

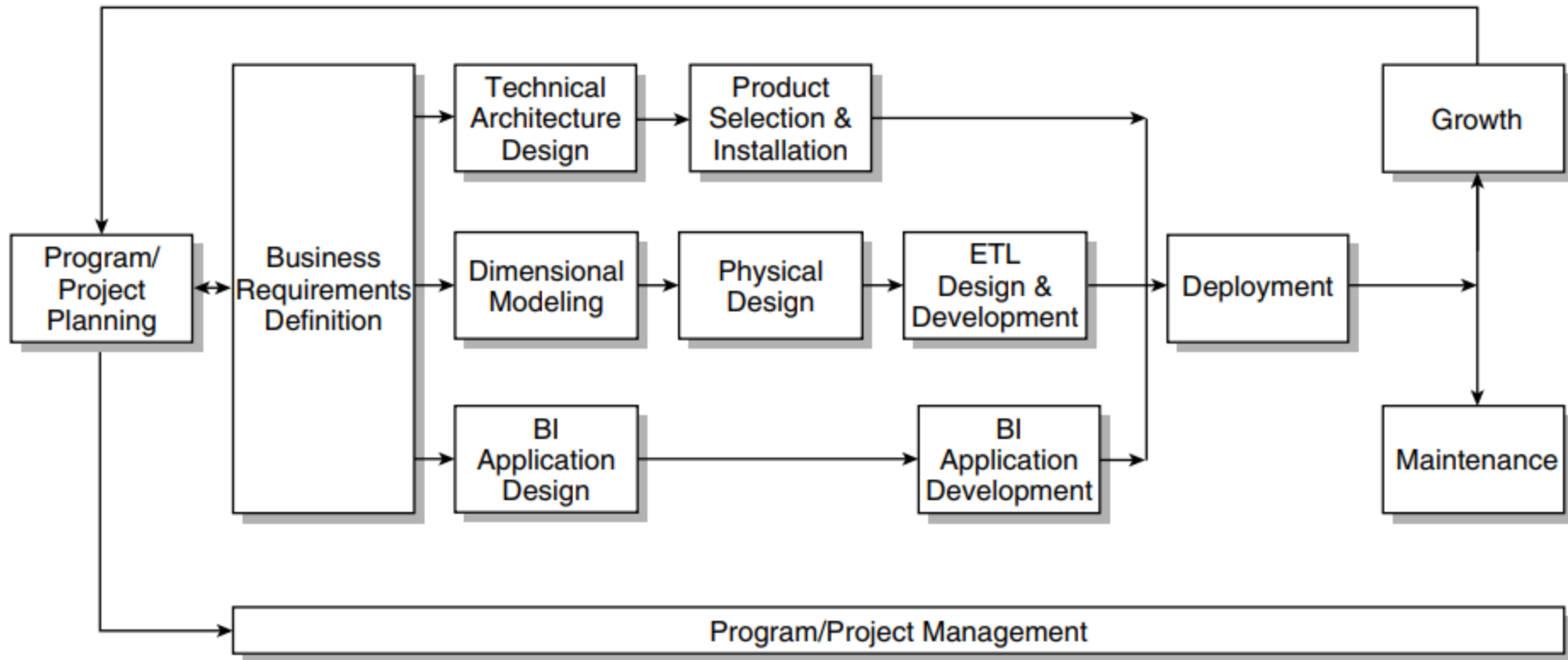
# Data Warehousing and Business analytics

