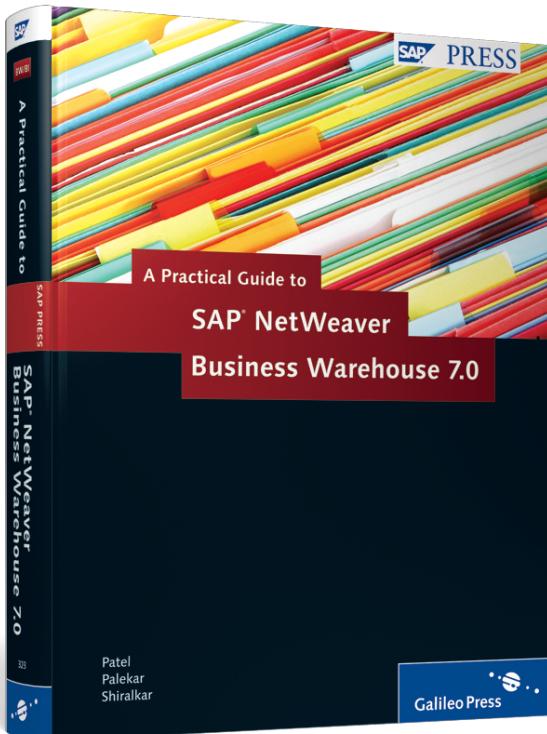




PRESS

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A Practical Guide to SAP® NetWeaver Business Warehouse (BW) 7.0



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A clear and comprehensive business requirement leads to a better design of a business intelligence solution. In this chapter, we present a basic sales process scenario for a company, which will be used as a reference in subsequent chapters.

1 The Business Scenario: ABCD Corp.

Business managers always prefer making informed decisions, a process enabled by *business intelligence (BI)* solutions. A good BI solution improves the efficiency and transparency of operations, offers better control over the outcomes of decisions, and allows you to fully explore all of the options at your disposal. It can also assist in the automation of managerial processes.

The process of making decisions for sales growth based on quantitative information is *sales analytics*, which forms one of the most common requirements for BI solutions across different companies around the world. For this reason, we've chosen to build a simple sales analytics example for a typical company, called *ABCD Corp.* In the process of building sales analytics for ABCD Corp., we explain all aspects of designing a data warehouse solution based on SAP NetWeaver Business Warehouse (SAP NetWeaver BW) version 7.0.

This chapter describes ABCD Corp. and then describes the entities involved in the typical selling processes. Each entity and the process will be referred to throughout the book as we build different components of an analytics solution using SAP NetWeaver BW (version 7.0).

1.1 ABCD Corp.: Company Overview

ABCD Corp. is a company located in North America with headquarters in New York City. It sells different electronics and white goods (i.e., appliances) to its customers, who are spread all over the world (Figure 1.1).

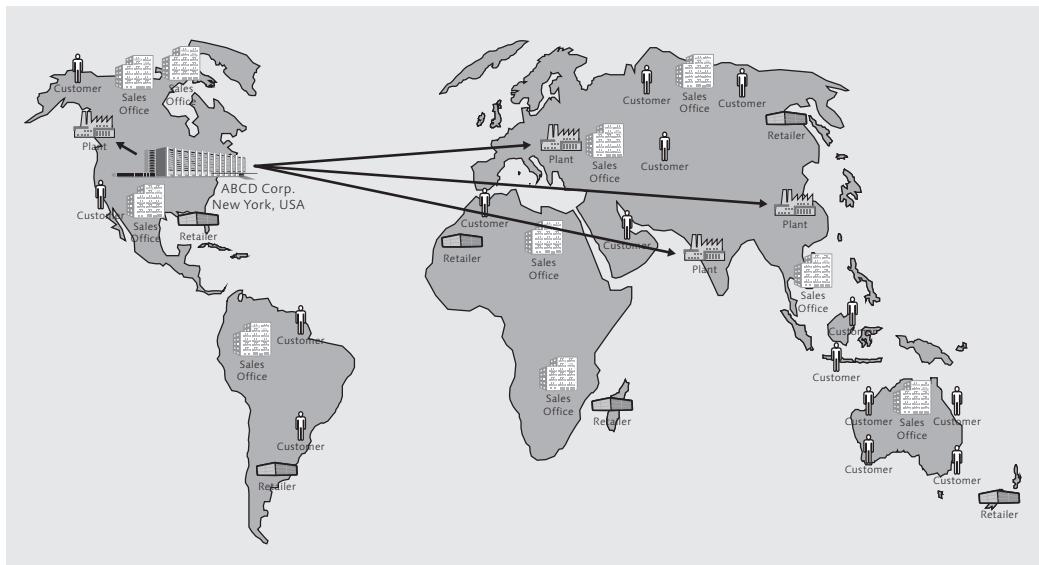


Figure 1.1 Overview of ABCD Corp.

