Key points and Briefs

Module 3

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Business Intelligence

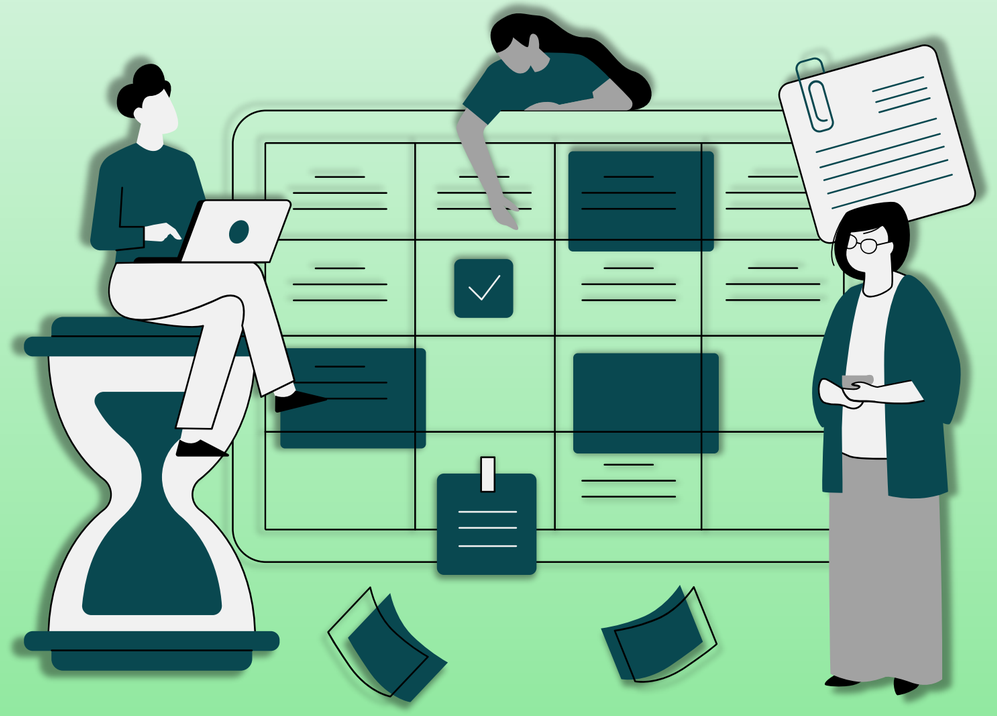
Business Intelligence is a strategic initiative that allows organizations to assess the effectiveness of their plans in the market.

Successful companies understand the importance of planning and implementing a BI strategy to maximize profitability.

Each project within the organization should have a specific methodology aligned with its unique needs

Company managers, along with project managers, should adopt tailored methodologies to ensure the successful implementation of BI projects and drive maximum profitability.

