



HANDOUT

MANAGEMENT

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This handout has been written by students with no intention to substitute the University official materials. Its purpose is to be an instrument useful to the exam preparation, but it does not give a total knowledge about the program of the course it is related to, as the materials of the university website or professor

HOW CAN YOU DEFINE MANAGEMENT?

Management is a range of decisions associated with the acquisition, allocation and integration of resources (human, physical, financial etc) required to perform a certain economic activity.

Thus, management is not science, but if it was, it would have been considered a decision science.

ECONOMIC ACTIVITY: DEFINITION AND CAUSES

An economic activity is definable as actions that involve the production, distribution and consumption of goods and services at all levels within a society

All the economics activities are performed in order to fulfill a need, reachable only through goods and services

All of this leads us to the following chain:

1. People
2. Needs
3. Goods and services
4. Economic activity
5. Management

EXPLAIN THE MAIN ORGANIZATION THEORY (I.E. SIMON'S THEORY)

Herbert Simon, in his book "Organizations and Markets", criticizes all the economists who consider markets the key of the economic world, while relegating organizations at a second and negligible position

His theory is based on a surrealistic story: martians who are visiting the Earth, though seeing it as a combination of organizations and markets

The final report is given by huge green spots (i.e. organizations) interconnected through red lines (i.e. markets)

Therefore, market exchanges would be nothing without solid and strong organizations (huge green areas) at the basis

TALK ABOUT MASLOW'S HIERARCHY OF NEEDS

Maslow deeply analysed human needs, and, therefore, produced the following pyramid, where they are grouped from the most essential to the least essential

1. Physiological needs (food, water, sleep...): all the tools that allow us to stay alive
2. Safety needs (security, safety): all the tools that allow us to maintain the integrity of ourselves
3. Belongingness and love needs (intimate relationships, friends): the sensation of feeling part of something greater than just ourselves
4. Esteem needs (prestige and feeling of accomplishment): the need to feel achievement and prestige
5. Self-actualization (achieving one's full potential): the act of becoming the best and most creative part of ourselves

Further, in some marketing operations (e.g. the McCain marketing campaign of 2010) the belongingness and love needs are considered as more attractive and unique than the physiological needs

We need to precise that sometimes safety needs are more important than the physiological ones, as the "American Journal of Public Health" states in an article: rates of eviction are higher in states that do not have a strong Medicaid program

Thus, people place safety needs before physiological ones

GIVE A DEFINITION OF RELATIVE PREPOTENCY OF BASIC HUMAN NEEDS

Humans, as Maslow says, never find a complete sense of accomplishment in achieving their goals, which means that this creates a continuous willingness to prevail and subtract space to others in order to satisfy more needs

STATE THE DIFFERENT TYPES OF NEEDS

The following grouping holds:

- Natural needs, i.e. products of human biology (e.g. physiological and safety)
- Social needs, i.e. products of the spiritual self and of social interaction. They are further divided in:
 - Radical, i.e. fundamental to the society (e.g. freedom, justice)
 - Non-radical, i.e. not fundamental to the society (e.g. belongingness)

There is another grouping:

- Essential/Primary needs, i.e. universal
- Non essential/Secondary needs, i.e. influenced by imitation and fashion

STATE THE DIFFERENT TYPES OF GOODS

The goods presents different classifications

- Economic goods, i.e. free and unlimited in supply (e.g. water, air)
- Non-economic goods, i.e. scarce with respect to people's demand (e.g. cars, furniture)

- Primary goods, i.e. satisfy essential needs (e.g. water)
- Non-essential goods, i.e. satisfy secondary needs (e.g. champagne)

- Complementary goods, i.e. you need them both to satisfy a need (e.g. car and electric column)
- Substitute goods, i.e. you need either one or the other one (different models of cars)
- Differentiable goods, i.e. goods that are differentiated through the adding of distinct features (e.g. bags)
- Commodities, i.e. goods that are not subject to any differentiation (e.g. mobile line, cause for which companies try to create “packages” in order to make consumer choose them instead of other companies)
- Consumer goods, i.e. goods ready for final use or consumption (i.e. chair, phone or pasta)
- Industrial goods, i.e. goods used to produce other goods (e.g. printer, test tubes)
- Disposable goods, i.e. used once (e.g. test tubes, pasta)
- Durable goods, i.e. used many times (e.g. car, printer)
- Goods for individuals, i.e. goods consumed by single individuals (e.g. bike)
- Goods for collective consumption, i.e. goods consumed by many individuals at the same time (e.g. movies)
- Public goods, i.e. goods that are non-excludable and non-rivalrous in consumption (that’s why the government imposes taxes, so that there is no case in which people enjoy the same good spending a different amount of money)
- Private goods, i.e. goods that may be excludable/rivalrous in consumption

GIVE A DEFINITION OF EXCLUDABILITY AND RIVALRY IN CONSUMPTION

Excludability means that it is possible to prevent people from accessing a good

Rivalry means that the consumption by one consumer of a certain good can prevent consumption by others

An example is the lighthouse, which is basically non-excludable and non-rivalrous

THE CONSEQUENCE OF AN ECONOMIC ACTIVITY

1. Technical transformation

- Physical (i.e manufacturing)
- Spatial (i.e. transportation)
- Logical (it concerns transformation of data, i.e. banks)

2. Transactions

- To buy input and sell output: transactions (i.e. of financial resources, labour, private goods) link organizations to other organizations and individuals

3. Complementary (support) activities

- Institutional structure design
- Organisational and human resources management
- Accounting and information management

DEFINE THE CIRCULAR FLOW MODEL

It is a model which provides a clear and synthetic explanation to the movement of money through the society

Money moves in two ways:

- Flowing from producers to workers as wages
- Flowing back to producers as payment for products

It is called circular since it is composed of four passages circularly connected one each other:

1. Households: These are the individual consumers within the economy. They supply factors of production, such as labor, land, and capital, to businesses in exchange for income. Households use this income to buy goods and services.
2. Factor Market: This is where factors of production are exchanged. Households supply factors like labor, land, and capital to businesses, and businesses pay for these inputs in the form of wages, rent, and interest.
3. Businesses (Firms): Businesses produce goods and services and hire factors of production from households. They pay wages to workers, rent for land, and interest for capital. In return, businesses sell their products to households and other entities.
4. Product Market: This is where goods and services are bought and sold. Households purchase products from businesses, and businesses receive revenue from these sales.

DEFINITION OF BUSINESS AND PRODUCT

A business is individuals or organizations who try to earn a profit by providing products that satisfy people's needs

A product is a good or service with tangible and intangible characteristics that provide satisfaction and benefits

DESCRIBE THE PEOPLE INVOLVED IN BUSINESS

- Owners: those who provide resources to start a business and who can manage the business themselves or hire employees to do so
- Customers: those who buy goods and services offered by the company
- Employees: those who are responsible for the work that goes on within a business

THE CHARACTERISTICS OF MANAGEMENT

- Developing efficient and qualitative plans

- Involving the functions of organizing, leading and controlling
- Acquiring, developing and using resources efficiently
- Overseeing firm's operations to ensure resources are transformed into goods/services

THE CHARACTERISTICS OF MARKETING

The rule is that of the 4 P's:

1. Product (i.e. product adoption and positioning)
2. Price
3. Place (i.e. finding the right place at the right time)
4. Promotion

THE CHARACTERISTICS OF FINANCE

- Obtaining and using effectively money for business operations
- Providing financial resources either by borrowing money from banks or attracting additional investors

THE ROLE OF THE ENTREPRENEUR

- Entrepreneur is an individual who risks his/her wealth, time, effort to develop for profit and innovative product
- Free-enterprise economy provides necessary conditions for entrepreneurs to succeed

THE ROLE OF THE GOVERNMENT

- Preserves competition and protects consumers, employees and the environment through laws and regulations
- Takes steps to minimise disruptive effects of economic fluctuations and reduces unemployment
- Spurs growth so consumers spend more money and businesses hire more employees

THE ROLE AND THE REASONS FOR NON-PROFIT BUSINESSES

Non-profits are organizations that:

1. Are private
2. Are not allowed to distribute profits or assets
 - Typical spheres of activity: culture, education, healthcare, protection of the environment, social programs, trade associations, promotion of civil rights
 - They may:
 1. Pursue private interests of participants (e.g. trade associations)
 2. Sell products or services (e.g. universities)
 3. Provide public goods (e.g. philanthropic foundations)
 - They need skills related to management, marketing and finance
 - They may have employees, volunteers, or a combination of them

The reasons for a non profit organizations are:

- Exploit regulatory advantages granted by the State (i.e. tax breaks, flexible work)
- Gather some resources at non-market conditions (i.e. form voluntary work or donations)

WHY DO WE NEED TO STUDY BUSINESS?

- Variety of interesting opportunities
- Better understand the mechanism behind the main business activities
- Understand how the free-enterprise economic system allocates resources in an efficient way

RELATIONSHIP BETWEEN SOCIETY AND BUSINESS

Businesses are organizations engaged in the production of a product or a service, instead the society refers to the social structures human beings collectively create.

Even though the two definitions seem to be distant, there is a strict bond between them: indeed, when a business does not respect society, the consequences are harsh

Think about Nike's scandal about children exploitation: in this case, the disrespect of society provoked tragical consequences to the company

The same thing happened with Amazon

The company, in fact, though guaranteeing maximum happiness to its stakeholders and customers, was several times accused of exploitation and severe punishments with respect to its employees

PROFIT AND PURPOSE: TALK ABOUT THE RELATIONSHIP

A long-term successful company has to put purpose before profit, i.e. purpose as a strong and durable basis which is going to be able to support a potentially huge profit in the future

Larry Fink, CEO of BlackRock, confirms this statement asserting that, without a strong credo, no possible long-term strategy may be created

The same thing is observable with Johnson and Johnson, whose credo is super clear: doctors and patients are THE priority

The main advantages of a purpose-led strategy are:

- Long-term sustainability
- Attracting and retaining top talent
- Building trust and reputation
- Innovation and flexibility
- Regulatory compliance: this approach can position the company to comply with existing and future regulations, reducing the risk of legal repercussions

ENVIRONMENTAL ECONOMY: PROS AND CONS

The pros of an environmental-based economy are:

- Efficient reorganization of the use of resources: this economy aims to minimize waste and optimize resource utilization
- Job creation and economic growth: the shift often leads to the creation of new job opportunities
- Innovation and technological advancements; investments in green technologies and practices can lead to breakthroughs in energy efficiency
- Global competitiveness and recognition: adherence to green standards can open up new markets and opportunities, increasing brand recognition and trust

The risks are mainly two:

- Investors could refuse to invest in a long-term business, while preferring a short-term one
- Customers may not want to spend more money just to solve something that apparently does not belong to their personal interest (environment)

Anyway, in the last years, lots of optimistic data were observed:

- 8 out of 10 customers think companies should accomplish business goals while respecting environment
- 42% of consumers would refuse to buy a product built with a socially irresponsible behavior
- 65% of consumers would switch to a more environmental friendly competitor

TALK ABOUT STAKEHOLDERS AND SHAREHOLDERS

- Stakeholders are groups or individuals that have a stake, i.e. an interest or claim, on a business enterprise

Note: Owners are stakeholders as well

- Shareholders (or stockholders) are groups or individuals that hold the shares of a company's stock (indeed, they are particular type of stakeholders)

They can also be defined as investors or stockholders who own a corporation through the purchase of company stock (They are the most important market stakeholders)

TALK ABOUT THE DIFFERENT TYPES OF SHAREHOLDERS

The shareholders may be:

- Individual: people who directly own stock shares issued by companies, also known as "Main Street" investors
- Institutional: pensions, mutual funds, insurance companies and university endowments who own stocks, also known as "Wall Street" investors

In general, institutional shareholders are the most frequent ones
Indeed, in the US, institutions account for 60% of all stocks owned

The reason behind it is founded on:

- Scale of investments: their substantial financial resources allow them to make sizable investments in a diversified portfolio, thus enhancing a capacity of diversification not shared by individual investors
- Professional expertise: institutional investors typically employ financial professionals, including portfolio managers and analysts
- Long-term investment horizon: this allows them to weather short-term market fluctuations, unlike individuals, who are more prone to making short-term decisions
- Economies of scale: then costs associated with research, analysis and trading can be spread across large asset base

COMPARE FRIEDMAN AND FREEMAN VIEWS

Regarding profit:

- Friedman says profit is the main goal and aim
- Freedman says it is not a final goal, but just a mean in order to arrive to success, since a company has to put purpose before profit (in order to be valuable, in fact, it has to create value)

Regarding owners' and stakeholders' interests:

- Friedman says that owners' interests have the full precedence
- Freeman says that every interest of stakeholders has to be considered into account (otherwise, their role would be inexistent and purely formal)

Anyway, in this case the middle is in the truth, since it all depends on the preexistent relationship stakeholders-owners: the main goal, in any case, remains that of reducing conflicts of interest among them

MARKET AND NON MARKET STAKEHOLDERS

Market stakeholder engage in economic transactions with the company as it carries out its purpose of providing society with goods and services

Non-market stakeholders are people who are affected by or can affect its actions: community, governments, competitors and the general public

WHAT ARE THE CORE ARGUMENTS OF THE STAKEHOLDER THEORY OF THE FIRM

- Descriptive: managers direct their energies toward all stakeholders, not just owners
- Instrumental: good relationships are a source of value for the firm
- Normative: any individual, who makes a contribution, or takes a risk, has a moral right to some claim on the corporation's rewards

DISCUSS IMPORTANCE OF STAKEHOLDER'S ANALYSIS

Stakeholder analysis consists in the identification of the relevant stakeholders and understand their interests and power in asserting their interests

THE POWERS

They can have:

- Voting power: the right to cast a vote (shareholders)
- Economic power (suppliers, customers and others)
- Legal power (government)
- Informational power: the access to valuable data (customers, activists and others)

ANALYZE MARKET AND NON-MARKET STAKEHOLDERS POWERS

MARKET STAKEHOLDER

Employees

INTEREST

- Stable employment
- Fair pay and benefits: they are interested in receiving a fair compensation for their skills and contributions
- Safe, comfortable work environment: employees seek for an environment that ensures their safety, creating a healthy condition

POWER

- Union bargaining power: if they are organized into unions, they can negotiate better terms
- Work actions or strikes: employees can engage in work actions or strikes to protest unfavorable condition
- Publicity: they can use social media in order to make negative publicity for the company

Shareholders

INTEREST

- ROI: they seek financial gains through dividends

- Voting rights: they aim to influence the major decisions within the company
- Rights to inspect company books: they seek for transparency, thus allowing them to inspect financial statement, ascertaining stability in the current management

POWER

- Influence on decision-making: they can influence strategic decision through their voting
- Impact on stock value: they collectively impact the stock value by selling and buying stocks

Customers

INTEREST

- Value and quality for money
- Safe and reliable products: they want to achieve what they were expecting
- Accurate information: customers expect truthful and accurate informations about the product they are about to buy

POWER

- Purchasing decisions: they can choose between products and suppliers, influencing sales and market share
- Reputation impact: the importance of reviews

Suppliers

INTEREST

- Regular orders and prompt payment: they want to constantly evaluate the reliability and the stability of the other company
- Ethical treatments
- Efficient use of capacity: they want to make sure their degree of saturation is effectively utilized

POWER

- Refusing to meet orders: they can refuse meeting orders
- Supplying to competitors: providing products to rivals

Retailers

INTEREST

- Quality goods at a reasonable price: they desire high-quality products at a price reasonable profit margin
- Reliable products: make sure products respect the standards

POWER

- Choosing other suppliers
- Boycotting companies: using informations they have to boycott companies is a possibility

Creditors

INTEREST

- Repayment of loans
- Collecting debt and interests

POWER

- Calling in loans: they can demand early payments or take legal action if loan terms are not met
- Repossessing or taking over property: in case of default, creditors may have the power to seize collateral or take control of assets

NON MARKET STAKEHOLDERS

Communities

INTEREST

- Employment of local residents: communities are interested in businesses providing job opportunities for local residents
- Protection of the local environment
- Local area development

POWER

- Refusing additional credit: they may resist providing additional financial support to businesses that are not aligned with community interest
- Lobbying government for regulation: communities can lobby for government regulations that align with their interests

NGOs

INTEREST

- Conformity to legal and ethical standards: they are concerned with businesses adhering to legal and ethical standards
- Social and economic development: they advocate for social and economic development initiatives

POWER

- Publicizing issues: they can use their influence to bring attention so social and environmental issues related to the focal firm
- Lobbying government for regulations: they may engage in lobbying efforts to encourage or influence government regulations

Business associations

INTEREST

- R&D support: business associations are interested in R&D support for their members

POWER

- Providing legal or group support: they may offer legal support for businesses facing common challenges

Governments

INTEREST

- Economic development
- Social improvements: improve the social welfare and community well-being
- Raise revenues through taxes: they seek to do it to fund public services

POWER

- Regulations and laws: establish regulations and laws that businesses must adhere to
- Licenses and permits: they control the issuance of licenses and permits necessary for business operations
- Allowing or disallowing commercial activity: they can restrict commercial activities based on regulatory frameworks

The general public

INTEREST

- Protect social values: the general public is interested in businesses that align with societal values
- Prosperity for society

POWER

- Minimize risks: the public can influence businesses by expressing concerns or withdrawing support if they perceive risks or violations
- Networking: they can network and collaborate leveraging the power of public opinion and spreading awareness

Competitors

INTEREST

- Compete fairly
- Seek new customers: they aim to expand their customer base

POWER

- Cooperation: they may collaborate on certain issues, such as industry-wide standards or regulations
- Pressing government: they can press the government for industry-friendly policies
- Suing unfair competition: they may take legal action against companies engaging in unfair business practices

DISCUSS THE SUNCAL CASE

In California a real estate developer, SunCal, purchased a large lot near to Disneyland theme park planning to build condominiums with 15% of the units set aside for below the market rate rental apartments. The developer required special permission from the city council to proceed

In order to understand what the right choice would be, it is necessary to conduct a stakeholders analysis, thus emphasizing their power and interests in the current situation

MARKET STAKEHOLDERS

Disney

INTEREST

- Protecting the Disney brand and guest experience
- Understanding potential impacts on attendance and the surrounding impact

POWER (high, in opposition)

- Legal influence and potential litigation
- Public relations and media influence
- Economic influence as a major employer and contributor to the local economy

Disney employees

INTEREST

- Job security and working conditions
- Potential impact on the community where they live

POWER (low, neutral)

- Collective bargaining power through union

NON-MARKET STAKEHOLDERS

The chamber of commerce

INTEREST

- Economic growth and development in the region
- Potential increase in tourism and business opportunities

POWER (low/intermediate, in favor)

- Lobbying influence on local policies and regulations
- Networking and collaboration with businesses to shape the economic landscape

Businesses in the resort district

INTEREST

- Guarantee of a healthy competitive environment
- Possibilities to enhance the value of tourism

POWER (high, in opposition)

- Collective influence through business associations
- Lobbying with Disney in order to further gain its market power

Politicians

INTEREST

- Balancing economic development with community needs and concerns
- Public opinion and reelection prospects

POWER (low/intermediate, neutral)

- Decision making authority through votes
- Ability to shape public discourse and influence the regulatory environment

Affordable housing advocates

INTEREST

- Ensuring the inclusion of low the market rate rental apartments
- Addressing housing affordability and accessibility concerns

POWER (low, in favor)

- Cooperation and addressing common risks
- Informational power of creating awareness

Environmentalists

INTEREST

- Preservation of natural resources and protection of the environment
- Assessing potential environmental impacts of the development

POWER

- Legal power of lobbying with the government in order to address regulation compliance concerns and helping the government to make wise and strategic decisions in this fashion
- Informational power of generating awareness among the general public, thus, as a consequence, producing a bad publicity for the focal firm, whose brand recognition could be severely harmed

TALK ABOUT UBER MINI CASE

The case regards an incident occurred in San Francisco, where a girl was killed (and both her sister and her mother got injured) by a UBER driver during the app-on-gap

This tragedy led the government to the decision of introducing a bill that required a commercial liability insurance from when the UBER X app starts to when the customer gets out of his car

UBER in a first moment opposed itself to the government's decision. Anyway, when the American Insurance Association asserted the justice behind the bill, UBER, after strenuously opposing Bonilla's bill, decided to come to a compromise and pay the bill (in this way its name was safeguarded)

About the case studied, we can consider some market and non-market stakeholders

The stakeholders are the following:

- UBER drivers (market stakeholders FOR closing the App-On Gap)
- UBER customers (market stakeholders FOR closing the App-On Gap)
- American Insurance Association (non-market stakeholders FOR closing the App-On Gap)
- California App-Based Drivers Association (non-market stakeholders FOR closing the App-On Gap)
- Taxi companies (non-market stakeholders FOR closing the App-On Gap)
- Consumer attorneys (non-market stakeholders FOR closing the App-On Gap)
- General public (non-market stakeholders FOR closing the App-On Gap, but more properly neutral)
- Governments (non-market stakeholders FOR closing the App-On Gap)
- High-tech trade associations and Internet-based firms (non-market stakeholders AGAINST the App-On Gap)
- Competitors (non-market stakeholders AGAINST the App-On Gap)

The sources of power of the various stakeholders are the following:

- UBER drivers: economic power in that they can quit or attempt to form an union
- UBER consumers: legal power to file lawsuits against UBER and economic power since they can choose to travel with other competitors
- American Insurance Association and California App-Based Drivers Association: political power by supporting the App-on Gap law (indeed, they could also work together to argue the importance of the law for protecting customers' interests)
- City, state and national governments: political power to enforce laws in order to protect consumer
- High-tech trade associations and internet-based firms: political power to speak out against the bill to close the gap, by also forming a coalition

In conclusion, the power map can be described as following:

- UBER and competitors: high power in opposition
- Lawyer and politician/government: high power in support
- Taxicab companies: medium/high power in support
- Community: medium/low power in the middle (indeed, a part is supporting and the other one is opposing)
- Drivers: low power in support

DESCRIBE THE CASE VALEANT

Valeant was a company based in Canada whose strategy basically was:

- The acquisition of existing companies (and their drugs)
- Cost cutting
- Price hikes

An example to understand the terrible consequences of these actions and the unbelievable human costs is provided by the company "Medicis": in 2012 it had 790 employees, but, after Valeant acquisition, 750 of them were fired

This means that the strategy was based on two main aspects:

- Interest only directed to profit maximization (and, consequently, also stakeholders' interests maximization)
- Lack of care about the relationship between business and society
- Unmorally exploitation of the essentiality of the goods offered (people, in fact, were ready to buy them at each possible price, since they were essential for their health)

The increase in price was allowed for the following causes:

1. The USA does not control drug prices.
2. Many of these drugs treat rare diseases, so the sales are small and generic producers are not interested.
3. It may take several years for a generic equivalent to be approved by the Food and Drug Administration (FDA), so a monopolism happens to be true.
4. Pharmaceutical companies are often successful in promoting their branded drugs over the generic versions, sometimes by spreading doubts about the effectiveness of generics

The causes for the decline of the company were:

- Acquisition and debt strategy: the high level of debt raised concerns about the company's financial stability
- Price gouging controversies: this led to investigations and public outrage, damaging the company's reputation
- Lack of R&D investment: instead of focusing on research and development, Valeant focused on acquiring existing drugs and maximizing profits through price increases thus raising concerns about the sustainability of their business model
- Legal and regulatory challenges: the legal challenges added further pressure on the company's financial situation, contributing to the erosion of investor confidence

Thus, the investors decided to sell actions for the following causes:

- Debt levels and financial strain: the high level of debt raised concerns among investors about the company's ability to meet its financial obligations
- Pharmaceutical price gouging controversies: investors may have sold their shares due to fears that regulatory actions could impact the company's profitability
- Ethical concerns: investors may have decided to sell actions due to ethical concerns
- Leadership and management issues: concerns about the decisions made by Pearson could have eroded investor confidence
- Legal and regulatory risks: the uncertainty surrounding potential legal repercussions may have prompted investors to sell their shares

So, in 2018 three changes occurred within the company:

- Change of management: Pearson was fired as a CEO
- Change of name: the company passed from Valeant to Bausch Health Companies
- Change of mission: taking seriously care of people's lives

EXPLAIN THE CASE PATAGONIA

Patagonia is an apparel company founded by Yvon Chouinard in 1972

Its line is made by:

- Sportswear
- Technical outerwear
- Technical knits
- Hard goods

The philosophy of the company relies on two main aspects:

- The oriental philosophy for which, in order to have successful results, we need to change ourselves before changing the products
- The zen archery principle for which, in order to hit the bull's eye, it is necessary to carefully consider all the other, and apparently secondary, aspects of the reality we are treating

- MBA (management by absence), for which a work/life balance is vital

Patagonia's mission is:

- Build the best product
- Cause no unnecessary harm
- Use business to inspire and implement solutions to the environmental crisis

The goal is:

- Minimizing environmental impact
- Guaranteeing financial performance (10% annual growth for the next 5 years)

The criteria are:

- Quality (which is defined as simple, functional and multifunctional)
- Environmental impact
- Innovation

The company, in fact, in the early 1990's decided to introduce organically grown cotton and, even though in the first this revealed itself to be a failure, they continued to proceed in this direction (by also helping themselves with "transitional" cotton)

Though, this decision had some inevitable risks, such as:

- Limited availability of fabric: organic cotton production may not have been as widespread or readily available as conventionally grown cotton, leading to potential constraints
- Increase of costs (by at least 50%): organically grown cotton implies a higher cost driven by increased labor costs and additional expenses related to organic farming practices
- Changes in the supply chain: this includes finding new suppliers, establishing relationships with organic cotton farmers and adapting manufacturing processes

Anyway, the company succeeded in not rising the price by more than 20%, thus maintaining a high quality level of the product

In this fashion, Patagonia is a role model, since:

- It lowered the uncertainty about adopting environmental friendly practices by serving as an experiment (indeed, new companies are ready to produce clothes or other products in a more sustainable fashion)
- Found new strategies to lower the cost of adopting sustainable practices
- Created new campaigns (e.g. “save the waves”, “the shit stops here”), in order to increase social awareness

Patagonia’s stakeholders are:

- Owners
- Customers
- Competitors (who receive patents from Patagonia in order to be more environmentally friendly)
- Employees
- Community
- NGO’s that receive donations

The Patagonia’s organization is the following:

- Logistics/manufacturing (building the most qualitative product)
- Marketing
- R&D
- HR
- Governance and leadership

The governance is characterized by:

- Shareholders: Yvon and his family, who own 100% of the company
- Board of directors: Yvon and his family
- Management: those who care about day by day operations
- CEO: Ryan Gellert, from 2020, who perfectly knows the hiking world

The manufacturing and logistics is based on:

- Empowering the value of manufacturing, whose costs are 1/3 of the cost of Patagonia goods
- Facilitating shipping

In the marketing sector Patagonia's costs are less than 1% (there is a lot of free advertising, even a campaign of American Express)

In this way, the company creates two effect:

- Positive, since it generates environmental awareness
- Negative, since some campaigns (e.g. the climb of the ambassador Potter in a place closed to the public for conservative reasons) generated public disappointment

The sales sector is based on four channels:

- Retail (a place where to create a solid family and community): retail stores are designed to create a sense of community, aligning with company's values
- Wholesale: this channel, that is selling to various third-party retailers, allows Patagonia to reach a broader customer base by making its products available through a diverse network of retail outlets
- Catalog: catalogs served as a way to showcase the brand's products, allowing customer to have a broader perspective of offerings
- Internet: the user-friendly website allows customers to explore the product range and engage with the brand from the convenience of their own homes

The human resources sector builds its basis on the essentiality of sharing common values within the company: indeed, by offering many environmental benefits to employees, such as paid sabbaticals up to two months to work for environmental organizations, the goal of creating a strong and profound family may be achieved