## Lecture - 6

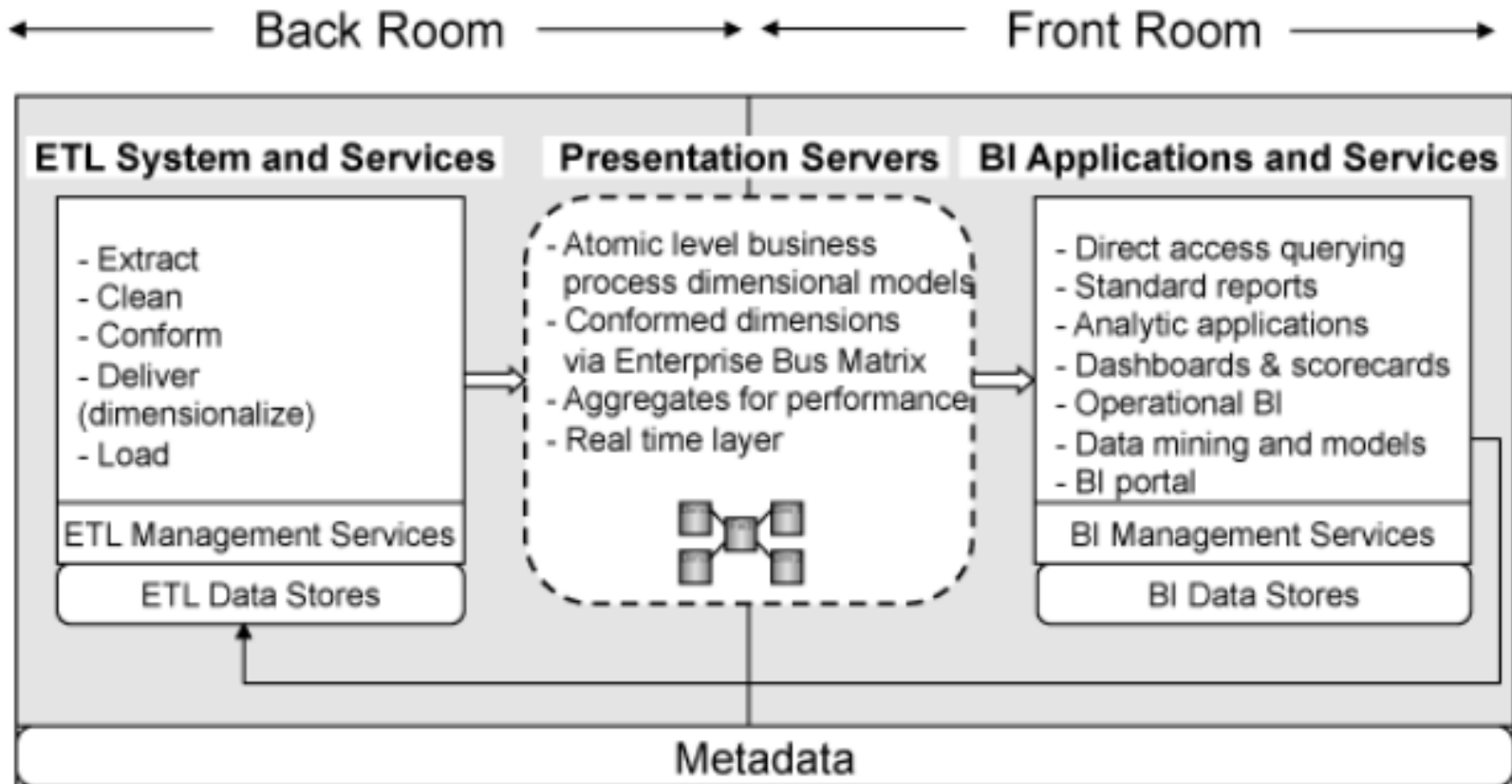
### **Business Intelligence Applications**

