Start-Tech Academy

HR Analytics

Why Analytics

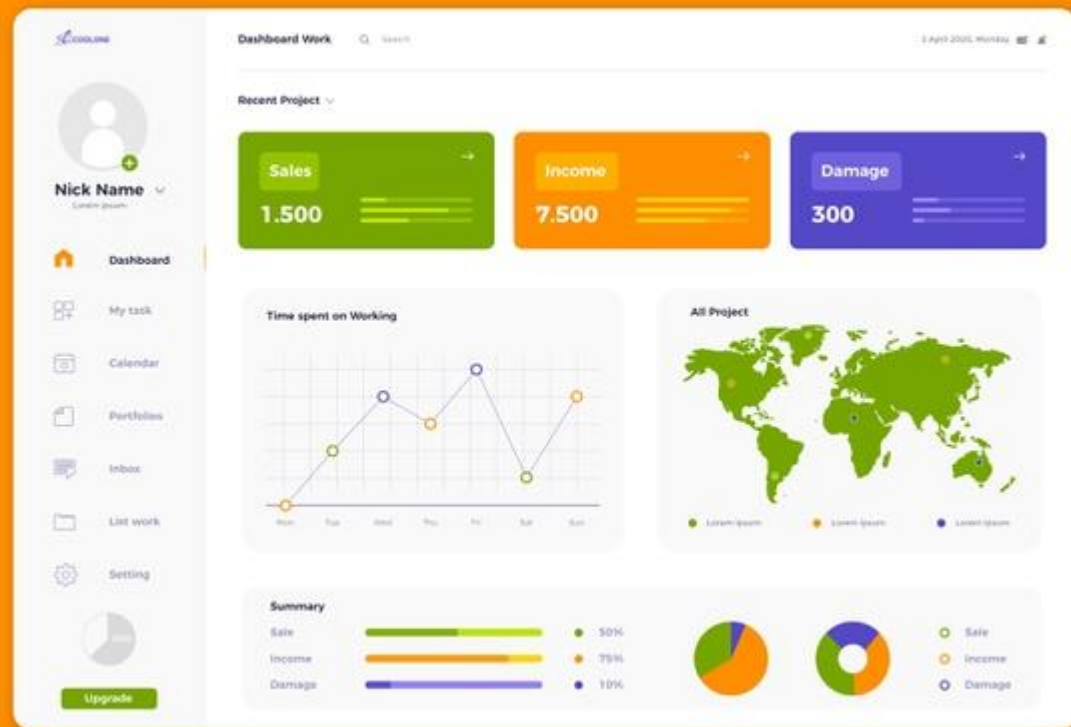# HR Analytics

Why Analytics

Marketing

Sales

HR Analytics

HR Analytics

HR Analytics

Reasons for learning data analytics

1. Rising Popularity

- Companies get $10 for every $ invested in developing analytics skills

2. It is an 'In Thing'

- HBR magazine labelled business analytics as the 'sexiest' job of the century

3. Decision making

- 85% of managers use data driven dashboards for decision making

4. Bright Career

- Jobs and research papers in the field of Data analytics and Machine learning are increasing at a rapid pace