1.2 Marketing Network

ABCD Corp. has more than 90 worldwide customers, which are either retail chains or independent stores (see Table A.3 in Appendix A, Case Study: ABCD Corp.). The company has three main markets — North America, Europe, and Asia-Pacific — and each market has one or more regional marketing offices. Within the US, the customers are grouped by states; outside the US, they are grouped under their respective country or city (e.g., London). ABCD Corp. has sales offices in most cities where customers are located, and the sales offices report to their corresponding regional marketing office. Figure 1.2 shows a hierarchy of the marketing network.

Each sales office has one or more salesperson, and each customer is serviced by a specific salesperson who maintains regular contact with his customers, mainly for the purpose of taking *sales orders* from them. Whenever an order is placed, a *sales transaction* is created in the SAP system located at the sales office. The salesperson then contacts his sales office with the details of the order. If the regular sales office is closed, the salesman contacts a sales office in a nearby country to ensure on-time delivery to the customer. Salespeople are rotated from customer to customer after a certain period of time or after the achievement of set target sales.

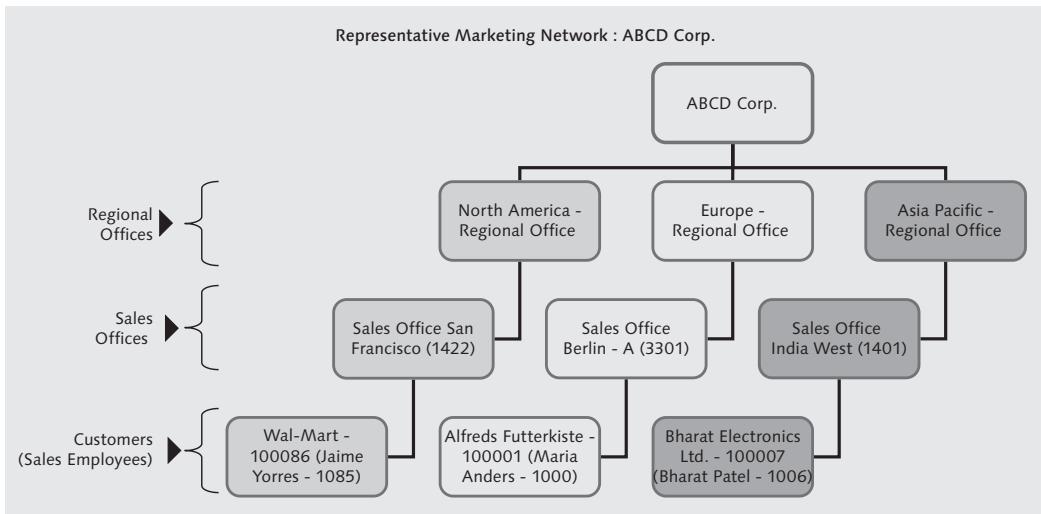


Figure 1.2 Overview of ABCD Corp. Marketing Network

ABCD Corp. has more than 30 products, which are logically grouped into 3 portfolios: Consumer Electronics, Domestic Appliances, and Consumer Lifestyle (see Table A.7 in Appendix A). The company has four manufacturing plants to supply these products (see Table A.2 in Appendix A).

1.3 The Sales and Billing Process

ABCD Corp. sells its products through two different *selling channels*: either *directly* or through the *Internet*. Product sales happen via a *billing document*; a typical flow of information generated by the creation of a billing document is illustrated in Figure 1.3.

Each billing document is represented by a unique number. Within the billing document, one or more products are listed, each of which is identified with an *item number*. In addition to the item numbers, the billing document also lists the quantity sold and a selling price for each product. In most cases, ABCD Corp. receives payment for products sold when they are delivered to the customer; in some cases, larger customers are permitted to make delayed payments.

