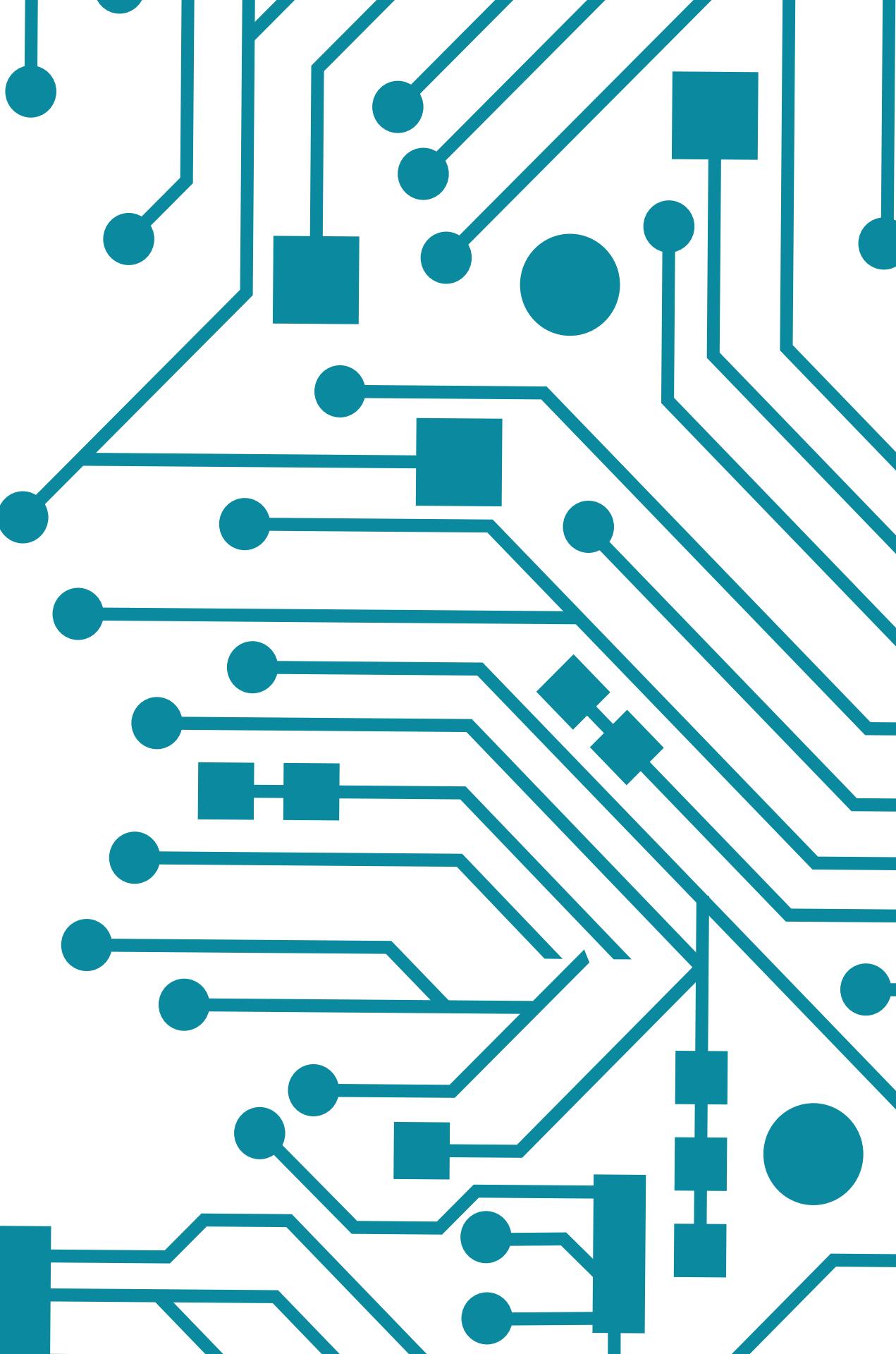


**TURNING DIGITAL SKILLS
INTO START-UP SKILLS**

FOR YOUNG ENTREPRENEURS



MODULE BUSINESS & FINANCE

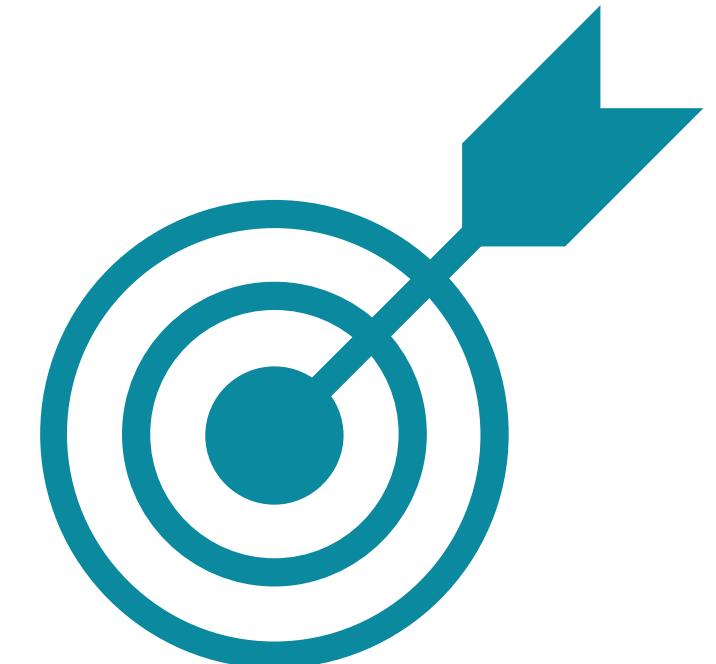
2.6

FORECASTING

LEARNING OBJECTIVES

