



PGB

# MODULE 2

# BUSINESS INTELLIGENCE ESSENTIALS & TYPES



# The Business Intelligence Environment

Understand that the core of the BI process, Recognize the fundamental concept of the BI process, and Grasp the essence of the BI process.



Core of BI: Efficiently integrate diverse data into a central repository and extract restructured data for decision support and distribution to data marts and analytics

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BI Process: Seamlessly flow extensive and varied data into a unified repository, transforming it for decision-making and dissemination to data marts and analytics

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Essence of BI: Handle and integrate large volumes of diverse data into a consolidated repository, extract refined data for decision support, and distribute it to data marts and analytical processes.

# A High-level View Of The Information Flow

- Understand the business requirements.
- Determine the necessary analytical applications to support those requirements.
- Identify the subject areas that form the core of those analytical applications.
- Establish a subject-oriented information framework to support the applications.
- Identify the required data to populate the information framework.
- Implement mechanisms for integrating the data into the information framework.
- Align the requirements with a general BI architecture.



# Business Intelligence (BI) Platforms

Analysis, including online analytical processing (OLAP) for in-depth data analysis.

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Information delivery, encompassing the creation of reports and dashboards for effective data presentation.

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Platform integration, providing features such as BI metadata management and a development environment for seamless integration and application development.

# Role of Business Intelligence

Business Intelligence tools provide organizations with a complete data picture, enabling informed decision-making and supporting business needs.



# Other roles

- Complexity in today's business landscape renders traditional navigation methods obsolete.
- C-suite executives acknowledge the lack of timely and accurate information from outdated internal reports.
- Data is valuable, but its usefulness relies on accuracy and timeliness.
- Effective data organization, continuous updates, and real-time accessibility are essential for delivering high-quality insights.
- Data intelligence empowers businesses to enhance experiences and achieve superior outcomes.





# The Present

- Business Intelligence consolidates vast amounts of data to deliver personalized messages to customers, filling the gap where human capacity falls short.
- In today's convenience-driven era, failing to anticipate customer desires may result in losing them to competitors who can.
- Incorporating BI into your business is a strategic decision with significant benefits.
- Embracing BI opens doors to numerous opportunities and possibilities.

## HELPING TO MAKE DATA-DRIVEN AND FORWARD-LOOKING DECISIONS



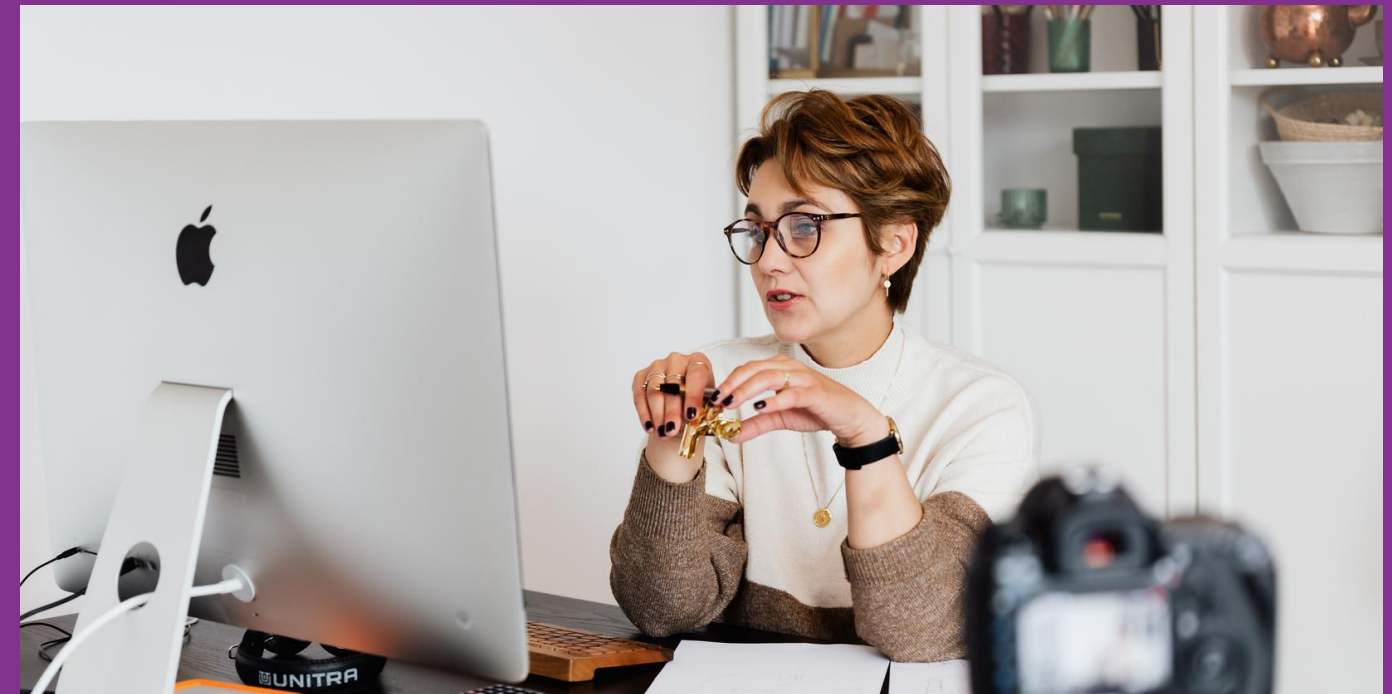
- Smart appliances and devices provide unprecedented insights into consumer behavior, surpassing our previous understanding.
- The Internet of Things (IoT) has facilitated the availability of global data, which is not only useful but necessary for business purposes.
- Cloud computing enables the processing of vast amounts of data in minutes, allowing us to extract meaningful and actionable insights from millions of signals and clues.
- The key lies not only in possessing this information but also in transforming it into structured and analyzable insights.