Business Intelligence Lifecycle

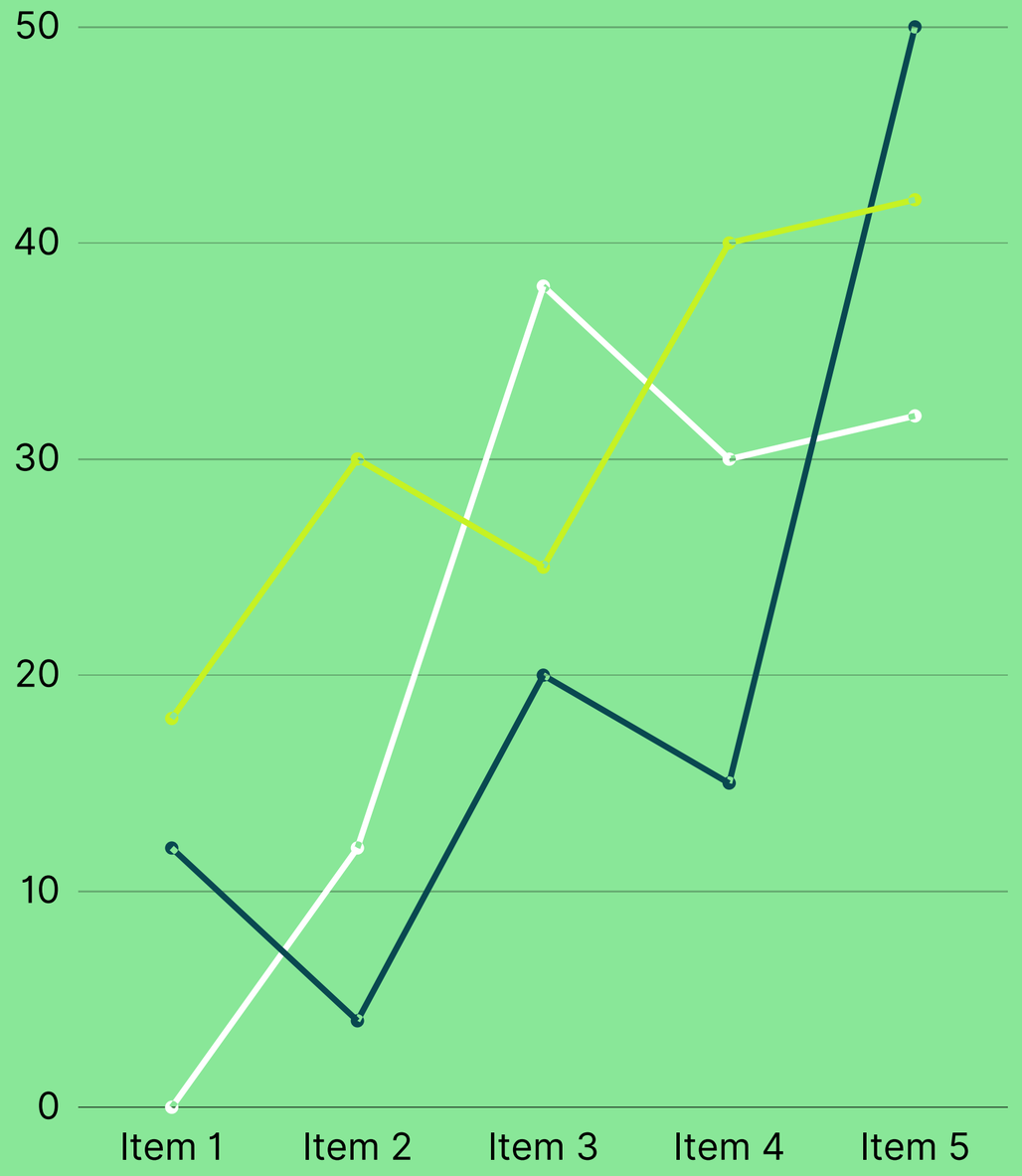


- Business Intelligence involves using technology to analyze and transform raw data into valuable and actionable information.
- This process is instrumental in identifying and developing new business opportunities based on the insights derived from the gathered information.
- By leveraging Business Intelligence, organizations can make informed decisions and uncover potential avenues for growth and innovation.

The analysis stage

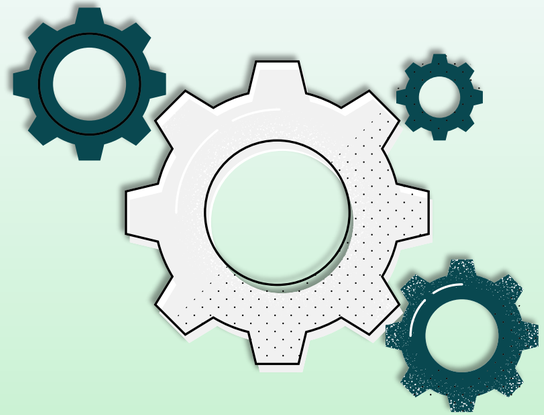
- The analysis stage is crucial in any project, but it may be more effective when addressed in a later stage rather than at the beginning.
- Project evaluation should consider both technical and organizational aspects, aligning with the primary objectives of the company.
- By aligning the project's objectives with the company's overall goals, a clearer perspective is obtained on the expected outcomes and activities for the future.
- It is essential for any BI project to justify the cost and benefits associated with solving a specific business problem, ensuring a rational approach to resource allocation.

- The analysis stage in BI projects involves utilizing a predefined set of key performance indicators (KPIs) that are requested by the end users.
- This stage results in the design of various solution components, incorporating relevant information sources.
- Due to the dynamic nature of BI projects, changes in objectives, personnel, estimations, technologies, users, and sponsors can significantly impact the project's success.
- It is crucial to monitor and manage these changes effectively to ensure the project remains aligned with its objectives and stakeholders' needs. Adaptability and flexibility are key in navigating the evolving landscape of BI projects.



