Order Management Case Study

**Facts**

Order management consists of order, shipment, and invoice processing. These are all very important business processes for any organization that sells products or services to others and provide key performance indicators to each organization. Concepts such as audit dimension, junk dimensions, and lag calculations are introduced here to build on previous concepts.

**Concepts**

* Bus matrix for order management consist of a series of business process
  + Date, customer, product, sales rep, deal, warehouse, and shipper for quoting, ordering, shipping to customer, shipment invoicing, receiving payments, and customer returns
* Order Transactions
  + Granularity
    - One row for each line item on an order
  + Dimensions associated
    - Order date, requested ship date, product, customer, sales rep, deal
  + Facts include
    - Order quantity, extended order line gross, discount, net dollar amount
  + Fact normalization is sometimes necessary so that there is a single, generic fact amount with a dimension that identifies the type of measurement
  + Build and administer a date dimension table where each of the dates should be a foreign key in the fact table
  + A product dimension is the most common and most important of the dimension tables.
    - Describes the complete portfolio of an organization’s products
  + Customer dimension
    - Can contain thousands of rows or even millions of rows
    - Contains a row for each discrete location to which a product is shipped to
  + Deal Dimension
    - Similar to promotional dimension
      * Describes the incentives offered to customers that theoretically affect the customers desire to purchase products
  + Junk Dimensions
    - Used for miscellaneous indicators and flags that are populated with a small range of discrete
  + Multiple Currencies
    - Currency should reflect the currency where the headquarters is headquartered at and locally it should reflect the local currency
* Invoice Transactions
  + Should be of similar granularity at the order transactions
  + Define service performance as fact, dimension, or both
    - On-time, late, or early
  + Profit and Loss
    - Typically have the following interpretations
      * Quantity shipped, extended gross amount, extended allowance amount, extended discount amount, extended net amount
  + Audit dimension
    - Business user may want to ask the following
      * What is my confidence in reported intervals
      * Were there any anomalous values while processing source data
      * What version of cost allocation logic was used
      * What version of foreign currency was used
        + Then an audit dimension is useful
* Accumulating snapshot for order fulfillment pipeline
  + Order, backlog, release to manufacturer, finished goods inventory, shipment, invoicing
  + Lag calculations
    - Numerical difference between any two processing dates for the same product

**Summary**

Order management is a very critical business process. It includes order, shipment, and invoice processing. From these come many key performance metrics such as audits, and profit and loss among many others. Improper use of order management in the database can result in an organization thriving or going under.