# DELIVERING CUSTOMER-TAILORED EXPERIENCE

Grabbing the attention of your audience is more difficult in a fast paced environment.

- Customer information is collected not just for the sake of having it, but to enhance customer satisfaction and improve their overall experience.
- Customer experience has become a critical battleground for marketing, with many companies competing primarily based on this aspect.
- While offering a unique product is important, providing a distinctive and personalized experience to customers can be equally impactful.



# SPEEDING UP THE PROCESS OF ANALYSIS AND SKYROCKETING PRODUCTIVITY

- BI technologies enable the availability of real-time reports and dashboards, significantly accelerating the analysis process.
- Automation of routine tasks, coupled with more responsive customer service, allows for better utilization of time.
- The increased speed and efficiency brought about by BI directly contribute to heightened productivity levels.

## RAISING RETURN-ON-INVESTMENT

- Incorporating BI tools in your company leads to the maximization of return-on-investment.
- In-depth customer knowledge, derived from reliable data, improves marketing analysis and decision-making.
- The acceleration of marketing analysis and increased employee efficiency contribute to revenue growth and optimization of investments.

## CUTTING DOWN ON EXCESS INVENTORY

- Companies often carry excessive inventory as a precautionary measure to avoid stockouts and maintain customer loyalty, which can be costly.
  - BI solutions enable more accurate demand forecasting, allowing companies to optimize their inventory levels.
  - By reducing excess inventory, businesses can eliminate significant bottom-line costs, leading to improved profitability.

# Types of Business Intelligence



Data Collection

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Analysis



Reporting and presentation

OLAP Analysis

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AD HOC Report

Operation report

Forecast

Data Mining

Customer Intelligence



# Data collection

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## Data collection

The first step in acquiring business intelligence is data collection.

There are various methods to collect data, which can provide reliable information for statistical analysis and help an organization make data-driven decisions

