BI Technologies Notes:

**Business Intelligence** – computer-based techniques used in spotting, digging out, and analyzing business data, such as sales revenue by products or departments or associated costs and incomes; also known as decision support system or competitive intelligence as it is used to make informed decisions and support better decision-making

Common BI functions:

* Reporting
* OLAP
* Business analytics
* Business performance management
* Data mining
* Text mining
* Predictive analytics

BI Process can be looked at sequentially..

1. Identify Business Issue
2. Formulate Business Question
3. What information do I need
4. Where do I find the information
5. Retrieve information
6. Analyze information
7. Report answers
8. Take actions

**Data Analytics –** data staging, exploration and reporting, knowledge discovery, data visualization, and publishing; data analytics involves gathering data sometimes not in a usable form, cleaning up the data to make it usable, loading the data into storage models, manipulating them to discover information

**Chapter 1 Notes**

**Data analytics –** identifying the problem, gathering relevant data that frequently are not in a usable form, cleaning up the data to make them usable, loading them into data storage models, manipulating them to discover information that leads to actionable insights, making decisions, based on those insights

Data – Information – Knowledge – Wisdom – Decision

**Data** – raw figures, numbers or text that serve as the starting point of analysis

**Information** -- data becomes information when it reveals causes or results of the event

**Data science** – intersection of computer science, statistics and domain knowledge; practitioner of this intersection is a data scientist

**Business Intelligence** – data analytics in the context of business data; focuses primarily business data, financial data, marketing data, to gain business value

**Various Applications of Data Analytics:**

Retail -- pricing, pricing strategies, discounts

Manufacturing – demand forecasting

Marketing – targeted marketing based on behavior analytics

Supply Chain – supplier selection, distribution cost optimization

Customer Service – analytics on previous situations and procedures that resolved issues

Forecasting and Budgeting – analytics on historical data and knowledge of business environment

Audit and Internal Controls – internal systems data to analyze compliance with internal controls

Government – census data to facilitate resource allocation, tax audits and compliance

Utilities – predicting consumer demands on power and managing their supply accordingly

Framework for Analytics Methodology:

1. Identify Goals
2. Gather data
3. Design Model
4. Apply Model
5. Review Results
6. Present Findings
7. Derive Insights
8. Make Decision
9. Deploy Strategy
10. Improve

**Descriptions of GBI data:**

ERP systems can provide data through the whole quote- to – cash process

Transactional data – business event is recorded and stores content of transaction as well as who created it, when it was created, and for what purpose

Master data – represents business entities that support business transactions; can be used across multiple areas of the company