

- Importance of BI :
  - Fill the gap of data access needs of organization.
  - Direct access query.
  - Standard reports for push button access.
  - Analytic applications for pushbutton access.
  - Operational BI for operational reporting.
- Analytic Cycle for BI :
  - stage 1 : Monitor Activity.
  - stage 2 : Identify Exceptions.
  - stage 3 : Determine Causal Factors.
  - stage 4 : Model Alternatives.
  - stage 5 : Take action & track Results.
- Query formulation :
 

To formulate the query, capabilities includes,

  - multipass or multi set queries.
  - break the report into multiple queries.
  - Allows drilling across different fact tables.
- Analysis & presentation capabilities :
  - Basic calculations on result set.
  - math, statistical, string, sequential processing.
  - conditional processing.
  - Pivot the results.
  - Drill down.
  - column & row calculations.
  - sorting.
  - Complex formatting.
  - Charting & graphs.

- Following capabilities help to improve user experience of analytical environment:

- Ease of use.
- Metadata access
- Pick lists
- Seamless integration with other applications.
- Export to multiple file types.
- Embedded queries.

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- Technical features:

- Multitasking.
- Scripting.
- Connectivity.
- Scheduling.
- Metadata driven
- Software administration.
- Security.
- Querying.
- Standard reports.
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- Analytical Applications:

- more complex than standard reports.
- Used to solve specific problems & used by specific users.
- Used by promotion managers, sales managers, cost center managers & brand managers on regular basis.
- Sold as stand alone applications
- Include like, promotion effectiveness, fraud detection, category management.



- Pre-Built Analytic applications :-

- These are available from major BI tool vendor and from companies with hands on industry and functional experience.
- Comes with domain expertise.
- If suites to your requirements then better to buy than built.
- Comes with ETL components & dimensional models.

- Read/Write Analytic applications :-

- Requires both read & write access.
- Includes planning, budgeting, forecasting.
- Forecasting process takes historical sales info & projects it into future.

- Dashboards and Scorecards :-

- Used by executives.
- Dashboard provide interface tools that support status reporting and alerts.
- Scorecards used as means to manage performance across organization.

- Data Mining :-

- Process of data exploration with an intent to find patterns or relationships that can be made useful to organization.
- Helps in understand and predict behavior, identify relationships or group items into sets.

- Five major categories:

1) Clustering.

2) Classifying

3) Estimating.

4) Predicting.

5) Affinity grouping & anomaly detection.

• Additional portal functions:

- Search

- Metadata browser.

- User forum

- Personalization.

- Information center.