# Business Intelligence (BI) Applications

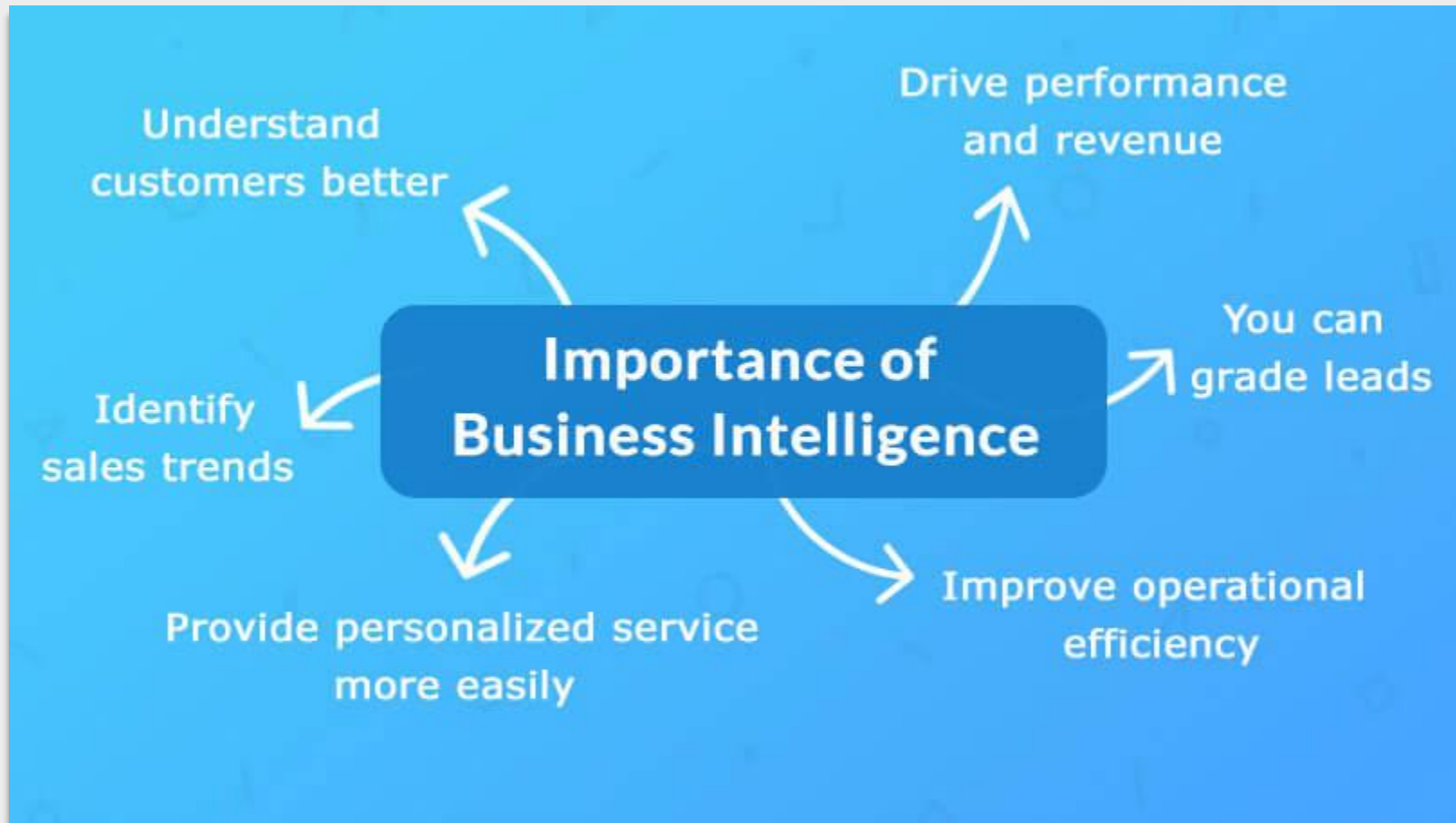
## The Kimball Lifecycle diagram



# Architecture model sample



# BI Applications



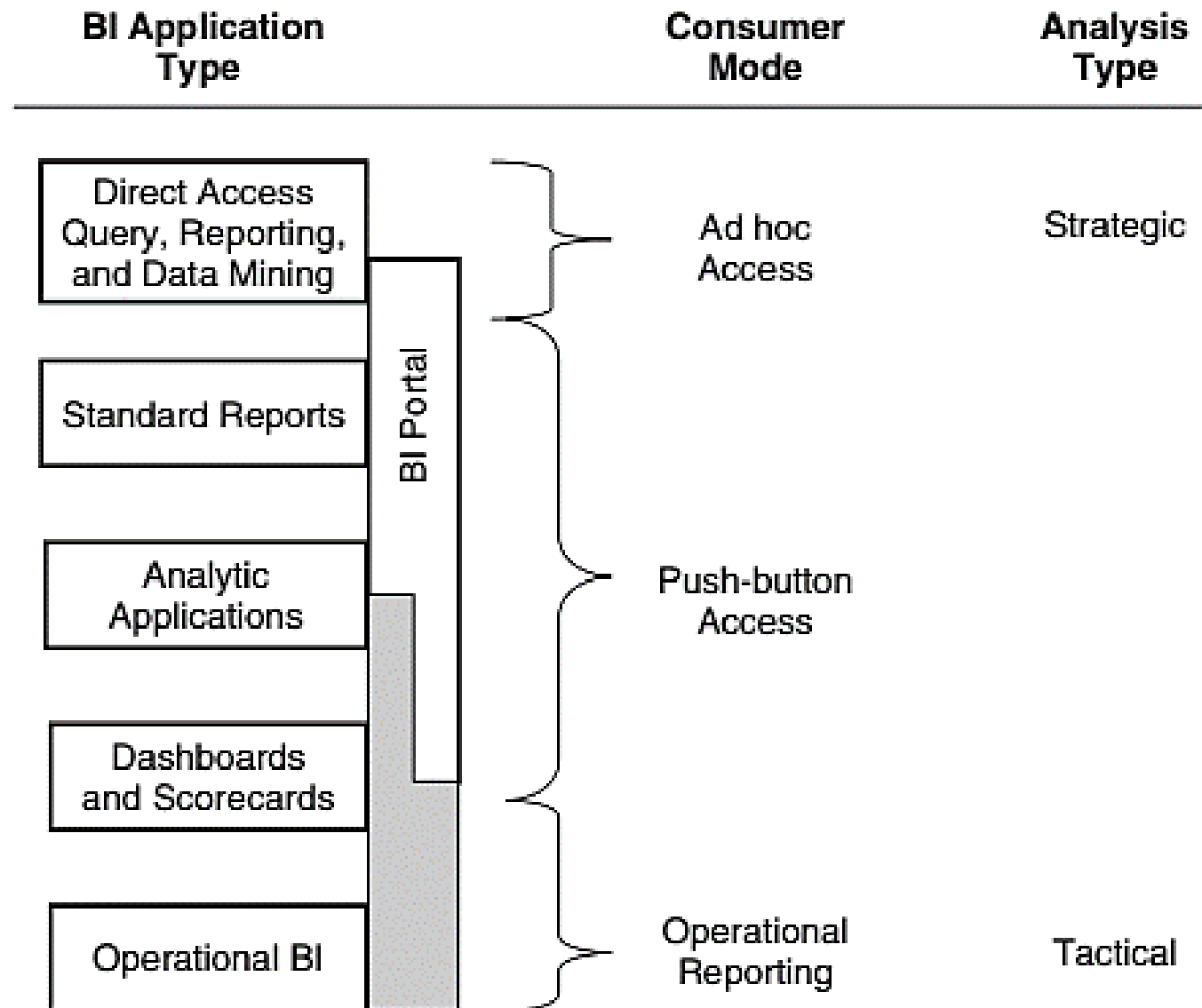
# Characteristics of BI Applications

- ✓ **Be correct**
- ✓ **Perform well**
- ✓ **Be easy to use**
- ✓ **Look good**
- ✓ **Be a long-term investment**

# Characteristics of BI Applications

- ✓ **Be correct.** BI applications must provide accurate audit reports and document differences compared to other systems.
- ✓ **Perform well.** A response time of less than five seconds for the average query is a good goal.
- ✓ **Be easy to use.** Users who have enough skill to order a book online should be able to use at least the standard reports. Getting customized results with less than ten mouse clicks is a good goal.
- ✓ **Look good.** Tools and reports should be clear and attractive.
- ✓ **Be a long-term investment.** Applications must be properly documented, maintained, enhanced, and extended

# Types of BI Applications vs. Customer mode



# Types of BI Applications

- ✓ Direct access query and reporting tools
- ✓ Data mining
- ✓ Standard reports
- ✓ Analytic applications
- ✓ Dashboards and scorecards
- ✓ Operational BI and closed loop applications



# Types of BI Applications

## **Direct access query and reporting tools**

- Provide the user with direct access to the dimensional model,
- Ad hoc tools are mostly used by expert power users who have both technical and business savvy.

# Types of BI Applications

# Data mining



# Types of BI Applications

## Data mining

- ✓ Clustering
- ✓ Classifying
- ✓ Estimating and Predicting
- ✓ Affinity Grouping
- ✓ Anomaly Detection

# Types of BI Applications

## Standard reports

### List of Computers With a Particular Software Update

Collection: All Systems

Deployed State: Yes

Article ID: 4570502

Article Name: 2020-08 Security Only Update for .NET Framework 3.5, 4.5.2, 4.6, 4.6.1, 4.6.2, 4.7, 4.7.1, 4.7.2, 4.8 for Windows 8.1 and Server 2012 R2 for x64 (KB4570502)

