

Chapter 2

*Introduction to Business
Analytics*

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Learning Objectives

- Describe the types of business analytics
- Explain the relation between BI and BA
- Describe the business analytics in context of strategy
- Discuss the importance of business analytics
- Elucidate the emerging trends in BI and BA



Types of Business Analytics

Types of Business Analytics

Descriptive analytics

Refers to “what is happening?” or “What happened?” type analytics that is based on the incoming data.

Diagnostic analytics

Refers to the analysis of the past figures and facts to derive the scenarios about ‘what happened’ and ‘why it happened’.

Predictive analytics

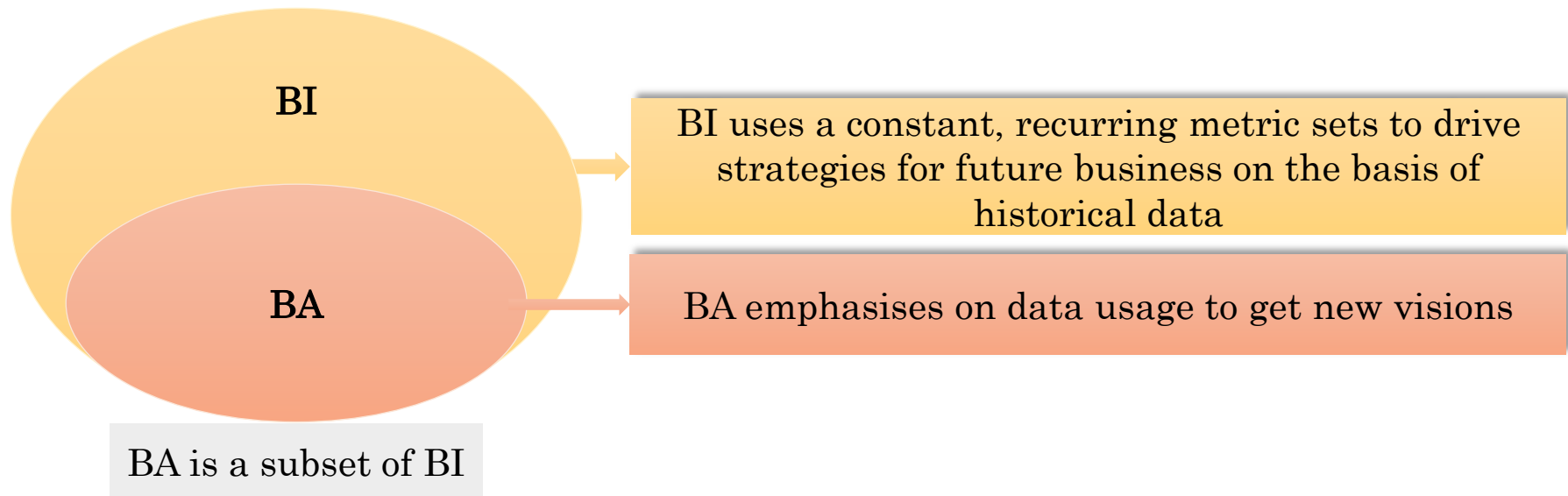
Tries to forecast on the basis of previous data and scenarios.

Prescriptive analytics

Guides about the actions that should be taken



Relation Between BI (Business Intelligence) and BA (Business Analytics)



CRM – Customer Relationship Management software

It is a new skill to combine multiple data projects in one, while making it useful in sales, marketing and customer support.

It sources raw data from every division & department, compiles it for a new understanding that otherwise would not have been visible from one point alone.



Main points about BI and BA

BI	BA
Uses current and past data to optimise the current age performance for success	Utilises the past data and separately analyses the current data with past data as reference to prepare the businesses for the future
Informs about what happened	Tells why it happened
Tells you the sales numbers for the first quarter of a fiscal year or total number of new users signed up on our platform	Tells you about why your sales numbers tanked in the first quarter or the effectiveness of the newly launched user campaign
Quantifiable in nature, it can help you in measuring your business in visualisations, chartings and other data representation techniques	More subjective and open to interpretations and prone to changes due to ripples in organisational or strategic structure
Studies the past of a company and ponders over what could have been done better in order to have more control over the outcomes	Predicts the future based on the learning gained from the past, present and projected business models for a given term in the near future



Role of Business Models in Analytics

BA frequently utilises numerous quantitative tools to convert Big Data into meaningful information for making informed business decisions.