HR Analytics

What is HR Analytics

HR Analytics is a combination of one or more of the following steps

1. Data Integration

2. Organisational and workforce Analysis

3. Insight generation

HR Analytics

Advantages of HR Analytics

1. Helps in identifying, classifying & quantifying the productivity of employees

2. Calculate ROI of employee initiatives

3. Helps in supporting the business decisions with the backing of data

Different levels of HR Analytics
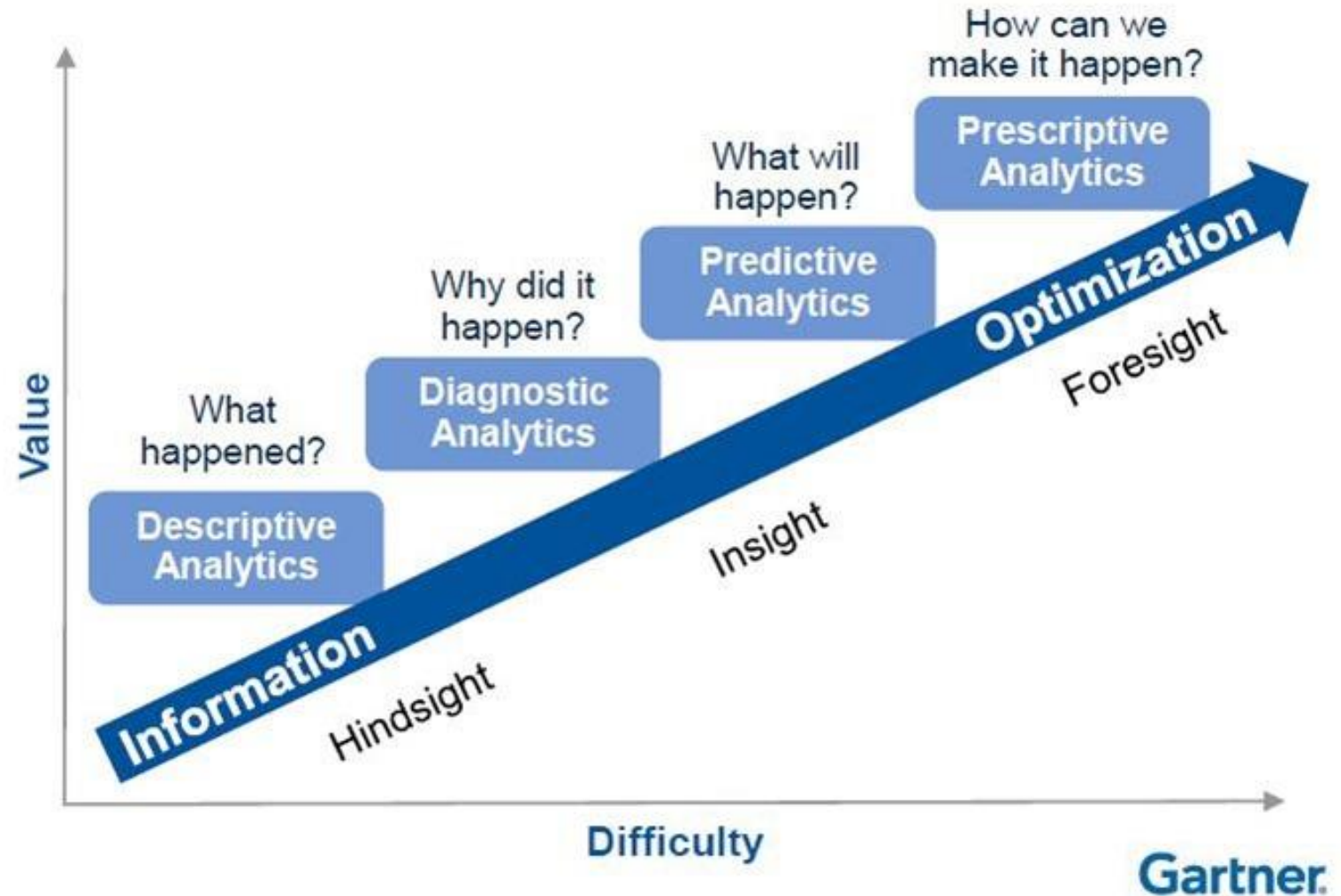
Approach to data   **Mode**   **Benefits**

What should I do to achieve my goal?

Prescriptive — *Proactive Action*

Data products, data validated actions, increased success rate of strategic initiatives

What is likely to happen?

Predictive — *Proactive Decisions*

Support for strategic initiatives, forward looking decision making

Why did it happen?

Diagnostic — *Proactive Consumption*

Significant improvements from status quo, data backed management

What happened ?

Descriptive — *Active*

Marginal business benefits, process gap identification

Steps of Analytical Maturity

Value vs Difficulty

HR Analytics

HR Metrics

HR metrics, or human resources metrics, are key figures that help organizations track their human capital and measure how effective their human resources initiatives are

Staffing Metrics

1. **Time-to-Start**
   Average number of days it took to fill a position.

   $$= \frac{\text{Total days elapsed from the date each filled position was available to the date each new person started in the position}}{\text{Number of positions filled}}$$

2. **Time-to-Productivity**
   Average number of days to satisfactory productivity

   $$= \frac{\text{Total days elapsed from the date each filled position was available to the date each new person achieved satisfactory productivity}}{\text{Number of positions filled}}$$

3. **Accession Rate**
   Rate at which employees are joining the organization in a given time period.

   $$= \frac{\text{Total Hire}}{\text{Regular headcount}}$$

4. **Turnover Rate**
   Rate at which employees are leaving the organization in a given time period.

   $$= \frac{\text{Number of separations during the time period}}{\text{average actual number of employees during the time period}}$$

5. **Cost Per External/Internal Hire**
   Average cost incurred with an External/Internal hire.

   $$= \frac{\text{Total costs related to all external/internal hires}}{\text{Number of external/internal hires}}$$