Total number of Computers: 9

Computer	User Name	Manufacturer	Model	Operating System	Service Pack	Missing	Category
<a href="#">ACERASPIRE</a>	garte'garth	Acer	E1-510P	Microsoft Windows 8.1 Pro		Yes	Security Updates
<a href="#">CERTSVR</a>	garte'garth	Microsoft Corporation	Virtual Machine	Microsoft Windows Server 2012 R2 Datacenter		Yes	Security Updates
<a href="#">CM-PRI-CB2</a>	n/a	Microsoft Corporation	Virtual Machine	Microsoft Windows Server 2012 R2 Datacenter		Yes	Security Updates
<a href="#">CM-SQL-CB2</a>	n/a	Microsoft Corporation	Virtual Machine	Microsoft Windows Server 2012 R2 Datacenter		Yes	Security Updates
<a href="#">CM-SSRS-CB1</a>	n/a	Microsoft Corporation	Virtual Machine	Microsoft Windows Server 2012 R2 Datacenter		Yes	Security Updates
<a href="#">JIRA</a>	garte'garth	Microsoft Corporation	Virtual Machine	Microsoft Windows Server 2012 R2 Standard		Yes	Security Updates
<a href="#">M8</a>	garte'jen	Dell Inc.	Precision M4500	Microsoft Windows 8.1 Pro		Yes	Security Updates
<a href="#">ST3</a>	garte'stighe	Dell Inc.	Latitude E6430s	Microsoft Windows 8.1 Pro		Yes	Security Updates
<a href="#">WIRE3</a>	garte'garth	Microsoft Corporation	Virtual Machine	Microsoft Windows Server 2012 R2 Datacenter		Yes	Security Updates

