

Case study analysis: erp implementation for nibco

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Overview

The case shows the implementation of SAP ERP solution in NIBCO, a manufacturer of pipe and fittings, a mid-size manufacturer with about 3, 000 employees and revenue over 460 million USD. The company has implemented successfully the full package of ERP solution, provided by SAP, the leading solution provider under the consultancy of Boston Consulting Group. NIBCO has gained the success by good management and project team understanding, determination and experiences. The method of implementation of NIBCO for this ERP solution is running all in one day, this brings the company to a quite risky situation if something wrong happens.

But the company has run the system successfully, with positive results. The implementation succeeds because of all the planning, personnel, management and the cooperation with application providers and consultants. NIBCO has over 3, 000 employees and operates 10 plants, and 17 centers for distribution over US. The databases and information systems are not integrated therefore cannot communicate and collaborate effectively, which causes time and efforts wasting. Also, over the years of development, the business processes change, the information data increase, the old system cannot meet the demands of cross functional operations.

With the consultants from BCG, NIBCO has developed a plan for implementation of new ERP system, using professional solution from a leading provider, SAP. The aim of NIBCO is to set up a new, large, integrated information system to replace the old system, connecting and integrating all the IS from factories, plants and distribution centers all over the country. With the initial project duration estimated as over 3-5 years, the <https://assignbuster.com/case-study-analysis-erp-implementation-for-nibco/>

management and project team has implemented the whole system in only 18 months, and successfully.

NIBCO's Implementation of ERP Solution

Using the consultancy services from BCG, the information system of NIBCO was very weak and poor. The system do not support the provision of information for manager timely, did not support process of decision making, especially for functional departments as accounting, purchasing, selling, marketing and customer supports. Due to the lack of real time data sharing the management and manufacturing meets difficulties to improve quality and efficiencies. Over the years of operation, factories and departments have implemented their own modules or application such as order entry, manufacturing, distribution and accounting.

Because of the non-systematic application and implementation, in separate factory and department, each user may have their own software, different version, and separate database. Therefore it is difficult to integrate and cooperate among factories and distribution centers. To implement the new system, NIBCO has used professional consultancy services, purchase leading software application from top vendor, and assigned top managers to manage project team, system development, and IS staff for planning, and integrating, designing, installing the new system.

Although the BCG determined that there is a need for a change in information system of NIBCO, the current system is " poor" and needed " cut loose" to grow the company and become more global. The BCG's suggestion for three to five years implementation should be too long, somehow, this can

cause more cost and efforts for NIBCO than actual need (Brown, 2012, p. 491).

Pros and Cons of “ BIG-BANG” approach for ERP NIBCO used the approach called “ BIG-BANG” for ERP implementation, or cutover aiming to put the whole information system to run in the same day, at all the factories and distribution centers, especially for common and key modules.

All the business units, most of employees will be affected by the new systems at the same time. In fact, the other approach can be doing a pilot implementation at a factory or distribution centers, or only implement for only a few popular units. But this way can cost more time, efforts and cannot test the capability of the whole system. Also, with the investment in consultancy and purchasing the leading solutions from top ERP vendors, the NIBCO aim to get the new system run for all the business unit, and the real time running can also test the performance of the new system, also save cost and time for implementation.

Running all at the same time can also help the testing of integration and cooperation among factories and distribution centers. The big-bang or cut over approach requires the good skilled personnel, and also training for the new systems, working processes and running, maintenance the new system. The productivity was reported a reduction in the first month after the new system running, but improves gradually in the later months. The accounting reports can be done in two or three day, rather than two to three weeks when using the old systems.

Also, with the new system, sharing and collaboration helps reduce inventory, as much as 25%, and also increase the fulfillment ratio from 80% to 95%, service quality has improved to 98%. Source: <http://www.nibco.com/> The BCG consultants noticed that the legacy environment and databases are out of control, which cause IS and IT staff too busy with fixing the issues more than focusing on developing supporting system for functional activities.

The company used professional consultancy services from BCG but does not follow the suggestion from BGC, the cutover or big-bang approach was implemented because the management leaders do not support multi years plan; also the fund for the project was 17 million USD, and will take one fourth of the company's members to involve in implementation for the project. The shorter time the project takes, the better and more effective it will be.

Project was leaded by the CEO, as the project Champion, Rex Martin, who acted as the project leader and project champion. The top manager plays the key role to the ERP project, because this type of project will involve and affect all people and departments and units of company. With CEO in charge, the project will be supported by all the Vice Presidents in decision making and raising the resources for the project. The CEO set up the Executive Leadership Team to act as the screening and monitoring committee, this team plays a key role in managing the project because it help to make sure that all decisions are made at the highest level.