After this module, you will be able to:

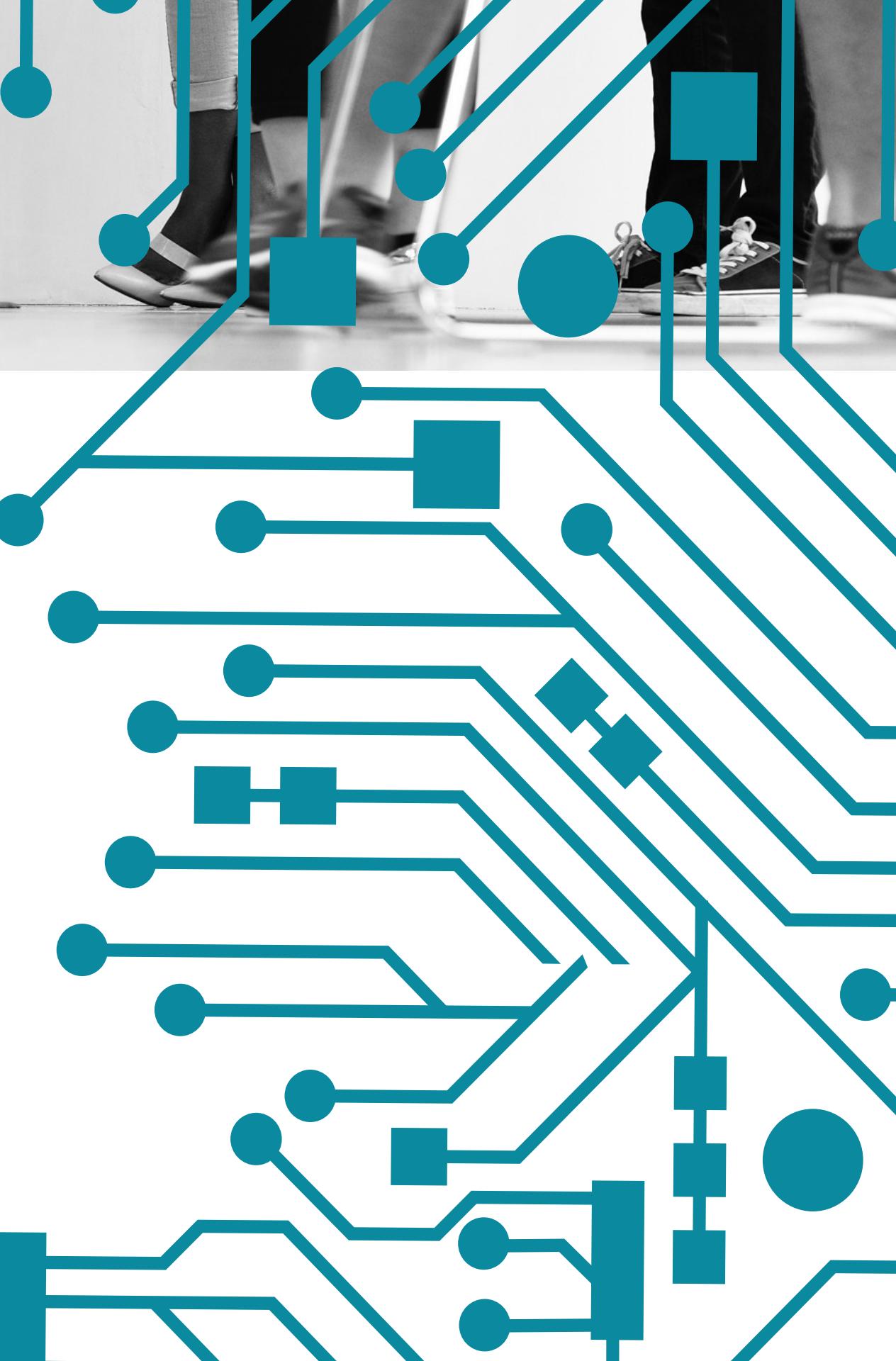
- 1 Tell what forecasting means.**
- 2 Establish the main types of forecasting.**
- 3 Name some interesting tools to forecast.**