Lastly, the company decided to incentive the product lifecycle initiative (4R's program: reduce, repair, reuse and recycle)
In particular, in the last few years, replacement was preferred over repair (indeed, the shipping time for consumers is reduced and the costs for the producer are reduced as well):

- Reduce, by producing multifunctional products
- Reuse, by creating the "Worn wear" program, where worn wear products are sold
- Recycle, by paying shipping expenditures for consumers to return broken/extremely used products to the company
- Repair, by creating more easily repairable products and by offering free repairs in store

DESCRIBE THE EVOLUTION OF FIRMS

In a first moment, there is alignment of interests, which means that the owner of a company is also the director and the management

Though, when a company grows in size, a separation between ownership (stakeholders) and management (managers) has to occur)

WHAT ARE THE TWO TYPES OF OWNERSHIP

The two types of ownership are the following:

- Public limited company (i.e. Apple, Facebook, Disney)
 - Offers shares to the general public
 - Has a limited liability
 - They are public
 - The document filing requirements are demanding
- Private limited company (i.e. IKEA, Patagonia)
 - Does not offer shares to the general public
 - The number of members are often limited
 - The document filing requirements are not as demanding

Further, the public limited company is the typical ownership structure in the Anglo-Saxon context
Indeed, it offers greater effectiveness and transparency for financial markets and it is empowered by the development of managerial schools

DISCUSS THE PROS AND CONS

PUBLIC LIMITED COMPANY

The pros are:

- Access to capital: they can raise capital by issuing shares to the public, attracting larger amounts of investment
- Public trust and prestige: this can enhance the company's reputation
- Employee benefits: such companies use stock options to attract talents
- Expansion opportunities: it's easier to merge or expand globally

The cons are:

- Regulatory compliance: they are subject to strict regulatory requirements
- Loss of control: this is driven by a more dispersed ownership structure
- Vulnerability to takeovers: they are more vulnerable to hostile takeovers

PRIVATE LIMITED COMPANY

The pros are:

- Control: they are controlled by a small group of individuals, centralizing decision-making
- Flexibility: more flexibility in terms of management decisions
- Confidentiality: they are not required to disclose so many informations

- Long-term focus: they can focus on long-term goals without pressures of expectations from public investors

The cons are:

- Limited capital: it's challenging to raise capital and grow
- Limited liquidity: shareholders may find it difficult to sell their shares
- Limited employee benefits: offering stock options as an employee benefit may not be as attractive as there is no public market for the shares

STATE THE GOALS OF STOCK OWNERSHIP

Making money through rise and fall of stock prices (depending on the shareholder's interest, i.e. either long-term appreciation or short-term returns)

Indeed, when stock prices rise (i.e. capital appreciation), shareholders receive share of company's earnings (i.e. dividends)

In particular, stock prices are influenced by both company's performance and overall movement of the stock market

TALK ABOUT AGENCY RELATIONSHIP AND DESCRIBE THE PROBLEMS RELATED TO IT

An agency relationship is a contract according to which the principal delegates an agent to fulfill a task which implies a power, for the agent itself, to take decisions in name of the principal

Owners, in fact, do not manage day-to-day company operations, which are instead delegated to managers

The main problems associated to it are:

- Conflict of interests: indeed, since principal and agent are both utility maximizers, the agent will probably act in her/his interest rather than in the interest of the principal

- Safeguard mechanisms: indeed, the principal will be compelled to arrange safeguard mechanisms (contracts, controls etc) which are often extremely costly

DISCUSS THE SOURCES OF AGENCY CONFLICT

There are several causes that may provoke agency conflict:

- Moral hazard (hidden actions/informations): indeed, the manager probably does not invest in positive NPV project, but instead tries to maximize his utility by:
 - Exploiting alternative use of money (e.g. benefits, incidental payment)
 - Investing in the assets that best suit his skills
 - Increasing his own value and cost of substitution
 - Not giving the sufficient effort due to his freedom of action
- Earning retentions, such as over-investing instead of redistributing benefits and over-diversifying
- Time horizon, since shareholders usually have a long-term horizon but managers have a shorter term horizon
- Risk aversion, since shareholders can diversify their portfolio (which means that risk is not so harmful), but managers are strictly tied to the results of the company (i.e. they try to minimize the risk in order to keep their job)

DEFINE CORPORATE GOVERNANCE

Corporate governance can be defined as the process by which a company is controlled or governed through systems of internal governance that determine overall strategic direction and balance sometimes divergent interests

DISCUSS THE DIFFERENT ROLES CENTRAL IN CORPORATE GOVERNANCE

The different roles are strictly interconnected one to each other, and they specifically are:

- Shareholders, i.e. those who decide about the constitution or the termination of the firm, approval or rejection of financial statements and removal and compensation of board of directors
- Board of directors (elected by the shareholders), who behaves as a intermediate between shareholders and managers
- Managers (chosen by the board of directors), who manage every day activities and operations

DISCUSS THE ROLE OF BOARD OF DIRECTORS AND THE RELATIONSHIP CEO-BOARD OF DIRECTORS

The BoD has the following duties:

- Establish corporate objectives: it is responsible for setting the company's overall direction, goals and objectives
- Develop strategy and broad policies: it establishes broad policies that guide decision-making across the organization
- Select top-level personnel in order to reach out these goals: it ensures that the leadership team has the skills and experience necessary
- Review management's performances: it is fundamental to state coherency with established objectives and goals
- Protect stakeholder interests: act in the best interests of the company and its stakeholders
- Empower relationships with investors: ensuring transparency in financial reporting and strategic decision-making

As Bob Finocchio says, the relationship between CEO and board of directors is not always easy: instead, most of the times it is extremely challenging

In some moments, a lack of consideration of the CEO from the BoD may create a worrying conflict of interest, which is harmful both in the short-run and in the long-run

Anyway, it is fundamental to guarantee a top-level preparation from both parts (BoD and CEO), but, at the same time, the BoD has to

continuously challenge the CEO in order to rise and empower creativity

DISCUSS THE DIFFERENT BOARD STRUCTURES, ANALYZING PROS AND CONS

All-executive director board

This model has no member of the board outside the company

Pros:

- Good for small family firms
- Efficient decision making: a faster decision making is given by the intimate familiarity with the day-to-day operations
- Unified vision and strategy: executive working together on the board may have a more unified vision

Cons:

- The company is not seen as a distinct entity
- There is a lack of challenge for the CEO, and, therefore, a lack of creativity and development: indeed, an external figure who judges the inner company's condition from his/her point of view is fundamental in order to have a deeper understanding of what the correct adjustments must look like

Indeed, for startups, the two main mistakes are precisely:

- Avoiding outside independent directors (who can instead give an external and challenging point of view)
- Having the wrong management representation (indeed, all family members of the board, with a lack of business experience, are harmful in the long-run, exactly as happened to Parmalat)

Majority executive directors board

This model presents a residual number of external members in the BoD

Pros:

- Presence of an external point of view about the company's condition, given by the non-executive members of the board
- Offers the basis for a capital growth
- Faster decision making: the majority of executive directors may be able to increase velocity in decision making

Cons:

- Lack of additional expertise (new market, technology etc)
- Disproportion between executive and non-executive members
- Disproportion in the power owned by executive members, that often tend to shut down non-executive's opinions, diminishing creativity

Majority of non-executive directors board

Pros:

- Presence of a strong external point of view, useful in order to increase creativity and quick resolution of the hidden problems of the company
- Diverse skill set: non-executive directors bring a diverse range of skills, improving decision-making
- Avoidance of conflicts of interest: non-executive directors are less likely to have conflicts of interest compared to executives

Cons:

- The presence of outside directors lead them to delegate the strategy formulation to the CEO, thus neutralizing their positive contribution
- Slower decision-making: they could need more time for deliberation, as they rely on information provided by the executive team
- Less insight into company culture: this could impact their ability to assess the organizational environment

DESCRIBE THE CHARACTERISTICS OF AN INDEPENDENT DIRECTOR

An independent director presents the following characteristics:

- He/she is not a recent employee
- He has not received compensation from the company, including relatives (indeed, no relative is employed by the company)

DISCUSS THE IMPORTANCE OF DIVERSIFICATION IN THE BOD

The diversification is fundamental for different causes:

- Diversifying skills helps business effectiveness (e.g. experience, knowledge... are necessary in order to increase proficiency)
- Diversifying stakeholders (i.e. all those with contractual link to the company, such as customers, suppliers, employees) has sure business effectiveness
- Geographical, gender and, more in general, societal diversity is necessary to balance the interest of the company with the interests of the society

The results, in the last few years, have been positive in some cases, but negative in others. For example:

- In Japan, nearly 15% of companies in the Nikkei 225 stock index now have at least one non-Japanese on their boards
- In Germany, progress on making the boards more international is really slow (indeed, even though the bosses of 8 of the 30 largest public companies are foreign, the rest of the boards is predominantly German). At the same time, it seems to be hard to get more women on boards
- In France, instead, the review “Cherchez les femmes” showed that the tax of women on board increased exponentially in the last few years

DEFINE THE CHAIRMAN OF THE BOARD

The chairman of the board is the principal officer of a corporation who presides over its board of directors and oversees its activity:

1. By bringing forward for discussion and action problems arising from conflict of interest, problems stressing financial stewardship, policy questions growing out of operating decisions
2. By setting up sound board procedures and securing competent board members

Thus, chairmen cannot represent the shareholders in the first role and at the same time impartially judge their performance

DISCUSS THE PROS AND CONS OF THE SEPARATION OF THE ROLES

The separation is intended to maximize management accountability and the independence of the board

When things get tough, companies usually split roles in order to avoid concentration of power: indeed, the CEO would also become the chairman

Anyway, the relationship between roles depends on the condition of the company:

- For small companies, indeed, sometimes the coincidence of roles could be useful
- For large companies, instead, splitting roles is useful to avoid monopoly of power

The pros for separation are:

- Independent oversight: the chairman can objectively assess and monitor the CEO's performance
- Improved corporate governance: it promotes transparency, accountability and protection of shareholder interests
- Mitigation of conflicts of interest: it ensures that the board's decisions are not overly influenced by executive leadership

- Focus on long term strategy: the CEO can focus on operational matters, while the chairman can focus on overseeing the long-term strategic direction of the company

The cons for separation are:

- Communication challenge: there could be a lack of alignment between strategic goals and operational execution
- Loss of unified vision: CEO and chairman could pursue divergent strategies
- Limited decision making efficiency: decisions may require approval or consensus from both the CEO and the chairman, potentially impeding agility

The pros for unification are:

- Clear chain of command: it allows for quicker decision making and more streamlined communication
- Unified vision and strategy: a more unified vision is made by the leader driving both the company's day-to-day operations and its long-term direction
- Efficiency in crisis situations: this flexibility is driven by the lack of need for coordination

The cons for unification are:

- Potential for conflicts of interest: the same individual is responsible for both setting the company's strategy and oversee its implementation
- Reduced board independence: the CEO-chairman may exert significant influence over the composition of the board
- Shareholders concerns: they may view the unified role as a governance risk, expressing concerns about the concentration of power in a single individual

DISCUSS THE BOARD OF DIRECTORS FUNCTIONS ANALYZING THE COMMITTEES

The different committees are:

- Compensation committee: approves salaries and other benefits of top managers
- Nominating committee: recommends candidates for officers and directors (in particular, their role is fundamental since they are those who actually promote significant changes in the company)
- Audit committee: reviews financial reports, appoints auditors
- Specialized committee (i.e. CSR, which is the corporate social responsibility)

SHOW AND DESCRIBE THE KEY FEATURES OF EFFECTIVE BOARDS

The main features of effective boards are the following:

- Select outside directors to fill most positions: they may include numerous independent directors bringing diverse perspective and industry knowledge, helping ensuring that the board is not overly influenced by internal dynamics
- Hold open elections for members of the board: allowing shareholders to participate in the election process enhances talent recognition and stakeholder's trust
- Appoint an independent lead director: this role, separate from CEO or chairman, can provide leadership that is free from conflict of interest
- Diversify board membership: a diverse board help navigating challenges, identifying opportunities and representing the interest of a broader range of stakeholders
- Identify and manage risks that could affect the organization: regularly assessing potential risks and implementing strategies to mitigate them
- Encourage innovation and creative thinking: this contributes to business adaptability and competitiveness
- Encourage team work and leverage each other's strengths: a collaborative environment promotes better decision-making enhancing overall effectiveness

COMMENT AND DISCUSS FACEBOOK'S BOARD OF DIRECTORS AND, EVENTUALLY, GIVE SUGGESTIONS REGARDING WHAT TO IMPROVE

Facebook's board of directors, for first, is characterized by the absence of executive members, except for Zuckerberg

Then, formally there is no intersection between the two groups
Anyway, there exist some members (i.e. Alford, Anderson, Houston) related to the chairman and CEO of the company by a personal relationship (indeed, for this cause, even though they are formally independent, they are considered non-independent members)

From the diversification point of view:

- Gender diversity plays a very important role (indeed, about half of the board of directors is made by women)
- Instead, there is a lack of geographic diversity, since the great majority of the board members is American

DISCUSS THE RELATIONSHIP BETWEEN CEO OF FACEBOOK AND ITS BOARD OF DIRECTORS

Zuckerberg, the chairman of the board and CEO, has the following powers:

- Chair (then, new nominated Director comes from his initiative)
- CEO
- Super voting control (he has got 57.7% of the votes)

The coincidence of roles in the hands of Zuckerberg implied the strong disappointment of shareholders: a proposal has been put forward claiming that an independent chairman would be better able to:

- Oversee the executives of the company
- Improve corporate governance
- Set a more accountable, pro-shareholder agenda

In addition, a strong crack between the CEO and the BoD has been created right after Andreessen's scandal

In fact, the member of the BoD, close friend of Zuckerberg, has been accused of slipping Zuckerberg information about the committee's progress and concerns, helping Zuckerberg negotiate against them

Thus, Andreessen warned the Facebook founder about what he would have been asked before directors posed the questions

DISCUSS THE MEANING AND THE PROS/CONS OF EXECUTIVE COMPENSATION

Executive compensation refers to financial and non-financial rewards provided to top executives and senior management within a company

It consists in the following components:

- Base salary
- Bonuses: related to achieving specific targets or goals
- Stock Options
- Restricted Options

The pros are:

- Retention: by providing incentives like stock options, companies aim to retain key executives and motivate them to stay with the organization for the long term (indeed, stability is one of the keys for success)
- Motivation: performance-based components, such as stock options, are designed to motivate executives to meet and exceed performance targets (thus leading to a rise in stock price)
- Alignment with shareholders: restricted stocks, for example, align the interests of executives with those of shareholders (indeed, when executives have a stake in the company's stock performance, they are more likely to make decisions that benefit the company's long-term growth)

- Risk management: if executives have rewards to performance, they can improve their decision making

The cons are:

- Executives' fixation to performance pay may involve unethical practices (indeed, managers sometimes decide to manipulate their performance in order to make out more money)
- Short-term focus: sometimes executives prioritize short-term gains at the expense of long-term sustainable growth, leading to decisions that boost stock prices temporarily while not caring about the long-run health

NOW, FOCUS ON THE POTENTIAL HARM CAUSED BY STOCK OPTIONS IN EXECUTIVE COMPENSATION

As Harvard Business Review states, CEOs with lots of stock options are more likely to break laws

Firstly, the main difference between stock options and actual shares is that stock options have only upside, instead actual shares have an upside and a downside

Then, since a stock option will typically only provide a payoff if the company grows in value, an executive is rewarded for a success but paid no differently if the company's value stays flat or decreases by billions

Talking about an environment related company, researches showed that a CEO with stock option compensation was 65% more likely of breaking environmental law the next year than a CEO with no stock option

The cause is that stock options lead executives to seek short-term profits by cutting safety expenditures and, consequently, harming the environment

EXPLAIN THE MEANING OF AN INVESTIGATION FROM SEC AND THE RELATED SCANDALS

Normally, an investigation by the SEC for accounting restatements is due to too high stock options

This condition often leads to some harmful scandals, such as:

- Spring-loading, i.e. granting options shortly before announcing good news in this way
- Bullet-dodging, i.e. delaying a grant until after bad news

DISCUSS THE MEANING OF STOCK OPTIONS AND RESTRICTED STOCKS

Stock options consist in the right (but no obligation) to buy a company's stock at a set price (strike price) for a certain period

In addition, the following characteristics are strictly related to the stock options:

- Ownership: you don't own the stock until you exercise the options
- Potential gain: you profit if the stock price goes above the exercise price
- Immediate value: there is no immediate value when granted
- Risk: there is no risk of losing money, since they consist in a right, and not in an obligation to buy them

The benefits of guaranteeing stock options in executive compensation are:

- Alignment with shareholders: executives, indeed, benefit financially when the company's stock performs well, which encourages them to make decisions that enhance shareholder value
- Long-term commitment: stock options typically come with vesting periods that require executives to remain with the company for a specific duration, thus increasing company's stability

- Ownership mentality: executives become shareholders, fostering a sense of ownership and gaining a deeper understanding of the business

Restricted stocks consist in stocks with limits in their transferability for a certain period

In addition, the following characteristics are strictly related to the restricted stocks:

- Actual shares: they give you actual shares of company stock subject to restrictions until they vest
- Ownership: you own the stock from the grant date but can't sell it until it vests
- Potential gain: you benefit from any increase in the stock price from the grant day
- Immediate value: they have immediate value because they are strictly tied to the current stock price at grant
- Risk: if the stock price falls, the value of restricted stocks also decreases

The benefits of guaranteeing restricted stocks in executive compensation are:

- Long-term commitment: restricted stocks come with vesting schedules, requiring executives to remain with the company for a specific duration to receive full ownership of the shares, thus encouraging stability
- Performance alignment: they align the financial interests of executives with the company's shareholders (indeed, executives benefit from the appreciation of the company's stock price, which encourages them to make decisions and take actions that contribute to the company's growth and profitability)
- Encouraging risk-taking and innovation: executives are more inclined to take calculated risks and drive innovation
- Stronger commitment to the company's success: they are more motivated to contribute to the company's growth and profitability

The disadvantages are:

- Market risks: the value of restricted stocks is subject to market fluctuations. If the company's stock price declines, the overall value of the executives' compensation may decrease, potentially leading to dissatisfaction among executives
- Potential for overemphasis on stock price: if executives are heavily incentivized through restricted stock, there is a risk that their decision-making may be overly influenced by short-term fluctuations in the company's stock price rather than long-term value creation

DISCUSS THE SHAREHOLDERS' LEGAL RIGHTS

The legal rights of shareholders are the following:

- Receive dividends, if declared (they can be received only if a firm is profitable)
- Vote on:
 - Members of the board of directors
 - Major mergers and acquisitions
 - Proposals by stockholders
- Receive annual reports on company's financial condition
- Bring shareholder suits against the company and officers
- Sell their own shares of stock to others

EXPLAIN HOW THE PROTECTION OF SHAREHOLDER INTERESTS WORKS

Shareholder interests are protected in two main ways:

- The financial disclosure and insider trading is regulated by government agencies, such as SEC in the US

In particular:

- Financial disclosure in company annual reports is mandatory
- Insider trading occurring when access to confidential company information is used in buying/selling stocks is illegal

- Stakeholder activism, which consists in aggressive voting and campaigning, or more simply in buying stocks in companies with better environmental and social policies

DISCUSS WHICH IS THE RELATIONSHIP BETWEEN SHAREHOLDERS AND THE RIGHT OF VOTING

All the shareholders have the right to vote, but in the reality few of them actually put this right in exercise

More precisely:

- 91% of the shares owned by institutional investors were voted during last proxy season
- 29% of the shares owned by individuals were voted

This situation is due to the fact that brokers do not have the time to collect and analyze deeply informations about the company and, as professor Fisch observed, they prefer to give up

DEFINE THE PROBLEMS WHICH DERIVE FROM SHAREHOLDERS WHO OWN STOCK IN MANY COMPETING COMPANIES

When a firm is predominantly controlled by shareholders who also own that firms' competitors, those common owners try to maximize the value of their entire portfolio (i.e. the two firms together) rather than the value of any one firm

Otherwise, in fact, any profits they gain from one firm will be roughly matched by losses at its competitors, which means that their entire portfolio would show extremely negative effects

DISCUSS THE CASE DANONE, HIGHLIGHTING THE POWER OF SHAREHOLDERS AND THE HARM OF A CONFLICT OF INTEREST

Emmanuel Faber, the former CEO of Danone, decided to center his business around ESG (Environmental, Social, Governance) objectives

This strong decision provoked a profound crack between staunch supporters of sustainable capitalism and hard-rugged corporate activists

Even though this plan seems to be totally commendable, in the end Faber was fired due to a shareholder's decision

The causes are several, and they can be resumed as:

- Conflict of interest in the choice itself: indeed, the BoD usually prefers a plan that combines economic performance and sustainable plan and in this case the “sustainable” aim offset the economic performance (in particular in the short-run)
- Lack of communication between CEO and BoD: indeed, the absence of communication between CEO and shareholders (in particular, long term shareholders) can intensify the underlying conflict of interest
- Underlying complicated economic condition: indeed, Danone in 2017 was not in a good economic moment, and arguably a long-term oriented strategy, as the one promoted by Faber, was not the right one at the time
- Conflict of interest between shareholders: when there is misalignment between the shareholders, the company's stability is mined and, therefore, this can easily lead to choices such as the firing of the CEO

In conclusion, Faber's firing was due to the combined effect of the arguable lack of willingness to maximize his profit in the short run, thus putting purpose way before profit, and the negativities created by a difficult underlying economic condition

DISCUSS THE ENRON CASE, HIGHLIGHTING THE CAUSES THAT LED THEM TO FAILURE

Enron Corporation was an American energy, commodities, and services company based in Houston, Texas

Enron's strategy and the precise actions/moments that led them to failure can be resumed as follows:

- Deregulation of energy markets (1980s-1990s): it allowed Enron to expand rapidly by taking advantage of new trading opportunity (one of those deregulation actions is the Energy Policy Act of 1992, which opened electricity transmission grids, after the restructuring of interstate pipeline operations). After this decision, the company's strategy became more risk taking and arrogant (indeed, it was also strong for a known support from the government)
- Early accounting irregularities (late 1990s): Enron began engaging in accounting practices that obscured its true financial health, in particular using mark-to-market accounting and creating SPEs:
 - Mark-to-market accounting is a measure of the fair value of accounts that can change over time, such as assets and liabilities. It aims to provide a realistic appraisal of an institution's or a company's current financial situation.
 - Enron used it to estimate the value of its long-term contract, and, under this type of accounting, it would project the future cash flows from these contracts, discount them to their present value and report the resulting values as current assets or liabilities. Anyway, Enron used it in aggressive and often optimistic way, assuming that long-term contracts would be profitable over their entire duration (while leaving the company at risk if its bets failed to pay off), i.e. they inflated the reported profits and assets (the permission was granted by the SEC on an "exceptional basis" and was supposed to be temporary)
 - SPE (Special Purpose Entity) is a legal entity created for a specific, limited purpose
 - Enron found them as limited partnerships or corporations, with their own BoD and management. The main purpose was to create

off-balance-sheet entities that would hold certain assets or liabilities, thus keeping them off Enron's financial statements (indeed, they would transfer certain assets and liabilities to the SPEs, thus reducing its reported debt on its balance sheet and improve its financial ratios, formally increasing stability). In addition, Enron provided initial funding to these SPEs, often in form of stock or debt, but the assets and liabilities of SPEs were technically separate from those of Enron

- Enron's Merrill Lynch Deal (1999-2000): Enron entered into a controversial partnership with Merrill Lynch to move debt off its balance sheet
- Transfer of resources to California (early 2000's): Enron exploited the state's electricity market for its own financial gain. The main tragic characteristics related to it are:
 - Market manipulation: the company took advantage of energy deregulation in California by creating electricity shortages and withholding power generation. In order to drive up energy prices, the company engaged in tactics like "gaming the market"
 - Price gouging: this led to massive blackouts and electricity bills for consumers
 - Loss of reputation: these actions clearly highlighted the company's aggressive and unethical business practices
- Loss of confidence in Enron's stock (2000-2001): indeed, Enron's stock price began to decline sharply in 2001, causing notable losses for investors and raising doubt about the company's stability (opposed to the previous overconfidence)
- Resignation of CEO Skilling (August 2001): new doubts about the company's stability
- SEC investigation (October 2001)
- Release of Whistleblower Tapes (November 2001): audio recordings of Enron traders discussing manipulating the energy market were release to the public, provoking a strong loss in reputation
- Bankruptcy filing (December 2001): the definitive moment of Enron's collapse

Now, analyzing Enron's culture, we can observe that the following two characteristics hold:

- Machismo culture: Enron, indeed, fostered a highly risky and aggressive corporate culture that prioritized financial success at any cost
- Lack of ethical values
- Creation of an unhealthy workplace: any type of question is not encouraged and employees are constantly in competitions, such that if, in the end of the year, you are in the 10% least productive range, you are fired
- Arrogance and overconfidence

In addition, the concerns of investors in Enron case are described as follows:

- High-level investments: many large financial institutions, including investment banks and mutual funds, invested in Enron. These institutions purchased Enron's stock and bonds as part of their investment portfolios
- Dual role: it appears when they not only invested in Enron but also provided financial services to the company
- Conflict of interest: it happened from the fact these financial institutions had a financial stake in Enron's success and profitability. As a result, they had an incentive to promote Enron's stock and financial products, even if they had concerns about the company's financial health

Instead, the concerns of underwriters are the following:

- Underwriting series: underwriters and investment banks were responsible for pricing, marketing and distributing these financial products to investors
- Due diligence and lack of attention: they are expected to conduct due diligent to ensure the accuracy and completeness of financial information in offering documents. However, in the case of Enron, there were allegations that underwriters did not adequately scrutinize (thus failing in finding Enron's real issues)

- Conflict of interest: while they were supposed to provide independent assessments of Enron's financial health to potential investors, they also held Enron stock and had a vested interest in the company's success

The analysts normally build models to project the firms' financial result, as well as speak with customers, suppliers, competitors, and other sources with knowledge of the industry. They generate research report, a set of financial estimates and a recommendation regarding the stock's expected performance

In the case of Enron, they assumed the following characteristics:

- Conflicts of interest: indeed, many analysts were employed by firms that had business relationships with Enron, such as underwriting its securities or providing other financial services (thus creating a conflict between its role as an objective evaluator and the firm's financial interests)
- Overly optimistic recommendations: this contributed to the misleading perception of Enron's financial stability
- Lack of skepticism: they did not exhibit the necessary skepticism and critical evaluation when uncovering the accounting irregularities, off-balance-sheet debt and other financial problems of the company
- Double-hat behavior: one hat is that of the independent analyst, and the other is that of the investment banker analyst who helps his company attract investment banking success (thus avoiding to alert investors about the fragility of the firm)

The BoD in Enron scandal had the following characteristics:

- Lack of monitoring and complicity: indeed, the BoD witnessed numerous indications of questionable practices by Enron management over several years, but chose to ignore them to the detriment of Enron shareholders, employees and business associates
- Lack of independence: it was indeed compromised by financial ties between the company and certain board members. The board

also failed to ensure the independence of the company's auditor, allowing Andersen to provide internal audit and consulting services while serving as Enron's outside auditor

- Failure to address Whistleblower concerns: Sherron Watkins, an Enron executive, raised concerns about the company's accounting practices and sent a memo to the board. The board though did not take sufficient action to investigate about it
- Conflict of interest with financial interests: some board members and financial interests tied to the company's success, such as stock ownership. This created potential conflicts of interest that may have compromised their ability to act in the best interests of shareholders

The main responsibilities of auditors in Enron scandal are:

- Auditing services: Arthur Andersen, indeed, was the auditing firm responsible for reviewing and attesting to the accuracy of Enron's financial statements
- Complicity in accounting irregularities: rather than acting as a vigilant, Andersen was accused of being complicit in Enron's accounting irregularities (indeed, the auditors failed to properly scrutinize Enron's financial disclosures, allowing the company to use aggressive policies and off-balance-sheet entities such as SPEs)
- Document shredding: Andersen had engaged in document shredding in an effort to destroy evidence related to its audits of Enron
- Conflict of Interest: the auditing firm not only earned substantial fees from its auditing services but also provided lucrative consulting and non-audit services to Enron

In particular, in 2002, Andersen was found guilty of obstruction of justice in connection with Enron case.

