

INTRODUCTION TO BUSINESS INTELLIGENCE

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UNDERSTANDING BUSINESS INTELLIGENCE (BI)

- The processes, technologies and tools needed to turn **data** into **information** and information into **knowledge** and knowledge into plans that **drive profitable business action**. BI encompasses **data warehousing, business analytics and knowledge management**.
- **Bi is about delivering reliable relevant information to the right people to right time to goal achieving better decision faster. It requires methods and programs to collect and structured data converted into information and converted in to better decision.**

THE DEFINITION OF BI:

- **Business intelligence may be defined as a set of mathematical models and analysis methodologies that exploit the available data to generate information and knowledge useful for complex decision-making processes.**
- Business intelligence (BI) is an umbrella term that combines architectures, tools, databases, analytical tools, applications, and methodologies

BI HELPS US IN TAKING DECISIONS

- **Effective Decisions**
- **Timely Decisions**
- The main purpose of **business intelligence systems** is to provide knowledge workers with tools and methodologies that allow them to make ***effective and timely decisions***.

ROLE OF A MATHEMATICAL MODELS

- A mathematical model is the **mathematical description of a Real Situation**.
- **Having widespread applications in all branches of science, engineering & technology Biology, Medicine, etc.** their primary objective is to enhance the effectiveness of the decision making process.

Find a real world problem

Formulate a mathematical model of the problem, identifying variables and establishing hypothesis .

Apply the mathematical knowledge that you have to reach mathematical conclusions.

Compare the data obtained as predictions with real data

Compare the data obtained as predictions with real data. If the data are different, the process is restarted

ADVANTAGES OF MATHEMATICAL MODELS

- 1. Models exactly represent the **real problem situations**.
- 2. Models help managers to **take decisions faster and more accurately**.
- 3. They typically offer convenience and **cost advantages** over other means of obtaining the required information on reality.
- 4. Large and **complex problems can be solved with ease**.
- 5. Models act as communicators to others by providing information and impact in changing conditions.
- 6. Which can be appreciated particularly in the long term
- 7. A deeper understanding of the phenomenon under investigation.
- 8. Transferred in the long run to other individuals within the same organization, thus allowing a sharper preservation of knowledge in comparison to empirical decision-making processes.

ETL PROCESS

- Data Extraction
- Data Transformation
- Data Loading

THANK YOU

- Open for Questions.

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