The design stage

2nd Phase



Right

Technology

(+25% from last period)

The design stage of BI projects involves the careful selection of BI technologies based on the complexity of the solution.

Build

Prototypes

(+25% from last period)

Building prototypes is a common practice to test and refine solutions, allowing for adjustments based on expectations and requirements.

KPI

Definition

(+25% from last period)

During the design stage, key performance indicators (KPIs) should be defined based on business needs, regardless of the availability of current information support.

Other important factors

01

Business requirement capturing

The focus is on capturing the business requirements and designing a solution that aligns with those needs, even if the necessary support is not immediately available.

02

Tailoring solutions

The design stage lays the foundation for the implementation of the BI solution, ensuring it is tailored to address the specific requirements of the organization

03

Alignment

Aligning the chosen BI technologies with the specific requirements of the users and the overall objectives of the project.

04

Defining data sources

The design stage also includes defining the necessary data sources, ensuring their relevance and reliability for generating meaningful insights

05

Groundworks

Organizations can lay the groundwork for a successful implementation and ensure the availability of accurate and actionable information for decision-making.

Modeling

Operating Activities

The development stage of a BI project involves modeling the information flow within the organization.

Prototyping

Investing Activities

Creating prototypes and a testing environment is crucial to verify and compare the target objectives of the company.

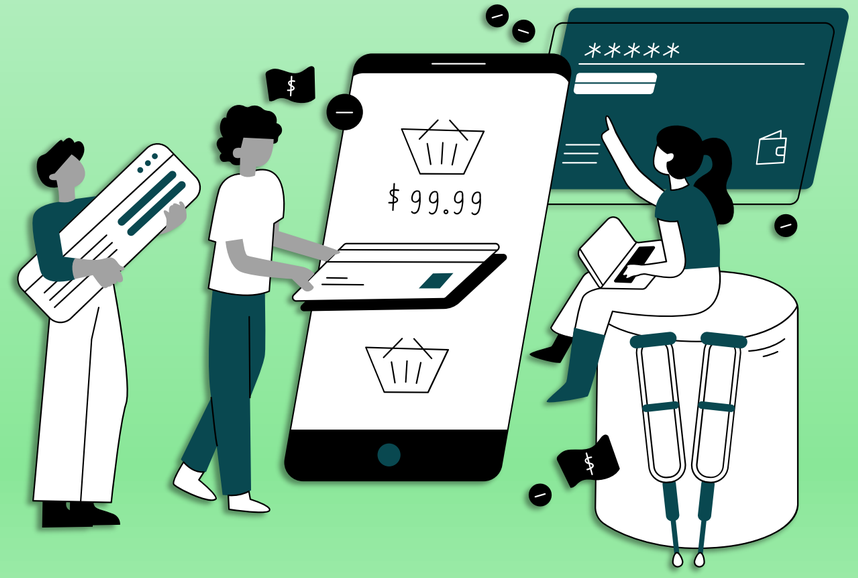
Data infra

Financing Activities

The data infrastructure plays a significant role in this stage, accounting for a significant portion (up to 70%) of the effort and costs involved.