Other Staffing matrics
Offer Rate, Offer Decline Rate, Promotion Rate, Retention, Vacancy/Occupancy Rate, Vacancy Costs and Cost per Vacancy, Retirement Risk

HR Metrics

Training and Development Metrics

1. **Competency Rate**
   Degree to which employees in key positions have the competencies necessary to achieve their performance objectives.

   $$= \frac{(\text{\# of incumbents with competency ratings of Acceptable or better}}{\text{\# of incumbents who have received competency assessments)}}$$

2. **Readiness**
   Reflects how ready the organization is from a human capital perspective to execute on strategy and achieve key goals and objectives

   $$= Occupancy\ Rate\ x\ Competency\ Rate\ X\ 100$$

3. **Training Spend Rates**
   Relative importance of spend on training vs other operating and human capital activities.

   $$= (Training\ spend/\ Total\ Human\ Capital\ Spend)\ x\ 100$$

4. **Training Headcount investment**
   Amount of investment in trainings for each employee

   $$= \frac{Total\ training\ cost}{Regular\ headcount}$$

HR Metrics

Performance Management Metrics

1. **Performance Review Completion Rate**
   Percentage of completed reviews

   $$= \frac{Number\ of\ completed\ performance\ reviews}{Number\ of\ completed\ performance\ reviews\ scheduled}$$

2. **Average Performance Rating**
   The mean performance rating across a selected group of employees receiving performance assessments.

   $$= \frac{Total\ of\ all\ Performance\ Ratings}{Number\ of\ employees\ who\ received\ a\ Performance\ Rating}$$

3. **Performance Rating Distribution**
   The employee representation across each of the available Performance Ratings.

   $$= \frac{Number\ of\ employees\ who\ received\ each\ rating}{Number\ of\ employees\ who\ received\ a\ Performance\ Rating}$$

HR Metrics

Other Metrics

1. **HR-to-Employee/Worker Ratio**
   The HR-to-Employee ratio and HR-to-Worker ratios provide a way to compare HR staffing levels across and within organizations.

   $$= \frac{HR\ FTEs}{total\ number\ of\ FTEs\ in\ the\ organization}$$

2. **Productivity**
   Describes the relationship between real output and the amount of labor time involved in its production.

   $$= \frac{Revenue}{Labor\ hour}$$

3. **Total Compensation Spend Rate**
   The relationship of costs associated with Total Compensation spend, including salaries, overtime, benefits, incentives and bonuses, to an organization's Total Operating Costs.

   $$= \frac{Direct\ compensation + Indirect\ compensation)}{Total\ operating\ spend}$$

4. **Employee Engagement**
   Degree to which employees are engaged with and committed to the strategy and objectives of the organization