This scandal had a profound impact on the accounting and auditing industry, highlighting the need for greater transparency and ethical conduct

The main characteristics of regulators during the scandal are:

- Lack of timely action: SEC did not take timely action to investigate or address concerns related to the company's financial practices, accounting irregularities, and off-balance-sheet transaction
- Lack of attention: SEC granted Enron temporary permission to use mark-to-market accounting but never re-visited its decision
- Overreliance on self-regulation: regulators had relied heavily on self-regulation within the accounting and financial industry. This allowed accounting firms like Arthur Andersen to perform both audit and consulting services for the same clients (thus creating conflicts of interests)
- Complexity of financial structures: Enron's complex financial structures, including SPEs, made it challenging for regulators to understand the root of the irregularities

The Enron scandal prompted significant improvements in corporate governance and regulatory oversight, in particular with respect to the conflict of interests (i.e. the willingness to separate commercial and investment banks, guaranteeing the independence of auditors and the independence of directors etc.)

In particular, one of the most important legislative responses to the scandal was the Sarbanes-Oxley Act of 2002.

Here there is how the situation improved after the Enron scandal:

- Enhanced corporate governance: indeed, Sarbanes-Oxley introduced stringent requirements for corporate boards and audit committees. It mandates that a majority of board members has to be independent and it establishes requirements for audit committee members, including their financial literacy
- Auditor independence and reducing conflicts of interests: it prohibits auditing firms from providing certain non-audit services to their audit clients
- Financial reporting and disclosure: the act introduced more stringent requirements for financial reporting, including certifications of the accuracy and completeness of financial

statement (thus disclosing all material off-balance-sheet transactions)

- Internal controls: companies are required to assess the effectiveness of these controls
- Whistleblower protection: provisions to protect whistleblowers who report corporate misconduct (thus allowing employees to signal concerns about accounting at every moment)
- Strengthened regulatory oversight: indeed penalties for securities fraud were increased
- Improved transparency and disclosure: it requires companies to disclose material information to the public

STATE ENRON'S STAKEHOLDERS, HIGHLIGHTING THEIR INTEREST AND POWER

Enron's stakeholders can be defined as follows:

- Shareholders
 - Interests: they had financial interests in the company and expected their investments to appreciate in value and generate dividends. They wanted the company to appear profitable to maintain or increase stock prices
 - Power: High power, as they could influence company decisions through voting and had a significant financial stake
- Employees
 - Interests: they had interest in job security, competitive compensation and the overall success of the company
 - Power: Medium power as individuals, but collectively, they were essential to the company's operations
- Creditors and lenders
 - Interests: they had interest in the company's financial stability and its ability to meet its financial obligations
 - Power: high power, especially in the event of financial distress, as they could call in debts
- Customers
 - Interests: they wanted reliable energy services at competitive prices

- Power: medium power, as they had some choice but often depended on the availability of energy services
- Regulators
- Interests: regulators, such as FERC, had an interest in ensuring that Enron complied with energy industry rules and regulations and that market manipulation or abuse was not occurring
- Power: high power, with authority to investigate and enforce compliance
- Investment analysts and rating agencies
- Interests: providing assessments and recommendations about Enron's stock and creditworthiness
- Power: medium power through their influence on investor and lender decisions
- Competitors
- Interests: competitive landscape of the energy industry and fair market practices
- Power: low direct power over Enron but the ability to raise concerns and engage in competitive strategies
- Board of directors
- Interests: providing governance and oversight to the company. Further, they have a fiduciary duty to shareholders and the company itself
- Power: high power, but the effectiveness of oversight was debated
- Legal authorities
- Interests: investigating and potentially prosecuting any illegal activities at Enron
- Power: high power, with the ability to conduct investigations and pursue legal actions
- Suppliers and partners
- Interests: all the companies and organizations that supplied Enron had a business relationship with the company and an interest in its stability
- Power: medium power, particularly in contract negotiations

EXTRA QUESTION FOR REVIEW: WHY ENRON CAN BE CONSIDERED A CASE OF CORPORATE GOVERNANCE FAILURE?

- Lack of oversight by the board of directors (based, further, on the lack of independence of the majority of the members)
- Conflict of interest (regulators, auditors and members of the board had interests tied to the company's success, and then this led to an inability in acting impartially, as their job requires)
- Lack of transparency (related to the use of extremely complex and hidden financial instruments, such as SPEs and off-balance-sheet transactions)
- Auditor independence (Andersen was providing also non-audit services to the company, thus providing lucrative consulting to it)
- Erosion of trust (observable in the progressive loss in confidence for the company, due to a too aggressive policy, which led them to a complete failure)

DISCUSS THE CASE OF THERANOS, HIGHLIGHTING THE MOMENTS THAT LED THEM TO FAILURE

The moments that led Theranos to failure can be summarized as follows:

- Founding of Theranos (2003): Elizabeth Holmes founds Theranos with the vision of revolutionizing blood testing and making it accessible to the public, relying on the support of numerous early investors
- Rapid rise and high valuation (2010-2014): Theranos gained recognition through new deals/construction of new buildings and secured partnerships with major pharmacies and retailers, including Walgreens
- Empowerment of advertising methods (2013-2014): Elizabeth tried to transmit powerful and deep messages, which could explain clearly the purpose behind her actions
- Investor backing and high-profile board (2013-2014): the company attracts significant investment from high-profile investors (thanks to its founder's high confidence and persuasion ability) and Elizabeth creates a top-level board with members such as George Shultz

- Exposure by investigative reporting (2015): an investigation revealed concerns about the accuracy and reliability of Theranos technology (thus lowering the company's reputation)
- FDA scrutiny and regulatory issues (2015-2016): the FDA scrutinized Theranos, which led to regulatory sanctions against the company (thus doubting the effectiveness and safety of its tests)
- Lawsuits and Walgreens reaction (2016-2018): Theranos was sued by investors, patients and regulatory bodies. The company was also under investigation by the US department of justice. Further, in 2016 Walgreens decides to terminate its partnership with Theranos, lowering its credibility
- CMS sanctions and revocation (2016): CMS imposed sanctions and revoked the CLIA certificate, thus limiting the company's ability to conduct tests
- Company shutdown and dissolution (2018)
- Criminal charges and legal consequences (2018-2022): Holmes and former Theranos president "Sunny" Balwani faced criminal charges related to multiple counts of wire fraud and conspiracy to commit wire fraud
- Elizabeth Holmes trial and conviction (2021-2022): she was found guilty on multiple counts of wire fraud

So, the causes that led Theranos to failure are:

- False technology claims and lack of specialization: Theranos claimed its technology could perform a wide range of medical tests with a few drops of blood, but this was inaccurate and unverifiable
- Lack of scientific validation: Theranos failed to provide scientific evidence to validate its technology
- Regulatory non-compliance: the company faced regulatory issues, including non-compliance with CLIA and other regulatory standards. FDA imposed sanctions, and Theranos had to void and revise numerous test results
- Inaccurate test results: the inaccuracy of tests results put patients' health at risk and eroded trust in the company

- Loss of key partnerships: major partners, such as Walgreens, terminated their partnerships after the scandal
- Criminal investigation: the US department of justice launched a criminal investigation into Theranos, resulting in criminal charges
- Erosion of investor confidence: the scandal declined Theranos' valuation and financial prospects
- Hurry in investors' behavior: investors decided to invest too early, and, further, to invest in a complete "black box", i.e. on a product with no certainties nor regulations
- Absence of specialized skills in the BoD: all the members were non-executive and the majority had no business-related background
- Lack of attention with respect to the investors: Elizabeth, by having 99% of voting rights, was not trying to maximize shareholders' interests nor her management interests', but her interests as a founder

EXPLAIN THE LACKS OF THE BOARD OF DIRECTORS IN THERANOS CASE

The Theranos BoD is mainly composed of US government and military former members (while only two of them are strictly related to the medical field, and only one to the economic environment)

This BoD composition presents several cons and only a few pros, which can be summarized as follows

Pros:

- Leadership skills: it's probably useful to have a retired government official or two to teach and offer good leadership skills
- Diverse backgrounds: Theranos had a board with members from diverse fields, including government officials, military leader and healthcare experts
- Credibility: their strong reputations and impressive resumes raised company's credibility in the first times

Cons:

- Lack of healthcare expertise: some critics argued that the company lacked sufficient expertise in healthcare and medical technology
- Regulatory blind spots: several members may not have fully understood the intricacies of healthcare regulations and compliance
- Oversight failures and age constraint: some members did not exercise adequate oversight trusting too much the CEO and their age (average of 80 y/o) did not allow them to constantly pay attention to day-to-day operations
- Conflict of interest: some board members had financial interests in the success of Theranos, providing a lack of objectivity
- Lack of technical expertise: many members lacked the technical expertise to critically evaluate the company's scientific claims and technology
- Absence of real power: when the board considered replacing Elizabeth with an experienced executive, she multiplied her shares to give her 99% of total voting rights

EXPLAIN WHY INVESTORS CONTINUED TO INVEST IN THE COMPANY EVEN THOUGH THE SITUATION WAS GETTING TOUGH

The causes for a similar behavior are several:

- Familiar connections: the CEO tried to leverage her personal connections and networks to secure investments
- Silicon Valley culture: the culture is that of embracing and celebrating disruptive innovation. Many investors are attracted to companies that promise to revolutionize established industries, and they put in practice the famous motto "Fake it 'till you make it"
- Fear of missing out: investors are often driven by a fear of missing out in the next big thing. The pressure to invest in high-growth, high-potential companies is strong and it can lead to investment in companies with unproven technologies

- Influence and prestige: some investors are attracted to the prestige and influence that come with being associated with a high-profile company

TALK ABOUT THE ROLE OF THE REGULATORS IN THERANOS SCANDAL

Regulators played an important role in Theranos scandal:

- Delayed action: regulators, such as FDA and CMS, were criticized for taking some time to respond to concerns and red flags regarding Theranos. The company had been operating for several years before significant regulatory action was taken
- Limited resources: regulators have limited resources and the fast pace of innovation in the healthcare can make it challenging to keep up. This can under their ability to investigate and regulate companies like Theranos
- Lack of expertise: regulators may not have the technical expertise required to assess the validity of complex technological claims
- Lack of transparency: regulatory actions are often not disclosed to the public until enforcement actions are taken. In this case, the lack of transparency may have allowed the company to continue operations while investigations were ongoing
- Political influence: Theranos had influential political and industry connections, which may have influenced the regulatory response
- Regulatory gaps: the existing regulations may not have been designed to address the specific challenges posed by disruptive technologies like Theranos' blood-testing devices

STATE THERANOS' STAKEHOLDERS, HIGHLIGHTING THEIR INTERESTS AND POWER

The stakeholders are:

- Investors:
 - Interests: investors had a financial interest in the company's success. They expected a return on their investments and believed

in the potential of Theranos' technology to disrupt the healthcare industry

- Power: high power initially, as their capital was crucial for the company's operations, but this power diminished as the scandal unraveled, resulting in financial losses for most of the investors
- Patients
- Interests: patients had a direct interest in the accuracy and reliability of the tests. They relied on the company for accurate medical diagnoses and health monitoring
- Power: low power, since they often relied on healthcare providers' recommendations and the assumption that regulatory standards were met
- Healthcare providers
- Interests: healthcare providers, such as clinics and doctors, had an interest in using Theranos' technology to improve their diagnostic capabilities and to offer more convenient testing options to patients
- Medium power, as their influence was tied to the quality of the services provided by Theranos
- Regulators
- Interests: Regulators, such as FDA and CMS, had an interest in ensuring that Theranos complied with healthcare regulations and that patient safety was protected
- High power, with the authority to investigate, enforce compliance and take legal actions, which ultimately led to significant regulatory sanctions against the company
- Competitors
- Interests: competing companies had an interest in level playing field and accurate representations of technology capabilities in the market
- Power: low direct power over Theranos, but they could raise concerns about company's practices
- Employees
- Interests: employees (including scientists, engineers and administrative staff) had an interest in job security, compensation and the ethical conduct of the company

- Power: low/medium power, since as individuals they had limited influence on top-level decisions, but collectively they were critical to the company's operations
 - Board of directors
- Interests: providing oversight and governance to the company (thus maintaining a fiduciary duty to shareholders and the company itself)
- Power: varied, with some members potentially having high power in terms of influence, but the lack of effectiveness of their oversight contributes to state a lower power
 - Media and journalists
- Interests: exposing potential wrongdoing and fraudulent practices at Theranos
- Power: medium power, since they raise public awareness and provide investigative reporting
 - Legal authorities
- Interests: investigating and prosecuting any illegal activities at Theranos
- Power: high power, since they had the authority to conduct investigations, impose sanctions and pursue legal actions against the company

EXTRA QUESTION TO REVIEW: WHY THERANOS CASE CAN BE CONSIDERED A CASE OF CORPORATE GOVERNANCE FAILURE

The case can be considered a case of corporate governance failure for several reasons:

- Lack of board independence: the board lacked sufficient independence and oversights, compromising their ability to provide unbiased scrutiny
- Conflict of interest: Holmes serves as both CEO and member of the board, concentrating much power and diminishing effectiveness of board oversight
- Opacity and lack of transparency: practices were not adequately disclosed to the board or the public, raising questions about the accuracy of information provided to stakeholders

- Ineffective risk management: the board did not adequately assess and mitigate the risks associated with the company's business model and technology
- Culture of secrecy and fear: employees were discouraged from questioning leadership decisions or expressing concerns
- Investor mismanagement: the company attracted significant investments based on misleading or inaccurate information
- Legal consequences: the governance failures resulted in legal consequences for key executives, including charges of fraud

EXPLAIN DIFFERENCES AND SIMILARITIES BETWEEN ENRON AND THERANOS

The similarities can be summarized as follows

- Product

In both cases, indeed, the product was:

- Revolutionary
- Black-box (the mystery and the risk always related to disruptive choices and decisions)

- Stakeholders

In both cases, the main stakeholders are employees, customers and investors

- Risk taking/openness

Both companies decided to actuate a highly risky strategy, which often took into account the short-run much more than the long-run, and this strategy led both the companies to make decision in the hurry, building the basis for their declines and failures

- Arrogant behavior

Both companies were driven by overconfidence and, then, they often assumed arrogant behaviors, which led them to blindness in the evaluation of the critic points of their organizations.

- In the case of Enron, this arrogance stopped only when the SEC investigation made the scandal public and showed the hidden financial actions through which Enron improperly adjusted its balance sheets
- In the case of Theranos, the arrogance stopped only when FDA scrutinized the company and Walgreens decided to sue the company. At that point, the woman that seemed to have all the answers started to admit her lack of competence in the field of technology and healthcare

- Regulators

In both cases, regulators were not able to properly safeguard consumers and showed a lack in time actions, since they did not investigate the company's actions since the first moment, thus not ensuring consumer's safety

- Power of the media

In both cases, the media contributed to the failure of the two companies, since they increased awareness in the consumers, shedding light on some apparently hidden actions of both the companies

- Political connection

In both cases, the relationship with governments was fundamental

The differences between the two can be summarized as follows

- Sector

Indeed, Enron operated in the energetic sector, while Theranos worked in the healthcare sector

- Ownership

- Enron is a public company, which means that it had to produce financial table and show the informations in a public fashion
- Theranos is a private company, which means that it has the right, but not the obligation, to make the informations public

- Composition of the BoD
 - Enron's BoD was made by all executive members
 - Theranos' BoD was made by all non-executive members, who didn't actually know what was happening within the company, thus increasing the CEO's power
- Agency relationship
 - Skilling in Enron was trying to maximize his interest as a CEO
 - Holmes in Theranos was trying to maximize her interest as a founder

- Relationship profit-purpose

As critics assert, for Enron profit definitely came before purpose, which was basically inexistent. On the other side, Theranos at its basis had a strong purpose, that was probably offset by profit when tons of early investors decided to spend a lot of money in the company

- Ways to reach credibility

- Enron tried to reach it through strong persuasion abilities of the leader, who was able to attract numerous investors
- Theranos managed to increase credibility through the creation of a BoD made by extremely important former government or military members

GIVE A FURTHER DEFINITION OF MANAGEMENT AND EXPLAIN MANAGERS' ROLE

Management is a process designed to achieve an organization's objectives by using its resources effectively and efficiently in a changing environment

Managers make decisions about the use of the organization's resources and are concerned with planning, organizing, directing and controlling the organization's activities to reach its objectives

DISCUSS THE MAJOR FUNCTIONS OF MANAGEMENT

The major functions of management are:

- Planning activities to achieve the organization's objectives
- Organizing resources and activities to achieve the organization's objectives
- Directing employees' activities toward achievement of objectives
- Controlling the organization's activities to keep it on course

DISCUSS WHAT A MISSION STATEMENT IS

The mission statement is defined as the statement of an organization's fundamental purpose and basic philosophy

It answer to the question: "What business are we in?"

For example, Amazon mission statement ("We aim to be Earth's most customer centric company...") clearly shows its willingness to go toward the customer, before anyone else

DISCUSS THE MEANING OF GOALS, OBJECTIVES AND PLANS (IN GENERAL, DISCUSS THE CONCEPT OF PLANNING)

- A goal is what a firm wishes to achieve (e.g. profit, product quality, volume of sales), i.e. a target to be achieved in a time frame
 - Example: "to be profitable by the end of the year"
- Objectives derive from the mission and they are measurable (e.g. sales, market share, efficiency, growth)
 - Example: "reduce costs by 15% in 2023", "increase market share by 20% in 2023"
- The plan specifies what should be done, by whom, when and how
 - Example:
Steve: reduction of energy costs by 50% by November 2023

Amanda: contact 10 prospects per week

STATE AND EXPLAIN THE DIFFERENT TYPES OF PLANS

The plans are classified in:

- Strategic plans: establish the long-term objective and overall strategy
- Tactical plans: short-range plans designed to implement the activities and objectives specified in the strategic plan
- Operational plans: very short term and specific actions

FOCUS ON THE STRATEGIC PLANS, GIVING A MORE FORMAL DEFINITION

Very often manager confuse the term “strategic plan” with a mix-up between “objective”, “strategy”

Instead, the key to strategy is that it’s the positioning of one business against others (positioning means the placement on the strategic factors relevant to each key stakeholder group)

Thus, the task of a strategic planning team is to produce positions on these factors that deliver value to the organization’s key stakeholders and meet the objectives of the organization

Example (Customers’ safety as a strategic factor): “Safety is paramount, and our cars are among the most advanced, reliable and safest on the road)

CONSIDER THE COMPANY “ECOTECH” AND DESCRIBE THE STRATEGIC, TACTICAL AND OPERATIONAL PLANS

The strategic plans of the company is to become the global leader in environmentally friendly electronic products within the next decade

The tactical plans can be resumed as follows:

- Detailed market analysis: within the next 6 months, identify the three countries with the highest potential for environmentally friendly electronic products
- Local partnerships: identify and establish partnerships with local distributors and retail chains in the target country
- Product adaptation: ensure that the products meet the local regulations and cultural preferences of the chosen country. Adapt marketing messages to resonate with the local audience

Operational plans

The teams that work for this kind of plans can be summarized as follows:

- Research team
 - Track and analyze data on potential markets
 - Attend webinars and workshops related to global electronic market trends
- Product team
 - Test the products against the local standards of the target country
 - Coordinate with the marketing team to understand cultural nuances and make necessary product tweaks
- Marketing team
 - Create content that educates potential customers about the benefits of EcoTech's products
 - Coordinate with local influencers for product reviews and feedback
 - Run advertising campaigns tailored to the target audience of the market

GIVE A BRIEF DEFINITION OF CONTINGENCY PLAN

A contingency plan is a proactive strategy developed by organizations, businesses or individuals to prepare for and mitigate potential risks and uncertainties that could disrupt normal operations

The primary purpose of a contingency plan is to ensure that an entity can continue to function or quickly recover from unexpected events

When KFC temporarily ran out of chicken, the company implemented a contingency plan based on the following key elements:

- Communication and transparency: KFC communicated the issue to their customers and the public through various channels
- Problem solving: KFC worked to address the supply chain problem by changing their chicken distributor and resolving logistical issues
- Temporary closure: in some locations, KFC temporarily closed to avoid serving a subpar or limited menu, ensuring customer satisfaction and product quality

DISCUSS THE CONCEPTS OF ORGANIZING, DIRECTING AND CONTROLLING

- Organizing: structuring of resources and activities to accomplish objectives in an efficient and effective manner
- Directing: motivating and leading employees to achieve organizational objectives (thus considering as the two main tasks leadership and defining incentives and rewards)
- Controlling: evaluating and correcting the activities to keep the organization on course. The main tasks are:
 - Measuring performance
 - Comparing present performance with objectives
 - Identifying deviations from the standards
 - Investigating the causes of deviation
 - Taking corrective action when necessary

DISCUSS THE DIFFERENT LEVELS OF MANAGEMENT, ANALYZING THE DIFFERENCES BETWEEN

The levels of management can be described as follows:

- Top management (i.e. president, CEO, CFO, COO, executive VPs): spend most of their time planning and make the organization's strategic decisions
- Middle management (i.e. plant managers, division managers, department managers): responsible for tactical and operational planning to implement the guidelines established by top management
- First-line management (i.e. foreman, supervisor, office manager): supervise workers and the daily operations of the organization

HIGHLIGHT HOW DO THE MANAGEMENT FUNCTIONS ARE RELATED TO THE DIFFERENT LEVELS OF MANAGEMENT

The functions are related to the different levels of management as follows:

- Planning: really high for top managers and high for middle managers, low for first-line managers
- Organizing: high for top managers and very high middle managers, medium-low for first-line managers
- Directing: medium-low for top managers and middle managers, high for first-line managers
- Controlling: low for top managers and middle managers, very high for first-line managers

DESCRIBE AND ANALYZE THE ROLES OF THE MOST IMPORTANT TOP-MANAGERS

CEO: Chief Executive Officer manages the overall strategic direction of the company and represents the company to stakeholders

CFO: Chief Financial Officer manages the financial operations of the company and reports to the CEO

COO: Chief Operating Officer is responsible for daily operations of the company and reports to the CEO

DEFINE THE MOST IMPORTANT MANAGERS SKILLS

- Technical expertise: specialized knowledge and training required to perform jobs (most needed by first-line managers)
- Conceptual skills: the ability to think in abstract terms (most needed by top management)
- Analytical skills: the ability to identify relevant issues and recognize their importance (most needed by top management)
- Human relation skills: the ability to deal with the people, inside and outside the organization (most needed by all levels of management)

DESCRIBE AND MATCH EVERY MANAGER WITH THEIR FUNCTION

- Financial Manager
 - Focus on obtaining the money needed for the successful operation of the organization and using that money in accordance with organizational goals
- Production and operations manager
 - Develop and administer the activities involved in transforming resources into goods, services and ideas ready for the marketplace
- Human Resources manager
 - Handle the staffing function and deal with employees in a formalized manner
- Information Technology (IT) manager
 - Responsible for implementing, monitoring and controlling technology applications in business, such as computer networks
- Marketing manager
 - Responsible for planning, pricing and promoting products and making them available to customers through distribution
- Administrative manager
 - Manage an entire business as a major segment of a business

STATE THE CHARACTERISTICS OF "HOMO ECONOMICUS"

The main features of the “homo economicus”, i.e. the basis of rational choice theory, are:

- Ability to compare alternative opportunities

- Ability to elaborate all available information
- Individual preferences described by utility functions
- Individual maximization of utility
- Goal of maximizing income and wealth
- Not much room for reciprocity, trust and emotions

Anyway, there are several fallacies that characterize the human being, such as the framing effect

For example, if we compare the following statements:

A1: 200 people will be saved

B1: 1/3 probability of saving 600 people and 2/3 probability of saving 0

A2: 400 people will die

B2: 1/3 probability that nobody will die and 2/3 probability that 600 will die

People would choose A1 and B2, for the framing effect

DISCUSS THE BOUNDED RATIONALITY ASSUMPTIONS

There are many things that may restrict individuals' actions

1. Limited information: information, indeed, is costly and may be not retrievable
2. Uncertainty: in most managerial decision, the probabilities are unknown
3. Unclear priorities: in most managerial decisions, the priorities (i.e. cost, time, quality) are unclear
4. Cognitive limitation
5. Time limitation

This means that human-beings try to find the most satisfactory solution, which does not mean the one that maximizes utility, but the best adequate solution for the period where we are

For the sake of simplicity, let us provide an example regarding the bounded rationality assumptions related to the process of renting a house

The steps are the following:

- Preliminary expectations
- Exploratory research (and identification of various liked apartments)
- Evaluation
- Expectations adjustment
- Exploratory research (and identification of new liked apartments)
- Evaluation
- Decision

Therefore, to summarize, this is an alternative set of assumptions on individual behavior:

- Bounded rationality
- Presence of information costs and cognitive limits
- Preferences also shaped by social capital, social interactions, emotions, reciprocity etc
- Cooperation and trust
- Economic activity as a mean to achieve personal ends
- Goal: maximization of well-being

DEFINE COOPERATION AND, CONSEQUENTLY, DISCUSS ALTRUISTIC AND OPPORTUNISTIC BEHAVIOR

Cooperation allows people to attain results which cannot be achieved by individuals acting independently

Further, cooperation makes sure that the organizational income, i.e. the revenue or money generated by an organization, is shared by group members

Then, depending on individual contributions two situations may appear:

- Individual contributions are clear: income is split among members proportionally, depending on their contribution
- Individual contributions are not clear: an opportunistic behavior may take place (e.g. egoistical conduct, enabling individuals to enjoy cooperation benefits without doing their fair share)

Then, the two definitions below necessarily follow:

- Altruistic behavior: actions or decisions taken by individuals, organizations or business leaders that prioritize the well-being and interests of others over personal gain or self-interest (e.g. philanthropy, employee well-being, employee volunteer programs, ethical business practices etc)
- Opportunistic behavior: actions or decisions made by individuals, organizations or business partners that prioritize their own self-interest and immediate advantage, often at the expense of others or without regard for ethical or contractual obligations. Further, this behavior results from impossibility to ascertain individual contributions and overall results (e.g. price gouging, unfair competition, non-disclosure violations (sharing or exploiting confidential information provided in business relationships), employee exploitation, egoistical conduct)

DEFINE SELF-FULFILLING PROPHECY

A self-fulfilling prophecy in business refers to a situation in which a belief or expectation, whether positive or negative, influences an individual or a group's behavior or decision-making in a way that causes the expected outcome to occur

In other words, when people believe something will happen, their actions and choices can make that belief a reality

In business context, self-fulfilling prophecy is characterized by the following steps:

1. Initial belief: someone within the organization, or even external stakeholders, holds a certain belief or expectation about a business situation. This belief could be about the success or failure of a product, the performance of a team, or the future prospects of the company
2. Behavior and decision-making: based on the belief, individuals or groups within the business may start to behave in a manner consistent with that belief. For example, if there's a widespread belief that a new product will fail, employees may not put their best effort to market it, and investors may withdraw support
3. Outcome: the actions and decisions influenced by the initial belief can lead to the expected outcome. In the case of a negative belief, the lack of support or effort can lead to the product's failure, confirming the initial belief

Therefore, self-fulfilling prophecies can be powerful in business because they can create a feedback loop:

- If people believe something will succeed, they may put in extra effort and resources, increasing the chances of success
- If people believe something will fail, they may not give it the attention and resources it needs, making failure more likely