The development stage

3rd Phase

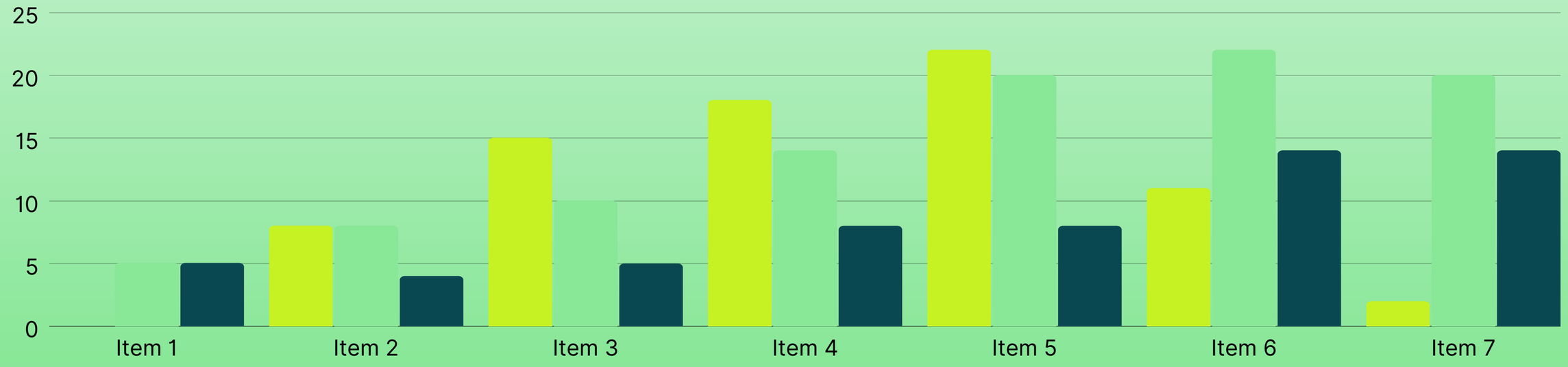


Other factors

Both the design and development stages are typically the most time-consuming and resource-intensive phases of the development cycle.

A metadata model is essential for specifying the required data for development and storage, ensuring efficient data management.

Additionally, the delivery of metadata to clients requires careful analysis and consideration to meet their specific needs and requirements.



The Implementation Stage

4th Phase

The implementation stage involves deploying the BI application at the user level after thorough testing of all components.

Regardless of the technology used, the success of the project relies on proper user training and dedicated support from a team, especially during the initial implementation phase.

An iterative approach is often adopted during implementation, incorporating additional training sessions to ensure customer needs are met.

The Implementation Stage

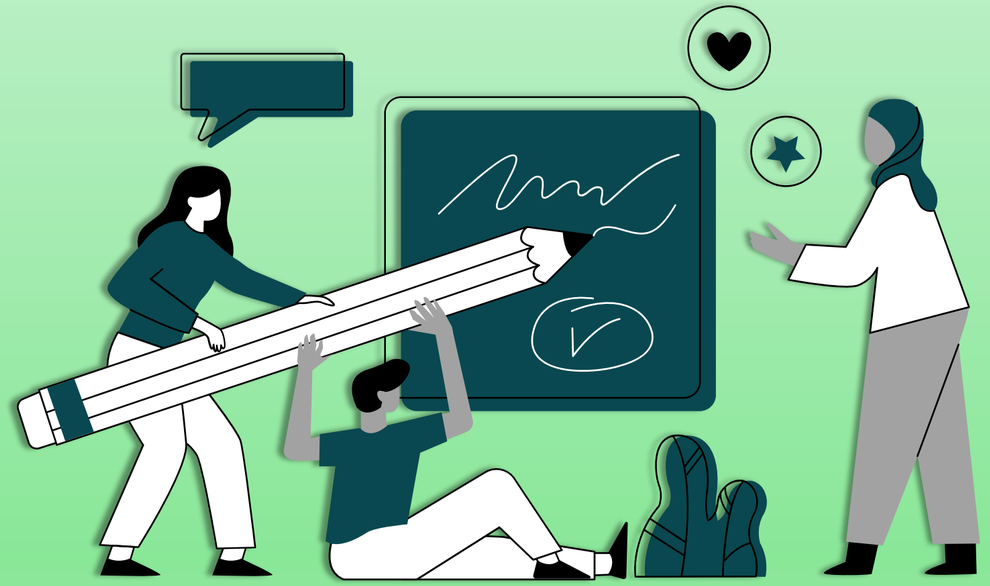
Preliminary development of specific reports and analysis is necessary to cater to the requirements of business users, laying the foundation for future advanced analysis.

The implementation stage plays a crucial role in delivering the BI solution to end users and enabling them to effectively utilize it for data analysis and decision-making.

Continuous support and training are essential to maximize the adoption and utilization of the BI application, ensuring its long-term success within the organization.

The Evolution Stage

5th **Phase**



The evolution stage, also known as the consumption stage, focuses on utilizing the BI solution to drive business change and decision-making.

The key objectives of this stage include:

- Measuring the success of the project by evaluating its impact on business performance.
- Extending the application of BI across the entire enterprise, ensuring widespread adoption and usage.
- Enhancing the exchange of information between different business units and functions, both internally and externally.

