

**TASK 1**

TRACY NJUGUNA

# BUSINESS *Analytics*

Using data to make informative decisions

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# **UNDERSTANDING BUSINESS ANALYTICS**

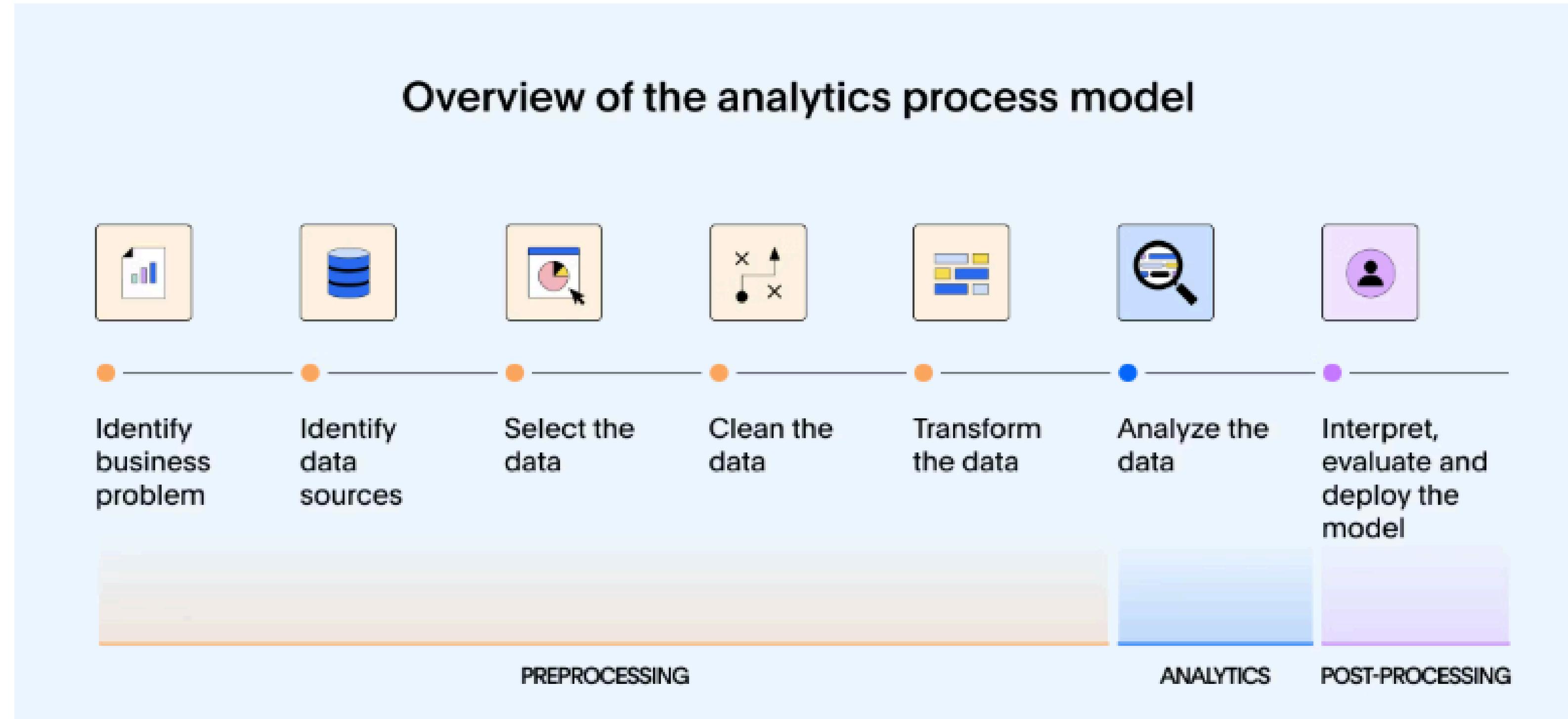
“All happy families are alike; each unhappy family is unhappy in its own way.”

— Leo Tolstoy , Anna Karenina

## **What is Business Analytics?**

- All businesses have data however, most successful businesses convert their data into meaningful output.
- Business Analytics refers to the process of transforming data into insights for making better decisions

# HOW DOES BUSINESS ANALYTICS WORK?



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## **TYPES OF ANALYTICS**

- Descriptive Analytics
- Diagnostic Analytics
- Predictive Analytics
- Prescriptive Analytics

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## **DESCRIPTIVE ANALYTICS**

### **QUESTION: WHAT HAPPENED?**

Descriptive analytics is the practice of analyzing historical data to summarize what happened in your business.

# **QUESTION: WHY DID IT HAPPEN?**

Diagnostic Analytics helps in digging into the root causes behind what is going on in your business. It uses past data to find factors and variables that contributed to the outcomes of particular events.