MODULE COMMUNICATION

Module Outline

- DEFINITION OF FORECASTING.
- FORECASTING IN COMPANIES.
- CONSIDERATIONS IN FORECASTING.
- THE PROCESS OF FORECASTING.
- TIPS FOR SOUND FORECASTING.
- QUANTITATIVE FORECASTING.
- QUALITATIVE FORECASTING.
- EXAMPLES OF FORECASTS.
- DIGITAL TOOLS FOR FORECASTING.

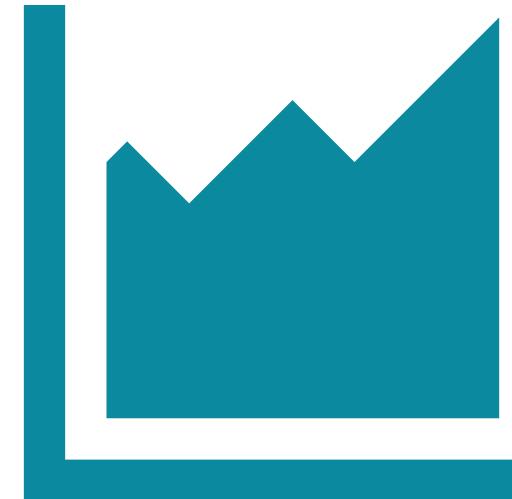


DEFINITION OF FORECASTING

Definition of forecast:

To calculate or predict (some future event or condition) usually as a result of study and analysis of available pertinent data.

In the business world, forecast is used to give the company's stakeholders (mainly management and investors) a picture of what the company's future performance will be.



FORECASTING IN COMPANIES

In business, it is used in every management area, namely:

- 1. Marketing** demand, sales, market share, revenues, positioning, customer satisfaction, marketing effort and ROI, etc.
- 2. Operations** costs and expenses, delivery times, investment needed, production schedules, etc.
- 3. Human resources** payroll, new positions needed, turnover, etc.
- 4. Finance** financial statements, cashflow, profits, assets, financial needs and costs, etc.

EXAMPLE 1

Your company sold 1 million laptops this year. How many laptops will it sell next year?

EXAMPLE 2

Your company wants to increase sales by 20%. How many sales reps will be needed?

EXAMPLE 3

Given the increase in sales, what will be the company's projected income statement?

CONSIDERATIONS IN FORECASTING

Since we don't know exactly what will happen in the future, in order to forecast, it is necessary to analyze pertinent past data we have at hand. The degree of accuracy will depend on **uncertainty** and **risk**.

It is trying to drive a car by looking through the rear mirror.

Given the pace of changes in the business environment, trying to forecast a company's long-term results is complicated.