The Evolution Stage

5th **Phase**

During this stage, organizations monitor the effectiveness of the BI solution in achieving the desired outcomes and make necessary adjustments to optimize its usage.

- The evolution stage involves continuous improvement, fine-tuning the application to align with evolving business needs and ensuring its long-term value and relevance.
- By leveraging the insights gained from the BI solution, organizations can make data-driven decisions, drive operational efficiency, and foster collaboration and information sharing across the entire business ecosystem.

BI V/S Analytics

This table provides a high-level comparison between Business Intelligence (BI) and Analytics, highlighting some key differences in their focus, purpose, and processes.

Business Intelligence (BI)	Analytics
Uses past data for current business operating decisions	Uses past data for planning future business decisions
Descriptive in nature (demographic answers and performance answers)	Predictive in nature (predictive answers and recommendations)
Focuses on reporting, dashboards, KPIs	Focuses on future-looking, probability
Data collection methods: primary (e.g., interviews), secondary (e.g., internet research)	Data collection methods: primary (e.g., interviews), secondary (e.g., internet research)
Data is stored in data warehousing for easy access	Data is stored in data warehousing for easy access
Data analysis and quality assurance processes are performed	Data analysis and quality assurance processes are performed
Results are presented in the form of reporting, dashboards, KPIs, trends	Results are presented in the form of reporting, dashboards, KPIs, trends
Supports business decision-making based on the obtained information	Supports business decision-making based on the obtained information

Human Factors in BI Implementation

- Business intelligence (BI) should be synchronized with business data to make rational decisions.
- Organizations expect a good return on investment (ROI) when implementing BI solutions.
- Root cause analysis is conducted to identify reasons for not achieving expected results and drive business development.

- Human factors play a significant role in BI implementation, including abilities, methodologies, equipment, technology, and customs used to enhance decision-making.
- BI systems are often referred to as decision support systems

Rational decisions

ROI

(+25% from last period)

Decision support

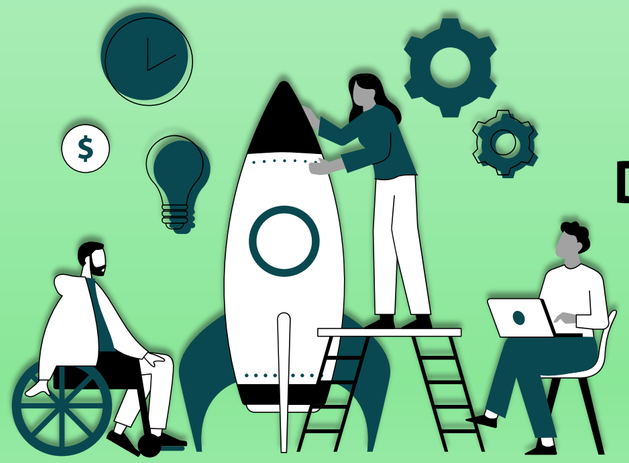
Abilities

(+25% from last period)

Key aspects of BI implementation influenced by human factors

Alignment

- Focus on business methods and needs to ensure alignment with operations and requirements



Define KPIs

- Strive to achieve a strong ROI by developing a comprehensive business case, defining key performance metrics, setting baselines and objectives, and evaluating performance.

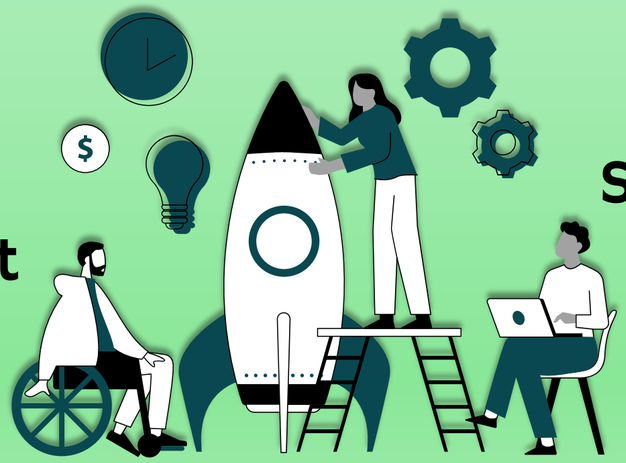
Project Management

- Enhanced project management and resource allocation with an efficient project manager and team engagement.