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## **DIAGNOSTIC ANALYTICS**

## PREDICTIVE ANALYTICS

**QUESTION:  
WHAT IS  
LIKELY TO  
HAPPEN?**

Predictive Analytics uses data to predict future outcomes. With artificial intelligence, machine learning, data mining and statistical modeling, predictive analytics answers what will happen next.

## **PREScriptive ANALYTICS**

**QUESTION:  
WHAT  
SHOULD  
WE DO?**

Prescriptive Analytics recommends specific actions based on real-time data, business goals and potential outcomes

## **ROLE OF BUSINESS ANALYTICS IN DECISION MAKING**

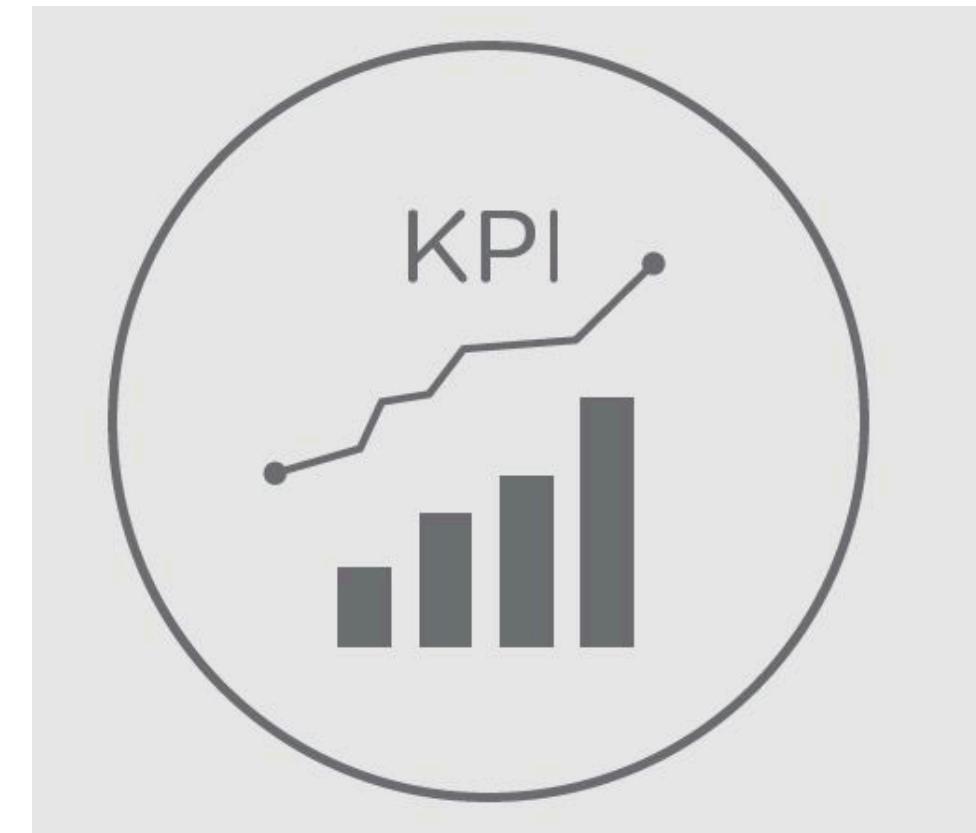
Business analytics turns data into a guide for making better decisions.

- Moves decisions from intuitive driven to data driven.
- Finds the real cause of issues, not just the symptoms.
- Predicts future trends and customer behavior.
- Suggests the best steps to take for optimal results.
- Measures the impact of your decisions to see what's working.

# KEY BUSINESS METRICS AND KPI'S

KPI stands for key performance indicator, a quantifiable measure of performance over time for a specific objective. KPI provide targets for teams to shoot for, milestones to gauge progress, and insights that help people across the organization make better decisions

Metrics measure the success of everyday business activities that support your KPIs. While they impact your outcomes, they're not the most critical measures



# KEY INDUSTRIES AND APPLICATION

## 1. Retail and E-commerce:

- Analyzing customer behavior to enhance satisfaction
- Optimizing inventory and supply chains

## 2. Finance and Insurance:

- Managing risk by analyzing financial data and predicting market trends
- Assessing credit risk and preventing defaults
- Developing fraud detection systems

## 3. Healthcare:

- Improving patient care and outcomes
- Managing hospital operations and resources
- Analyzing medical research and public health trends

## 4. Manufacturing:

- Implementing predictive maintenance to prevent equipment breakdowns
- Optimizing supply chain and logistics
- Improving quality control and efficiency

## 5. Technology:

- Developing new products and features based on user data
- Personalizing user experiences
- Improving software performance and security

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THANK  
*You!*



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