THE PROCESS OF FORECASTING

COLLECT
INFORMATION

- Internal (company sales, unit costs, delivery times, financial ratios, etc.).
- External (macroeconomic situation, market behavior and trends, competitors).

ANALYZE
INFORMATION

- Quantitative methods: objective methods based on past data and numeric formulas.
- Qualitative methods: subjective information from individual and group studies that can help determining future trends and outcomes.

FORECAST

- Determine plausible outcomes based on the previous analysis.
- Again, uncertainty and risk will affect the accuracy.
- Sensitivity scales is a must (more than one possible scenario/outcome).

TIPS FOR SOUND FORECASTING

Want to forecast accurately?

Need to have enough information at hand.

i.e. About your company's past sales, about competitors, market trends,...

Need to understand the factors affecting market behavior.

i.e. How the market will react to new products, price changes, what employees want,...

Don't base the forecast methods only on past performance.

i.e. Introduction of new techniques, newcomers, economic situation, consumer trends,...

Tips [1](#), [2](#)

QUANTITATIVE FORECASTING

Quantitative forecasting is trying to predict a future outcome based on methods or models that use past data.

Some quantitative forecasting methods are:

NAIVE METHOD

considers that the next period sales will be the same as the last period's.

MOVING AVERAGE METHOD

considers the mean of all past outcomes, making certain corrections. ([info](#))

DRIFT METHOD

similar to the naïve method, but considering possible changes in the outcome, because not every year we are going to get exactly the same results. ([info](#))

REGRESSION

is used to find out the relation between different variables, for example, sales and time. [Linear regression](#) and [least squares](#) are the most common methods of regression use.

AI METHODS

based on technology, Artificial Intelligence uses big data and machine learning to predict future outcomes. ([Article](#))

SIMULATIONS

Ad hoc simulations incorporate all the market behavior knowledge, and industry information in order to predict future outcomes ([example](#)).

QUALITATIVE FORECASTING

Qualitative forecasting is trying to predict a future outcome based on the judgement of experts or stakeholders.

Experts will give a better picture than only using quantitative methods when future outcomes may vary widely from past outcomes and will be the only possible forecasting means when there is not past data (i.e. when launching a completely new product).

Qualitative forecasting techniques include:

Composite forecasts

considers or finds a weighted average of different forecasting methods, statistical and/or pure qualitative methods.

Delphi method

is basically surveying a group (generally called panel) of experts on a given area in order to find what the most probable future scenario may be, according to their opinion (watch [video](#)).

Trend analysis

finding a pattern in behavior by analyzing past data. Experts must give their opinion, since data is not quantitative.

FORECAST BY ANALOGY

it can be assumed that a given outcome can be repeated under certain conditions (a behavior pattern).

EXAMPLE

We have two markets that have traditionally behaved the same way. If we launch a new product in one of them has been a success, we can anticipate that the same will happen in the other market.

SCENARIO BUILDING

several possible outcomes are considered and the results are projected (read article).

SURVEYS

asking customers, employees and experts can help us forecast.

EXAMPLES OF FORECASTS

SALES

accurately predicting demand/sales is fundamental to any business.

FINANCIAL STATEMENTS

projections of the income statement, balance sheet and cashflow statement are critical for investors and managers.

MASTER SCHEDULES

consists of recording and keeping track of all the specific actions that have been incorporated in a project.

ECONOMIC ORDER QUANTITIES

used to minimize holding and order costs in production schedules.

JUST IN TIME (JIT)

supplies are received just when needed to bring inventories and holding costs close to zero.

DIGITAL TOOLS FOR FORECASTING

There are a number of programs and digital tools that will help us with forecasting:

EXCEL.

SPECIFIC COMPUTER PROGRAMS AND ERPS.

Insightly.

Pripedrive.

Zoho CRM.

Avercast forecasting solutions.

Forecast solutions.

PROJECT MANAGEMENT TOOLS.

Microsoft project.

Teamwork projects.

Monday.com.

*“Forecasts may tell you a great deal
about the forecaster;
they tell you nothing about the future.”*

Warren Buffet

REFERENCES AND LINKS

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INC

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Coursera

Data Science Central

Wikipedia

Hottopics

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Study.com

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Linkedin

Bright Hub Project Management

YouTube