   $$= No\ Particular\ formula, depends\ on\ the\ organisation$$

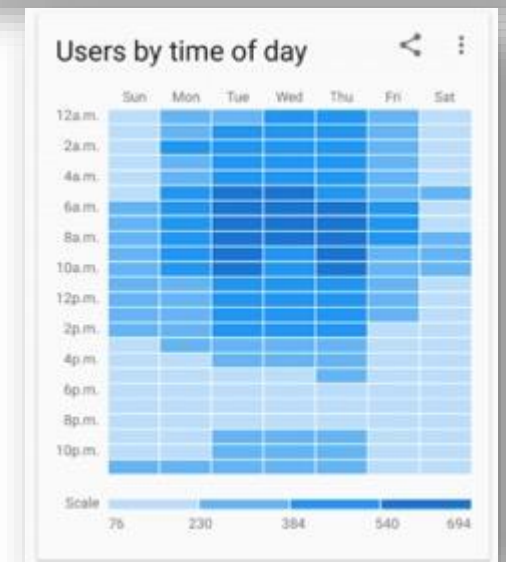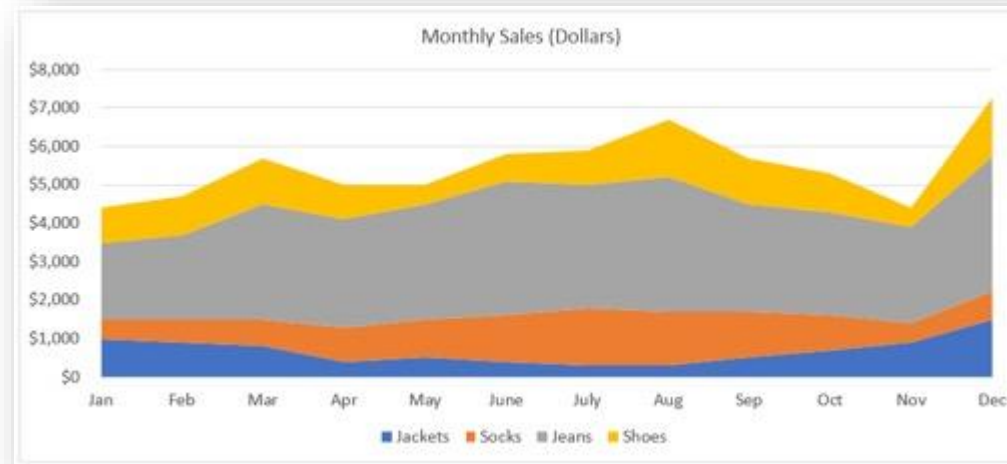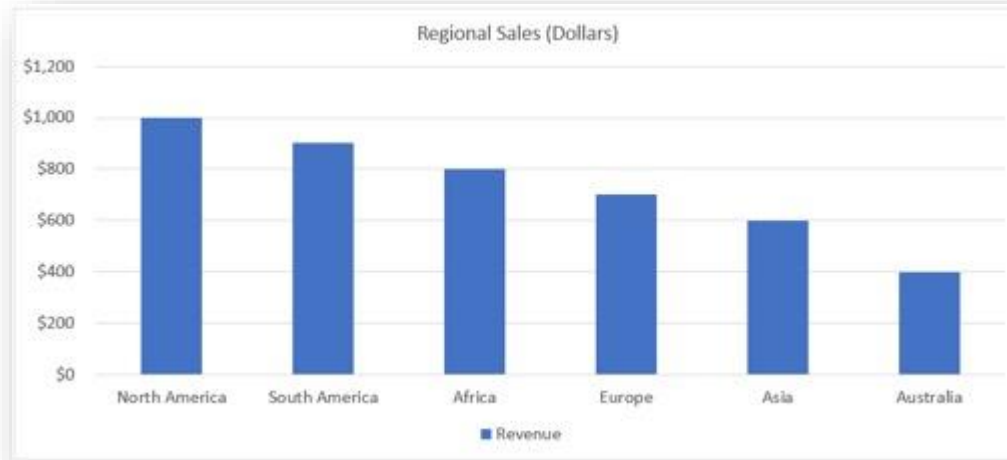# HR Analytics

HR Metrics

For more Details:

https://www.shrm.org/learningandcareer/learning/publishingimages/pages/forms/allitems/shrm%20HR%20metrics.pdf