Key aspects of BI implementation influenced by human factors

- Dedication and support from organization executives, including the CEO and higher-level executives.
- Proactively schedule future events and resolve potential issues early in the project.
- Provide sufficient training and change management to ensure effective use of the BI structure and Key Performance Indicators (KPIs).

Top level management support



Scheduling

Training and change management

Business Intelligence Strategy

A business intelligence strategy involves the systematic implementation of BI technologies, applications, and practices to improve decision-making within a company.

- Business Intelligence (BI) refers to technologies, applications and practices for the collection, integration, analysis, and presentation of business information to support better decision making.

- This includes defining the main stakeholders, assessing the situation, defining the goals, and finding the KPIs that will measure your efforts to achieve these goals.

01

Faster reporting, analysis or planning

02

More accurate reporting ,analysis or planning

03

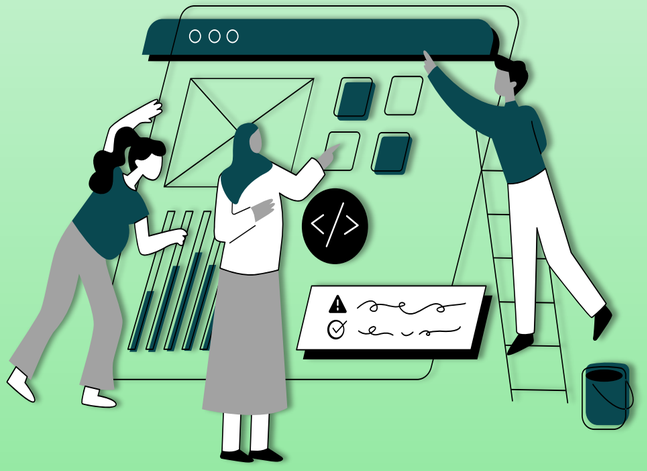
Better business decisions

04

Improved employee satisfaction

05

Improved data quality



07

Improved customer satisfaction

06

Improved operational efficiency

Objectives of BI

BI Transformation Process

BI Transformation Process involves a comprehensive and holistic approach to transform the organization's data analytics and BI capabilities, ensuring alignment with business objectives and driving data-driven decision-making throughout the enterprise.

- The BI Transformation process is complicated, arduous, and costly. All the steps in the BI transformation process are necessary, and not doing some or not doing well can lead to the collapse of the program and have long-term adverse consequences.

- Assessment and Planning
- Data Governance and Management
- Technology Selection and Implementation
- Data Integration and Analytics
- Reporting and Visualization
- Training and Change Management
- Continuous Improvement and Optimization

What not to do?

- Lack of understanding of BI value streams
- Absence of a detailed BI business capability model
- Inadequate selection of BI technology platform
- Insufficient investment in change management and adoption

- Visualize all areas of BI, including analytics, adoption, data, and training
- Plan how BI will be used across the organization
- Improve efficiency and maximize performance
- Communicate the approach to c-level stakeholders and the organization
- Provide a clear vision of key areas of learning and analysis