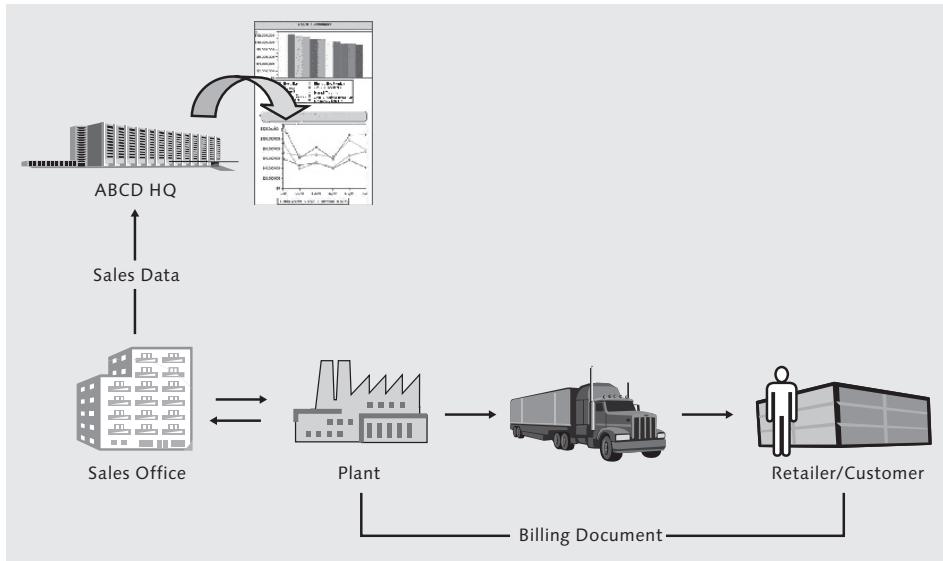


Figure 1.3 Overview of ABCD Corp. Selling Process

The *terms of payment* and *type of billing document* for transactions differ based on the method by which the transaction has taken place. For example, a specific type of billing document is generated if the customer makes the payment using a credit card or any other mode of delayed payment, and a different type of billing document is generated for immediate payments (see Table A.9 in Appendix A).

If the product is sold to a customer outside the US, the corresponding billing document is identified as an export; within the US, it is treated as a domestic sale (see Table A.10 in Appendix A).

Whenever the value of a record in the billing document is more than \$10,000 USD, the transaction is identified as a *high-value transaction*, and the billing document is marked with an indicator to differentiate it from those with lower transaction values.

Similarly, if the cost of any item in the bill is listed without a value (i.e., is a free item), the system is designed to identify such a record separately (see Table A.11 in Appendix A). Normally, most items require payment; however, for special occasions (the holiday season, clearing sales, etc.), some low-value products (e.g., cords or batteries) are provided free with a bigger purchase. Such items are listed with an item category of DC, whereas normal items are identified with an item category of NOR. The cost of items under item category DC is recorded on the billing document, but taxes or other costs are not recorded.

Figure 1.4 shows a sample billing document for ABCD Corp.

The figure displays a sample billing document from ABCD Corp. The document is structured with several sections and numbered callouts (1 through 10) pointing to specific fields:

- Header:** ABCD Corp. (1), Trail's Head Gourmet (1), 100081 ST (1).
- Customer Information:** USA (2), 100081 DOM (2), Cons. Elec (CE) (3).
- Address:** Kirkland (SG: 998) (4), SO : 100 SD : 4300 (4).
- Salesman:** Salesman (5), Helvetius Nagy (1080).
- Order Details:** DATE (6), Order Details (6), AMOUNT (6). An entry shows 05/19/1999, 1. NOR, 21000, Video Camera (10), 350.00.
- Account Balance:** ACCOUNT BALANCE \$ 350.00.
- Important Notice:** Goods will be delivered within 24hrs of Order.
- Offer:** You may be eligible for FREE Accessories. Please see the back of this statement for details.
- Manufacturing Info:** Goods Manufactured & Delivered from Plant at USA (7).
- Footer:** Channel: Direct (DR) (8), Type of Transaction: On Cash (CH) (8), SIGNATURE (8), Billing Value Limit (9) XX, PAYMENT AMOUNT \$ 350.00 (9).
- Barcode:** A standard barcode is located at the bottom of the document.

Figure 1.4 ABCD Corp. Sample Billing Document

The sample billing document shows how the business entities and processes are presented. Information such as customer name, customer code, and customer group are captured in ① of Figure 1.4; the billing document number and type of billing transaction are captured in ②; and the product group is captured in ③.

The billing document also provides information about the sales office, sales district, and sales group that services the customer. The name and code of the salesperson responsible for a specific sale is captured in ⑤.

The product, product code, type of item, and product description is captured in ⑥ of the figure. Information on the plant that manufactured and dispatched the product is captured in ⑦. The type of transaction and selling channel are reflected on the

lower section of the billing document (❸), as are the type of billing value and gross billing amount (❹). Finally, each item in the billing document has information such as quantity, cost, and net value in USD.