These tools can be further categorised into

- Data Mining
- Operation Research
- Statistics
- Simulation



Swot Analysis Model

SWOT stands for Strengths, Weaknesses, Opportunities, Threats

Strengths

- What does your organisation do better than others?
- What are your unique selling points?
- What do your competitors and customers perceive as your strengths?
- What is your organisation's competitive edge?

Opportunities

- What political, economical, sociocultural, or technological (PEST) changes are taking place that could be favourable to you?
- Which areas have gaps or unfulfilled demands?
- What new innovations can your organisation bring to the market?

SWOT Diagram

Weaknesses

- What do other organisations do better than you?
- What elements of your business add little or no value?
- What do competitors and customers perceive as your weakness?

Threats

- What political, economical, sociocultural, or technological (PEST) changes are taking place that could be unfavourable to you?
- What restraints do you face?
- What is your competitor doing that could negatively impact you?



PESTEL or PEST Analysis Model

PESTEL stands for Political, Economic, Social, Technological, Legal and Environmental.
PESTEL analysis is a method for figuring out external impacts on a business.

In some countries, legal and environmental parts are combined in the social, legal, political and economic part. Hence, they use PEST.

Sample PESTEL Analysis

P	E	S	T	E	L
<ul style="list-style-type: none">• Government Policy• Political stability• Corruption• Foreign trade policy• Tax policy• Labour law• Trade restrictions	<ul style="list-style-type: none">• Economic growth• Exchange rates• Interest rates• Inflation rates• Disposable income• Unemployment rates	<ul style="list-style-type: none">• Population growth rate• Age distribution• Career attitudes• Safety emphasis• Health consciousness• Lifestyle attitudes• Cultural barriers	<ul style="list-style-type: none">• Technology incentives• Level of innovation• Automation• R&D activity• Technological change• Technological awareness	<ul style="list-style-type: none">• Weather• Climate• Environmental policies• Climate change• Pressures from NGO's	<ul style="list-style-type: none">• Discrimination laws• Antitrust laws• Employment laws• Consumer protection laws• Copyright and patent laws• Health and safety laws

Source: <https://www.business-to-you.com/scanning-the-environment-pestel-analysis/>





Benefits
of
PESTEL
analysis

Political factors: These are government regulations in different countries related to employment, tax, environment, trade and government stability.

Economic factors: These factors affect the purchasing power and cost of capital of a corporation, such as economic growth, inflation, currency exchange and interest rates.

Social factors: These influence the consumer's requirement and the possible market size for an organisation's products and services. These factors include age demographics, population growth and healthcare.

