropriate data which normally determines a host of activities ranging from customer response to operational chores.

Avoiding functional fire snares was critical for their business. Several reporting tools have been implemented for NPD tracking and reporting purposes, but competition, prioritization of the NPD demand, and technology load hinder these tools and processes. Using backlogs or functional fires nares suffered addictive dependency driven or enabled due to stunned strategic foresight would quickly expose its Achilles heels. Delays in satisfactory client response to emerging issues, ongoing ordering, and operation-supporting activities covering several purchase orders (POs) were observed.

The firm pays attention to the many processes essential for functioning on the market. The company has effortfully exercised using backlogs or functional fire nares since it suffers from a strategic stupor that would have gotten all offensive resources deployed immediately.

In addition to that, the manual tasks in the regimented procedures have led to more risks of errors and inconsistency. For the NPD creation, it took a lot of time and was very cumbersome therefore mistakes were common while the generation of delivery schedules was rigid and didn't allow real-time updates. All these challenges have limited the companies' abilities to respond effectively and fast to the market changes and clients' demands which might threaten the company's competitive advantage in the sector.

At the same time, the Company understood that to remain in the leading position in the market and to deal with the increasing complexity of the NPD projects, there is a strong and automated need for identification for product development. This solution should help register all inquiries easily, increase individual productivity in project creation, and provide necessary changes in the plans to match the activities in glass manufacturing and decoration techniques.

Integrated New Product Development Management System Implemented

01 Normalization of Business Process Flow

We undertook a thorough examination of the client's previous NPD processes to identify challenges and problems. Step-by-step problems were addressed, and a templated workflow was built incorporating glassblowing and bottle-printing processes. This holistic approach limited misunderstandings across departments and factories as the dictation of procedures was cut across. At this stage, we put in place specific stage as well as approval mechanisms that would shield the process from unnecessary deviations that could affect the quality of the end product.

02 Automated NPD Project Creation

To this end, we engineered a kind of 'one click' approach to create NPD projects, which reduced the time and effort that would otherwise be required in the creation of new projects. It is an integrated system where fields are completed through a generated enquiry and thus leading to reduction in errors that may be made when keying them manually. To ensure compliance with the data requirements we activated several validation checks that would collect all the necessary information at the creation of a project.

03 Generation of Customer Blueprint

As for the decision-making process, the Implementation Team have created and integrated a capability that produces an end-to-end delivery schedule based on SAP information. As with most of the templates featured in this article, this Customer Blueprint is available in an editable Excel format that can be shared by project managers. The manufacturing and decoration process of glass equipments also have time frame included in the plan offered. We included features to facilitate real-time updates and simulations so that the project managers can easily judge the effects fast.

04 Integration with Existing Systems

The solution was intend to interface with the system of the client's SAP, in order that there might be uniformity of data. We established interfaces to enable the NPD solution to address exchange of data with other related systems in real time.

05 Real-time Dashboards and Reporting

A number of dashboards were established, giving real time status updates of all NPD projects that had been undertaken. These dashboards were developed for various stakeholder categories to be in a position to access appropriate information. Specifically, we introduced a reporting module that enables the generation of different reports for the convenience of the end-users when making decision.

06 Resampling Tracking System

DTo cater for this, we added a feature that captured all the resampling activities concerning each RFQ in real-time. This system also gives notifications in the resampling process if there was any delay or challenge encountered so that action can be taken.

This architecture guarantees good coupling between different aspects of the solution allowing efficient data sharing and synchronizing in the contexts of NPD processes.

Phased Implementation Approach

The implementation of the NPD solution was carried out in phases to minimize disruption to ongoing operations:

- A number of large workshop sessions were arranged to establish the requirements and draw a detailed large picture of the work.
- Design or create or modify a/c specific components and adapt standard/e-standard parts in ACC with the clients' requirements.
- Moved and cleansed NPD data and interfaced these with SAP and other programs.
- Covered all the user groups with training and even for the preparation of training materials.
- Implemented the solution in a required product line, after gaining feedback.
- Implemented the solution to every product range and the companies' headquarters, where special attention is paid to it.
- The project also introduced the standard weekly meetings for the purpose of discussing outcomes and receiving feedback.

Technical enhancements and Major results

The implementation of the NPD solution yielded significant improvements in the client's operations:

01 Increased Efficiency

Nowadays the client users can manage as many as five times more projects of NPD with the same resources available. This has led to increased efficiency that has let the company to engage in more business and achieve the goals without necessarily hiring more people. The time taken to start up new projects has been cut drastically by the use of the automated project creating routines.

02 Reduced Lead Time

The lead time of NPD projects projects has been reduced by a third as compared to its industry counterparts. This reduction enables the client to launch new products into the market faster hence availing a competitive edge to the company. The simplified flow has got the elimination of constraints and hence less cases of project hold up.

03 Improved Visibility

ANow not only do the project stakeholders have access to the current status of data from the project but also they are also able to make better decision and also work more in synchronization. That has happened due to availability of information as the custom dashboards have minimized the time spent during status meetings. Some benefits realized include increased customer satisfaction resulting from real time provision of correct project information.