DISCUSS GROUPS, HIGHLIGHTING THE CONCEPTS OF GROUP BEHAVIOR, GROUP THINK AND GROUP POLARIZATION

Group behavior

It refers to the pattern of actions and interactions that occur within a group of individuals working together in an organizational or team context

Understanding and managing group behavior is crucial for effective leadership and achieving the objectives of the organization

The main features of group behavior are:

- Social interactions

- Norms and values
- Roles and responsibilities
- Leadership and influence
- Decision-making, which often may be not perfectly rational (thus requiring a more proper and careful management)

Group think

It is a mode of thinking that persons engage in when “concurrency-seeking” becomes so dominant in a cohesive in-group that it tends to override realistic appraisal of alternative courses of action

From this definition, we can understand more clearly the process behind group think by analyzing some of the terms used by Irving Janis:

1. **Concurrency-seeking:** groupthink is characterized by a strong desire for consensus and unanimity within a group- In the pursuit of harmony and agreement, individuals tend to avoid expressing dissenting opinions and concerns. Then, they confirm to the majority viewpoint.
2. **Cohesive ingroup:** groupthink is more likely to occur in highly cohesive groups, where members feel a strong sense of belonging and loyalty to the group. The cohesiveness can lead to a reluctance to challenge the group’s decisions or to confront the status quo
3. **Override realistic appraisal:** the critical aspect of groupthink is that it causes individuals to override or neglect a realistic appraisal of alternative courses of action. In other words, the emphasis on consensus and conformity can lead to a suppression of independent and critical thinking. Members of the group may fail to consider or evaluate alternative viewpoints, risks, or potential drawbacks of the chosen course of action

Group polarization

It refers to the tendency for groups, after discussion or deliberation, to adopt more extreme positions or opinions in the direction that aligns with their initial inclinations or pre deliberation judgements. In other words, when individuals with similar beliefs or opinions come together and discuss a particular topic, their collective position often becomes more extreme or polarized in the direction of their initial views

For the sake of simplicity, the following are two examples about it:

- If the group members initially hold moderately conservative or liberal views on a political issue, their discussions are likely to lead them to embrace more extreme conservative or liberal positions
- People who are opposed to the minimum wage are likely, after a discussion, to be still more opposed; people who tend to support gun control are likely, after discussion, to support gun control with considerable enthusiasm

DISCUSS THE EXPERIMENT “A TALE OF TWO CITIES”, SHOWING HOW GROUP POLARIZATION WORKS

Citizens from two Colorado cities were recruited and assembled in small groups, all from the same city

The groups were asked to deliberate on climate change, affirmative action and same-sex civil unions

Knowing that Boulder citizens are predominantly liberal and Colorado Springs citizens are predominantly conservative, the result was the following:

1. People from Boulder became more liberal, and people from Colorado Springs more conservative
2. Deliberation decreased the diversity of opinion among group members (i.e. discussion brought liberals in line with one another and same for conservatives)

3. Deliberation sharply increased the disparities between the views of Boulder and Colorado Springs citizens

DISCUSS THE CONCEPT OF COLLECTIVE DECISION MAKING, HIGHLIGHTING THE RELATIONSHIP BETWEEN PROBLEM AND SOLUTION

Collective decision-making in management refers to the process by which a group of individuals, typically within an organization, work together to make decisions that affect the business or its operations (thus involving collaboration and input from multiple stakeholders, such as managers, team members, and sometimes external experts)

The key features of this form of decision-making are the following:

- Group involvement
- Collaboration
- Diverse perspectives
- Information sharing
- Decision quality: when done effectively, collective decision-making can lead to higher-quality decisions because it drawn on a wider range of information and expertise

When a collective decision making takes place, the decision (i.e. a convincing solution to a problem that is seen as critical and urgent) can be derived from:

- Problem: a problem considered important enough to be resolved
- Solutions: the creation of a convincing solution

For instance, an example of a situation where a company started from a “solution” to arrive to the problem (i.e. to the lack that the solution found before could solve) is 3M’s post-it notes

A 3M scientist discovered, while searching adhesives in the laboratory, an adhesive that stuck lightly to surfaces but didn’t bond tightly to them. Anyway, he struggled to find a practical application for it within 3M

Six years later, another scientist, during his church choir practice, encountered a problem: his bookmarks kept falling out of his hymnal. This gave him the idea of using Silver's adhesive to create sticky notes that could be attached to paper and easily removed without damaging it

So, they started a collaboration and in 1980 3M officially launched the Post-it Note

DEFINE ORGANIZATIONAL CULTURE AND SHOW HOW IT IS EXPRESSED

We define organizational culture as a firm's shared values, beliefs, traditions, philosophies, rules and role models for behavior

It is expressed in:

- Mission statements
- Codes of ethics
- Memos
- Manuals
- Ceremonies
- Informally (e.g. dress codes, work habits, extracurricular activities and stories)

DISCUSS THE IMPORTANCE OF RITUAL AND CELEBRATION IN THE WORKPLACE

Rituals and celebrations in the workplace play an essential role in fostering a positive and cohesive organizational culture, boosting employee morale, and reinforcing a sense of belonging and community

The main features of ritual and celebration in the workplace are:

- Building a positive culture: they indeed provide opportunities for employees to connect, share experiences, and build relationships

- Recognizing achievements: celebrations are often used to recognize and reward individual and team achievements, milestones and successes
- Enhancing employee engagement: engaged employees tend to be more productive and loyal
- Promoting teamwork: these events can strengthen bonds among team members, improve collaboration and enhance group dynamics
- Guaranteeing inclusivity: when planning rituals and celebrations, it's essential to be inclusive, making into account the diversity of the workforce
- Feedback and adaptation: it's important to gather feedback from employees about the effectiveness and impact of workplace rituals and celebrations. Based of this feedback, make adjustments to ensure that they remain meaningful and relevant

For example, the celebration for the merger of two companies took place in two distinct parts

The first part (denominated “letting go and holding on”) was divided as follows:

- Employees of each company came together in heir individual parking lots, where fires had been built
- The CEO told a story about the history of the company and his history as an employee
- He approached the fire, named one of the things he was letting go of, and threw his “letting go” slips into the fire
- Each employee did the same

The second part took place at the headquarters for the merged company and was divided as follows:

- The CEO of the merged company told the story of the merged company, but she told it from five years in the future
- Employees dropped any remaining slips of paper into large bins (they were added to the wall, which was then photographed in his entirety and in sections)

DISCUSS THE ORGANIZATIONAL CULTURES IN DIFFERENT FIRMS

Google

The organizational culture is based on a vivid and solid engagement of employees that guarantees the achievement of a fruitful social life through the disposal of free meals, gyms, parks and of a strong professional engagement through financial bonuses and open presentations by high-level executives

Twitter

The firm guarantees a team-oriented environment, where employees enjoy health and fitness classes

Further, the company provides a constant organization of rooftop meeting, a continued education through Twitter University and it is able to gather feedback at all levels of management

Apple

The organizational culture in Apple is quite discussable:

- On one side, Steve Jobs talked about a culture based on transparency, absence of hierarchy and constant incentive to creativity and team work
- On the other hand, there are several sources that testify a culture based on obscurity, where the majority of the important informations is reserved to the knowledge of few people and where disagreement is not fairly accepted

Nokia

The organizational culture in Nokia likely did not tolerate being open to mistake, the messy process of disruption, and the need to iterate and learn at the same time you operate

Indeed, Nokia lost its market to new competitors like Apple not because it failed to innovate, but because it failed to learn

The company may have been innovative in the past, but it didn't adequately respond to the rapid changes in the mobile phone industry, thus adapting and learning from the evolving industry landscape

In fact, people who invent and innovate must not only be very capable technically, but they must have the freedom to learn and share what they have learned in an open environment

In the end, as Giada Di Stefano suggests in her book "Organization Science", researches show that employees are more likely to transfer knowledge to their colleagues when they identify as an integral part of the organization, but they would rather transfer knowledge to outside competitors when their organization encourages them to outperform coworkers

COMPARE TWO COMPANIES WITH TWO OPPOSITE ORGANIZATIONAL CULTURES, SHOWING THE DIFFERENCES IN THE RESULTS

Consider two companies A and B, whose headquarters reside one in front of the other, seared by a central cafeteria, such that:

- Company A is generally considered "calm", "rigorous" and "less organized"
- Company B is generally considered "pushy", "aggressive" and "more top-down"

The results obtained by an experiment conducted over the two companies are the following:

- Employees in company A seemed to identify more with the organization and displayed a stronger tendency to keep proprietary knowledge within organizational boundaries

- Employees in company B feel more in competition one another and reported a higher propensity to transfer knowledge to members of the competing organization

PROVIDE A DEFINITION OF THE CONCEPT OF FUNCTIONAL AREAS

Functional areas are sets or processes characterized by:

- A common function (e.g. purchasing, manufacturing, marketing)
- A specialized set of skills (i.e. buying, producing, selling)

DEFINE WHAT IS THE MEANING OF CORE OPERATIONS

The core operations are a set of activities by which the firm actually carries out economic production

The main core operations findable in the majority of the firms are:

- R&D
- Purchasing
- Manufacturing
- Sales and marketing
- Logistics

DESCRIBE THE FEATURES OF RESEARCH AND DEVELOPMENT DEPARTMENT

The main goal of the department of R&D is:

- Establish product features and production methods: establishing new features is fundamental to meet market demands and stay ahead of competitors
- Conduct constant fundamental research: this could lead to breakthrough innovations or improvements in existing processes
- Exercise technology and competition watch: this proactive approach helps to stay informed about industry trends, thus enabling the company to adapt and innovate accordingly

- Conduct evaluation of customer needs: the customer-centric approach ensures that products align with market demands
- Study new product development: R&D is at the forefront of developing new products. The department focuses on creating products that not only meet industry standards but also address evolving market needs
- Exercise problem solving with existing products and upgrades: problem-solving enhances features and implement upgrades that improve product performance
- Provide quality check: rigorous testing is implemented to ensure that products meter exceed predetermined quality standards

DESCRIBE THE FEATURES OF THE PURCHASING DEPARTMENT

The main goal of the department of purchasing is:

- Buying long-term use equipment, facilities, raw materials and services: acquiring assets and resources that are essential for the company's operation is important in order to guarantee high quality and reduce costs
- Provide recognition of needs: anticipating future needs is important to ensure the smooth functioning of the organization
- Conduct supplier identification, evaluation and selection: the overall quality can be improved by considering factors such as reliability, cost and compliance with regulatory standards
- Analyse quotations and bids: the analysis helps in deterring the most cost-effective and value-driven options for the company
- Placing orders: after the supplier is selected and terms are negotiated, it's fundamental to formalize the agreement and outline the details of the transaction
- Conduct spend analysis: this analysis Is crucial to identify areas for cost savings and optimize procurement strategies
- Oversee contract management and supplier relationship management: this includes ensuring that suppliers fulfill their contractual obligations and monitoring performance. Indeed, establishing positive relationships with suppliers is crucial for long-term success

When the department does not work well, extreme losses may take place. For example, Samsung experienced numerous losses for a highly publicized product defect in 2016 with the Samsung Galaxy Note 7

The problem was attributed to the lithium-ion batteries used in the phones

Based on the company's own investigation and independent scientific analysis of the issues by three consulting bodies, the overheating was caused by separate problems in batteries sourced from two different suppliers

DISCUSS THE FEATURES OF MANUFACTURING DEPARTMENT

The main goal of the manufacturing department is:

- Processing and assembling new materials: responsibly transforming raw materials into finished goods is crucial to meet production targets and make them meet quality standards
- Planning: the planning of the production process is fundamental to ensure a seamless flow of materials and products through the entire supply chain
- Operating quality control: implementing rigorous quality control measures throughout the production process is fundamental to enhance customer trust and improve consistency
- Conducting constant maintenance: it is fundamental for preventing breakdowns and maintaining consistent production levels
- Improving technical skills: it is crucial to ensure efficiency and competence in operating advanced machinery and adopting new technologies

Sometimes an inefficiency in manufacturing department can cause several losses to firms

For example, Mars recalled chocolate bars in 55 countries after plastic has been found in one product (that piece of plastic came from a protective cover used in the manufacturing process)

DISCUSS THE FEATURES OF SALES AND MARKETING DEPARTMENT

The main features of the Sales and Marketing departments are:

- Product knowledge and selling: understanding the features and unique selling points of the firm's products or service and optimizing economic profitability by setting appropriate price strategies
- Market research: analyze customer needs and competitors strategies to identify market opportunities and threats
- Sales policies (4/5P): align the 4Ps (Product, Price, Place, Promotion), possibly adding the 5th P (People), to achieve business goals
- Advertising and communication: using various channels such as media and digital platforms to promote products and enhance brand awareness
- Sales and marketing and technical skills: the firm should provide ongoing training to enhance both soft skills (relationship building, communication) and technical skills (data analysis, digital marketing), thus further enhancing an effective, other than efficient, customer-centric approach

DISCUSS THE FEATURES OF LOGISTICS DEPARTMENT

- Transportation management: it involves selecting appropriate transportation modes, routes and carriers to ensure timely and cost-effective delivery
- Warehousing and storage: it includes optimizing warehouse layouts, implementing inventory control systems and ensuring efficient use of space
- Inventory management: logistics professionals track inventory levels, leading times to ensure a smooth flow of goods

- Order fulfillment: it consists in ensuring timely and accurate order processing, as well as collaboration with other departments
- Distribution network design: it consists in determining the optimal number and location of distribution centers, thus aligning with customer service requirements
- Multidisciplinary skills: it consists in a diverse skill set, including knowledge of transportation regulations, data analysis and proficiency in logistics software, essential to handle the complexity of logistics operations

For example, Palm in 2001, after aggressively promoting a new hand-held device, encountered supply problems resulting from design challenges and, as a consequence, experienced significant financial losses

DEFINE TRANSVERSAL PROCESSES, HIGHLIGHTING SOME OF THEM

Transversal processes are essential activities that involve the collaboration and coordination across different functional areas within an organization

In the new product development, we could take into account:

- Technology idea: the process involves collaboration between R&D, marketing and possibly other departments to refine ideas for new products
- Contact with suppliers: the sourcing process involves coordination between the purchasing, manufacturing and design teams to ensure suppliers' quality and effectiveness
- Feasibility: assessing feasibility involves cross-functional analysis of technical, financial and operational factors, thus requiring R&D and operations teams to collaborate
- Prototyping: collaboration between design and manufacturing teams strengthen the iterative process which allow for testing and refining the product begin before a full-scale production

- Production: coordinating production activities requires collaboration between manufacturing, logistics and quality control teams
- Customer needs: understanding and incorporating customer needs into the product development process requires collaboration between sales and R&D departments

In processing customer orders, we could take into account:

- Purchase raw materials: this process involves collaboration between purchasing, production and finance departments, thus making sure that raw materials are sourced efficiently and accordingly to production requirements
- Production and quality control: this involves the collaboration between manufacturing, quality control and logistics teams, fundamental to ensure that products are manufactured according to specifications
- Take orders: the order management involves collaboration between sales, customer service and marketing teams, encompassing the activities related to receiving, processing and fulfilling customer orders
- Plan production and shipping: it requires collaboration between purchasing and logistics teams, thus managing to meet customer timelines

DISCUSS THE FEATURES OF DEBT AND EQUITY/FINANCE DEPARTMENT

The department directs the set of activities undertaken by firms to collect money in order to cover their financial needs. Financial needs come from payments the firm has to afford, such as paying wages, materials and buildings

The main features of the department are:

- Forecasting and analyzing financial needs: by anticipating financial needs, the company can plan and secure appropriate funding sources

- Optimal mix of equity and debt capital: the decision is critical as it affects the cost of capital, financial risk and shareholder value. Thus, a good decision helps the firm to reach its financial goals efficiently
- Planning and executing transactions involving capital: the department must decide about issuing new shares, repurchasing shares, issuing bonds or taking on loans. The team, then, must evaluate market conditions and financial strategies to ensure successful transactions
- Handling contracts: the department is responsible for negotiating and managing contracts related to loans, ensuring compliance with contractual terms and conditions

COMPARE EQUITY AND DEBT, THUS SHOWING THE MAIN FEATURES RELATED TO EACH OF THEM

Definition

- Equity (provided by owners) represents ownership in the company. Owners contribute funds to the business in exchange of ownership stakes
- Debt (provided by lenders) represents borrowed funds that the company must repay over time, typically with interest. Lenders can include banks and financial institutions

Risks

- Owners bear the general risk of the enterprise, meaning that they share in both the profits and losses of the business
- Lenders face only the risk of bankruptcy. They expect to be repaid the principal amount along with interest, irrespective of the company's profitability

Rewards

- Rewarded by dividends (more flexibility): equity investors are rewarded through dividends, which are payments made to shareholders from the company's profits. However, the payment of dividends is at the discretion of the company's management and depends on its profitability and financial health

- Rewarded by interest (more rigid): lenders are rewarded with interest payments, which are contractual and fixed, implying that they receive them regardless of whether the company is profitable or experiencing losses

Substantial influence on decision making

- Equity investors, as owners, typically have voting rights in the company- They may influence major decisions, such as the election of the board of directors or approving significant business transactions. This influence is proportional to their ownership stake
- Lenders, while having contractual rights, usually have limited influence on day-to-day business decisions. Their primary concern is the repayment of the loan

Expected reward

- Equity investors take on higher risks as they are exposed to the company's overall performance. However, they also have the potential for the higher rewards if the company is successful
- Lenders face lower risk since they are entitled to fixed interest payments and repayment of the principal amount. However, their expected rewards are also typically lower compared to equity investors since they do not participate in the potential upside of the company's success

DISCUSS THE FEATURES OF HUMAN RESOURCES DEPARTMENT

The human resources department concerns the implementation of organizational systems pertaining to personnel

The main features of the department are:

- Recruiting of personnel: it consist in attracting, screening and selecting qualified individuals for the organization
- Employee relations: it involves negotiating collective bargaining agreements and enduring compliance with labor laws
- Analyzing tasks and performance: the analysis serves as a way to ensure that job roles align with organizational roles

- Promotion: it consists in identifying eligible candidates and implement a fair promotion process
- Training and development: it identifies skill gaps and organizes training programs to enhance employees' knowledge and capabilities

For example, American Psychological Association showed that insufficient pay provides a negative impact on a firm's profitability. Indeed, it increases the stress level at work and lower workers' mental energies coming up with creative solutions

DESCRIBE OTHER OPERATIONS AND FUNCTIONAL AREAS

Organizations engage also in other important operations:

- Tax management: it consists in computing and paying taxes
- Non-core investments: it means investing available financial resources in excess of requirements for other operations, in order to create investment revenues
- Insurance management: it manages to cover for damages from negative events
- Organizational structure management: organizations also have to design the organization structure and to organize how to gather, process and disseminate data and informations to internal decision makers and external stakeholders

DEFINE IN THREE STEPS THE EVOLUTION OF A NEW BUSINESS

A new business starts and grows as follows:

- Phase 1: the business is a sole proprietorship, implying that the owner does everything (buys, prices, displays the merchandise, does the accounting, assists customers)
- Phase 2: the business grows and the owner hires a salesperson and a merchandise buyer to help run the store
- Phase 3: the business further grows and the owner hires more salespeople with more specialized skills. Indeed, the owner has to be away from the store frequently and requires to designate

someone to effectively manage the salespeople. As a consequence, an organizational structure is required

DEFINE ORGANIZATIONAL STRUCTURE

An organizational structure is the arrangement of the relationship of positions within an organization. Managers assign tasks and activities to specific individuals or groups and coordinate the diverse activities required to reach firm's objectives

DEFINE SPECIALIZATION

Specialization is the division of labor into specific tasks and the assignment of employees to do a single task. The main goal is the efficiency

EXPLAIN THE 6 SOURCES OF SPECIALIZATION ECONOMIES

Specialization implies that activities take place with more speed and with higher quality, thus guaranteeing less effort and more efficiency

There are 6 sources of specialization economies:

- Learning economies through repetition: as individuals repeatedly perform a task, they become more efficient and skilled at it. This increased efficiency leads to time and cost savings
- Uneven distribution of skills (specialization according to skills): by allocating tasks to those with the most relevant skills, productivity and efficiency can be maximized
- Differentiation of managerial and technical orientations (specialization according to orientation): specialization can occur not only in terms of technical skills but also in managerial and organizational orientations. Some individuals may focus on technical aspects, while others may specialize in administrative functions
- Costs of preparation and passage between the phases (reduction of setting/set-up costs): specialization can help reduce the transition costs related to switching between different phases or

tasks. Indeed, individuals or organizations become more adept at moving efficiently between phases

- Different technical performances of the plants (optimal use of specialized facilities and equipment): when tasks are assigned based on optimizing the use of specialized facilities and equipment, it can lead to improved efficiency and cost-effectiveness
- Identification at work and motivation (pleasure of mastery): the pleasure of mastering a specific skill or task can lead to higher levels of dedication and performance

DEFINE THE CONSEQUENCES OF EXTREME SPECIALIZATION

There are several consequences of extreme specialization:

- Employee boredom and dissatisfaction: the lack of variety and intellectual stimulation can lead to a decrease in motivation and overall job satisfaction
- Difficulty in creating working relationships: when individuals are focus solely on their specific tasks without broader engagement, team cohesion may suffer. This leads to poor quality work, as communication breakdowns may result in errors or oversights
- Rigidity and non-adaptability: highly specialized individuals may become rigid and resistant to change. They might be so accustomed to their specific tasks that they find it challenging to adapt to new technologies or shifts in organizational priorities. This rigidity makes the organization usually unable to respond effectively to shifts in consumer preferences
- Coordination costs: as tasks become more fragmented and specialized, the need for effective coordination and communication increases. If not managed well, these coordination costs can slow down processes, enhancing inefficiency

DEFINE THE COORDINATION COSTS AND DISCUSS THEIR IMPLICATIONS

Coordination costs refer to the expenses and challenges associated with ensuring that various tasks and individuals work together effectively

The three main coordination costs are:

- **Misalignment:** it occurs when different parts of an organization are not working towards the same goals or are pursuing conflicting objectives, thus leading to confusion, inefficiencies and wasted resources
 - For example, if different departments have conflicting priorities or strategies, it can result in a lack of synergy and hinder the overall success of the organization
 - For instance, a Fortune 250 B2B believed that the failure of a new product line was due to lack of effort by the sales force. However, the real issue was misalignment of goals between marketing and sales. Indeed the goal of growing market share (which often involves competitive pricing) and the salesforce's incentive to maximize profit margins (since their compensation structure is based on profit margin maximization), provoke a strong contrast
- **Mistiming:** it refers to the challenges associated with coordinating activities that need to occur simultaneously or in a specific sequence. Indeed, if tasks are not timed correctly, it can lead to bottlenecks, delays and disruptions in the workflow
 - For example, if one department completes its work before another is ready to proceed, it can increase lead times for projects
- **Duplication:** it occurs when multiple parts of an organization perform similar or identical tasks independently, without coordination or sharing of resources, implying inefficiencies, increased costs and wasted effort
 - For example, if different departments independently develop similar software solutions or conduct redundant research efforts, the organization may incur unnecessary expenses and fail to leverage economies of scale
 - For instance, in an international energy company HR and IT departments substantially duplicated certain activities because different layers in the organization were doing similar things. However, the company cut costs across the board and,

consequently, it had to manage an “uncontrollable workload”, while leaving the substantial duplication in HR and IT

STATE THE ELEMENTS OF THE ORGANIZATIONAL STRUCTURE

The elements of the organizational structure are:

- Departmentalization
- Span of control
- Formalization
- Centralization

DEFINE DEPARTMENTALIZATION

Departmentalization is defined as the grouping of jobs into working units usually called departments, units, groups or divisions

Departments are usually organized by:

- Function
- Product
- Geographic region
- Customer

Most companies use more than one departmentalization. For instance, consumer goods manufacturers have departments for specific products lines (e.g. beverages, frozen dinners, canned goods) and also departments that deal with legal, purchasing, finance, human resource and other business functions

DEFINE FUNCTIONAL DEPARTMENTALIZATION AND ANALYSE ADVANTAGES AND DISADVANTAGES

Functional departmentalization consists in grouping jobs that perform similar functional activities, such as finance, manufacturing, marketing and human resources

The advantages are:

- Small organizations: in smaller companies, functional departmentalization can lead to a better efficiency and coordination as employees are specialized in their roles within specific functions
- Cost savings (specialization): employees within a specific function can develop expertise and efficiency in their roles, thus reducing costs
- Easier supervision: managers can focus on the specific functions they oversee, making it simpler to monitor and evaluate performance within their domain
- Technical excellence: employees can focus on honing their skills and knowledge related to a specific function, leading to higher levels of technical competence

The disadvantages are:

- Emphasis on departmental unit goals rather than organizational goals: departments may prioritize their own goals, potentially neglecting the broader organizational goals
- Slower decision-making: coordination and communication between departments can slow down decision-making processes, particularly when decisions involve multiple functions
- Greater need for coordination: since the functions operate independently, there is a higher need for coordination to ensure that all parts of the organization are working toward common goals, thus increasing the risk of conflicts and inefficiencies

DEFINE PRODUCT DEPARTMENTALIZATION AND ANALYSE ADVANTAGES AND DISADVANTAGES

Product departmentalization occurs when the organization of jobs is related to the products the firm offers

The advantages are:

- Simplifies decision making: with a clear product focus, decisions related to product development and marketing can be made more

efficiently, as there is a dedicated department for each product or product line

- Easier coordination with division: since each product has its own department, communication is more concentrated within those units. This can lead faster response times and better alignment of activities within a specific product area
- Accountability for profit and loss: assigning profit and loss responsibility to each product department allows for clear accountability. This can incentivize departments to focus on maximizing the success of their products

The disadvantages are:

- Duplicate functions and resources: each product department might have its own set of functions, leading to redundant and increased costs, thus implying inefficiency for the overall organization
- Emphasizes product rather than organization goals: there is a risk that departments prioritize their specific product goals over the overarching goals of the organization, leading to suboptimal decision-making in terms of overall strategy of the company

DEFINE GEOGRAPHIC DEPARTMENTALIZATION AND ANALYSE ADVANTAGES AND DISADVANTAGES

Geographical departmentalization consists in grouping jobs according to geographic location, such as state, region, country, or continent

The advantages are:

- Quick/Efficient response to customers: having departments dedicated to specific regions allows organizations to tailor their products to the unique needs and preferences of customers in each location
- Better knowledge of customers: departments focused on specific regions are likely to develop a deeper understanding of the local

market, thus leading to more effective marketing and customer engagement strategies

- Accountability for profit and loss: assigning profit and loss responsibility to geographic departments fosters accountability. Regional departments may be motivated to optimize their operations to maximize profitability in their specific territories

The disadvantages are:

- Duplicate functions and resources: each geographic department may have its own set of functions, leading to redundancy and increased costs, further increasing inefficiency for the organization
- Large administration staff: maintaining separate administrative functions for each geographic area can result in a larger overall administrative workforce, increasing operational costs and reducing cost-effectiveness
- Large control system to coordinate operations: ensuring consistency and coordination across different regions can be challenging and may require a complex control system, leading to increased administrative overhead

DEFINE CUSTOMER DEPARTMENTALIZATION AND ANALYSE ADVANTAGES AND DISADVANTAGES

Customer departmentalization consists in grouping jobs around the needs of various types of customers

The advantages are:

- Address the unique requirements of each group of customers: it allows the organization to focus on tailoring its offering and approaches to the unique requirements of diverse customer groups, leading to increased customer satisfaction and loyalty
- Enhanced customer satisfaction and loyalty: understanding and addressing the specific needs of various customer segments increases loyalty and brand recognition

The disadvantages are:

- Emphasize customer rather than organizational goals: departments may prioritize the goals and needs of their specific customer segments, potentially leading to a lack of alignment with the overall goals of the organization
- Large administration staff: the need for specialized staff to manage and support each customer department can result in increased administrative costs, reducing cost-effectiveness of the structure
- Complexity in coordination: the complexity of managing interactions between departments may result in slower decision-making and efficiency