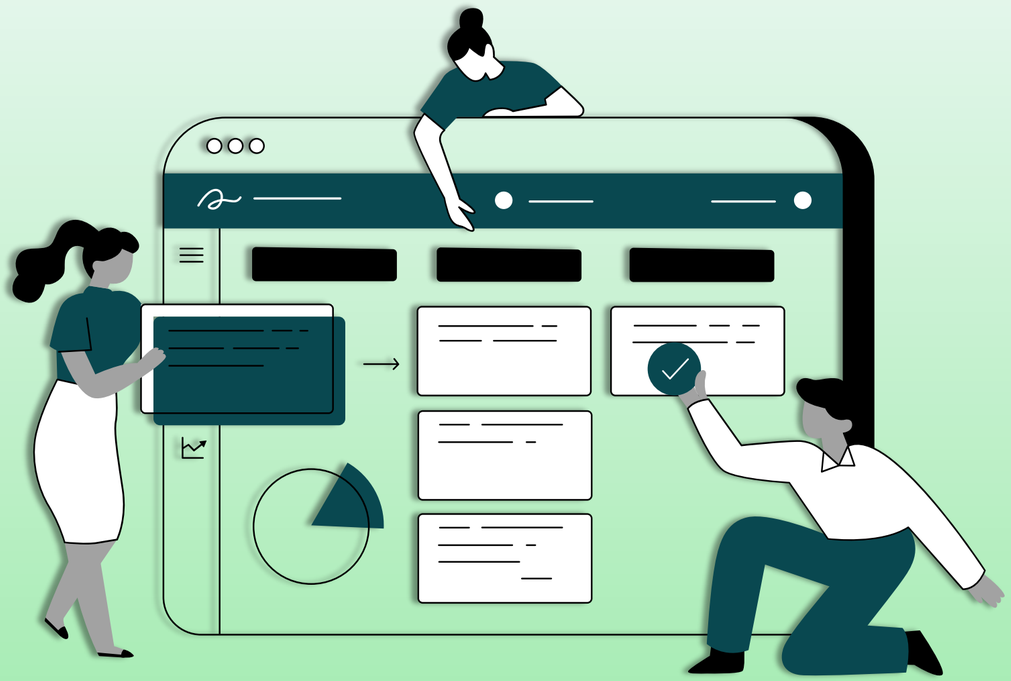
Exacerbation

ROI

BI Roadmaps

Abilities

BI Roadmap

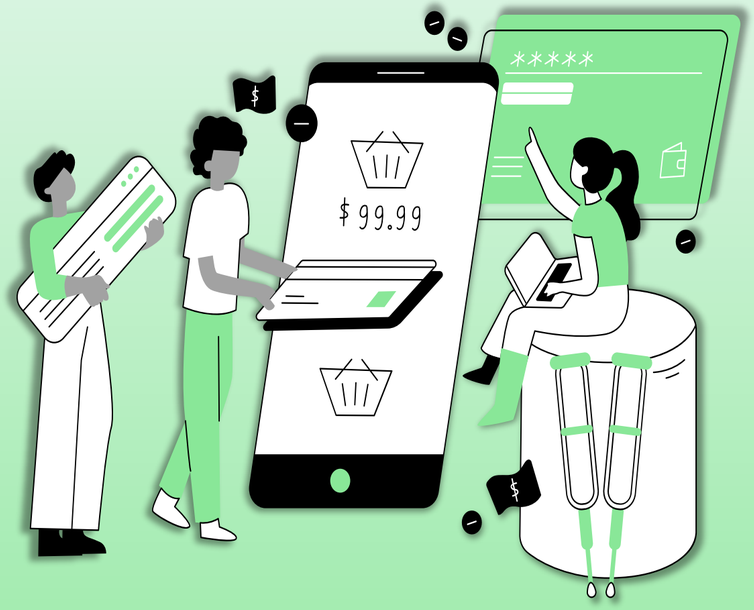


Set goals: Clearly define the objectives and outcomes you want to achieve through your BI initiatives. These goals can vary from revenue growth to improving hiring processes, depending on the specific needs and priorities of your organization.

Gather information: Seek input from organizational leaders and conduct market research to gather relevant data and insights. This step helps you understand the current state of your business, identify potential challenges and opportunities, and align your BI roadmap with the overall strategic direction of your organization.

Organize into themes: Analyze the information collected and identify common patterns or themes. Group related initiatives together based on these themes to ensure a cohesive and structured approach to your BI roadmap.

BI Roadmap



Prioritize initiatives: Determine the priority of each initiative based on its alignment with your goals and the potential impact it can have on your organization. Consider factors such as feasibility, resource requirements, and expected outcomes to prioritize the initiatives effectively.

Add time frames: Assign time frames to each initiative, considering the estimated duration and resource allocation required. This step helps in planning and scheduling the implementation of initiatives, ensuring that they are completed within a realistic timeline.

Review and revise: Regularly review and evaluate your progress against the roadmap. This allows you to identify any challenges, reassess priorities, and make necessary adjustments to keep your BI initiatives on track. It is important to have a flexible approach and adapt to changing business needs or external factors.