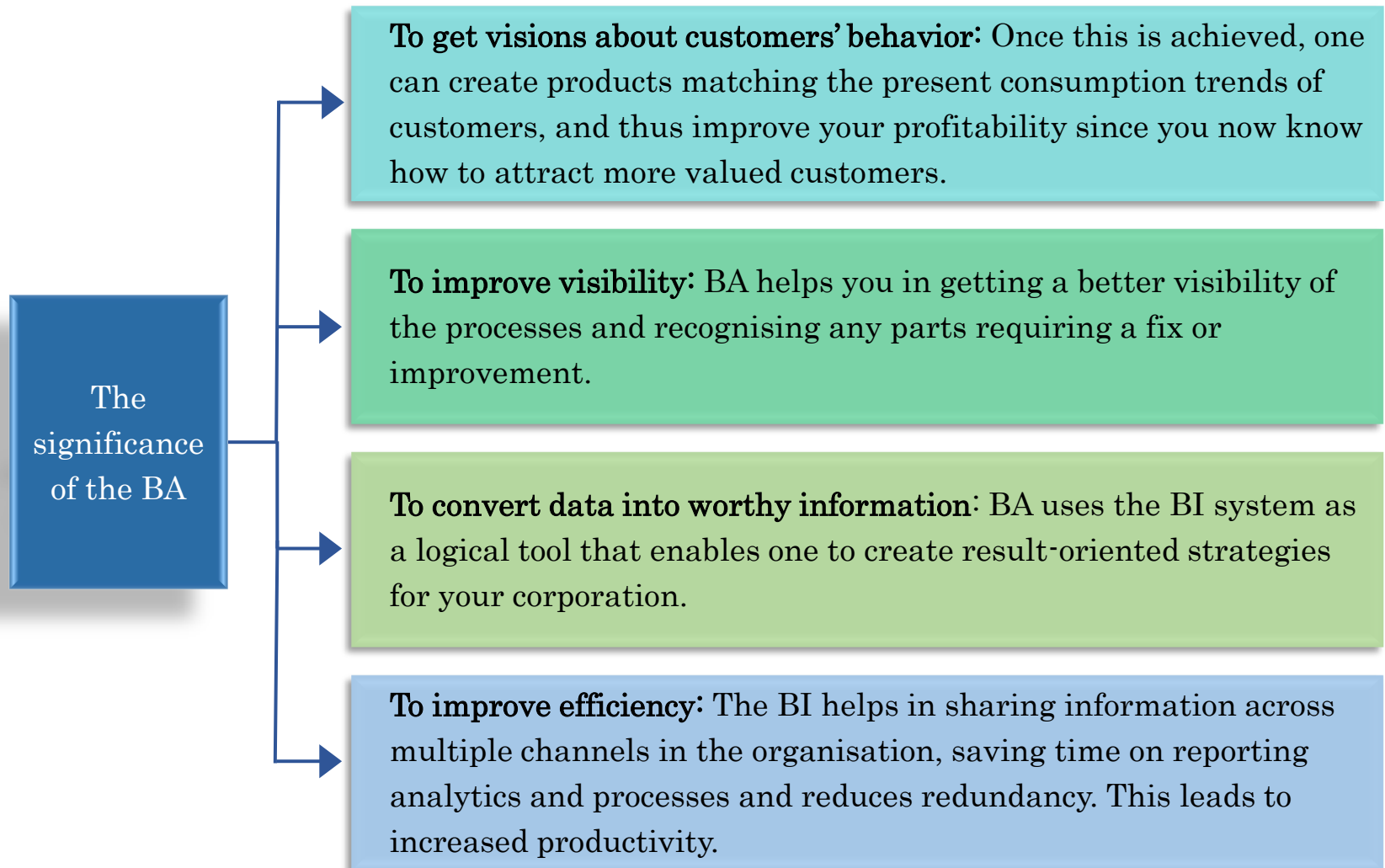
Technological factors: These influence the barricades to entry, investment decisions related to buying and innovation, such as investment incentives, automation and the adaptability quotient for the technology.

Environmental factors: These influence mainly the marketers with respect to various environmental factors and policies of a specific country.

Legal factors: These influence the business decisions of an organisation with respect to various legal factors such as discrimination laws, antitrust laws, employment laws, consumer protection laws etc. of a specific country.



Importance of Business Analytics



Emerging Trends in BI and BA

Some contemporary trends in BI and BA fields

More power and monetary impact for data analysts: Analysts are consistently creating demand charts across many industries.

Location analytics: Location and geospatial analytical tools that gave organisations better market intelligence and placements in terms of effective campaigns.

Data at the rough edge: Businesses must look beyond the usual sources of data besides their data centres since the data flows now initiate outside the data from multiple sensor devices, and servers.



Artificial Intelligence (AI): The analytical work on such programmes is exponentially growing with AI and machine learning transforming the way we relate with the analytics and data management.

Predictive analytics and impact on data discovery: By gathering more information, organisations will have the capacity to build more detailed visual models that will help them act in more accurate ways.

Cloud computing: It is a technique that makes it possible for organisations to dynamically regulate the use of computing resources and access them as per the need while paying only for those resources that are used.

Digitisation: It is a process of turning any analogue image, sound or video into a digital format that is understandable by the electronic devices and computers.



Thank You