DEFINE SPAN OF CONTROL AND ORGANIZATIONAL LAYERS

The span of control is the number of subordinates who report to a particular manager

Organizational layers are the levels of management in an organization

EXPLAIN THE DIFFERENCE BETWEEN WIDE AND NARROW SPAN

The span of management can be distinguished in:

- Wide span of management: it occurs when a manager directly supervises a very large number of employees
- Narrow span of management: it occurs when a manager directly supervises only a few subordinates

SHOW UNDER WHICH CIRCUMSTANCES WOULD YOU OPT FOR A WIDE OR A NARROW SPAN

NARROW SPAN

- Superiors and subordinates not in close proximity: a narrow span is appropriate when face-to-face interactions are challenging due

to physical distances, making it necessary for managers to have fewer direct reports

- Frequent interaction between superiors and supervisors: if the nature of the work or the complexity of the tasks requires regular oversight, a narrow span allows for more personalized attention and communication between managers and subordinates
- Common problems and high complexity: when there is a high need for problem-solving, a narrow span allows managers to dedicate more time to addressing complex issues and providing individualized support
- Managers have multiple responsibilities: if managers are responsible for tasks that require significant time and attention, a narrow span ensures that they can effectively manage their multiple roles without being overwhelmed

WIDE SPAN

- Superiors and subordinates in close proximity: a wide span is suitable when close physical proximity allows for efficient communication and easy access, reducing the need for a large number of intermediary managers
- Managers mostly supervise: a wide span is effective when managers' responsibilities are focused on overseeing routine activities
- Few interactions between superiors and supervisors: in situations where tasks require little direct supervision, a wide span allows for more autonomy among subordinates
- Problems are uncommon: a wide span is appropriate when the nature of the work is such that problems rarely arise, reducing the need for constant managerial intervention
- High competent subordinates: a wide span occurs when subordinates are competent, self-motivated and capable of carrying out their responsibilities with limited supervision
- Operating procedures govern activities: tasks are routine and well-defined and standard procedures are in place, reducing the need for constant managerial involvement

DESCRIBE THE PROS AND CONS OF NARROW/WIDE SPAN OF CONTROL

NARROW SPAN

The advantages are:

- Close supervision: with fewer direct reports, managers can provide more individualized attention and monitor performances closely
- Effective communication: the narrower span allows for more frequent and direct communication, ensuring that information is transmitted accurately
- Specialization and expertise: a narrow span allows for a more in-depth understanding of tasks, promoting specialization and development of skills within specific functions
- Problem resolution: managers can address issues promptly, as they have the capacity to dedicate time to resolving problems

The disadvantages are:

- Increased management costs: the span requires more managers which can increase salary and administrative expenses
- Communication overload: with frequent interactions, managers may become overwhelmed with communication, potentially hindering their ability to focus on other critical tasks
- Limited flexibility: organizations are less likely to adapt to changes and reallocate resources as managers are more closely tied to specific roles

WIDE SPAN

The advantages are:

- Cost efficiency: a wide span reduces the number of managerial layers, leading to cost savings for the organization
- Flexibility and adaptability: the wider span allows for a more agile response to changes in business environments, as fewer managerial layers make it easier to reallocate resources

- Empowerment and autonomy: subordinates have more autonomy, which rises job satisfaction and motivation
- Clear hierarchical structure: the simplified organizational structure makes it easier for employees to understand reporting relationship and decision-making processes

The disadvantages are:

- Limited supervision: managers may have less time for individualized supervision, potentially leading to reduced control
- Communication challenges: there could be challenges in transmitting information quickly and accurately, potentially leading to misunderstandings
- Risk of employee burnout: the workload for individual employees may increase, leading to stress and burnout
- Limited specialization: a wide span may lead to a more generalized workforce, potentially limiting opportunities for in-depth specialization with specific functions

DEFINE DELEGATION OF AUTHORITY, HIGHLIGHTING PROS AND CONS

Delegation of authority is a management process that involves entrusting decision-making powers and responsibilities from a higher-level position to a lower-level position within an organization. This practice empowers employees to make decisions, take on tasks and assume accountability for specific functions

The advantages are:

- Responsibility to employees: employees are required to carry out assigned tasks satisfactorily and holds them accountable for the proper execution
- Efficiency and productivity: delegation enhances efficiency by distributing tasks appropriately, enhancing productivity
- Employee development: delegating authority provides employees with opportunities to develop new skills and expand their knowledge

- Effective decision-making: delegation allows decisions to be made by individuals who have the necessary expertise, leading to more effective decision-making
- Flexibility and adaptability: flexibility is enhanced by distributing decision-making across different levels, making it easier to respond to changing circumstances
- Building a culture of trust: delegation builds trust between managers and employees, fostering a positive organizational culture relying on motivation and self-commitment
- Accountability: employees are answerable to a superior for the outcome, which provides them further responsibility

The disadvantages are:

- Risk of miscommunication: delegating tasks carries the risk of miscommunication if expectations or resources are not communicated clearly, leading to errors
- Loss of control: managers may feel a loss of control especially if they struggle to trust their subordinates' abilities
- Inconsistent performance: delegated tasks may not consistently meet the desired standards if employees lack the necessary skills and motivation
- Overburdening employees: if workload is not equitably distributed, delegation may lead to overburdening certain employees
- Accountability issues: if the delegation process is not well-structured, issues may arise concerning accountability, with unclear lines of responsibility for outcomes

DEFINE THE DEGREE OF CENTRALIZATION

The degree of centralization is the degree to which authority is delegated throughout an organization

This degree varies in different areas of the company. Indeed, for example, sales are strongly decentralized, as the locus of decision making is concentrated in supervisory and front line, while

information systems is centralized, as decisions are made at the upper management level level. Instead, production is relatively high centralized, as decisions are made at the middle management level

DISCUSS PROS AND CONS OF CENTRALIZED/DECENTRALIZED ORGANIZATIONS

CENTRALIZED ORGANIZATION

The advantages are:

- Consistent decision-making: centralization ensures consistency in decision-making, as decisions are made by a higher authority with a broader organizational perspective
- Clear chain of command: there is a clear chain of command, which can simplify communication and organization hierarchy
- Efficient resource allocation: the resource allocation is more efficient, as decisions are made based on an organization-wide perspective
- Easier implementation of policies: the implementation of policies and procedures is more straightforward in a centralized structure, as decisions come from a central authority

The disadvantages are:

- Risky decision-making: there is a risky decision-making if the centralized authority lacks diverse perspective or fails to consider local nuances
- Slow response time: centralized organizations may have slower response times to changes in the external environment due to the hierarchical decision-making process
- Limited front-line input: decisions may lack insights and recommendations from front-line employees, leading to potential inefficiencies

DECENTRALIZED ORGANIZATION

The advantages are:

- Operational flexibility: decentralized organizations operate with greater flexibility, allowing them to adapt more easily to complex and unpredictable environments
- Improved responsiveness: decentralization enables quicker responses to local issues and changes, as decisions can be made at lower organizational levels
- Enhanced creativity and innovation: creativity is fostered by encouraging input and ideas from various organizational levels
- Employee empowerment: decentralization empowers lower-level managers and employees, leading to increased job satisfaction

The disadvantages are:

- Need for stronger decision-making skills: decentralized organizations require lower-level managers to possess stronger decision-making skills, and poor decision-making at these levels can have significant consequences
- Coordination challenges: these issues occur when different units or departments operate with significant autonomy
- Potential for inconsistency: inconsistency in decision-making across various organizational units leads to a lack of uniformity in policies
- Risk of local optimization: decentralization may lead to local optimization, where individual units prioritize their goals over the overall objectives of the organization
- Communication barriers: challenges may arise when there is a lack of effective communication channels and mechanisms

DEFINE FORMALIZATION, HIGHLIGHTING PROS AND CONS

Formalization consists in the extent to which an organization's processes, procedures, rules, roles and structures are explicitly documented, standardized and followed. Further, it increases as firms get older, larger and regulated

The advantages are:

- Consistency in operations: formalization establishes clear rules, procedures and guidelines, ensuring consistency and efficiency
- Standardization of processes: formalization helps standardize processes, making it easier for employees to understand their responsibilities and increasing stability in the work environment
- Enhance control and accountability: clear rules and procedures make it easier to hold individuals accountable for their performance
- Compliance and risk management: in strictly-regulated industries, formalization ensures compliance with legal and regulatory requirements, helping to manage risks and to operate with established guidelines

The disadvantages are:

- Less organizational flexibility: rigidity in processes may hinder the organization's ability to adapt to changing circumstances
- Discourages organizational learning/creativity: employees may be less likely to experiment with new ideas or approaches when adherence to established procedures is strictly enforced
- Increases job dissatisfaction and work stress: employees may feel constrained by rigid rules and procedures, leading to a sense of frustration and decreased morale
- Rules/procedures become focus of attention: employees may become overly focus on following rules and procedures rather than understanding the broader context or purpose of their work, leading to a lack of engagement and autonomy

ANALYZE THE DIFFERENCES BETWEEN A LINE/FUNCTIONAL STRUCTURE AND A MULTIDIVISIONAL STRUCTURE

FUNCTIONAL STRUCTURE

The main features are:

- Departmental organization: functional structure organizes the organization into distinct departments

- Specialization: each department specializes in a specific function, thus allowing employees to develop specialized skills
- Hierarchical authority and central coordination: authority and decision-making flow through a clear hierarchy, typically with a centralized leadership structure
- Efficiency in specialized tasks and flexibility: the efficiency is led by each department focusing on its specific function
- Clear chain of command: employees clearly report to a functional manager who oversees the specific department
- Centralized decision-making: usually it's centralized at the top of the organizational hierarchy
- Limited duplication of effort: duplication is minimize by assigning specific tasks to specialized departments

MULTIDIVISIONAL STRUCTURE

- Divisional organization: multidivisional structure organizes the company into divisions or business units, each resembling a separate entity
- Grouping by outputs: divisions are often grouped by outputs, such as products or geographical regions
- Profit accountability: divisions function like “mini-firms” and are accountable for their profits and losses
- Corporate headquarters coordination: corporate headquarters provide overarching guidance and offer service sushi as planning and coordination to support divisions
- Delegation of decision-making: decision-making authority is often delegated to division managers, allowing for more localized and responsive decision-making
- Flexibility and adaptability: multidivisional structures are more adaptable to diverse markets, as different divisions can tailor strategies to their specific areas
- Potential for work duplication: there is a risk if similar functions or tasks are carried out independently by different divisions

DISCUSS PROS AND CONS OF A MULTIDIVISIONAL STRUCTURE

The advantages are:

- Decisions made on a divisional level: this enables flexibility and responsiveness to local market conditions
- Innovation and brand spirit: the autonomy to innovate and embody the brand spirit can lead to creative and distinctive approaches
- Motivation for workers: the possibility to choose the division they want to work in fosters motivation and alignment with the division's goals
- Accelerated decision-making: decisions are made swiftly as there is less need for approval from a centralized authority
- Increased managerial responsibility: the sense of responsibility of divisional managers fosters a sense of ownership and accountability
- Management capability development: this promotes a gained experience in decision-making and strategic planning

The disadvantages are:

- Coordination challenges: coordinating activities across divisions can lead to duplication of efforts or conflicts of interests
- Complexity in corporate governance: there could be the need for effective oversight to ensure that divisions align with overall organizational goals
- Communication barriers: effective communication can be a challenge, potentially hindering the flow of information
- Risk of loss of organizational identity: the strong focus on divisional autonomy may make it challenging to maintain a cohesive corporate culture

DEFINE A MATRIX STRUCTURE

A matrix structure is an organizational design that combines elements of both functional and project-based structures. In a matrix, employees have dual reporting relationships, typically to

both a functional manager and a project or product manager. This structure is characterized by intersecting lines of authority, where teams cut across various departments or functions to work on specific projects, product, customers or geographical areas

The matrix structure overlays project-based units onto traditional function-based departments, allowing employees to collaborate and contribute their expertise to projects, allowing employees to collaborate while still maintaining their functional roles

The organizational form is known for its flexibility, as it allows for the optimization of resources based on project needs, thus being suited for organizations dealing with complex projects that require coordination across different functional areas. Indeed, one of the key features of the matrix structure is the dual reporting relationships, which empower employees to work on projects outside their traditional functional roles, enhancing communication and flexibility

For instance, the structure was implemented by NASA during its early years, as the organization needed to coordinate various projects concurrently

STATE THE PROS AND CONS OF A MATRIX STRUCTURE

The advantages are:

- Flexibility, cooperation and creativity: matrix structures provide flexibility in managing projects and adapting to changing needs. Enhanced cooperation between different functional areas fosters creativity and innovation
- Specific expertise utilization: the matrix draws on specific expertise by bringing together individuals from different functional areas to work on projects, ensuring that the right skills are applied in specific tasks
- Reduced CEO burden: by distributing decision-making authority to project managers, the burden on CEOs is reduced, allowing

CEOs to focus on strategic planning and overall organizational vision

- Quick reaction to changes: the matrix structure enables the company to react quickly to changes in the business environment, allowing for a swift response

The disadvantages are:

- Expense: the need for additional management layers and the complexity of coordination contribute to increased costs
- Complexity: managing dual reporting relationships, coordinating across functional and project lines and balancing competing priorities can be challenging
- Authority confusion: it may be unclear whose directives take precedence, those of the project manager or the immediate functional supervisor

DISCUSS THE FEATURES AND THE CHALLENGES OF THE TEAM STRUCTURE

The main features/advantages are:

- Non-hierarchical focus: instead of emphasizing control, it prioritizes coordination among team members
- Multiple work groups with weak authority lines: this promotes collaboration and autonomy within teams
- Little or no work formalization: instead of rigid rules and procedures, teams have the freedom to design their work processes as they see fit, fostering creativity and adaptability
- Team accountability: teams' accountability for their own performance encourages a sense of ownership and responsibility among team members
- Employee engagement and motivation: the collaborative and autonomous nature of teams fosters a positive work environment
- Flexibility and low barriers between knowledge areas: flexibility enhances quick response to changing circumstances, while low barriers encourage cross-functional collaboration

The main challenges/disadvantages are:

- Pressure to perform: the expectation is that teams deliver results, and there may be increased accountability for achieving goals
- Scaling up challenges: as organizations grow, maintaining the same level of coordination and communication may become more complex
- Unclear chain of command: without well-defined authority lines, there can be confusion about who holds decision-making power in certain situations

ANALYZE FRESHII'S ORGANIZATIONAL STRUCTURE

ORGANIZATIONAL STRUCTURE

Freshii employs a flat and progressive organizational structure that provides a sense of ownership to the employees of the organization because there are no junior managers. The flat organization structures, which reflects in a decentralized structure and a wide span of control, helps the employees to feel that they are managers of their respective departments, while the less supervision encouraged by the functional structure increase creativity and flexibility of the employees in decision-making

RELATIONSHIP BETWEEN STRUCTURE AND ORGANIZATIONAL CULTURE

The flat organizational structure aligns with Freshii's values and culture by offering freedom of expression and creativity to the employees. This means, indeed, that the authority as well as responsibility is shared among the employees in all levels and departments. As it is clear, this matches the culture of the organization, which is innovative, accountable, interesting, as well as environmentally-friendly and independent. Further, Fresh can make sure that the franchisees are correctly adhering to the culture by enforcing consistency and vision, and investment and growth in technology, infrastructure and people

EMPLOYEES' EMPOWERMENT

The flat organizational structure allows a strong empowerment of the firm's employees by removing the excess management layers and resulting in an improvement in coordination as well as an increase in communication speed between workers. Further, the strengthening of individual decision-making power and the creation of a comfortable and environmentally-friendly work environment represent a strong incentive for employees to improve their creativity and motivation

DEFINE CORE STAKEHOLDERS

Core stakeholders are individuals, groups or entities that have a direct interest or stake in a particular organization

All core stakeholders share the values, objectives, governance and organization of the firm. Further, they receive rewards and benefits which are considered fair given the contributions provided

However, there could be some cases in which stakeholders do not receive those rewards, thus leading to a condition of lack of institutional equilibrium:

- Financial mismanagement: in case of poor financial management or misallocation of resources, the firm may struggle to fulfill its promises to stakeholders
- Misalignment of interests: if management prioritizes shareholder value over employee benefits or customer satisfaction, it can create a misbalance in the distribution of rewards
- Legal issues: in case of unethical or illegal practices, the firm may incur in legal consequences, thus harming the trust and confidence of stakeholders
- Market changes: companies may face challenges adapting to fast market changes, leading to a lack of equilibrium

Therefore, firms should avoid this scenario by enhancing economic sustainability, which is fundamental to keep autonomy over time and ensure durability

DEFINE ACCOUNTING

Accounting is the systematic process of recording, analyzing, interpreting and summarizing financial transactions of a business or an individual. It involves the preparation of financial statements, which provide an overview of the financial performance and position of an entity

EXPLAIN WHY DO WE USE ACCOUNTING

Accounting is used for several reasons:

- Record-keeping: it helps maintaining a systematic record of financial transactions, which is essential for tracking financial activities over time
- Financial reporting: accounting facilitates the preparation of financial statements, which offer a snapshot of an entity's financial health and performance
- Decision-making: managers analyze accounting information to assess profitability, evaluate performance and formulate future strategies
- Compliance: accounting ensures compliance with financial regulations and reporting standards
- Taxation: governments use financial information to assess tax liabilities and ensure compliance with tax regulations

STATE WHO USES ACCOUNTING INFORMATION

Accounting information is used by:

- Management: internal stakeholders use accounting information for decision-making and performance evaluation
- Investors: shareholders use financial statements to assert the financial health of the company before making an investment

- Creditors: banks use financial statements to evaluate the creditworthiness of a business
- Regulators: regulatory bodies use accounting information to ensure compliance with financial regulations and reporting standards
- Competitors: they may analyze financial statements to gain insights into the performance of other businesses in the industry
- Customers: they use it to understand the financial stability of a supplier, influencing their purchasing decisions
- Employees: they may be interested in the financial stability of the company, as it can impact their benefits and compensation

DISTINGUISH DIFFERENT TYPES OF ACTIVITIES

There exist three types of activities:

- Operating activities: they involve transactions that enter into the determination of net income and are primarily activities that comprise the day-to-day business functions of a company
- Investing activities: they are associated with the acquisition and disposal of long-term assets, such as equipment
- Financial activities: activities related to obtaining or repaying capital to be used in the business

DISCUSS THE IMPORTANCE OF ECONOMIC SUSTAINABILITY, HIGHLIGHTING THE ROLE OF PROFITABILITY AND SOLVENCY

Organizations need economic sustainability to keep autonomy over time and ensure durability. In order to do so, they need to reach income equilibrium, stated by the firm's profitability, and cash equilibrium, given by the solvency

PROFITABILITY

Profitability is an indicator of a firm's ability to cover negative components (including loan and equity capital) with positive

components of income at market conditions without systematically getting support from third parties

SOLVENCY

Solvency is the firm's ability to cover debt at any given moment

STATE A BRIEF DIFFERENCE BETWEEN PROFITABILITY AND SOLVENCY

- Profitability is about the ability to generate profits from business operations, focusing on income and expenses over a specific period
- Solvency is about the ability to meet long-term financial obligations, emphasizing the relationship between a company's assets and liabilities

STATE THE THREE BASIC FINANCIAL STATEMENTS

- Balance sheet
- Profit and loss account (Income statement)
- Cash flow statement

The main difference is that the balance sheet provides a snapshot of the financial position, the income statement shows profitability and the cash flow statement reveals how cash is generated and used

DEFINE THE BALANCE SHEET

The balance sheet is a snapshot of the assets used by the company and of the funds that are related to those assets at an instant in time

The snapshot helps stakeholders understand what the company owns and owes, thus evaluating its financial health

DEFINE THE INCOME STATEMENT

A profit and loss statement is a financial statement that summarizes the revenues, costs and expenses incurred during a specific period of time, usually a fiscal quarter or year

These records provide information about a company's ability, or lack thereof, to generate profit by increasing revenue, reducing costs, or both

DEFINE THE CASH FLOW STATEMENT

The cash flow statement is a report of the inflows and outflows of cash over a period of time (the same period of the income statement)

In particular, it provides aggregate data regarding:

- All cash inflows a company receives from its ongoing operations and external investment sources
- All cash outflows that pay for business activities and investments during a given period

DESCRIBE THE PARTS OF THE BALANCE SHEET

The balance sheet is usually composed of two fundamental blocks, that is assets and liabilities, which always have to balance

In particular:

- Assets: they are the list of items which represent the value owned by the business
- Liabilities: they are the amount due to third parties, including the owners

SHOW THE GENERAL FORM OF A BALANCE SHEET

DEFINE ASSETS

Assets are resources controlled by the firm as a result of past events and from which future economic benefits are expected to flow to the firm

DEFINE LIABILITIES

Liabilities are the financial obligations a company owes to outside parties

DEFINE EQUITY

Equity refers to the ownership interest in a company or the residual interest in its assets after deducting liabilities. It represents the claim that the company's owners have on the company's assets

DEFINE ISSUED COMMON STOCKS, ANALYZING THE DIFFERENT POSSIBLE VALUES ASSUMED

Issued common stocks represent the shares of ownership in a company that have been sold to investors and are currently held by shareholders

Stocks can present three possible values:

- Nominal value: it is an arbitrary value assigned to a share of stock at the time of issuance. It may represent the minimum amount for which the stock can be issued

- Book value: it represents the net asset value per share if the company were to be liquidated. Thus, it provides insights into the net worth of the company, but it does not reflect the future growth potential
- Market value: it is the current price at which a share of stock can be bought or sold in the open market, implying that it is determined by supply and demand as well as the company's performance. Thus, it is a real-time indicator of investors' perception of the company's worth
 - It is the price quoted in the Stock Exchange for a public company or estimated price for a non-quoted company

Here the formulas

NOMINAL VALUE

$$\frac{\text{Issued Common Stock}}{\text{No. of stocks}}$$

BOOK VALUE

$$\frac{\text{Owners' funds}}{\text{No. of stocks}}$$

MARKET VALUE

$$\text{No. common shares} \times \text{stock price per share}$$

DEFINE CAPITAL RESERVES

Capital reserves are amounts retained in the company which have been generated from sources other than normal trading (but cannot be distributed as dividends to shareholders)

For example, we can consider the surplus deriving from the re-evaluation of one asset, such as a building

DEFINE REVENUE RESERVES

Revenue reserves are amounts retained in the company which have been generated by trading (trading profits), often used to finance firm growth

These reserves are created from the retained profits generated by the company through its operational activities

DEFINE LONG TERM LOANS

Long term loans are debts that shall be payed within 3-5 years (medium-term) or even more (long-term)

They can be distinguished in:

- Issued bonds (not due within 12 months): they are a form of debt financing where an entity borrows money by selling bonds to investors. These bonds are essentially IOUs that promise to repay the principal amount (face value) to bondholders at a specified maturity date and pay periodic interest during the bond's term
- Mortgage loans: they are loans secured by real property, typically used to finance purchase of real estate, such as a home. The property serves as collateral for the loan

DEFINE SHORT TERM LOANS

Short term loans are debt towards financial institutions or other entities (debt-holders) which are due within one year

In particular, we can consider bonds to be paid within 12 months. The yield on short-term bonds is generally lower than that of longer-term bonds, reflecting the lower risk associated with shorter maturities

DEFINE ACCOUNTS PAYABLE

Accounts payable are amounts due to suppliers within one year

The process in order to record a particular amount as account payable is the following:

- 1) Goods or services have been received
- 2) The amount due to suppliers for goods or services is deferred
- 3) The deferred amount is recorded as account payable

DEFINE MISCELLANEOUS

Miscellaneous indicate other debts that shall be paid within 1 years

For example:

- Current taxes: they are taxes that a business is obligated to pay based on their taxable income for the current accounting or tax period
- Due dividends: they are the dividend payments that a company is obligated to pay to its shareholders based on the company's dividend policy and declaration. Dividends represent a portion of a company's profit that is distributed to its shareholders as a return on their investment

DEFINE NET FIXED ASSETS

Net fixed assets are physical items needed for the operations of the firm

For example, we can take into account machineries, computers and buildings

DEFINE INVESTMENTS

Investments are shares in other (non-consolidated) companies

The term "non-consolidated" means that the investor does not have a controlling interest. A controlling interest typically involves

owning more than 50% of the voting shares, which would require the consolidation of financial statements

DEFINE INTANGIBLES

Intangibles are assets that do not have a physical presence but have a value for firm's activities, such as patents, reputation, goodwill

PATENTS

A patent is a government license that gives the holder exclusive rights to a process, design or new invention for a designated period of time

GOODWILL

Goodwill is the value of intangibles in another company that the focal one has acquired, as reflected in the price paid (reflected only in the consolidated statement). Thus, it represents the excess of the purchase paid for an acquired company over the fair value of its identifiable net assets

For example, consider two companies A and B
Company A pays 125\$ for company B. Company B's net assets (owners' funds) are 100\$

The difference between how much company A paid and company B's net asset is 25\$. This extra consideration of 25\$ is not balanced by physical assets. So, an intangible asset of this amount must be created

DEFINE ACCOUNT RECEIVABLE

Account receivable is an amount due from customers within a year (trade credit)

In order to create an account receivable, the process is the following:

- Customers purchase goods or services on credit
- Customers payments are deferred
- Unpaid goods/services are recorded as accounts receivable

DEFINE CASH AND EQUIVALENTS

Cash and equivalents are liquidity means available to the firm

In particular, they are classified as:

- Cash: it is the physical currency and demand deposits in banks
- Short-term loans: they are funds borrowed by a company with a maturity period of less than one year, and they are typically used to cover short-term financing needs
- Liquid securities: they are short-term, highly liquid investments that can be easily converted into cash (they are equivalents if they have a maturity period of three months or less), such as treasury bills or money market funds

DEFINE INVENTORIES

Inventories are goods and raw materials held for purpose of resale, such as the ingredients for a food manufacturer

DEFINE MISCELLANEOUS

Miscellaneous are other readily payable credits, such as pre-paid taxes

Prepaid taxes refer to taxes that have been paid in advance by a business before they are officially due. As a current asset, prepaid taxes reflect the portion of tax liabilities that a company has already satisfied but has not yet been recognized as an expense

DEFINE THE VARIOUS USED AGGREGATIONS

TOTAL ASSETS

Total assets=Fixed assets+Current assets (or also the sum of liabilities)

CAPITAL EMPLOYED

Capital employed=Owners' funds+Long-term loans (or also Fixed assets+Current assets-Current liabilities)

DEFINE CAPITAL EMPLOYED

- If the capital employed is too low, this may limit the company's ability to invest in new projects and take advantage of growth opportunities. Further, it exposes the company to financial instability and flexibility, especially during economic downturns, thus creating difficulties in meeting financial obligations, such as debt payments
- Excessive capital is an opportunity cost, since funds could have been used for productive investments, as the lower ROE shows (the metric measuring efficiency in these of capital). Further, shareholders may be dissatisfied if the company retains excessive capital without delivering a satisfactory ROI, thus increasing pressure

WORKING CAPITAL

Working capital=Current assets-Current liabilities (or also Owners' funds+Long-term liabilities-Fixed assets)

DEFINE WORKING CAPITAL

Working capital is the amount of day-to-day operating liquidity available to a business:

- A very low (negative) working capital may pose the firm at risk of running out of money

- Excessive working capital means funds which earn no profit cannot earn the required rate of ROI (indeed, the company is missing out on opportunities to generate more significant returns by having funds sitting idle. In fact, a portion of the excessive WC are not being actively invested or utilized to generate a return, implying an opportunity cost)

OWNERS' FUNDS

Owners' funds = fixed assets + current assets - current liabilities - long-term loans (i.e. Total assets - Outstanding debt is what belongs to shareholders)