04 Enhanced Tracking

Having a system is that all the resampling processes that are being conducted for each RFQ can be monitored real time. This has resulted in decreased cases of quality problems that are associated with resampling hence enhanced quality of the final products. This has minimised the time taken to address quality concerns thus lowering the average solving time.

05 Cost Savings

These changes have now made the NPD process cheaper since overall lead times have been cut down. Proper resource management means that overtime has been reduced at the organization.

06 Scalability

To date, the solution has been found to be very scalable as it has not shown any difficulty in addressing an increased number of NPD projects as compared with the initial one-year implementation period. It is integrated and has the ability to add further required features and functionalities further as the need arises in business.

Impact and Long-term Benefits

With the integrated solution for comprehensive NPD, there has been a complete change in how the client can effectively facilitate new product development projects. Altogether, by tackling the major issues of process standardization, automation, and visibility, the solution has considerably improved the client's standing in the sphere of glass packaging. It has not only enhanced operations effectiveness but has also been empowering a culture of innovation in the organization. This has been very useful in enabling employees to confidently undertake challenges projects. The system has provided real-time visibility thus enhancing the interaction between departments that were disjointed in the past and affected project flow.

Finally, the effects of the solution on customers' satisfaction are also not to be underestimated. The capability established for updating the client both formally and in terms of project development has improved the relations and produced extra business.

Sustaining the lead time reductions and implementing quality control measures has made the company have preference in the industry. Hence, the ability of the solution to scale and grow indicates that the solution is well-positioned for future development. Finally, the progressive development of the glass packaging industry in the local market is favourable for our client to enhance its strategic position and sustain its market leadership. The success of this implementation makes this a good example for other manufacturers experiencing such obstacles in handling complex product development. Thus, this case proves the importance of the appropriate construction of the integrated solutions for solving various business problems. Through the use of IT, it is possible for the manufacturing companies to realize competition advantage given the growing competitiveness of the manufacturing systems.

Broader Industry Applications

We can presume that other fields may also find interest in the Customer Blueprint created for this client such as the glass manufacturing industry. There is a potential that other companies would also be interested in the Customer Blueprint that has been designed for this client not only in the glass manufacturing industry. The functional profit consists of detailed and sensitive project planning with a great deal of flexibility and real-time feedback application for different sectors. Industries that could benefit from this solution include:

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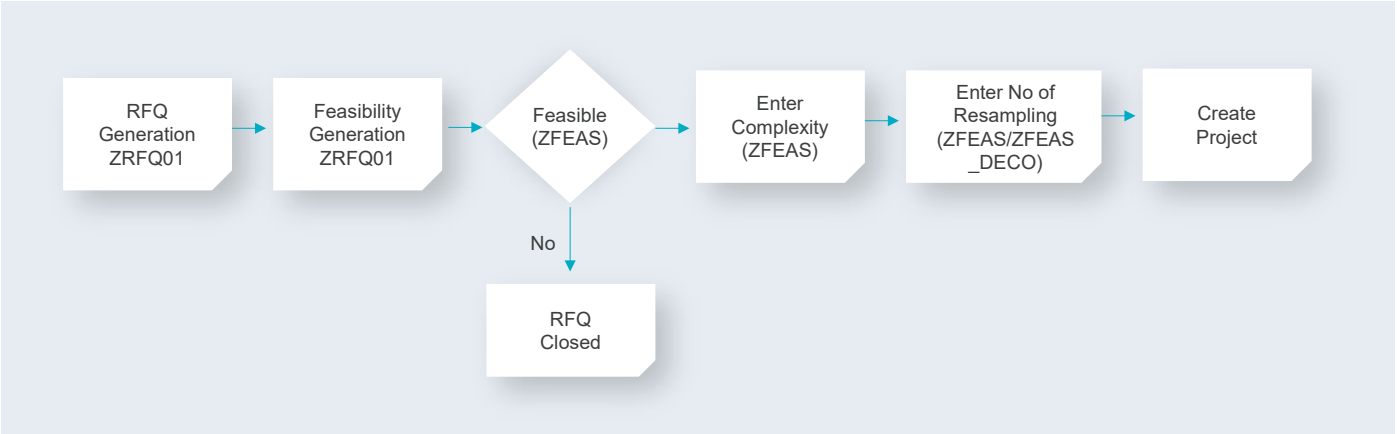
- **Automotive Manufacturing:** Managing the development of new vehicle models, which involve multiple components and suppliers.
- **Aerospace:** In client focusing they need to manage and execute more extensive and long-term projects with high regulation and legal demands.
- **Pharmaceuticals:** Aggregation and monitoring of the drugs undergoing development and their approval whereby this process has several stages and passes through different regulatory milestones.
- **Construction:** Co-ordinating extensive construction projects with a large number of subcontractors and with work being carried out simultaneously.
- **IT and Software Development:** Organizing multiple endeavors based on the system of frequent iterations and customers' feedback.

The applicability of the solution is irresistible in projects management and customer interaction since the solution provides rich, shareable, and editable project plans in real life in these industries and in many others, as today's businesses put more emphasis on issues such as transparency and fast adaptation to the ever-changing market, such solutions will be critical in helping them to sustain their competitive edge.

Technical Architecture



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