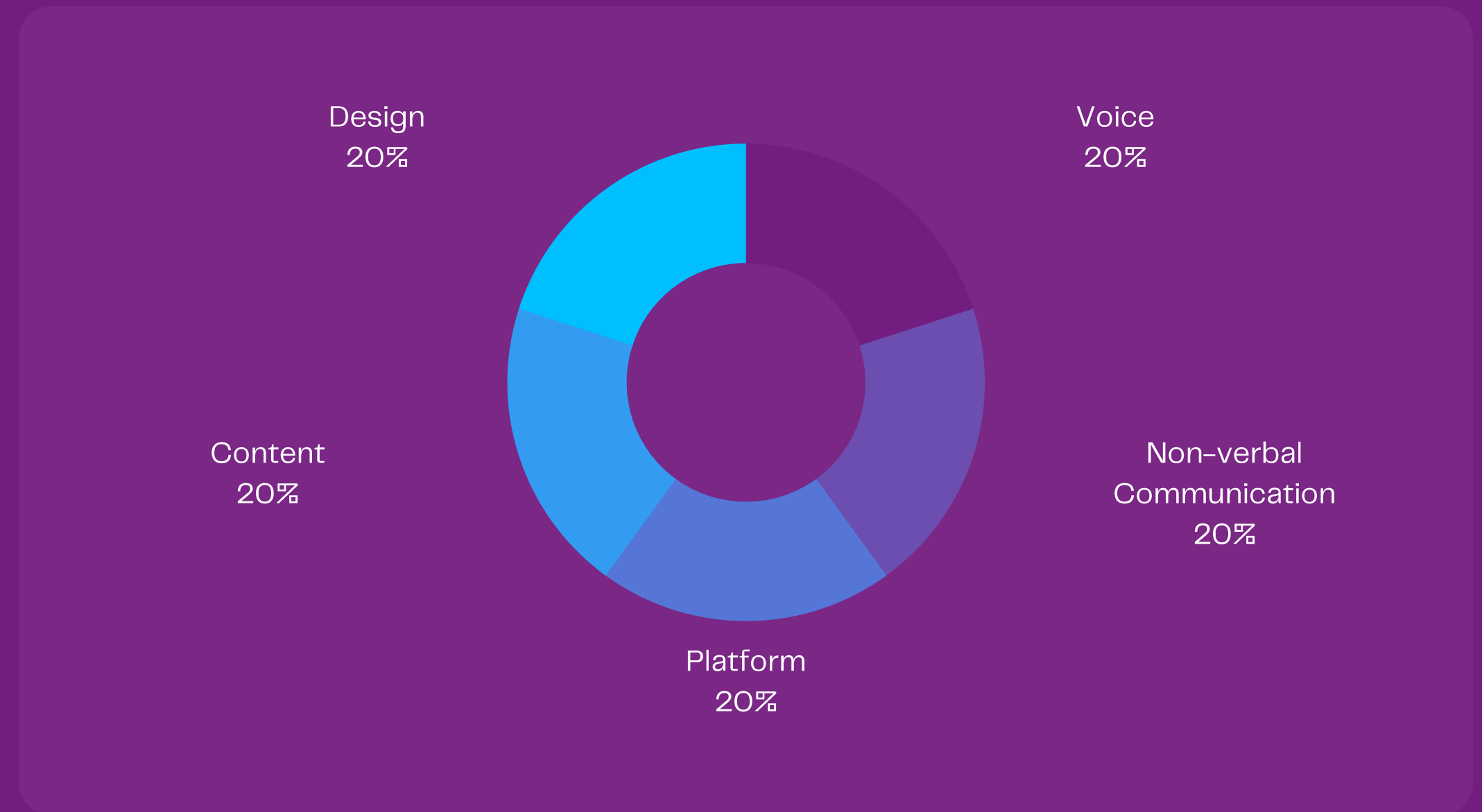
- Web/Online surveys
- In-person surveys
- Mail surveys
- Telephone surveys
- Questionnaires
- Polls