DISCUSS THE PURPOSE OF THE PROFIT AND LOSS ACCOUNT

The main purposes of the profit and loss account are:

- Understand where impacts are: stakeholders can understand the financial performance of the business during the stated period, highlighting whether the company generated a profit or a loss
- Knowledgeable decision-making process: the statement help evaluating the profitability of various business segments, assessing the effectiveness of cost-control measures and making strategic decisions regarding pricing, production and resource allocation
- Comparison: by comparing the income statements of different periods, businesses can identify trends and assess the impact of strategic decisions
- Transparency with stakeholders: stakeholders can review the finance performance and make informed decisions, thus building trust and confidence in the business
- Strengthen the business: management can develop strategies to increase revenue, reduce costs and enhance overall profitability, thus strengthening the business
- Manage risks for the future: for example, if expenses are consistently outpacing revenue, it may indicate financial strain. By addressing these issues proactively, businesses can mitigate risks and position themselves for long-term success

DEFINE PROFIT AND LOSS AND DISCUSS PROFIT AND LOSS ACCOUNT

Profit and loss are defined as gains or losses from both normal and abnormal company operations over a period of time

Profit and loss account measures total revenues minus total costs (i.e. operating profit) over the period between the opening and closing balance sheets of an accounting period

DEFINE REVENUES

Revenues mainly refer to the value of a company's sales of goods and services to its customers

Even though a company's "bottom line" (its net income) gets most of the attention from investors, the "top line" is where the revenue or income process begins

DEFINE OPERATING COSTS

Operating costs are costs directly associated with the production of goods and services (i.e. directly traced to specific products) and are different depending on the sector:

- For a manufacturer, they are the expenses incurred for raw materials, labor and manufacturing overhead used in the production of its good
- For retailers, they are essentially the purchase cost of merchandise used for resale
- For service-related firms, they are the cost of service rendered or cost of revenues

DEFINE OVERHEAD COSTS

Overhead costs are all ongoing expenses that are not directly related to the product or service being produced (i.e. direct material/direct labor)

Overhead are paid regardless of whether a company is performing well (i.e. rent, insurance, utilities, office supplies, salaries to HR department and to accounting department)

DEFINE EBITDA

EBITDA represents the cash that is thrown off from the normal trading activities of the business. It is a number largely free from distortions that can arise from accounting policies

Implications of high EBITDA:

- Strong operating performance: the company gets significant earnings from its core business operations before accounting for interest, taxes and non-cash expenses
- Positive cash flow: the company has the ability to cover its operating expenses, interest and taxes while still generating substantial earnings
- Investor confidence: investors view EBITDA positively as it reflects the company's ability to generate profits before certain financial obligations, thus signaling financial strength and efficiency
- Debt serving capability: companies with high EBITDA may find it easier to service their debt obligations, since lenders may perceive them as less risky
- Investment capacity: a high EBITDA may provide the company with the capacity to reinvest in the business and pursue growth opportunities

Implications of low EBITDA:

- Operational challenges: company is struggling to generate sufficient earnings from its core business activities
- Negative cash flow and risk of financial distress: they may be unable to cover interest expenses and other financial obligations

- Investor lack of confidence and need for cost management: inefficiencies may lead management to focus on cost management and operational improvements to enhance profitability
- Limited debt servicing capacity: lenders may perceive them as riskier, potentially leading to higher interest rates
- Constraints on growth and investment: limited resources for reinvestment in the business may hinder the firm's ability to compete or expand

DISCUSS VARIABILITY OF EBITDA AMONG INDUSTRIES

EBITDA can vary between industries due to differences in business models, cost structures and other factors:

- Profit margins: industries with higher profit margins, such as technology or software development, may generally exhibit higher EBITDA levels. In contrast, industries with thinner profit margins, like retail or grocery, may have lower EBITDA
- Capital intensity: capital-intensive industries, such as manufacturing or energy, often have higher depreciation and amortization, leading to lower EBITDA
- Operating leverage: industries with high fixed costs and operating leverage, such as airlines or utilities, may experience greater fluctuations in EBITDA with changes in revenue
- R&D expenses: industries investing in R&D, such as pharmaceuticals or technology, may experience lower EBITDA due to the substantial depreciation
- Regulatory environment: industries subject to extensive regulations, such as healthcare or utilities, may have different EBITDA profiles influenced by compliance costs or regulatory changes

DEFINE DEPRECIATION

Depreciation indicates how much of an asset's value has been used up

For example, a company buys a piece of equipment for 1 million and expects it to have a useful life of 10 years. Every year, the company will expense \$100,000 of depreciation

DEFINE AMORTIZATION

Amortization is the spreading out of capital expenses for intangible assets over a specific period of time

For example, a Biotech spent \$30 million dollars on a patent with a useful life of 15 years. It would record \$2 million each year as an amortization expense

DEFINE EBIT

EBIT is largely the operating or trading profit of the business, that is a measure of a company's profitability that reflects the ability to generate profit from its core business operations before accounting for interest and taxes. It captures the total operating income and total operating cost of the business

It is a number of enormous significance since it is from EBIT that a company generates resources to pay interest to bankers, tax to government and dividends to shareholders

High EBIT implies:

- Operational efficiency: a company is generating substantial profit from its core business activities
- Ability to cover fixed costs: the capacity to cover fixed costs, such as interest on debt, is an important signal for the firm's financial stability
- Investor confidence: the ability to generate profit before interest and taxes attracts investment and secure favorable financing terms
- Flexibility for growth: the firm can use its profits to reinvest in the business and enhance growth

- Potential for dividends and shareholder returns: the may have the capacity to distribute dividends to shareholders

Low EBIT implies:

- Operational challenges: a low EBIT indicates inefficiencies, high operating costs or pricing pressures affecting company's stability
- Risk of financial distress: companies are unable to cover fixed costs and obligation, thus affecting their creditworthiness
- Limited capacity to service debt: if interests expenses are a significant portion of fixed costs, a low EBIT show an incapacity for the company to meet those obligations
- Shareholder concerns: share prices may be impacted and investors may seek explanations
- Reduced flexibility for investments: such companies may have limited resources for reinvestment or pursuing growth opportunities
- Potential for cost-cutting measures: such measures, involving restructuring and optimizing business processes, are important to improve profitability

DEFINE INTERESTS EXPENSES

The interest expenses reflect the costs of the firms to borrow from financiers (not from shareholders)

Sometimes firms record a net figure, that is the net interest. It consists in the net amount of interest income or interest expense that a company incurs after accounting for interest earned and interest paid. In particular, the metric reflects the difference between the interest a company earns and the interest it pays

PRE-TAX INCOME

Pre-tax income indicates the earnings before the payment of taxes

Further, numerous and diverse techniques are available to companies to avoid or minimize taxes that affect their reported income

High EBT implies:

- Strong profitability: it is a positive indicator of operational efficiency and business performance
- Potential for growth: companies may reinvest in the business and pursue growth opportunities
- Investor confidence: generating numerous earnings before tax can be an important factor in attracting investment and influencing stock prices
- Flexibility in tax planning: companies may explore various strategies to optimize their tax position
- Debt servicing capacity: lenders may view the company more favorably, leading to better credit terms

Low EBT implies:

- Operational challenges: the company faces challenges due to high operating expenses, pricing pressures or other operational inefficiencies
- Risk of financial distress: the company is struggling to cover its operating costs and generate sufficient earnings
- Limited capacity for investments: they have limited resources for reinvestment in the business or pursuing growth opportunities
- Impact on stock prices: shareholders may become concerned about the company's ability to generate returns
- Tax planning challenges: they have limited opportunities to offset taxable income with credits, leading to a higher effective tax rate
- Debt servicing concerns: lenders may view the company as riskier, leading to less favorable financing terms

DEFINE INCOME TAXES

Income taxes are an estimate, or an account that has been created to cover what a company expects to pay as taxes

DEFINE NET INCOME

Net income is the bottom line, which is the most commonly used indicator of a company's profitability. It gives the idea of the general wealth of the company. Indeed, it reflects company's earnings after deducting all expenses, taxes and interest

If expenses exceed income, this account caption will read as a net loss

High net income implies:

- Financial strength: it indicates the company is generating substantial profits from its core business operations
- Investor confidence: positive financial performance can instill confidence, attracting new investors
- Dividend payments: companies with high net income may have the capacity to distribute dividends to shareholders
- Debt servicing capacity: creditors and lenders may view the company as a lower credit risk
- Reinvestment and growth: companies with high net income have the financial resources to reinvest in the business, contributing to long-term sustainability
- Competitive positioning: high net income provides flexibility in reinvesting in the business, capital expenditures and growth opportunities, contributing to long-term sustainability

Low net income implies:

- Financial challenges: it raises concerns about the company's ability to cover expenses and maintain financial health
- Investor skepticism: decline in stock prices and lack of confidence are driven by low net income
- Dividend constraints: companies with low net income may have limited capacity to pay dividends
- Debt servicing concerns: low net income affects creditworthiness, leading to challenges in securing favorable credit terms

- Reduced reinvestment capacity: constraints in reinvesting may hinder their competitiveness and growth potential
- Cost-cutting measures: sustained losses may force companies to implement cost-cutting measures, such as reductions in operational expenses

DEFINE DIVIDENDS

Dividends are the part of earnings that shareholders get in cash

Firms may decide to pay lots of dividends, such as AT&T, or very few dividends, such as Apple

HIGH DIVIDENDS

The advantages are:

- Income for shareholders: high dividends provide a steady income stream for shareholders, especially for income-focused investors such as retirees who rely on dividends for cash flow
- Attractive to income investors: they are attractive to investors seeking reliable income, thus contributing to a stable and diversified shareholder base
- Signal of financial stability: it may indicate that the company is generating steady profits and has confidence in its cash flow

The disadvantages are:

- Limited growth opportunities: limited funds available for reinvestment lead to limited growth opportunities
- Tax inefficiency: dividends are typically taxed at the shareholder's income tax rate, which may be higher than the capital gains tax rate, thus producing tax inefficiency
- Market perception: a sudden decrease in high dividend payments can lead to negative market perceptions, influencing the stock price

LOW DIVIDENDS

The advantages are:

- Reinvestment in growth: companies can reinvest in the business, enhancing growth
- Tax efficiency: capital gains may be taxed at a lower rate than dividends, increasing tax efficiency
- Signal of growth potential: investors may see that the company is having growth opportunities and reinvesting in its operations

The disadvantages are:

- Limited income for shareholders: shareholders may be disappointed by a lack of dividends, leading to a less diversified shareholder base
- Market volatility impact: stocks with low dividends may be more sensitive to market volatility, as investors may seek income-generating assets during uncertain economic times
- Potential for share buybacks: if company does not engage in share buybacks, investors may miss out on receiving returns

DEFINE RETAINED EARNINGS

Retained earnings indicate the percentage of net earnings not paid out as dividends, but retained by the company to be reinvested in its core business or to pay debt

Often firms retain earnings to invest where they can create growth opportunities, such as buying new machinery or spending the money on more research and development. Further, retained earnings are important for high-growth firms

High retained earnings imply:

- Financial strength: the company has generated consistent profits over time and retained a significant portion of those earnings
- Investment capacity: companies are more capable of doing investments

- Flexibility in adverse conditions: high retained earnings provide a financial buffer during economic downturns or adverse conditions
- Debt reduction: this can improve the company's financial leverage and reduce interest expenses
- Dividend flexibility: companies still have the flexibility to declare dividends when deemed appropriate
- Strategic opportunities: the companies are more willing to capitalize on strategic opportunities, such as acquisitions or market expansions

Low retained earnings imply:

- Low financial strength: companies may need to rely more on external financing sources, such as debt or equity
- Limited cushion in downturns: companies with low retained earnings may have limited financial cushion, thus needing to cut costs
- Investor confidence concerns: persistent low retained earnings may rise concerns among investors about the company's ability to reinvest in the business and sustain long-term growth
- Dividend emphasis: the company prioritizes dividend payments over reinvestment in the business

DEFINE AND COMPUTE EARNING PER SHARE (EPS)

Earning per share tells the profit that shareholders get for each share held (the more the better)

The ratio is not comparable across industries: indeed, firms may have few/many shares of low/large values. However, it is more informative to look at changes over time, in order to get in touch with the firm's profitability growth

Increasing EPS over time implies:

- Profitability and efficiency: the company may be generating more earnings from its core business activities

- Shareholder value creation: shareholders benefit as each share represents a larger portion of the company's earnings
- Investor confidence: it instills confidence in the company's ability to deliver returns
- Dividend capacity: the company is able to distribute dividends to shareholders

Decreasing EPS over time implies:

- Profitability challenges: it could be a sign of operational inefficiencies and increased costs
- Investor concerns: a declining EPS indicates a concerning financial health and its ability to generate sustainable returns
- Dividend constraints: companies with decreasing EPS may face constraints in paying dividends or may need to reduce dividend payouts
- Creditworthiness impact: creditors may view the company as riskier, potentially affecting the terms of debt agreements

$$EPS = \frac{\text{Net Income (EAT)}}{\text{No. of Stocks}}$$

DEFINE AND COMPUTE PRICE TO EARNINGS RATIO (P/E)

The P/S ratio reflects the number of years of earnings to pay back the purchase price. Further, it expresses how much investors are willing to pay per dollar earnings

A high value means that the market loves the company. Thus, it is comparable across companies and is an indicator of the opinion of the investors about the potential growth in the profits of a company (a high P/E implies high expected growth)

The P/E of companies varies with:

- Industries (higher in high-growth industries, lower in mature or declining industries)
- Countries (higher in high-growth countries, lower in low-growth countries)
- Periods of time (higher in “bull” periods of the stock market, lower in “bear” periods of the stock market)

There exists no “optimal” P/E, but investors form expectations about what the reasonable P/E of a company should be relying on the industry, countries and market trend

$$P/E = \frac{\text{Share price}}{\text{Earnings per share}}$$

STATE WHEN IT IS USEFUL TO INVEST IN LOW P/E STOCKS

- Stocks with low P/E are cheap and good investment opportunities if the investors have reason to believe that the pessimism of other investors is wrong. These stocks are safe because they have limited downside
- Stocks with high P/E should be avoided unless one has reason to believe that the optimism of investors is well-grounded. However, these stocks have a lot of downside and are risky

DEFINE AND COMPUTE MARKET TO BOOK RATIO (MtB)

The market to book ratio is a financial metric that compares the company’s market value (market capitalization) to its book value (shareholders’ equity). It reflects how the market values a company relative to its accounting value on the balance sheet

- If MtB is greater than 1, this means that the market values the company more highly than its accounting value. In other words,

investors are willing to pay a premium for each dollar of book value

- This happens when the market has high expectations for the company's future growth, profitability or intangible assets
- If MtB is less than 1, this means that the market values the company less than its accounting value
- This could occur when the market has a pessimistic outlook on the company's prospects or when there are concerns about the quality of its assets. In some cases, it may indicate that the market believes the company's assets are overstated on the balance sheet
- If MtB is equal to 1, this implies that the market values the company exactly at its accounting value. Thus, investors are assigning a value to the company that aligns with its book value
- This scenario suggests a neutral stance where the market's expectations align with the accounting values

$$M + B = \frac{\text{Market cap}}{\text{Owners' funds}}$$

DEFINE AND COMPUTE DIVIDEND PER SHARE

Note: it is like EPS, but with Dividends in place of Net Income

DPS determines the dividend earned by each shareholder. For example, the last DPS of Microsoft was \$0.39. So, if Bill has 1M shares, he gets \$390,000

Increasing DPS is a great way for a company to signal strong performance to its shareholders. Many firms like to keep DPS constant (or make it regularly grow) over the years, thus demonstrating management's trust in the ability of the firm to generate steady or growing profits

Instead, decreasing DPS may signal challenges in maintaining profitability, cash flow constraints and future uncertainty, thus enhancing investor discontent and impacting the company's stock price

$$\text{DIVIDEND PER SHARE} = \frac{\text{DIVIDENDS PAID}}{\text{NO. OF STOCKS}}$$

DEFINE AND COMPUTE PAYOUT RATIO

The payout ratio is the fraction of earnings that is paid out to shareholders. It is expressed as a percentage and provides insight into how much of the company's profits are returned to investors versus how much is retained for investment and other uses

There are different interpretations:

- Low payout ratio (below 50%): a low payout ratio suggests that the company retains a significant portion of its earnings for internal purposes, such as reinvesting in the business or accumulating cash reserves. It may be an indication that the company has room for future dividend increases
- Moderate payout ratio (around 50-75%): a moderate payout ratio strikes a balance between returning value to shareholders and retaining earnings for growth and financial stability. Many mature and established companies aim for a sustainable and moderate payout ratio
- High payout ratio (over 75%): a high payout ratio indicates that a substantial portion of earnings is issued as dividends. While this can be attractive to income-seeking investors, it may also limit the company's ability to reinvest in the business or respond to unexpected challenges

Indeed, some companies leave DPS free to vary and try to keep the pay-out ratio constant (e.g. they pay 40% of the earnings out to shareholders, no matter the absolute amount)

$$\text{PAYOUT RATIO} = \frac{\text{DIVIDENDS PAID}}{\text{NET INCOME (EAT)}}$$

STATE FINANCIAL RATIOS

- Profitability ratios: they measure the capacity to preserve the income equilibrium in the future
- Financial strength ratios: they measure the financial stability
- Liquidity: they measure short-term and long-term solvency, which means the capacity for the company to pay bills as they arrive

DESCRIBE COMPARISONS REGARDING PROFITABILITY RATIOS

Comparisons may be:

- Time series comparisons: higher profitability ratio of a company compared to its previous period indicates that the company is doing better than before, meaning that the choices taken are improving performances
- Cross-sectional comparisons: if a company is having a higher profitability ratio compares to its competitors, it can be inferred that the company is doing better than competitors, meaning that choices taken are more effective than competitors' ones

DEFINE AND COMPUTE ROTA

The ratios is given by EBIT over total assets:

- EBIT: it is the amount remaining when total operating costs are deducting from total revenues
- Total assets: resources controlled by the firm as a result of past events and from which future economic benefits are expected to flow to the firm

The ratio measures how well management uses all the assets to generate an opening surplus, representing a key tool in directing management's day-to-day activities and providing a benchmark against which all operations can be measured

The ratio, further, tells how much money is generated from each dollar invested into the firm. It shows the relationship between its resources (assets) and its income, providing a comparison term to evaluate if an organization is using its assets more or less effectively than in the past

Comparisons should be made with companies in the same industry. When ROTA is higher than the industry average, a company is said to have a competitive advantage

STATE WHAT A HIGH/LOW ROTA IMPLIES

High ROTA implies:

- Efficient asset utilization: the company is effectively converting its investments in assets into earnings
- Profitable operations: this can be attractive to investors, leading to a positive market perception
- Potential for high returns to shareholders: efficient asset utilization contributes to higher profitability, potentially allowing the company to distribute higher returns to shareholders through dividends
- Competitive advantage: a high ROTA guarantees a company to generate superior returns compared to the industry, suggesting competitive advantage

Low ROTA implies:

- Inefficient asset use: a low ROTA indicates the company is not effectively using its assets to generate profits
- Profitability challenges: as a result of high operating costs and low profit margins, the company faces challenges in maintaining profitability

- Need for operational improvements: management may need to assess and address factors affecting asset efficiency
- Investor concerns: a consistently low ROTA may lead to a negative market perception

DISCUSS THE MAIN PROBLEMS WITH ROTA

The main problems are:

- Disentangling specific contributions: firms deal with several products, which makes it hard to disentangle specific contributions from average components
- Differences across industry: it differs widely across industry
- Dependence on asset valuations: it depends heavily on asset valuations in the Balance Sheet (age of plants, depreciation play an important role)

INTERPRET THE DISENTANGLING OF ROTA

ROTA can be disentangles in the product between ROS and Asset Turnover

The impacts on ROTA are different:

- ROS Impact: if a company has a high ROS; it means it is earning a significant profit margin on its sales. When multiplied by asset turnover, it contributes to a higher ROTA, indicating that the company is not only profitable at the margin level but also efficiently using its assets to generate sales
- Asset Turnover Impact: a high asset turnover indicates that the company is generating a high volume of sales relative to its asset base. When multiplied by ROS, a high asset turnover contributes to a higher ROTA, reflecting effective asset utilization in generating profits
- Combined effect: the combined effect of ROS and Asset Turnover in the ROTA formula emphasizes the importance of both profitability at the margin level (ROS) and the efficiency of asset utilization (Asset Turnover)

EXPLAIN WHAT TO DO IN CASE OF TOO LOW ROTA

- Cost reduction initiatives: identify areas where costs can be reduced without compromising the quality of products or services, while enhancing profitability
- Investment in productivity-enhancing technologies: automation, digitalization and other technologies can contribute to improved operational performance and asset utilization
- Customer segmentation analysis: analyze customer segments to identify the most profitable ones and focus efforts on attracting customers in segments that contribute positively to the company's overall profitability
- Strategic investments and divestitures: consider strategic investments in areas that align with the company's long-term goals and have the potential for higher returns, while divesting of underperforming assets or business units
- Market expansion or diversification: strategic growth initiatives can contribute to increased asset turnover and higher returns

DEFINE THE RETURN ON SALES (ROS)

The ROS identifies the profit as a percentage of sales, which means how much profit is being produced per dollar of sales

It is fundamental to compare a company's ROS over time to look for trends. Further, an increasing ROS indicates the company is growing more efficient, while a decreasing ROS could signal troubles

At the same time, it is useful to compare it to other companies in the industry

DISCUSS THE IMPLICATIONS OF HIGH/LOW ROS

A high/increasing ROS implies:

- Profitability: a high ROS indicates that a significant percentage of each dollar of sales is converted into, thus reflecting a strong profitability, i.e. a good ability to manage costs effectively and generate earnings
- Competitive advantage: the competitive advantage is given by the fact that they can maintain healthy profit margins even in competitive markets
- Investor attractiveness: the company can generate strong returns on its sales, leading to a positive market perception
- Financial health: they have the ability to weather economic downturns

A low/decreasing ROS implies:

- Profitability challenges: a smaller percentage of sales is converted into profit, thus suggesting challenges in managing costs and pricing products effectively
- Investor concerns: investors may raise questions about the company's ability to compete effectively and generate satisfactory returns for shareholders
- Sensitivity to costs and financial harm: the sensitivity to changes in costs makes them vulnerable to economic downturns or fluctuations in input prices

EXPLAIN WHAT TO DO IN CASE OF TOO LOW ROS

- Cost reduction: identify areas where costs can be reduced without compromising product or service quality
- Pricing strategy review: ensure pricing strategy reflects both market dynamics and cost structure, thus impacting profit margins and ROS
- Technology adoption: automation and digitalization can lead to efficiency gains and positively impact ROS
- Customer segmentation and targeting: tailor marketing efforts to attract and retain customers can increase the profit obtained from revenues

- Sales and marketing effectiveness: enhance sales and marketing strategies to improve customer acquisition and retention. Consider the effectiveness of promotional campaigns and sales channels in generating profitable revenue
- Strategic partnerships: explore strategic partnerships that can lead to cost-sharing and joint ventures, able to improve operational efficiency

DEFINE ASSET TURNOVER

Asset turnover is a financial ratio that measures a company's efficiency in utilizing its assets to generate sales or revenue. Thus, it indicates the ability of a company to generate sales relative of its investment in assets

A high asset turnover implies:

- Efficient asset utilization: the business is effective in deploying its resources to produce revenue
- Operational efficiency: the company is able to generate a significant volume of sales without requiring a large investment in assets
- Higher ROI and less capital intensive: they can achieve substantial sales with a relatively lower investment in assets, contributing to higher ROI
- Adaptability: the company is responsive to changes in market demand, as it quickly adjust its operations to match sales requirements without accumulating excessive assets

A low asset turnover implies:

- Inefficient asset utilization: it may indicate underutilization or inefficiencies in the use of resources
- Capital intensity: they require a higher level of investment in assets to generate a comparable volume of sales
- Potential for excess inventory: a low asset turnover leads to the accumulation of excess inventory, showing that the company is not selling products as quickly as it acquires them

- Operational challenges: low asset turnover is the sign of inefficient distribution channels, negatively affecting the performance

The value for asset turnover varies by industry

EXPLAIN WHAT TO DO IF ASSET TURNOVER IS TOO LOW

If asset turnover is too low, it suggests that the company is not efficiently utilizing its assets to generate revenue

Measures are:

- Asset efficiency assessment: identify which assets are underutilized or not contributing to revenue generation
- Inventory management improvement: implement just-in-time inventory systems or more efficient ordering processes
- Investment in technology: automation, digitalization and other technologies can contribute to improved asset utilization
- Marketing and sales strategies: effective marketing campaigns can contribute to increased sales and, consequently, higher asset turnover
- Customer relationship management: a focus on customer retention can positively impact asset turnover
- Diversification of product offerings: explore opportunities to diversify product or service offerings to attract a broader customer base, leading to increased sales and improved asset turnover

DEFINE RETURN ON EQUITY (ROE)

The ROE measures the absolute return delivered to shareholders. Indeed, it is a financial metric that measures the profitability of a company in relation to its shareholder equity. It provides insights into how effectively a company is utilizing the equity invested by shareholders to generate profits

ROE drives MtB (market to book) ratio, which is determined by what the market demands (earning yield) and what the company delivers (ROE)

A good ROE also makes it easy to attract new funds and enables the company to grow

A high ROE implies:

- Profitability: it indicates that the company is generating a significant amount of profit relative to its shareholder equity, reflecting strong profitability
- Effective management: it suggests that management is utilizing resources effectively to maximize returns
- Attractiveness to investors: high ROE signals that the company has the potential to provide a higher return on investment compared to companies with lower ROE
- Competitive advantage: a competitive advantage is given by the ability for the company to maintain profitability in its industry, resulting from effective cost management

A low ROE implies:

- Profitability challenges: a low ROE suggests that the company is generating a lower level of profit relative to its shareholder equity, indicating inefficient use of resources, challenges in profitability and a need for operational improvements
- Ineffective use of equity: companies are not effectively using the equity capital due to high operating costs, low profit margins or poor asset management
- Investor concerns: investors may be concerned about the company's ability to provide satisfactory returns on equity
- Financial health: low ROE signals financial challenges or limitations, thus inducing investors to scrutinize other financial metrics

ROE should be high enough to compensate shareholders for the specific risk of investing in the company (higher than risk-free

financial instruments). Further, riskier companies should earn higher ROE to convince shareholders to invest

EXPLAIN WHAT TO DO IF ROE IS TOO LOW

It means that the company is not generating sufficient returns for its shareholders given the equity invested

There are several measures to take:

- Cost reduction initiatives: evaluate operational efficiency and identify areas where costs can be trimmed
- Revenue growth strategies: this involves expanding into new markets and introducing new products
- Pricing strategy review: adjusting pricing can have a direct impact on profit margins and, subsequently, ROE
- Efficient use of assets: analyze asset turnover and consider strategies to improve the efficiency of asset utilization, such as inventory management and production process optimization
- Financial leverage assessment: evaluate the company's capital structure and consider whether a strategic use of financial leverage is appropriate
- Customer retention and loyalty: satisfied customers are more likely to contribute to sustained revenue, positively impacting ROE
- Benchmarking against industry peers: it's fundamental to identify areas for improvement. Analyzing best practices in the industry can provide insights into achieving higher returns

DEFINE LIQUIDITY

Liquidity consists in short and long term solvency, which is the capacity for the company to pay all its liabilities

SHORT-TERM SOLVENCY

Short-term solvency is the ability for the company to meet its short-term obligations and pay off its current liabilities using its short-term assets. Short-term liabilities typically include obligations that are due within one year, such as accounts payable, short-term debt and miscellaneous. They are fundamental for funding a firm's day-to-day operations