Returns

For product returns, a credit is issued to the customer. Each item in the return billing document has detailed information about the transaction, such as the quantity, cost, net value, and so on.

1.4 Business Intelligence Requirements

ABCD Corp. wants to have a global BI solution for sales analysis that accesses business transaction data from SAP (as the main data source) and Excel sheets, or *flat files* (as the secondary data source). The goal is to build a robust and scalable BI solution based on SAP NetWeaver BW that has reporting capabilities with the following guiding principles:

- ▶ Ease the management of the company at the corporate and local level through improved control and visibility.
- ▶ Move to a more digitalized company to support growth and enable quicker integration of new acquisitions.
- ▶ Increase return on investments by optimizing the cost and time spent on the design, deployment, and maintenance of the BI solution. Use SAP NetWeaver BW Business Content, which addresses a significant number of sales analysis requirements.

ABCD Corp. wants to analyze its sales process and find answers to the following types of questions:

- ▶ What products are selling in different sales organizations?
- ▶ Which product lines or specific products are selling highest or lowest?
- ▶ How do ABCD Corp.'s current year compare to the previous year?
- ▶ What are the top 10 best-selling products?

The *analysts* of ABCD Corp. require the solution to allow them to easily create their own reports when existing reports do not meet their reporting needs. The *auditors* of ABCD Corp. require the solution to provide traceability to specific billing documents for a customer when the need arises to analyze instances of variances; additionally, this sales document level investigation must be addressed in SAP NetWeaver BW, instead of in the transactional system. The *IT team* at ABCD Corp. requires the solu-

tion to be automated for most processes, including email alerts of successes or failures of systemic processes; they also require that the existing SAP R/3 system work at optimal efficiency by removing old data related to business-critical transactions from the OLTP (online transaction processing) system. The *head of planning* at ABCD Corp. requires the BI solution to compare actual and planned sales to ascertain and address the causes of variances or to correct plan figures.

In this book, the concept, design, and development of different SAP NetWeaver BW components are explained by using each of these requirements as examples.

1.5 The Business Planning Scenario

Within ABCD Corp., *sales planning* is an annual cycle for all three sales organizations: 1000 (APAC), 2000 (Europe), and 3000 (North America). Each sales organization projects sales figures according to three different divisions or product ranges: Consumer Electronics (CE), Daily Appliances (DA), and Consumer Lifestyle Appliances (CL). This is a high-level plan for the organization, and high-level values for each of the product ranges are transferred to different products belonging to these product ranges.

Each sales organization has a product range manager who is responsible for planning the sales of each product under his assigned product range. The plan for a year (January to December) is divided into quarters; thus, there are four planning periods: Quarter 1 (Q1), Quarter 2 (Q2), Quarter 3 (Q3), and Quarter 4 (Q4). Figure 1.5 is a graphical representation of this scenario.

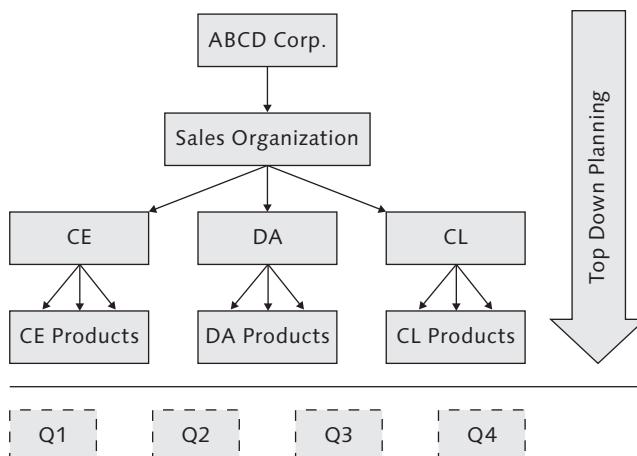


Figure 1.5 Overview of ABCD Corp. Sales Planning Process

This business scenario description should provide you with an understanding of ABCD Corp. and its sales process. In Appendix A, Case Study: ABCD Corp., we provide additional information in the form of tables, which have more details about the business scenario. These tables also include the specific SAP codes used to identify each element.

1.6 Summary

In this chapter, we explained a very basic business scenario for a typical company. We also explained the BI needs for this company, specifically those related to analyzing its sales process. While creating the scenario, we've addressed some aspects with more detail than others; those explained in detail relate to the realization of the technical requirements we discussed in Section 1.4, Business Intelligence Requirements, and are dealt with in subsequent chapters of this book. In the next chapter, we provide a brief overview of SAP NetWeaver BW.

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