Produced on 10/7/2020



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# Types of BI Applications

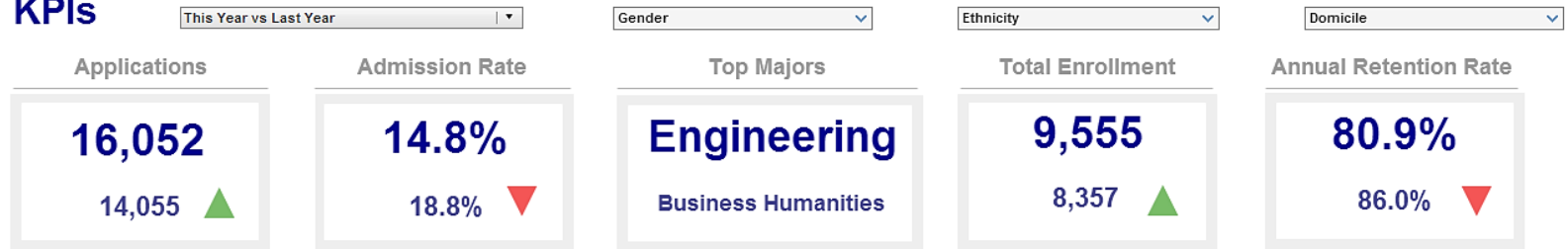
## Analytic applications



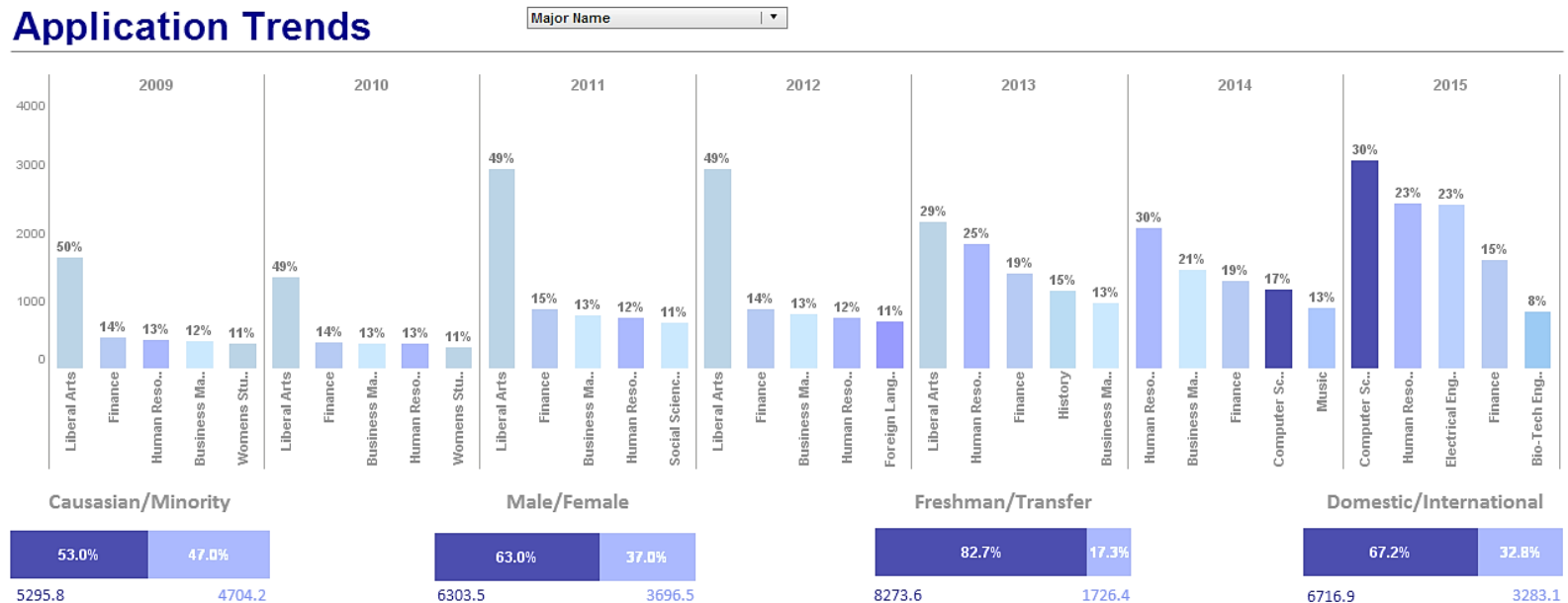