LONG-TERM SOLVENCY

Long-term solvency assesses a company's ability to meet its long-term obligations and repay its debt over an extended period. It focuses on the composition of a company's capital structure and its ability to cover long-term debt with long-term assets

The main factors are:

- Debt structure: long-term solvency considers the proportion of long-term debt to equity. Excessive long-term debt can pose challenges to long-term solvency
- Interest coverage: the ability to cover interest expenses over the long term is an important factor in long-term solvency. If a company consistently struggles to cover interest payments, it may face solvency issues
- Asset base: the value and composition of a company's long-term assets are crucial. These assets should be sufficient to cover long-term obligations

DISCUSS DIFFERENCES BETWEEN PROFITABILITY AND LIQUIDITY

The main factors that make them differ are:

- Timing of payments: profitability and liquidity are distinct because not all payments are made at the same time. A company may be profitable, meaning it has positive net income, but it may face liquidity problems if it cannot meet its immediate payment obligations

- Cash flow timing: delayed payments from customers or to suppliers can affect liquidity, even if the company is generating profits
- Non-cash items: some accounting entries, such as depreciation, represent non-cash expenses. While impacting profitability, they do not directly affect the cash position
- Debt reimbursement: repayment of loans impacts cash flow but not necessarily affecting profitability. Indeed, a company may face liquidity challenges if it struggles to meet debt obligations

DESCRIBE THE CASH FLOW CYCLE

The cash flow cycle describes how the cash flows in and out of business. Cash is a continuous circulation through the arteries of the business carrying value to the organs. If this flow is stopped, or even seriously reduced for a time, then serious consequences result

The cycle is made by several steps:

1. Purchase of raw materials: this stage involves the cash outflow to suppliers as the company acquires the materials needed for production
2. Production process: during this stage, the company incurs various costs related to labor and other production expenses, which are costs representing cash outflows
3. Accounts payable: as the company acquires raw materials and incurs expenses, it establishes accounts payable. They essentially serve as a form of short-term financing, allowing the company to delay cash outflows until the payment is due
4. Inventory holding: once the products are manufactured, they are held in inventory until they are sold. This period is the period during which cash is tied up in the form of goods that have not yet been sold
5. Sales and invoicing: the company sells its products to customers. In a credit sales scenario, the company issues invoices to customers. While sales represent revenue, the cash has not been collected at this stage

6. Accounts receivable: this represents the time it takes for customers to pay their invoices. Cash has not been received but revenue has been recognized
7. Cash collection: once the customers pay their invoices, the company realized the cash inflow, making the cash available for use

DEFINE CURRENT RATIO

Current ratio is a ratio which asserts the ability for the firm to use enough near-cash assets to cover payments due in the immediate future

A ratio greater than 1 tells us that the firm has enough near-cash assets to cover payments due in the immediate future

However, as all indexes, the threshold value differs drastically depending on the industry. Further, the ratio does not distinguish between different types of current assets (some of them are more liquid than others)

High current ratio implies:

- Strong liquidity: the company has sufficient short-term assets to cover its short-term obligations
- Safety margin: creditors and investors are assured that the company is well-equipped to meet its short-term financial commitments
- Flexibility: companies with high current ratio are better positioned to handle unexpected expenses
- Creditor confidence: it signals the ability to settle obligations promptly

EXPLAIN WHAT TO DO IN CASE OF LOW CURRENT RATIO

In case of low current ratio:

- Improve receivables management: accelerate the collection of accounts receivable by implementing more efficient invoicing and payment collection processes. Consider offering discounts for early payments to encourage prompt settlements
- Inventory management: implement just-in-time inventory practices to reduce carrying costs and free up cash
- Negotiate with suppliers: negotiate favorable terms with suppliers to extend payment periods without affecting relationship, thus preserving cash and improving the current ratio
- Evaluate short-term financing options: exploit short-term loans to cover working capital needs and provide immediate cash injections
- Reduce non-essential expenditures: scrutinize operational costs and cut non-essential expenditures to conserve cash

DEFINE QUICK RATIO

The quick ratio is a financial metric that measure a company's ability to cover its short-term liabilities with its most liquid assets. It is a more stringent measure of liquidity than the current ratio because it excludes inventories, as it may be difficult sometimes to turn them quickly into cash

Indeed, the numerator includes only current assets that can become cash soon, such as cash holdings and marketable securities

In terms of value, 1 is very high, while around 0.8 is a good figure

Quick ratio is widely used by lending institutions to assess companies' liquidity levels

High quick ratio implies:

- Strong liquidity: the company has sufficient short-term assets to cover its short-term obligations

- Safety margin: creditors and investors are assured that the company is well-equipped to meet its short-term financial commitments
- Flexibility: companies with high current ratio are better positioned to handle unexpected expenses
- Creditor confidence: it signals the ability to settle obligations promptly

EXPLAIN WHAT TO DO IN CASE OF LOW QUICK RATIO

In case of low quick ratio, the company should take measures:

- Accelerate receivables collection: implement measures to accelerate the collection of accounts receivable, involving offering discounts for early payments and monitoring on overdue payments
- Inventory management: implement just-in-time inventory strategies to minimize holding costs and improve efficiency of converting inventory into cash
- Negotiate favorable payment terms: extend payment periods without negatively affecting relationships, thus providing additional time to convert current assets into cash
- Review cash management practices: optimizing the timing of payments to suppliers and managing cash inflows and outflows effectively
- Explore short-term financing options: securing short-term loans to provide immediate cash support during periods of low liquidity
- Reduce non-essential expenditures: scrutinize operational costs, thus cutting non-essential expenditures to conserve cash

DEFINE WORKING CAPITAL OVER SALES

Working capital over sales is a financial metric that measures the efficiency of a company's working capital management in relation to its sales revenue

High WC/Sales implies:

- Inefficient working capital management: a significant portion of the company's WC is tied up in supporting sales. This means that the company is using more capital than necessary to generate a given level of sales
- Excessive liquidity: the company may be holding more cash or current assets than needed for its operational requirements, leading to missed investment opportunities and lower ROTA
- Lower asset turnover and concern for investors: it means that the company is not efficiently utilizing its current assets to generate revenue

Low WC/Sales implies:

- Efficient working capital management: the company is effectively using a smaller portion of its capital to support sales, suggesting that it is agile in converting its working capital into revenue
- Optimal liquidity: a moderate low ratio may suggest that the company is maintain an optimal level of liquidity, meeting short-term obligations
- Higher asset turnover: the company is able to utilize its current assets to generate sales

EXPLAIN WHAT TO DO IN CASE OF A TOO LOW/TOO HIGH WC/ SALES

If the WC/Sales is too low:

- Assess liquidity needs: if the WC is too low, it's important to ensure that the company has enough current assets to cover its short-term liabilities
- Improve receivables management: if the ratio is low due to slow collections, consider implementing strategies to improve receivables management, such as offering discounts for early payments
- Negotiate with suppliers: extending payment terms without affecting relationships can help improve cash flow

- Inventory management; avoid overstocking by closely monitoring inventory levels and adjusting ordering practices to match demand
- Consider external financing: in case of too low WC, external financing options such as short-term loans are useful to cover immediate liquidity needs

If the WC/Sales is too high:

- Evaluate excess liquidity: determine whether it is a result of inefficient working capital management or if the company intentionally holds excess cash for strategic reasons
- Review payment and collection terms: negotiate terms with customers and suppliers to align payment schedules with operational needs
- Reinvest in growth: consider reinvesting excess cash in growth initiatives, thus contributing to the company's long-term strategic objectives
- Shareholder returns: if excess liquidity is not required for immediate operational needs or strategic investments, evaluate options for retiring value to shareholders, such as dividends
- Diversify investments: consider a mix of short-term and long-term investments to optimize returns while maintaining liquidity

DISCUSS CASH CONVERSION CYCLE

Cash conversion cycle is a financial metric that measures the time it takes for a company to convert its investments in inventory and other resources into cash from sales. It provides insights into the efficiency of a company's working capital management, particularly in terms of inventory, accounts receivable and accounts payable

A short cash conversion cycle has the following features:

- Effective management of inventory and credit sales: it means the company efficiently manages its inventory and credit sales. The time it takes to convert inventory into sales and, subsequently, into cash is relatively brief

- Short financing period for receivables and inventory: the company needs to finance accounts receivables and inventory for a brief period. This is a positive sign as it minimizes the time during which capital is tied up in these assets, allowing for quicker turnover

A long cash conversion cycle has the following features:

- Longer time to sell products: it may take longer time to sell its products, due to factors such as slower sales cycle or challenges in getting products to market
- Longer time to receive payments: it takes more time to collect payments from customers after making sales, as a result of dealing with customers with longer payment cycles or ineffective accounts receivable management
- Too quick payment of bills: while prompt payments can enhance relationships with suppliers, excessively quick payments may impact liquidity, especially if the company faces delays in receiving payments from customers

DEFINE DEBTOR DAYS (ACCOUNT RECEIVABLE)

Debtor days indicate how many days on average it takes to get paid by customers (the shorter the better)

DISCUSS WHAT TO DO IF THEY ARE LOW

- Review credit terms: consider extending credit terms strategically to encourage larger sales
- Implement incentives for larger orders: offering discounts for customers who place larger orders, this can encourage increased sales
- Implement efficient invoicing: efficient and accurate invoicing can contribute to faster payments
- Leverage technology for collections: utilize technology to automate collections processes, such as customer relationship management systems (CRM)

DEFINE INVENTORY DAYS

Inventory days indicate how many days on average an item stays in the inventory (the shorter the better)

DISCUSS WHAT TO DO IF THEY ARE LOW

- Optimize supply chain efficiency: work closely with suppliers to enhance the efficiency of the supply chain, such as involving improving forecasting accuracy
- Implement Just-in-time inventory: it minimizes excess stock and align inventory levels with the actual demand, contributing to lower inventory days
- Improve inventory turnover: focus on improving inventory turnover by regularly assessing product demand and identifying slow-moving items, adjusting stock levels accordingly
- Invest in technology solutions: technology may optimize tracking and enhance overall efficiency in managing inventory

DEFINE CREDITOR DAYS (ACCOUNT PAYABLE)

Creditor days indicate how many days on average it takes to pay suppliers (the longer the better)

DISCUSS WHAT TO DO IF THEY ARE LOW

- Negotiate favorable payment terms: seek longer credit periods while ensuring timely payments to maintain positive supplier relations
- Utilize early payment discounts: take advantage of early payment discounts offered by suppliers, resulting in cost savings
- Strategically time payments: optimizing the timing of payments to ensure timely settlements without negatively impacting relationships

- Diversify supplier relationships: diversify supplier to have flexibility in negotiating terms. Working with a mix of suppliers can provide options for favorable payment terms
- Leverage supply chain financing: explore supply chain financing options that allow for extended payment terms while providing suppliers with early payment through financing arrangements

DEFINE FINANCIAL STRENGTH

Financial strength is the company's ability to meet interest and principal payments in the long-run

In particular, financial strength ratios provide measures of this ability and are related to the capital structure, that is the mix of different sources of long-term financing that a company uses to fund its operations and growth

Capital structure is mainly made by two components:

- Risk capital (equity): it is the ownership interest in a company, thus being the capital provided by the shareholders. Returns to shareholders come in the form of dividends and capital appreciation
- Loan capital (bank and corporate debt): debt is the borrowed capital that must be repaid over time, usually with interest. Unlike equity, it doesn't confer ownership rights to lenders

DEFINE INTEREST COVERAGE RATIO

Interest coverage ratio relates financial charges and profitability, showing how many times a firm's operating income exceeds interest expenses

Three factors determine its value:

- The operating profit
- The total amount borrowed
- The effective rate of interest

Thus, it is a financial metric that measures a company's ability to meet its interest obligations on outstanding debt

DISCUSS THE IMPLICATIONS OF HIGH/LOW INTEREST COVERAGE RATIO

The lower the ratio, the more the company is burdened by debt expense

A high interest coverage implies:

- Strength and safety: the company is generating substantial earnings relative to its interest expenses, implying a strong ability to meet interest payments from operating profits
- Safety margin: a ratio higher than 1 (typically 2 or higher) means a comfortable safety margin, meaning that the company has ample room to cover its interest expenses, even in case of fluctuations
- Creditworthiness: it signals financial stability and reduces the risk of default on interest payments
- Flexibility for growth: companies can reinvest in the business, pursue growth opportunities and weather economic downturns without concerning too much about meeting debt obligations

A low interest coverage implies:

- Financial distress risk: a low interest coverage ratio indicates that a company may struggle to cover its interest expenses with its current level of earnings
- Increased default risk: the increased risk of default on interest payments may lead to higher borrowing costs
- Limited flexibility: they may face constraints in making necessary investments or responding to unexpected challenges
- Market concerns: investors and creditors may be concerned for the company's inability to service its debt

DISCUSS WHAT TO DO IN CASE OF LOW INTEREST COVERAGE

The company should take several actions:

- Review and restructure debt: consider renegotiating debt terms with lenders to extend repayment periods or lower interest rates
- Cost reduction: implement cost-cutting measures to improve operational efficiency, thus including reducing unnecessary expenses and renegotiating contracts
- Revenue enhancement strategies: involve strategic such as launching new products or services, expanding into new markets or enhancing customer relationships
- Working capital management: optimize working capital management to release cash that can be used to cover interest expenses, involving improving inventory turnover and optimizing accounts receivable collection
- Capital structure adjustment: it is necessary to adjust the mix of debt and equity. While reducing debt may improve interest coverage, it's essential to strike a balance to maintain healthy capital structure

The worst situation is when EBIT declines and interest increases over time

DISCUSS THE STRUCTURE OF CAPITAL

The structure of capital refers to the combination of debt and equity that a company uses to finance its operations and investments

WHERE TO FIND RELEVANT ITEMS

Items can be found in:

- Balance sheet
 - Equity section (such as common stock and retained earnings)
 - Liabilities section (such as short-term and long-term debt)
- Income statement
 - Interest expenses
 - Net income

FINANCIAL CHARGES GENERATED BY DEBT

The financial charges are:

- Interest: it's the cost of borrowing and it represents the compensation paid to lenders for providing funds
- Payment of the principal: repayments of the original amount borrowed
- No uncertainty about these charges: the two terms are agreed upon in advance

WHY COMPANIES USE DEBT

Companies use debt for:

- Cost considerations: debt is generally cheaper than equity as the cost of debt is usually lower than the expected return demanded by equity investors
- Risk and return: debt, being a contractual obligation, carries less risk for lenders, leading to a lower expected return
- Tax deductibility: interest payments on debt are typically tax-deductible, providing a tax advantage to companies
- Funding growth: by leveraging debt, companies can undertake expansion projects without issuing additional equity

CORPORATE RISK AND DEBT

The risk associated to debt are:

- Higher corporate risk: it is the risk associated with a higher likelihood of financial distress or default. If a company cannot meet its debt obligations, it may face default
- Default and bankruptcy: default occurs when a company fails to meet its debt payment obligations. In such cases, there is supervision through bankruptcy, a legal procedure to restructure and pay creditors
- Equity vs Debt: while equity carries the risk of shareholders not receiving dividends in case of losses. Debt represents a contractual

obligation. However, the use of debt allows companies to benefit from tax advantages and lower financing costs

DEFINE DEBT TO EQUITY RATIO

The debt-to-equity ratio is a financial metric that compares a company's total debt to its total equity. It is a measure of the proportion of a company's financing that comes from debt relative to equity

The ratio provides insight into how a company is financing its operations, indicating the degree of financial leverage and risk associated with a company's capital structure

A high ratio (common in capital intensive industries) implies:

- Potential for higher returns: higher debt levels can result in higher returns on equity when the company generates a return on its investments that exceeds the cost of debt
- Increased financial risk: the company becomes more susceptible to fluctuations in interest rates and economic downturns
- Interest expense impact: with a high debt load, a significant portion of the company's earnings may go toward servicing interest payments, potentially limiting the funds for other uses, such as dividends or reinvestment

A low ratio implies:

- Overcapitalization: the company relies less on debt financing and has a greater proportion of equity in its capital mix
- Lower financial risk: the company is less vulnerable to interest rate fluctuations and there is a reduce likelihood of financial distress
- Limited leverage for growth: debt can be a source of funding for expansion, and a very conservative approach might limit capitalization on growth opportunities
- Lower ROE: shareholders may experience lower returns on their investment compared to companies with a more balance D/E ratio

- Less tax efficiency: with a low debt level, the company might miss out on some tax advantages associated with debt financing
- Inefficient use of capital: if the ROE is not maximized, the company might miss opportunities to generate higher shareholder value
- Reduce financial flexibility: companies with too much emphasis on equity may face challenges if they need to quickly respond to changing market conditions

DISCUSS WHAT TO DO WHEN D/E IS TOO LOW OR TOO HIGH

TOO LOW

- Assess growth opportunities: consider whether additional financing could be beneficial for expansion, acquisitions or capital-intensive projects
- Review cost of capital: if debt is more cost-effective than equity in terms of interest rates, companies may consider taking on additional debt to optimize the cost of capital
- Tax efficiency: interest payments on debt are often tax-deductible, providing a potential tax shield. So, it is necessary to assess whether increased debt financing could improve tax efficiency

TOO HIGH

- Debt restructuring: negotiate with creditors to extend repayment periods, reduce interest rates modify covenants to improve financial flexibility
- Deleverage through profits: consistent profitability can strengthen the company's ability to deleverage over time
- Sell non-core assets: the company may generate cash that can be used to pay down debt. This can be particularly beneficial if there are underutilized or non-strategic assets in the portfolio
- Equity infusion: try to raise equity through means such as issuing new shares or seeking investment from external sources

DEFINE COST OF INTEREST

The cost of interest is a measure that assesses the proportion of a company's total debt that is represented by its interest expenses. It helps in understanding the burden of interest payments relative to the overall debt structure

Thus, it reflects the proportion of total debt that is allocated to paying interest, providing insights into the efficiency of managing interest expenses relative to the overall debt burden

A high cost of interest implies:

- Financial strain: a substantial portion of the company's total debt is dedicated to covering interest payments, indicating financial strain, especially if the company is struggling to generate sufficient operating income to service its debt
- Reduced profitability: a large portion of earnings may be allocated to servicing debt rather than being reinvested in the business or distributed to shareholders
- Cash flow pressures: this could limit the availability of funds for essential operations and strategic initiatives
- Creditworthiness concerns: creditors and investors may have concerns about the company's ability to meet its debt obligations, leading to increased borrowing costs
- Restriction on financial flexibility: the company might have fewer resources available for growth initiatives and acquisitions, or responding to unforeseen challenges

A low cost of interest implies:

- Financial efficiency: the company is efficiently managing its interest expenses relative to its total debt, thus contributing to higher profitability
- Optimized capital structure: companies with a low cost of interest may have an optimized capital structure that minimizes the financial burden associated with interest payments

- Improved cash flow: the company may have more resources available for day-to-day operations and strategic initiatives
- Positive investor perception and growth opportunities: it may enhance attractiveness to investor and financial flexibility to invest in expansion

DISCUSS WHAT TO DO WHEN COST OF INTEREST IS TOO HIGH

The company should take several measures:

- Debt refinancing and negotiate with creditors: evaluate opportunities to refinance existing debt at more favorable terms, such as lower interest rates or extended repayment periods
- Cost-cutting measures: focus on improving operational efficiency to enhance profitability, involving cost-cutting measures and strategic initiatives to boost revenue and reduce expenses
- Generate additional revenue streams: diversify revenue streams by entering new market, launching new products or expanding existing offerings
- Consider equity financing: issuing new shares or seeking external investment can provide an infusion of funds that can be used to pay down debt, improving the cost of interest
- Divest non-core assets: the firm can generate cash that can be used to retire debt. Indeed, selling assets that are not essential can improve liquidity

DISCUSS THE DECOMPOSITION OF ROE

ROE tells us the value generated for shareholders and can be decomposed into three components: ROS, asset turnover and financial leverage:

- ROS: a higher ROS contributes positively to ROE. When a company can maintain or improve its profit margins, it enhances its ability to generate returns to shareholders
- Asset turnover: a higher asset turnover means that the company is generating more sales from its existing asset base. This efficiency contributes positively to ROE by maximizing the returns on assets

- Financial leverage: it can amplify returns when the return on assets (ROS x Asset Turnover) exceeds the cost of debt. However, it also introduces interest expenses, which can weigh down ROE if returns are insufficient to cover the cost of debt

DEFINE FINANCIAL LEVERAGE

Financial leverage is the degree at which the firm uses debt to finance a portion of the assets in a business, with the aim of amplifying the returns to equity shareholders

DESCRIBE EFFECTS OF FINANCIAL LEVERAGE

EFFECTS OF HIGH LEVERAGE

- Increased ROE: high financial leverage tends to increase ROE, especially when the ROA exceeds the cost of debt
- Amplification of shareholder returns: shareholders may benefit from higher ROE when financial leverage is employed successfully
- Potential for value creation: high financial leverage can lead to value creation as the returns generated on the total capital (equity and debt) surpass the cost of debt
- Tax benefits: interest on debt is often tax-deductible, thus representing an advantage for companies with high financial leverage

RISKS AND CHALLENGES OF HIGH FINANCIAL LEVERAGE

- Increased corporate risk: the obligation to meet fixed interest payments and repay principal can strain financial resources
- Sensitivity to economic conditions: companies are more sensitive to economic downturns
- Market perception: companies with high financial leverage are seen as riskier investments, resulting in higher borrowing costs

- Limited financial flexibility: in situations requiring additional capital or investment, the company may face challenges due to existing set commitments
- Uncertainty amplification: unpredictable events can have a more pronounced impact on highly leveraged companies

EFFECTS OF LOW LEVERAGE

- Reduced ROE potential: the ROE are more dependent on the profitability of operations
- Lower risk exposure: they are less susceptible to the financial challenges posed by economic downturns and interest rate fluctuations
- Enhanced financial stability: companies have more flexibility in managing their cash flows and the risk of default is reduced
- Better investor confidence: these companies are perceived as less risky, leading to potential benefits such as lower borrowing costs

RISKS AND CHALLENGES OF LOW FINANCIAL LEVERAGE

- Reduced ROE: the ROE are more dependent on the profitability of operations
- Limited use of other people's money: companies with low financial leverage may rely more on their own equity capital for financing, limiting their ability to increase returns
- Opportunity cost: there may be missed opportunities for value creation that could result from judicious use of financial leverage
- Potential for underinvestment: the company's caution might lead to underinvestment in growth opportunities

EXPLAIN WHAT TO DO IN CASE OF A TOO HIGH FINANCIAL LEVERAGE

- Debt restructuring: consider restructuring existing debt to extend maturities or negotiate more favorable terms
- Deleveraging through asset sales: explore opportunities to reduce debt by selling non-core assets

- Cost reduction and operational efficiency: implement cost-cutting measures and operational efficiency initiatives to enhance profitability, generating internal funds to repay debt
- Equity infusion: consider raising additional equity capital through the issuance of new shares, diluting existing shareholders and providing a source of funds to pay down debt
- Business model adjustment: assess the business model and identify areas where changes can be made to improve cash flow, such as pricing strategies and market segments

EXPLAIN WHAT TO DO IN CASE OF A TOO LOW FINANCIAL LEVERAGE

- Debt issuance: issue bonds to fund strategic initiatives or acquisitions, taking advantage of the potential benefits of financial leverage
- Share buybacks: if the company's shares are undervalued, consider using excess cash or debt to repurchase shares
- Dividend payments: assess the possibility of initiating or increasing dividend payment to shareholders
- Maintain liquidity: while maintaining a low level of financial leverage, ensure that the company maintains sufficient liquidity to meet its short-term obligations and capitalize on opportunities

STATE WHAT TO DO IN ORDER TO ASSESS WISELY FINANCIAL LEVERAGE

The main considerations when dealing with financial leverage are:

- Balancing act: the optimal level of leverage depends on factors such as industry norms, business strategy and risk tolerance
- Monitoring key metrics: combining information from ROE with other financial indicators, such as ROTA and solvency indicators, provides a more comprehensive view of a company's financial health
- Caution in high uncertainty: during periods of high uncertainty, companies should exercise caution in using financial leverage

excessively, as unpredictable events can significantly impact highly leveraged firms

SECOND PARTIAL

DISCUSS WHAT GIVES APPLE A CLEAR ADVANTAGE OVER ITS COMPETITORS IN THE SMARTPHONE INDUSTRY

There are several features that give Apple a clear advantage over its competitors in the smartphone industry:

- Profit margins: Apple's profit margins on its smartphones are often higher than those of its competitors. This is partly due to the premium pricing of iPhones and the fact that Apple designs its own chips, reducing dependence on third-party suppliers
- Control over hardware and software: Apple has complete control over the design and production of both its hardware and software. This allows for tight integration and optimization, resulting in a smoother user experience and faster performance
- Security and privacy: features like Security Enclave, frequent security updates and robust encryption make iPhones appealing to users who prioritize data protection
- Customer service: Apple's customer service, including the AppleCare program and its network of Apple Stores, is renowned for its quality
- Eco-Friendly initiatives: initiatives like recycling programs, use of renewable energy, and reducing the carbon footprint of its products spread awareness in its customers
- Exclusive features: Apple often introduces exclusive features such as Face ID, Animoji and A-series chips that offer high performance
- Global brand recognition: its brand recognition has a substantial impact on consumer choices and their willingness to pay a premium for Apple products
- Long-term software support: Apple provides software updates for its devices for several years, ensuring that even older iPhones remain functional and secure
- Marketing expertise: its marketing campaigns are often regarded as some of the most effective and memorable in the tech industry, thus helping to maintain a strong brand image and drive consumer interest

- ARKit and augmented reality: Apple's ARKit framework has positioned the company as a leader in augmented reality technology
- Interconnection between departments: the strict interconnection between products and departments involve customers to buy several products from the same firm, guaranteeing higher profits and, more importantly, the creation of a strict relationship with the customer itself, which becomes related to the company by a strong sense of loyalty
- Time management and high quality: Apple is always not the first company which produces a certain product (e.g. tablets, smartphones etc), but, learning from other companies' mistakes, they are always able to produce super high quality products

Relying on the data until 2020, Apple overtook Samsung and Huawei to become the smartphone market leader by share of units shipped, accounting for 23.4% of the overall market in the fourth quarter of 2020

DISCUSS THE DEFINITION OF STRATEGY, ALSO HIGHLIGHTING THE NON-STRATEGIES SHOWN BY MICHAEL PORTER

Strategy can be defined as the set of goal-directed actions a firm takes to gain and sustain superior performance relative to competitors

This, strategy consists in the positioning of one business against others (positioning means the placement on the strategic factors relevant to each key stakeholder group)

As explained by Michael Porter, professor at Harvard Business School, considered one of the most influential thought leaders in strategic management, strategy has to be separated from other kinds of goals and objectives of a manager

Often, indeed, managers define their "strategies" as follows:

- To internationalize
- To consolidate their industry
- To ramp up their R&D budget
- Grandiose statements
- Failure to face a competitive challenge
- Operational, effectiveness, competitive benchmarking or other tactical tools

Note that indeed there exists no strategy based on cost effectiveness, because the other company would imitate and copy the so-said strategy, thus not guaranteeing a long-term strategy

The reality of the facts show that these are not strategies, but they are steps that the organization would like to make

Instead, strategy concerns the positioning the company wants to achieve and, more precisely, it studies how to have an advantage and sustain it over time

On the other hand, Porter shows that the little steps are not the whole strategy: in fact, when companies choose them as the whole strategy, they lose a global vision of their goal, thus easily abandoning the path and getting further away from a long-term sustainability project

DISCUSS THE CONCEPT OF COMPETITION

Competition is a fundamental concept in business and economics, and it plays a crucial role in shaping how organizations operate and how markets function.

