Lego: Embracing Change by Combining Business Intelligence with a Flexible Information System
Arroyo, Daniel Ortiz

Published in:

Publication date: 2011

Document Version
Early version, also known as pre-print

Link to publication from Aalborg University

Citation for published version (APA):
Lego: Embracing Change by Combining BI with an Information System

The LEGO Group, which is headquartered in Billund, Denmark, is one of the largest toy manufacturers in the world. LEGO's main products have been the bricks and figures that children have played with for generations. The Danish company has experienced sustained growth since its founding in 1932, and for most of its history its major manufacturing facilities were located in Denmark.

In 2003, LEGO was facing tough competition from imitators and manufacturers of electronic toys. In an effort to reduce costs, the group decided to initiate a gradual restructuring process that continues today. In 2006, the company announced that a large part of its production would be outsourced to the electronics manufacturing service company Flextronics, which has plants in Mexico, Hungary, and the Czech Republic. The decision to outsource production came as a direct consequence of an analysis of LEGO's total supply chain.

To reduce labor costs, manually intensive processes were outsourced, keeping only the highly skilled workers in Billund. LEGO's workforce was gradually reduced from 8,300 employees in 2003 to approximately 4,200 in 2010. Additionally, production had to be relocated to places closer to its natural markets. As a consequence of all these changes, LEGO transformed itself from a manufacturing firm to a market-oriented company that is capable of reacting fast to changing global demand.

LEGO's restructuring process, coupled with double-digit sales growth in the past few years, has led to the company's expansion abroad and made its workforce more international. These changes presented supply chain and human resources challenges to the company. The supply chain had to be reengineered to simplify production without reducing quality. Improved logistics planning allowed LEGO to work more closely with retailers, suppliers, and the new outsourcing companies. At the same time, the human resources (HR) department needed to play a more strategic role inside the company. HR was now responsible for implementing effective policies aimed at retaining and recruiting the most qualified employees from a diversity of cultural backgrounds.

Adapting company operations to these changes required a flexible and robust IT infrastructure with business intelligence capabilities that could help management perform better forecasting and planning. As part of the solution, LEGO chose to implement SAP's Supply Chain Management (SCM), Product Lifecycle Management (PLM), and Enterprise Resource Planning (ERP) modules.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.

SAP's business suite is based on a tier client-server architecture that is adapted to the new Service-Oriented Architecture (SOA) available in the latest version of SAP's business suite software. SAP's software products include applications designed to efficiently manage a company's essential functions and processes. SAP's Supply Chain Management (SCM) module includes, among other things, supply chain monitoring and forecasting, planning, and inventory management. The PLM module enables managing development processes and systems, including among other things, Capital Management (HCM), human resources administration and development management.