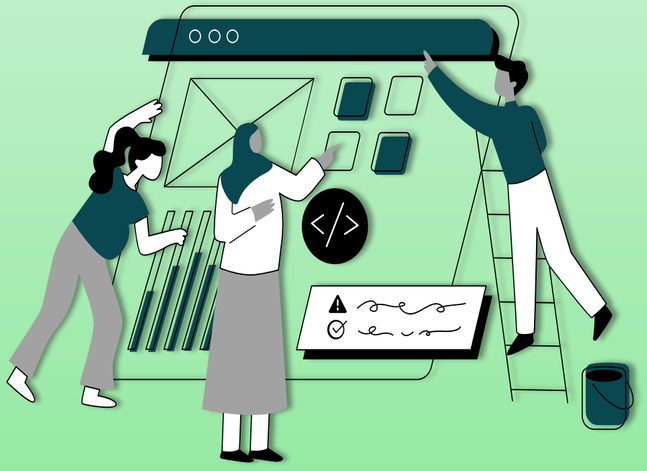
01 Data Sourcing

02 Data Analysis

03 Situation Awareness

04 Risk Assessment

05 Decision Support



Key stages of BI

These stages encompass the methodologies, processes, architectures, and technologies involved in transforming raw data into meaningful and useful information that facilitates effective strategic, tactical, and operational insights and decision-making.

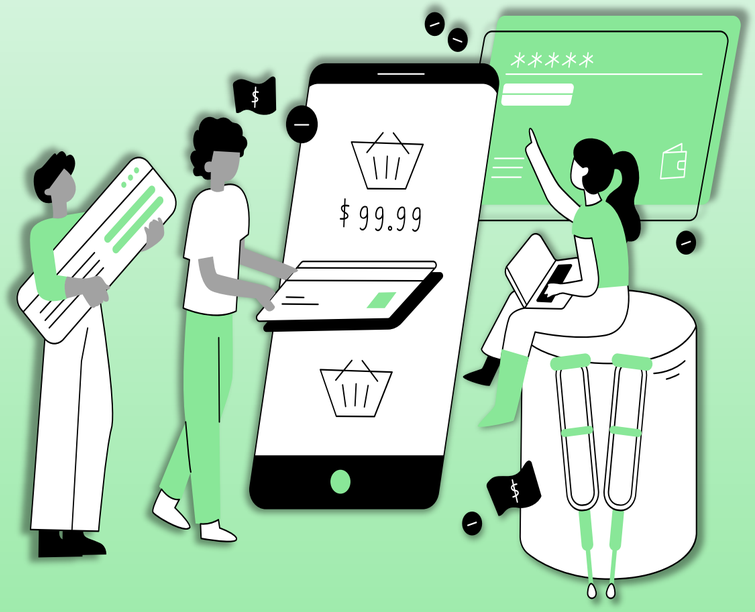
Business Intelligence Framework

By implementing a business intelligence framework, organizations can ensure that they have a systematic and structured approach to leverage data for decision-making purposes. This helps in maximizing the value of business intelligence initiatives and enables organizations to make informed and strategic decisions.

Steps involve:

- Data Integration
- Data Cleansing and Validation
- Data Analysis and Reporting
- Contextualization
- Collaboration and Communication
- Continuous Improvement

Benefits of BI Framework



Better data quality: A well-defined BI framework ensures that data is thoroughly validated, cleaned, and maintained, resulting in improved data quality. This helps in making more informed and reliable decisions based on accurate and relevant data.

More accurate insights: With a structured framework, decision-makers can explore and analyze data comprehensively, considering all relevant angles and factors. This leads to more accurate and valuable insights that support effective decision-making.

Faster decision-making: Decision-makers can access the required insights quickly. The framework streamlines the data analysis process and facilitates efficient decision-making, enabling timely responses to changing market conditions and business needs.

Actionable reporting: A BI framework provides a clear process for reporting, ensuring that insights and findings are presented in a practical and actionable manner. This helps decision-makers understand the implications of the data and take appropriate actions to drive business success.

Components of a Business Intelligence Framework

Clarify the question: Clearly define the problem or question you want to address.

Identify relevant data sources: Determine which data sources contain the information needed to answer your question.

Optimize the data pipeline: Transform and prepare the data for analysis, ensuring its accuracy and consistency.

Explore the data: Use analytics tools to examine and analyze the data, uncovering insights and patterns.

Create visualizations: Present the data in visual formats such as charts or graphs for easier understanding.

Thank You