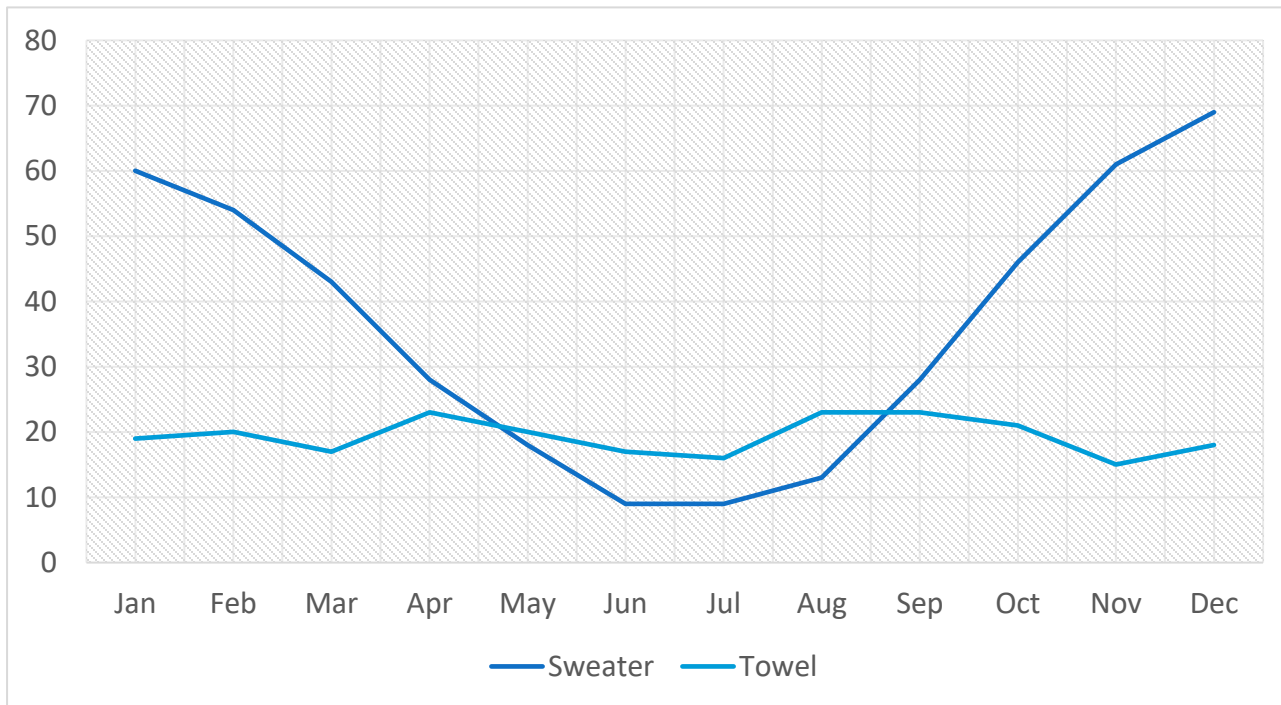# HR Analytics

Data Visualization

Data Visualization

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sweater	60	54	43	28	18	9	9	13	28	46	61	69
Towel	19	20	17	23	20	17	16	23	23	21	15	18

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Data Visualization

Predictive Analytics

GIF source : https://gfycat.com/zealousbewitchedhapuka
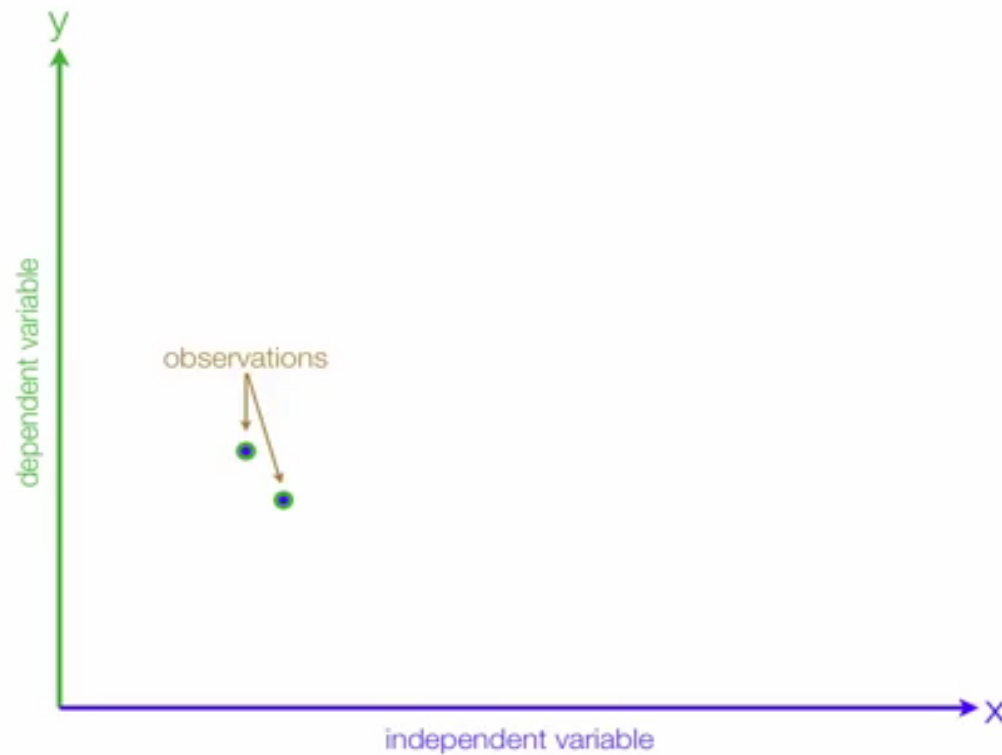
Help John

John

HR Analytics Manager at STA IT services

STA hires hundreds of IT executives and managers for their consulting business. John's team invest a large amount of time and effort in analyze each and every resume to calculate the joining CTC/salary for new hires. John has recently completed a course in Analytics and Machine Learning and he thinks that STA can use Machine Learning to use past data to create data driven process for setting of CTC/salary for new hires

Help John

John

Finance Analytics Manager at STA Retailers

STA Retailers owns hundreds of grocery stores all across the country. John's team invests a large amount of time and effort in analyzing different localities to find a location for new stores . John has recently completed a course in Analytics and Machine Learning and he thinks that STA can use Machine Learning to use past data to create data-driven process for selecting new store locations.