# Types of BI Applications

## Dashboards and scorecards

### KPIs

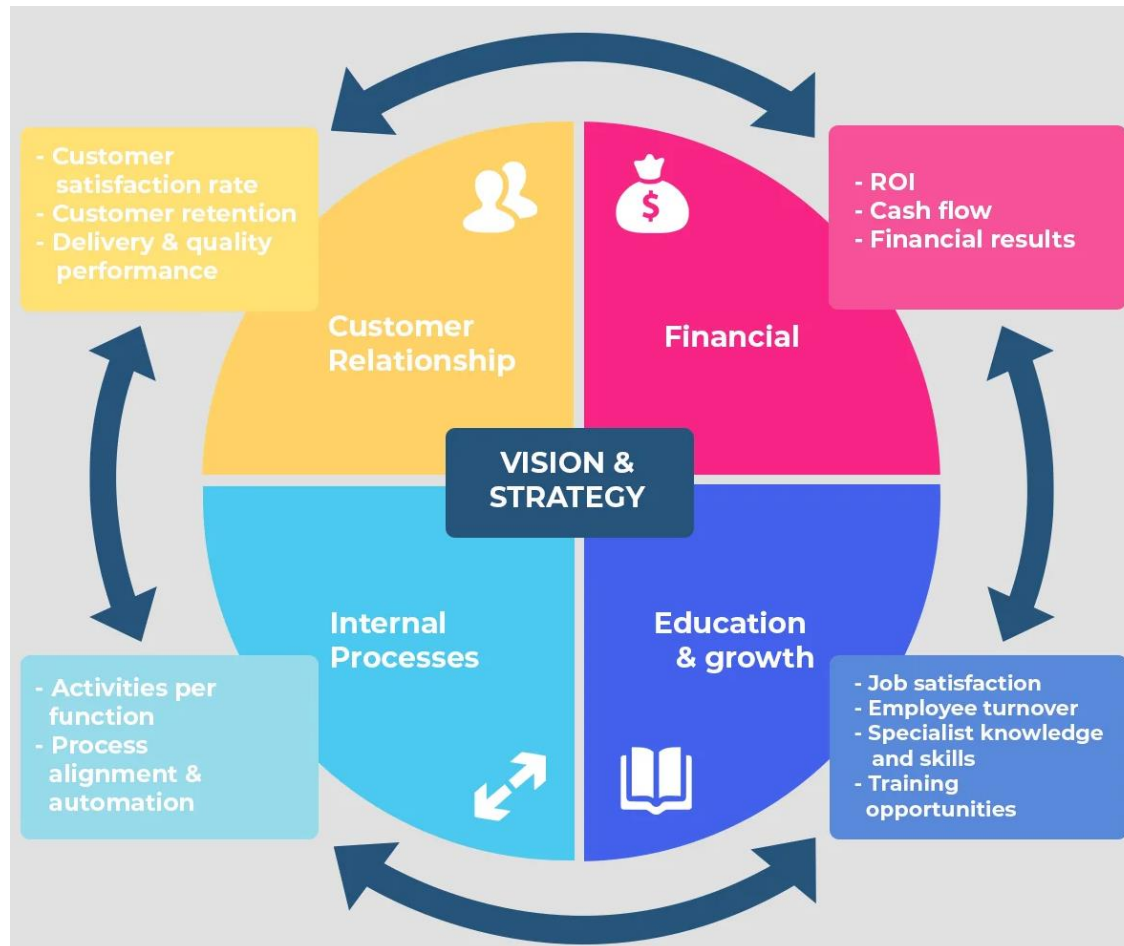


### Application Trends



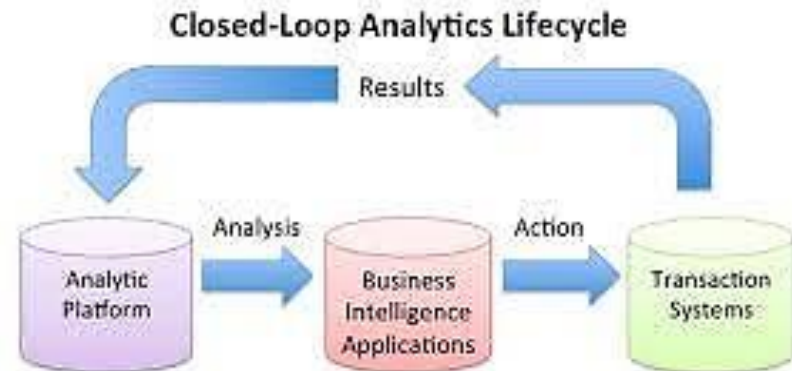
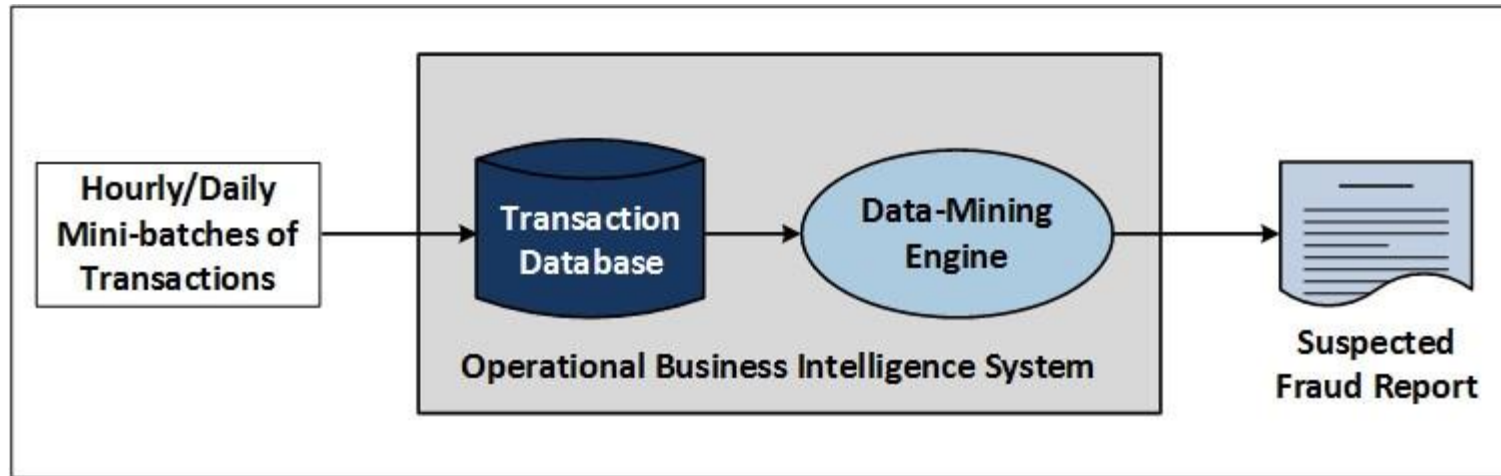
# Types of BI Applications