The CIO, and also the Vice President, Scott Beutler was responsible for the ERP package, it means that the VP of IT and IS will be responsible for the functionalities of the software application, during process of project. The <https://assignbuster.com/case-study-analysis-erp-implementation-for-nibco/>

Information system managers, Gary Wilson, together with all the IS staff (about 30 people), will be involved in project, support the operations and implementation, development, maintenance. The CIO, IS leaders and IT staff will the support of top leaders will play key roles in assessment of ERP packages, testing, demonstration and operating the systems.

The key modules of ERP package for NIBCO, SAP R/3, includes: finance, supply chain, material, warehouse management, production planning and management, sales and distribution. Also, the HR module was purchased but will be implemented later. The leaders have played key roles in running the project, for example, Beutler manage the business process; Wilson for technology and software packages, and Davis for managing project activities. Because of the scale of project, and its potential effects, one fourth of the company directors have been appointed to the project management board.

This shows the commitment of the managers and also provide enough human resource for project to make sure that it can cut time from 3-5 years to 18 months. The participation of leaders and managers will make the project decisions faster and it may be the key reason for shortening the duration of project. Working with solution vendor ERP project requires both software, hardware, networking partners to involve in implementation. NIBCO has selected IBM as third party provider for the system's infrastructure, SAP as the software solution provider.

For the experts and engineer support, NIBCO and partners appoint six consultants for functional and business processes, who work regularly with the project team. Also, the maximum personnel can be raised to as many as

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50 consultants at high time. The other personnel are also provided for training, reporting, programming, technical assistance, knowledge management ... All the supports are officially stated in the contract with solution providers and partners. In fact, Wilson has an IS department and personnel number up to 30, also he had mainframe application, HP and IBM platforms.

The NIBCO has four legacy systems for order entry, manufacturing, distribution and accounting, but the problem is they are bought separately, with separate databases, which make integration difficult or very hard to implement. NIBCO has considered and evaluated seven ERP packages in depth and in details. With the experts and business from functional departments involving in assessment process by testing the modules, from several vendors. They are also sent to visit the previous or typical customers to get the feedbacks from real users.

The key concern was the finance and supply chain management modules, using the shared database, and should be able to connecting and integrating all the modules together. Project management team The scope of the project is decided for all the factories and distribution centers, the operation was started on the same day for ten plants and all distribution center. This decision for scope was quite risky but saving time and cost for NIBCO. The project team was released sooner than planned, the productivity was down a little bit but improve gradually, the project cost was a little under budget.

All these factors are because of good experience and collaboration in project management. The key to success may be the Tiger triad, which was led by Wilson and Beutler, who was working full time with ERP project. The Martin
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was added by CEO appointment to joint Beutler and Wilson as a third co-lead project. David with experience in total quality management could help project focus on change management and maintaining quality. Training inside specialist For ERP project, training and technology transfer is key to success.

Core knowledge and skills need to be transferred to IS department and all the functional departments for operation and maintenance. Source: [http://www. sap. com/solutions/bp/enterprise-resource-planning/solutions-overview. epx](http://www.sap.com/solutions/bp/enterprise-resource-planning/solutions-overview.epx) Four director leaders and two business system analysis were selected for review roles, working with other leaders from sales and distributions. One fourth or seven out of twenty eight directors of NIBCO have been selected for project as full time. These people must have good business knowledge to see the potential issues and settle conflicts.

The project managers are assigned for specialized teams, including: sales and distribution, financial, material management, and production management. Each team work together with experts from solution vendor. Business member will consider process, business functions, power users, business process analysis. IS and IT engineers will be responsible for technical sides, including infrastructure, programming, testing, installation and running. Each team has their supporting IBM consultants, with their technical knowledge to that they could make joint decisions, and also transfer the knowledge to NIBCO core team at the same time.

Consultants from solution vendor, SAP, also work together with the team. The final project cost was 17 million USD, and one third for infrastructure cost, including the solution software. One another third foreducation, team <https://assignbuster.com/case-study-analysis-erp-implementation-for-nibco/>

work and the last one third for consulting (Brown, 2012, p. 501). Experience in change management The cutover approach or big-bang implementation of ERP package as NIBCO used requires a good change management in all business functions and department. Because business processes are changed, much or little depends on the nature of business, therefore all the related staff will be affected.

Also, the application in wide range, all ten first factories and distribution centers will be affected same day, same time. The key to success of NIBCO implementation can be the careful planning and actions. The analysis and design, communication and management effectively, as well as the good coordination with consultants and vendors' experts. The support and direction from top management to departments' heads involving the implementation of ERP can also contribute to the success. Big bang implementation requires change management that was not key strength of IBM.

Training was used widely to increase skills and knowledge of users, with 450 different business activities in 15 locations. Open communication by provision of information to project teams, over 1, 200 hours of training, over four months before going online or Go Live. The grace period was used for more scenario training, with more focus on business processes. After intensive, effective and serious training, the company could be ready to operate R/3 on its own without solution or partners expert working on site.

List of Reference

1. Brown, 2012, Information Technology Management - 7th Edition, Prentice Hall

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