

Chapter 11

CRM and Data Warehousing

The mission of a data warehouse is to provide consistent and reconciled business intelligence, which is based on operational data, decision support data and external data to all business units

Customers define your business – No business can exist without customers. Without customers there is no reason to make any investment in employees, products, office equipment or technology. That is why you need to look at your business from the customer's perspective. Data warehouse is essential for a business to have consistently clean, reliable customer level data that is continually accessible enterprise wise The key is to plan and manage the warehouse implementation with risk and return in mind.

Steps in Data warehouse implement

- Assemble the team
- Gather business requirement
- Define technical requirements
- Identify data requirements
- Create data maps
- Develop data dictionary
- Determine whether to use outside support
- Decide on software and hardware
- Perform individual warehouse build
- Develop a production colander

Processing customer information using Data warehousing - Integrate all customer activities from the initial prospect contact, purchase transaction, fulfillment, payment transaction and ongoing customer service.

Data mining Technology – Applications

- Customer profitability
- Customer retention
- Customer segmentation
- Customer propensity
- Channel optimization

- Targeted marketing
- Risk management
- Fund prevention
- Market-based analysis
- Demand forecasting
- Price optimization

Typical tasks addressed by data mining also include

- Rate customers by their propensity to respond to an offer
- Identify cross sell opportunities
- Detect fraud and abuse in insurance and finance
- Estimate probability of an illness re-occurrence or hospital re-admission
- Isolate root causes of an outcome in clinical studies
- Determine optimal sets of parameters for a production line operation
- Predict peak load of a network

Data mining process

- **Data** – Define problem, Data selection and Data projection
- **Design modeling** – Field selection, Technical solution and Segmentation
- **Analyze data** – Model creation, Model testing and data transformation
- **Output generation** – Report generation, Monitoring, Application/model and Data Visualizatio

The customer dimension is the most challenging dimension for any data warehouse. In a large organization, the customer dimension is very deep (million f rows), very wide (dozens of attributes) and subject to various changes and represents a mixtur3 of data from multiple internal and external sources