## *Balanced scorecards*



# Types of BI Applications

## Operational BI and closed loop applications





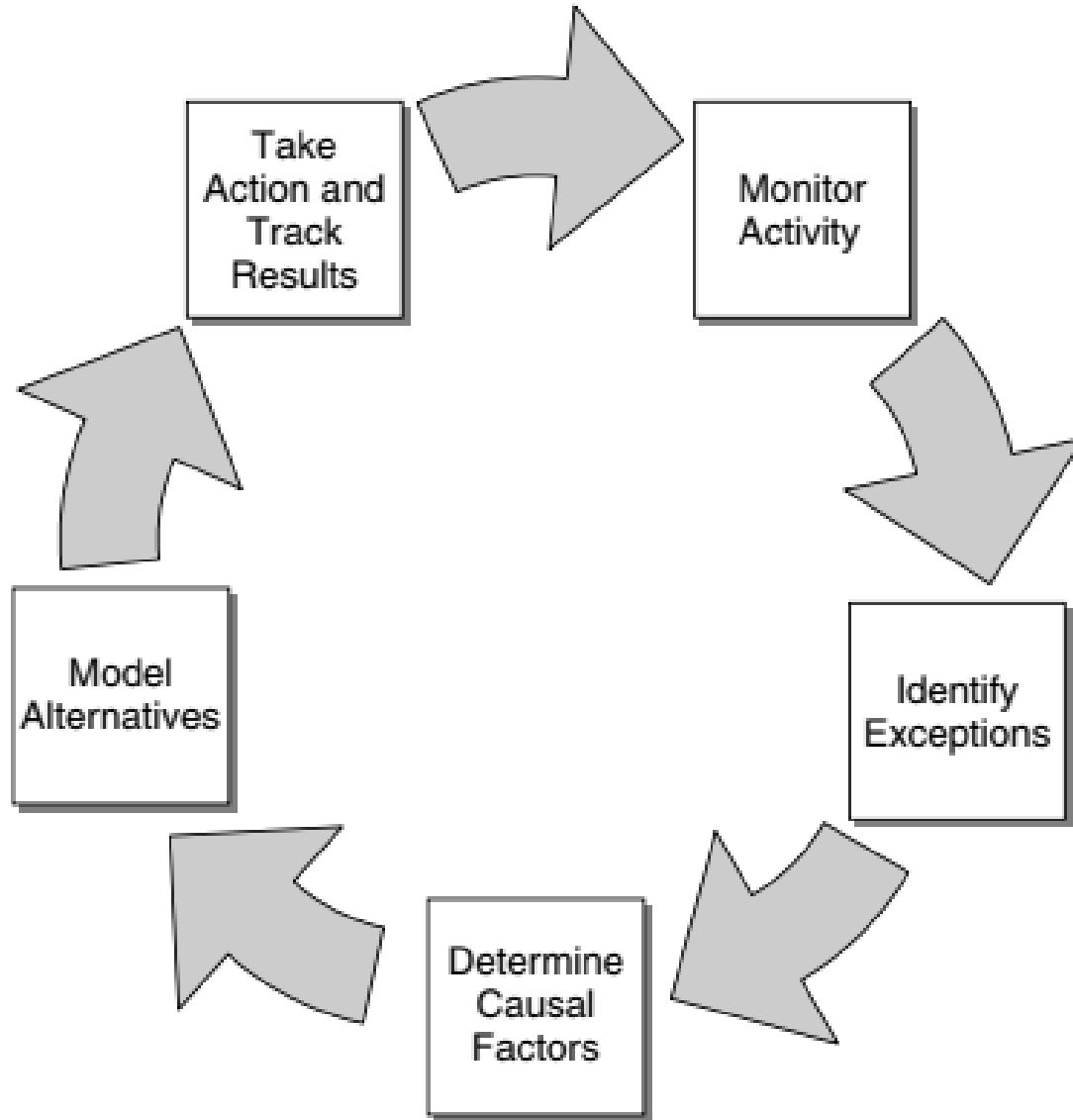
# Successful BI portal

- ✓ **Usable.** People have to be able to find what they need.
- ✓ **Content rich.** should include a great deal more than just the reports.
- ✓ **Clean.** The portal should be nicely laid out so people are not confused or overwhelmed by it.
- ✓ **Current.** keep the content up-to-date.
- ✓ **Interactive.** include functions that engage the users and encourage them to return.
- ✓ **Value oriented.** DW/BI system is a valuable resource, something that helps users do a better job.

# Analytic Cycle for Business Intelligence

1. Monitor Activity
2. Identify Exceptions
3. Determine Causal Factors
4. Model Alternatives
5. Take Action and Track Results

# Analytic Cycle for Business Intelligence



# Applications of Business Intelligence

- ✓ BI Increases Company Revenue
- ✓ BI Improves Financial Efficiency
- ✓ BI Provides Decision Making Process Support
- ✓ BI Accelerates Business Insights
- ✓ BI Increases Market Spend Efficiency
- ✓ BI Reduces IT Dependency
- ✓ BI Builds Customer Satisfaction
- ✓ ...

Questions?