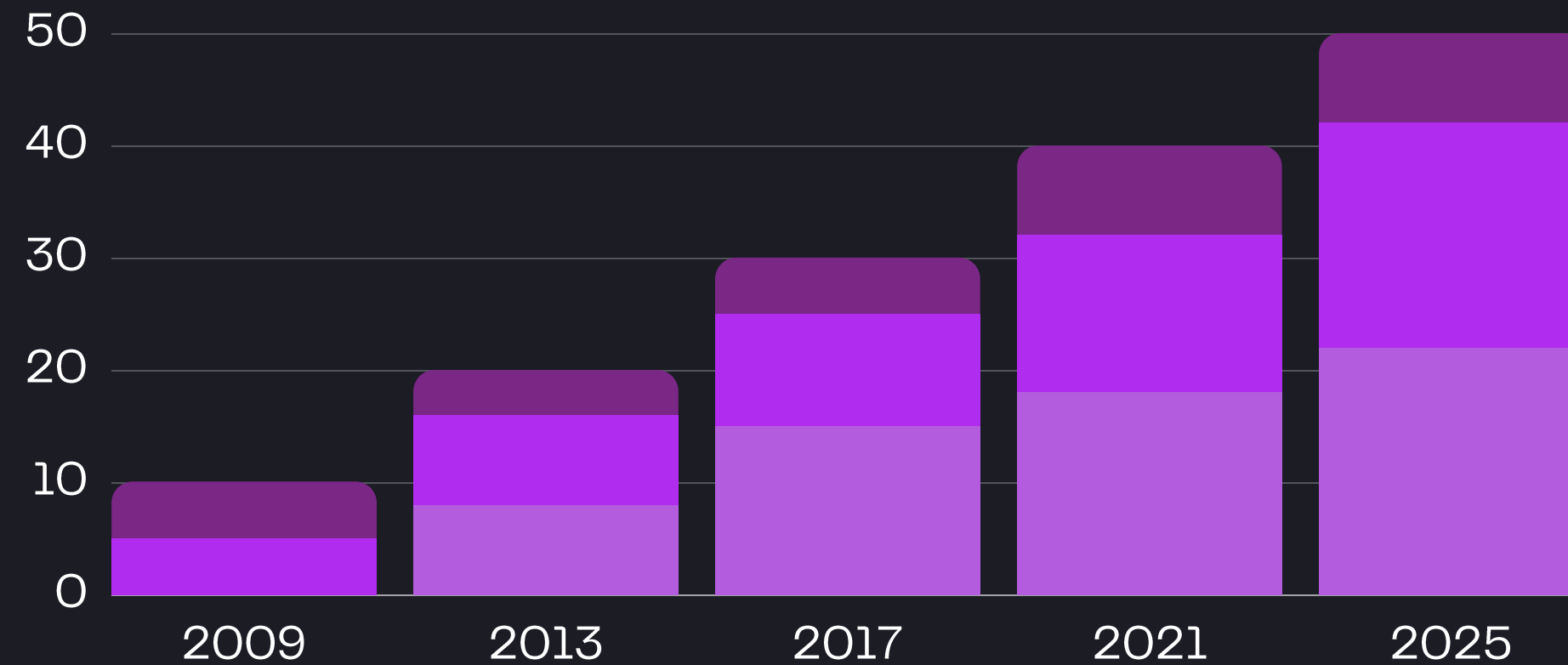
# Analysis

Data integration is a crucial step where all the collected data is consolidated into a single platform

Business Intelligence software facilitates both data collection and analysis, incorporating advanced analytical tools within the same software.

Analyzing data gathered through various methods allows organizations to gain insights into customer opinions and identify areas requiring improvement.





**Once data analysis is complete, the subsequent step is to comprehend the meaning behind the metrics.**

# Reporting and Presentation

Proper interpretation of data is crucial, as misinterpretation can lead to detrimental outcomes for the organization

- Converting data into visual infographics can enhance understanding and make it easier for individuals to grasp the insights.
- Clear understanding of the data enables organizations to address pressing business, operational, and marketing questions effectively.

# OLAP ANALYSIS

- Business analysts and power users play a crucial role in uncovering sophisticated trends in corporate data.
- Online Analytical Processing (OLAP) capabilities offered by business intelligence tools enable detailed analysis of information.
  - OLAP allows users to access data in various ways, providing the flexibility to view data from multiple perspectives.
- OLAP analysis empowers users to gain deeper insights and explore data comprehensively.



# AD-HOC REPORT



Ad hoc reporting is essential for meeting specific information needs, allowing employees to quickly create new reports to address urgent questions and make informed decisions.

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Modern business intelligence tools offer user-friendly features that enable non-technical users to easily and quickly generate custom reports.

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Ad hoc reporting empowers employees to access and analyze data on-demand, providing flexibility and agility in addressing business issues.

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# Operation Report

- Operational reporting plays a critical role in monitoring and managing daily activities within organizations.
- Inefficiencies and errors in operational tasks can significantly impact overall performance.
  - Business intelligence tools facilitate real-time operational reporting, allowing for quick identification and resolution of issues.
- Operational reporting enables organizations to proactively monitor and address problems, ensuring efficient and effective operations.

# FORECASTING

The ability to predict trends is crucial for organizational flexibility and agility.



Historical data analysis plays a key role in forecasting future events and facilitating strategic planning



Business intelligence tools often incorporate predictive analytics capabilities, enabling quick and highly accurate forecasts



Effective forecasting using business intelligence tools supports informed decision-making and proactive planning.

# DATA MINING

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Managing large volumes of data can be overwhelming for businesses, especially for non-technical users.

Business intelligence tools with data mining capabilities aid in the extraction of relevant and significant information from extensive datasets.

Data mining eliminates the need for manual searching and saves time by providing access to the necessary data for informed decision-making.

Business intelligence tools make data mining more accessible and user-friendly, simplifying the process of finding and utilizing essential information.



# CUSTOMER INTELLIGENCE



Customer intelligence refers to the process of gathering, analyzing, and utilizing data and insights about customers to better understand their behaviors, preferences, needs, and characteristics

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Companies are increasingly adopting customer-centric approaches, leading them to rely on business intelligence tools for gathering and consolidating customer data.

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Customer data is often dispersed across multiple systems, including CRM, accounting, and help desk applications.

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Business intelligence tools facilitate the collection and integration of customer data from various systems, enabling a holistic view of customer information.

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Customer intelligence derived from business intelligence tools supports effective decision-making and enhances customer-centric strategies.



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# Thank you!

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