Chapter 1.20
Using SA for SAM Applications and Design:
A Study of the Supply Chain Management Process

Mahesh Sarma
Miami University, USA

David C. Yen
Miami University, USA

ABSTRACT

In order to maintain a competitive position in today's marketplace, companies must demand a greater level of enterprise efficiency. In today's rapidly changing market, experts argue that it is no longer about becoming a powerhouse but simply about remaining competitive. That is why automating and linking the supply chain has become so imperative. Supply chain management systems link all of the company's customers, suppliers, factories, warehouses, distributors, carriers, and trading partners. These systems integrate all the key business processes across the supply chain of a company. This chapter explains the objectives of supply chain management and how SAP's supply chain management system helps companies fulfill these objectives.

INTRODUCTION

Supply chain management is the delivery of customer and economic value through integrated management of the flow of physical goods and associated information, from raw materials sourcing to delivery of finished products to consumers (Viradix, 2005). There are many enterprise resource planning (ERP) and supply chain management (SCM) vendors in the market. Some of these vendors design ERP packages while some design SCM packages. However, looking at the

definition of supply chain management previously given, it sounds a lot like what an ERP system does. However, the difference between ERP and SCM systems is in the detail. Usually, SCM systems provide companies with planning capabilities for their supply chain. SCM systems can not only plan the supply chain but it can optimize the whole supply chain so that all the business processes are linked together to form part of one single activity. It does so because it can look at the demand, supply and the constraints simultaneously and then find an optimal solution. Traditional ERP vendors have started developing and supplying SCM solutions in order to gain a foothold in the SCM market. This chapter will look at the details of a SCM system more specifically SAP's SCM system.

The purpose of this chapter is to study the different features and functionalities in an SCM system. Users of this chapter will be able to understand the various modules in a SCM system and how these modules are used across the supply chain by different departments. Users will also be able to understand the flow of data, the underlying business processes, how the data is stored and retrieved and how the same data can be used by both an ERP and an SCM system. The objective of this chapter is to focus on the business processes in the SCM system. People reading this chapter will be able to understand how the SCM process actually works. Integrated systems usually have centralized databases and this allows for the free flow of information. Any activity that takes place somewhere in the supply chain affects the other activities someplace else in the supply chain. This chapter will look at how these activities are linked together to form part of one big picture.

This chapter can be used by the users to start understanding the different parts of a supply chain management system and how this system can be used in different business activities. Usually, SCM implementations are very complicated because it involves integrating the business processes of more than one company. By understanding the

business processes in one company, users will be able to better understand how the business processes work in other companies and how these processes can be integrated. They will also know the different data that is used in an SCM system. The best way to use this chapter is to understand the business process explained in this chapter and then try to implement it on an actual system. By doing this, users will be able to understand the important details of a SCM system. The intended audiences for this chapter are the faculty and students in schools interested in learning about a SCM system. People involved in implementing a supply chain management system can use this chapter as a starting point for understanding the business processes that take place in a supply chain. Most importantly, this chapter can be used by beginners just starting to work on the system as a reference in understanding the different departments involved in a supply chain. This chapter can be used in any course teaching the concepts of ERP and SCM systems. The SCM process is important for any company and users have to know what happens in an SCM process. Learning about an SCM system will give the users an idea of how business transactions occur within a company and how the data from these transactions is sent upstream and downstream to the company's suppliers and customers respectively.

Since there are many vendors who provide supply chain management systems, it is difficult to explain all the supply chain management systems in detail. So, this chapter will focus on SAP's supply chain management system. This chapter starts off with an introduction to supply chain management and SAP's SCM system. It explains the different modules in SAP's SCM system and then takes a look at the different business processes in an SCM system. It looks at the different departments involved in a supply chain and tries to explain how these departments can use SAP's SCM system to add value to the organization. In conclusion, it looks at the future trends in the industry and how these trends are helping

Related Content

Capturing and Comprehending the Behavioral/Dynamical Interactions within an ERP Implementation
James R. Burns, Don G. Jungand James J. Hoffman (2010). *Strategic Information Systems: Concepts, Methodologies, Tools, and Applications (pp. 1804-1827).*
www.irma-international.org/chapter/capturing-comprehending-behavioral-dynamical-interactions/36791

Fuzzy Prediction of Insolvent Customers in Mobile Telecommunication
Walid Moudani, Grace Zaarourand Félix Mora-Camino (2014). *International Journal of Strategic Information Technology and Applications (pp. 1-23).*
www.irma-international.org/article/fuzzy-prediction-of-insolvent-customers-in-mobile-telecommunication/125558

Comparison of Baccalaureate Nursing Students' Experience of Video-Assisted Debriefing versus Oral Debriefing following High-Fidelity Human Simulation
Colleen Royleand Kathleen Hargiss (2015). *International Journal of Strategic Information Technology and Applications (pp. 40-49).*
www.irma-international.org/article/comparison-of-baccalaureate-nursing-students-experience-of-video-assisted-debriefing-versus-oral-debriefing-following-high-fidelity-human-simulation/136267

Data Mining Techniques and Applications: A Ten-Year Update
Nayem Rahman (2018). *International Journal of Strategic Information Technology and Applications (pp. 78-97).*
www.irma-international.org/article/data-mining-techniques-and-applications/213235

Challenges in Developing a Knowledge Management Strategy: A Case Study of the Air Force Materiel Command
Summer E. Bartczak, Jason M. Turnerand Ellen C. England (2009). *Selected Readings on Strategic Information Systems (pp. 76-80).*
www.irma-international.org/chapter/challenges-developing-knowledge-management-strategy/28689