There are two primary approaches to competition:

- Competing to be the best
- Competing to be unique

The main features of the first approach are the following:

- Focus on benchmarking: organizations that compete to be the best typically benchmark themselves against their competitors or industry standard. The goal is to outperform others in terms of metrics such as market share, revenue or operational efficiency
- Emphasis on efficiency and effectiveness: improving operational efficiency, reducing costs and maximizing productivity, thus trying to reach the goal of doing things better than the competition
- Market share and market leadership: organizations that compete to be the best typically aim to capture the largest market share and achieve market leadership, even though possibly engaging in price wars to gain an edge over competitors

The main features of the second approach are the following:

- Focus on differentiation: competing to be unique is about creating a distinct identity and value proposition in the marketplace (i.e. running its own race). It is thus necessary to be different in a way that is valued by customers
- Innovation and creativity: this approach requires innovation and creativity in product development, marketing and customer experience, thus trying to offer something that competitors cannot easily replicate
- Customer-centric: organizations competing to be unique place a strong emphasis on understanding and meeting the unique needs of their target customers, thus creating products tailored to specific customer segments
- Brand loyalty and premium pricing: being unique can lead to brand loyalty, as customers are drawn to the distinct qualities of the product or brand. This may support premium pricing and higher profit margin
- Reduced competitive pressure: achieving uniqueness and then running its own race can reduce competitive pressure, as competitors find it challenging to imitate the differentiated features or brand identity

PROVIDE AN EXAMPLE TO DISCUSS THE TWO APPROACHES

Consider two companies belonging to the apparel market, Balenciaga and Zara

A particular model of Balenciaga sneakers, named Balenciaga Speed, costs 600 euros. Zara produces a really similar pair of shoes, which is on the other hand sold at 60 euros

In order to evaluate which company is considered better, we need to understand what is the race they are running and, more properly, the approaching we are considering

If the approach is that of competing to be the best, the choice depends on what is the peculiar area considered, such as:

- High quality and prestige: Balenciaga competes in the luxury fashion market, emphasizing high-quality materials and exclusive designs. Thus, Balenciaga can be considered better than Zara in terms of offering premium and prestigious fashion products
- Price and consumers' saving: Zara operates in the fast-shopping market, which allows it to reduce costs, guaranteeing a lower quality than top-level companies, such as Gucci and Balenciaga. Anyway, if the approach regards only the price, Zara can be considered better than Balenciaga

If we considered, instead, the approach of competing to be unique, then the main features are:

- Differentiation and creativity: Balenciaga often competes to be unique by pushing creative boundaries in the luxury fashion world. Their unique designs, avant-garde styles, and unconventional fashion concepts can make them stand out from more traditional luxury brands
- Brand loyalty and brand recognition: Balenciaga's unique and often bold fashion choices can lead to brand loyalty among customers who appreciate its distinctiveness

With respect to this approach, then, Balenciaga definitely wins over Zara

If, instead, we considered two equally priced shoes, one produced by Balenciaga and one produced by Gucci, we can see that, even though they can be similar for some aspects, such as being part of luxury markets and having avant-garde designs, they strongly differentiate each other

The differences in terms of competition for uniqueness reside in:

- Design aesthetics: while both brands embrace uniqueness and creativity, their design aesthetics are different. Gucci is often associated with eclectic, maximizing and ornate designs. Balenciaga, on the other hand, is known for its more minimalist and contemporary streetwear-inspired designs
- Brand identity: Gucci has a rich heritage and a history of opulence. Balenciaga, on the other hand, is associated with a more modern and edgy image
- Market positioning: Gucci has a broader range of products, instead Balenciaga has a strong presence in ready-to-wear fashion and high-fashion sneakers
- Consumer demographics: Gucci's eclectic designs references may appeal to a wider range of consumers, while Balenciaga's aesthetic may attract a younger, fashion-forward audience

Therefore, from the uniqueness competition point of view, the two companies are not comparable but, on the other hand, they are just completely different

STATE AND EXPLAIN THE DIFFERENT ELEMENTS OF STRATEGY

A good strategy consists of three elements

Diagnosis

- Identify competitive challenge
- By analysis of firm's external environment

- The external environment is that where we can find customers, suppliers and competitors, which is most of the times out of the firm's control. Then, a good organization always has to keep external environment under scrutiny, since some little changes can cause strong and potentially harmful consequences for the company (e.g. the COVID pandemic represented an external environment phenomenon which, in some cases, helped the companies that were ready to change strategy to even increase their profitability)
- By analysis of firm's internal environment
- Internal environment consists in tangible and intangible resources within a company, whose analysis is fundamental in order to have a broader perspective over the firm's strengths and potentially harmful lacks (e.g. the analysis of patents, which give the firm exclusive rights, is fundamental since it provides a competitive advantage)

Guiding policy

- Address the competitive challenge
- A competitive challenge refers to a specific obstacle or difficulty that a company or organization faces in its efforts to outperform, maintain or expand its market share and achieve its strategic goals in a competitive marketplace
- By formulation of firm's corporate, business and functional strategies (i.e. the various steps necessary in order to put the strategy in practice)

Coherent actions

- Implement firm's guiding policy through strategy implementation
- The main features regarding the importance of coherent actions are the following:
 - Clarity of purpose: coherence indeed helps clarify the organization's purpose and mission. When strategies, actions and communications are aligned, employees and stakeholders have a

clear understanding of what the company stands for and where it's headed

- Efficient resource allocation: coherent business operations ensure that resources are allocated optimally, so that to reduce wastage
- Enhanced decision-making: coherence provides a framework for decision-making, thus allowing to evaluate options based on their alignment with the company's goal and strategies
- Patagonia, from this point of view, represents a perfect example, since it has always succeeded in providing useful and balanced steps strictly related to the final strategy of minimizing environmental impact

TALK ABOUT TESLA'S SECRET STRATEGY

In 2006, Elon Musk, co-founder of Tesla, explained the start-up's market plan, also relying on a scarce competition in that market:

- Step 1: Build sports car
 - In 2008, Tesla introduced Roadster, a \$110,000 sportscar
- Step 2: Use that money to build an affordable car
 - In 2013, Tesla introduced Model S, a \$73500 4-door family sedan
- Step 3: Use that money to build an even more affordable car
 - In 2016, Tesla unveiled Model 3, an all electric compact luxury sedan with a starting price of \$35000
- Step 4: While doing above, also provide zero-emission electric power generation options
 - Tesla acquired SolarCity, a \$2 billion solar energy company making it a fully integrated clean-tech energy company
- Step 5: Don't tell anyone

Thus, the mission of Tesla is to

Accelerate the world's transition to sustainable energy

EXPLAIN HOW DOES THE DIAGNOSIS OF THE COMPETITIVE CHALLENGE IN TESLA WORK

The two main features of diagnosis in every firm are goal and competitive challenge

In this case:

- Tesla's goal is that of building zero-emission electric vehicles that are attractive and affordable
- Tesla's competitive challenge shows that Tesla needs:
 - Infrastructure for electric vehicles
 - Network of charging stations, etc

It is necessary to always remember the fundamental role played by the government in the direction of the overwhelming presence of electric vehicles

Thus, every firm has to be as ready as possible to a quick transition, in order to avoid a great amount of losses in the future

ILLUSTRATE TESLA'S GUIDING POLICY TO ADDRESS THE COMPETITIVE CHALLENGE

Tesla's current guiding policy is represented as follows

To build a cost-competitive mass-market vehicle such as Model 3

In order to achieve it, Tesla:

- Backed with strategic commitments such as \$5 billion investment in lithium-ion battery plant in Nevada
- Applied an effective guiding policy consistent with firm mission and strategy

SHOW THE SET OF COHERENT ACTIONS TO IMPLEMENT GUIDING POLICY

The main issue faced by the company is the following: Tesla must reduce costs to increase production volumes

In order to fix it, Tesla did many coherent actions:

- Retool existing facilities with cutting-edge robotics (i.e. operating a huge investment in order to reduce cost in the long term)
- Secure uninterrupted supply of lithium-ion batteries through the \$5 billion investment

PROVIDE A DEFINITION OF COMPETITIVE ADVANTAGE

We define competitive advantage as superior performance relative to other competitors in the same industry or the industry average

EXPLAIN HOW DO FIRMS GAIN COMPETITIVE ADVANTAGE

Firms combine value and cost through strategic positioning by:

- Differentiation: delivering superior value containing the cost to create it (the cost may be higher since the company is focusing its attention on rising the quality level)
 - Key features:
 - Emphasizing uniqueness and innovation
 - Focusing on product quality, design and technology
 - Charging premium prices
 - Building brand loyalty
 - Advantages:
 - Ability to charge premium prices, leading to higher profit margins
 - Building brand loyalty
 - Reducing price sensitivity
 - Challenges:
 - Higher production and marketing costs
 - Risk of competitors imitating
 - Limited market reach
- Cost leadership: offering similar value at lower cost (in this case, since the value is comparable to the industry average, the company tries to push the cost structure at the lowest possible level)
 - Key features:
 - Emphasizing operational efficiency, cost reduction and economies of scale

- Targeting towards a broad customer base to achieve high sales volume
- Competitive advantage achieved through lower production and operating costs
 - Advantages:
 - Can attract a large customer base due to lower prices
 - Higher sales volume can offset lower profit margins
 - Barriers to entry for competitors due to economies of scale
 - Challenges:
 - Thin profit margins may leave less room for error
 - Risk of focusing too much on cost cutting at the expense of quality and innovation

COMPARE WALMART AND NORDSTROM

Walmart can be described as a low-cost retailer, instead Nordstrom is presented as a high-end luxury retailer

There are numerous differences between the two companies, through which we can broadly understand the huge gap between cost leadership and differentiation

Walmart, a low cost retailer, presents the following main features:

- Acceptable level of service, by low-skilled employees: training, indeed, is not exceptionally fundamental for a low cost retailer and, further, it would represent an additional cost for the company
- Big-box retail outlet: the stores are usually located far away from the city center, thus providing an advantage for the company itself, which is able to further reduce costs while guaranteeing big spaces, and for the customers, who can buy numerous products, upload their car and easily come back home)
- Everyday low prices

Nordstrom, an upscale retailer, presents the following main features:

- Superior customer experience by professional sales people: in this case, indeed, training is fundamental in order to provide a peaceful and kind environment where customers are inclined to spend time and, consequently, likely to spend a high amount of money
- Luxury setting: usually those stores are in the center of the city, so that the customers, who are not going to buy many items, can straightforwardly connect the luxury of the geographical area with the concept on the basis of the company, thus recognizing its value

Thus, Walmart and Nordstrom are important retailers in the US market, such that they compete in the same industry, but yet they are not direct competitors

Indeed, since the first has a cost leadership strategy and the second a differentiation strategy, even if they compete in the same industries, their customers have little overlap as they are not direct competitors

EXPLAIN CAREFULLY WALMART'S STRATEGY

Walmart presents a clear strategic profile and serves a specific market segment

In particular, Walmart performs activities differently than rivals, and they reinforce one another

The main points of its activities are:

- Big retail stores in rural locations: the stores are usually located far away from the city center, thus providing an advantage for the company itself, which is able to further reduce costs while guaranteeing big spaces, and for the customers, who can buy numerous products, upload their car and easily come back home

- High purchasing power: the company has expanded a lot in the last years, and the bigger a company is, the higher its purchasing power
- Sophisticated IT system: this system is extremely important since through this the company can monitor the level of stocks, which represents a cost for the organization. Managing them well means for the company to reduce them as much as possible, thus without causing the quality
- Low base salaries: employees in Walmart are usually paid less than in upscale retailers, which is another confirmation of the attention of the company to the constant control of cost structure

DEFINE THE CONCEPT OF VALUE CREATION

We define value creation when companies with a good strategy are able to provide products or services to consumers at a price point that they can afford while keeping their costs in check, thus making a profit at the same time. Both parties benefit from this trade as each captures a part of the value created

Furthermore, a good strategy creates value not only for shareholders, but also for other stakeholders

Then, the difference between price and cost is represented by the value created

At this point, the firm can decide to capture all the value for itself or to distribute it to the society:

- Cost cannot be pushed too low, because suppliers are not going to satisfy the firm's request at a certain point
- Cost cannot be reduced too much since salaries would go down too much

DISCUSS SOUTHWEST AIRLINES CASE STUDY, HIGHLIGHTING THE KEY POINTS OF THE STORY

The main points that characterize Southwest Airlines' condition in 2016 are the following:

- Southwest's main features
 - Prevalence of domestic flights: the company focused mostly at the largest US airports, rather than at the outlying airports, showing a potential lack of internationality
 - Prioritizing customer: Southwest board is sure they would succeed their way prioritizing their customers and employees, along with shareholders
 - The strong choice of Southwest regarding fees: the company decided not to introduce fees, since the behavior "we're only going to focus on the shareholders", as the CEO says, does not work in the long run. On the other hand, he asserts that the role of being the largest North American carrier without bag fees gives them an essential competitive advantage (i.e. offering a strong value by not nickeling and diming with bag fees and change fees)
 - The power of advertisement: the company has built an advertising campaign around its fee policy
- The competitors' main features
 - The behavior of competitors and the introduction of fees: Southwest's competitors have added fees or raised prices for nearly all extras, knowing that, even though these actions could create consumer's disappointment, they would have not lost customers even though aggressively chasing revenue
 - The reversal of priority order: the majority of the companies decided to revisit their priority order, at least in the short run, thus putting shareholders in a priority position with respect to the one reserved to customers and employees
- The analysts' behavior
 - Disappointment of analysts: Southwest indeed has made money for more than 40 years (and, also in 2016 the net income earned was of \$820 million in the second quarter). But that consistency does not satisfy many Wall Street analysts, who keep pushing the airline to increase profits

- The thoughts about Kelly's behavior: analysts highlighted the fact that Kelly is always expanding very cautiously and, arguably, too cautiously
 - The 2016 critical condition
- The fall in demand: passenger demand has fallen slightly recently, thus giving airlines two choices:
 - Lower fares to fill seats
 - Operating fewer flights
- The choice of competitors: they decided to apply both the measures, in order not to be potentially at risk with respect to their profitability levels
- The choice of Southwest: they decided just to apply discounting, while refusing to reduce its flying, putting the customer's trust before their immediate and short-run profit
- The controversial thoughts after the strong choice can be resumed as follows:
 - Those who accuse Southwest of lack of "urgency in this area", asserting that the company's behavior was disrespectful with respect to investor priorities
 - Those who instead think that the cautious strategy adopted by Southwest can be considered as much more profitable in the long-run, since it is based on the absence of risks taken in a particularly confused present

HOW WAS SOUTHWEST DIFFERENT FROM THE OTHER US AIRLINE COMPANIES?

The main difference from the other US companies can be resumed as follows:

- No fees: the absence of fees, indeed, represents a strong long-term competitive advantage for the company itself
- Prioritize customers: through these actions, that may apparently be considered as an altruistic behavior, the company assures a strong bond with customers, thus creating a loyalty relationship which may potentially last for long

- Prioritize employees: by prioritizing employees, the company tries to create a healthy work environment, in which productivity and creativity are the main and most represented features
- No cancellation policy for flights: this point is strictly connected to the necessity of taking care of the loyalty with respect to customers, whose interests must occupy a priority position
- No business class: this action is fundamental in order to guarantee a solid reduction in the cost structure by the company itself
- Single aircraft: this choice allows the company to save a large amount of money in R&D department and, more simply, in the process of buying new planes
- Mostly US (domestic) flights: avoid an excessive and potentially uncontrollable diversification, while giving more importance to the consolidation of their presence the country
- No hub: a point-to-point model is definitely preferred with respect to a hub model. Let us now analyze the differences between the two ones:
 - Point-to-Point model:
 - Direct connections: in this model, airlines operate direct flights between specific city pairs without the need for a central hub
 - Efficiency: this model is often more efficient for short-haul and non-stop flights since it minimizes travel time and layovers
 - Frequent flights: this model may offer frequent flights on popular routes, lowering the price and increasing company's satisfaction (precisely as asked by Southwest)
 - Cost reduction: the absence of hubs guarantees a strong cost reduction for the company
 - Hub model:
 - Central hub: airlines, in this model, establish one or more central hubs where passengers connect to their final destinations. Flights arrive at the hub and then depart to various cities
 - Network connectivity: this model allows airlines to offer passengers a wide range of connectivity options to reach destinations that might not have direct flights
 - Economies of scale: hub airports can achieve economies of scale, allowing airlines to operate more efficiently

- Flexibility: hub systems provide greater flexibility to airlines to offer services to a broader range of cities
- Global reach: major international airlines often use this model to provide global coverage (and this is one of the causes for which Southwest refused to use this model)
- Free seats: the fact that customers can choose at the moment their own seats clearly shows the purpose behind the company itself, which helps us to understand how Southwest wants to make sure that all customers feel the same, without any economical and/or social distinction

DISCUSS ANALYSTS' CONCERNS, SUGGESTIONS AND THE CEO ANSWER

Analysts concerns

- Not maximizing profit: many analysts' indeed believe that Southwest would not lose customers if it more aggressively chased revenue
- Industry demand is decreasing (i.e. the operating margin would decline in the short run): this general concerns becomes much greater when a company like Southwest decided just to discount, while refusing to reduce its flying

Analysts' suggestions

- Introduce fees: in this way, as the majority of American company did, Southwest would increase its profit without actually losing customers (in fact, even though they would be morally disappointed, they would continue flying with that company)
- Cancel the flights: by cancelling flights the company has the possibility to compensate the decrease in demand with a decrease in the operational costs relative to the flight itself
- Offer new services (i.e. business class): by offering new services, the company could rise the quality of its products and, by

increasing the price more than proportionally, the profitability would potentially increase

CEO answer

- Improve and maintain consistency: the strategy of now introducing fees, indeed, is based on a long-term plan, which considers the loyalty with the customer much more important and more profitable than a plan based in the short-run
- Southwest cares about customers: the company puts the customer as its highest priority, which allows the firm to potentially increase profitability in the long run
- The company does not nickle and dime on customers: since even though fees are added the customers will continue buy the tickets, the decision made by the company is based on a strong ethical sense and on a vivid purpose
- Nature of the marketing campaign: Southwest invested a lot in a marketing campaign directly related to its free policy (and then, on the absence of fees); so, introducing fees would represent a contradiction with respect to the advertising campaign, which would further provoke a loss in credibility by the firm

DISCUSS WHY WE NEED A SCIENTIFIC APPROACH TO DECISION-MAKING

As Barack Obama says, certainty, when dealing with every tough decision, represents an impossibility. Then, in order to avoid the paralysis due to the quest for a perfect solution, it is fundamental to collect as many datas and informations as possible in order to provide a sound decision

Indeed, the most frequent elements that lead a firm or a random human being to failure are:

- Overconfidence: indeed, being too confident about a decision may lead to hasty and wrong decisions, which do not carefully consider the inner and the external environments

- Asking to the wrong experts: the process of collecting informations is fundamental, but first it is necessary to spend time deeply verifying reliability of the sources
- Insufficient amount of informations: not having enough informations, in fact, allows the decision-maker to have only a partial view of the context in which the decision is made, thus frequently leading him to choose something that reveals to be harmful wrt the whole context

DISCUSS SOME CASES IN WHICH A SCIENTIFIC APPROACH TO DECISION-MAKING WAS NOT TAKEN

ChotuKool

In 2008, Indian company Godrej introduced ChotuKool, a low-cost refrigerator targeted at the hundreds of millions of Indians who could not afford a regular refrigerator

The COO said they were expecting to sell “probably millions” of units in the first three years

In the reality, they sold less than 300,000 in the first two years, since the price of \$69 was not affordable enough

Therefore, this is a case of lack of informations and overconfidence: the company didn't deeply study the population's income and, thus, incurred in a failure

Disney Plus

In 2019, Disney launched Disney+. Reed Hastings (boss of Netflix) said Disney+ would secure 20 million subscribers “at best”

In the reality, they made 70 millions subscribers

Therefore, this is a case of lack of informations and (probably) overconfidence: Hastings, despite his experience and competence, was not able to clearly and deeply understand market preferences, underestimating Disney+ potential power

Free Now

BMW and Daimler announced that they would invest 1\$ in Free Now, their car-sharing joint venture

The plan was to extend Free Now's services to another 90 cities and grow tenfold in the next three years

In December 2019, BMW and Daimler made the following decisions:

- Free Now would leave the US and Canada
 - Motivation: volatile state of the global mobility landscape and rising infrastructure complexities
- Free Now would leave Brussels, London and Florence
 - Motivation: low adoption costs

Anyway, in the end, German automakers did U-turn on car-sharing push: indeed, the fading specter of “peak car” diminishes appeal of investing in vehicle-sharing apps

Thus, many of the so-called “legacy” manufacturers, urged on by consultants, media and equity analysts, got sucked into spending on this stuff

Therefore, this is a case of failure related to “asking to the wrong experts”: BMW was not misled by an insufficient amount of informations or by overconfidence, but by the choice of the information sources (i.e. consultants, media and equity analysts), which were relying on their own interest

DISCUSS UNCERTAINTY RULE IN OUR DAILY LIVES

Consider the weather forecast and the consequent decision of bringing an umbrella or not

This kind of daily decision has to be made by following a scientific approach, which means, firstly, by:

- Selecting the best information sources: it is indeed important to choose the best weather forecast apps
- Gather as many informations and datas a possible: in fact, the soundness of our decision may be improved if we also know the chance of rainfall of each day, and not only the average weather (e.g. sunny, rainy, cloudy)

DISCUSS WHAT ARE THE THREE MAIN GOALS IN ORDER TO MAKE BETTER DECISIONS





The three main goals regarding how to make predictions using probability and updating our beliefs to make better decisions are:

- Be less certain: overconfidence, in fact, depends on culture, personality, expertise...
- Learn to make predictions: question how often an outcome typically happen
- Think probabilistically: have a theory to envision probability of events

DEFINE THE CONCEPTS OF RANDOM VARIABLE AND PROBABILITY, PROVIDING EXAMPLES

A random variable is a variable that can take on some values (x_1, x_2, \dots, x_n). Each value is assigned a probability (p_1, p_2, \dots, p_n)

For example, the random value in the activity of flipping a coin may assume value 0 or 1

Random variable	Possible values	Random events	Probability
$X =$	$\left\{ \begin{array}{l} 0 \\ 1 \end{array} \right.$		 HEAD 0.5
			 TAIL 0.5

Referring to probability, for example, compute the probability of getting head or tail in flipping a coin

$$P(\text{HEAD}) = \frac{\# \text{OUTCOME}}{\# \text{EQUALLY LIKED POSSIBILITIES}} = \frac{1}{2} = 50\%$$

$$\text{HEAD} = X_1 = 0 \quad P_1 = 50\%$$

$$\text{TAIL} = X_2 = 1 \quad P_2 = 50\%$$

For example, compute different probabilities related to a non-loaded die

DIE

$$1 \quad P(1) = \frac{1}{6}$$

2

$$3 \quad P(1 \text{ or } 2) = \frac{2}{6} = \frac{1}{3}$$

4

$$5 \quad P(n > 4) = \frac{2}{6} = \frac{1}{3}$$

6

DESCRIBE THE DIFFERENT TYPES OF VALUES THAT RANDOM VARIABLES MAY ASSUME

The values that random variables can assume are:

- Continuous: variables that take on a value in a range (i.e. centimeters in a ruler)
- Qualitative/categorical: variables that do not come from measuring or counting (i.e. colors)
- Dichotomous/binary: variables that can take on only two values (i.e. the gender, which can assume only two values, male or female)

PROVIDE A DEFINITION OF PROBABILITIES

Probabilities indicate the likelihood of the occurrence of a random event

Probabilities are a sequence of numbers $[0,1]$ that have to sum up to 1

In order to make probabilities, we can:

- 1) Apply the formula used before for coins and dice
- 2) Operate as many experiments as possible, in order to come as close as possible to the actual value

PROVIDE AN EXAMPLE OF PROBABILITY BASED ON THE FOLLOWING SCHEME

Values	Probabilities	Cumulative Probabilities
10	0.20	0.20
20	0.10	0.30
30	0.20	0.50
40	0.20	0.70
50	0.10	0.80
60	0.05	0.85
70	0.10	0.95
80	0.05	1.00

Based on the previous table, the probability of getting a value of $X=10$ is 0.20, which in percentage becomes 20%

PROVIDE A DEFINITION OF CUMULATIVE PROBABILITY

Cumulate probability at a given value represents the probability that a random variable takes on a value less than or equal to that specific value

When the cumulate probability at a given value is 1, this means that there is certainty that a value less than or equal to that specific value will occur

EXPLAIN THE MEANING OF 0.5 CUMULATIVE PROBABILITY IN THE GRAPH BELOW

Values	Probabilities	Cumulative Probabilities
10	0.20	0.20
20	0.10	0.30
30	0.20	0.50
40	0.20	0.70
50	0.10	0.80
60	0.05	0.85
70	0.10	0.95
80	0.05	1.00

0.5 cumulative probability, according to its definition, means that there is a probability of 50% that one of the values 10, 20, 30 will take place

DEFINE UNIFORM DISTRIBUTION

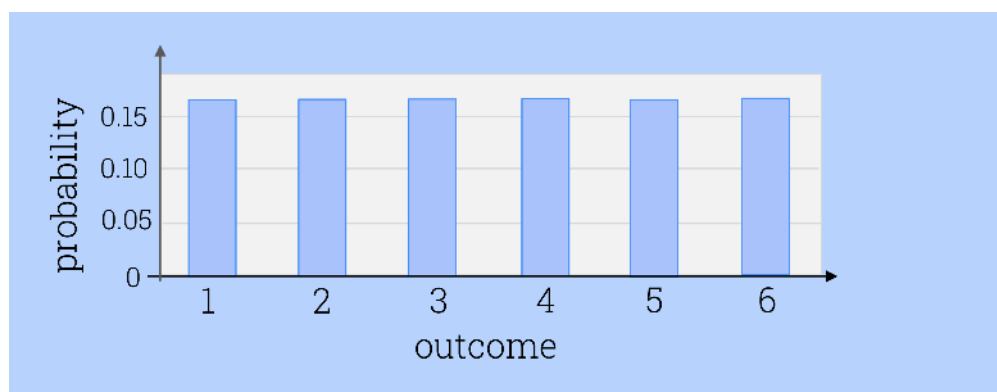
Uniform distribution takes place when each value has the same probability

EXPLAIN THE MEANING OF UNIFORM DISTRIBUTION RELYING ON THE FOLLOWING TABLE AND PROVIDE A GRAPHICAL EXPLANATION

Values	Probability	Cumulative Probabilities
10	0.125	0.125
20	0.125	0.250
30	0.125	0.375
40	0.125	0.500
50	0.125	0.625
60	0.125	0.750
70	0.125	0.875
80	0.125	1.000

Relying on the table above, X has an equal likelihood of being any of these 8 outcomes: indeed, the variable can take on 8 different values (10, 20, 30, ..., 80) but the probability of each value is always 12.5%

Here there is a graphical representation of uniform distribution



DISCUSS THE LEVEL OF INFORMATIVENESS GUARANTEED BY UNIFORM DISTRIBUTION

The level of informativeness of a uniform distribution is not considered as high for the following causes:

- Lack of information: indeed, it simply implies that all outcomes are equally likely. However, it does not provide any additional information about the distribution of outcomes
- Limited applicability: in real-world, outcomes are not equally likely, and data tends to follow more complex and informative distributions

However, knowing that the distribution of rolling a die is uniform is fundamental to state that it is not loaded

DEFINE NORMAL DISTRIBUTION

Normal distribution is definable as a form of distribution in which the outcomes tend to distribute around a central value

DISCUSS THE LIKELIHOOD OF DIFFERENT VALUES RELYING ON THE FOLLOWING TABLE

Values	Probability	Cumulative Probabilities
10	0.02	0.02
20	0.08	0.10
30	0.15	0.25
40	0.25	0.50
50	0.25	0.75
60	0.15	0.90
70	0.08	0.98
80	0.02	1.00

The most likely values are 40 and 50 (presenting 25% probability), since they are the ones in the center

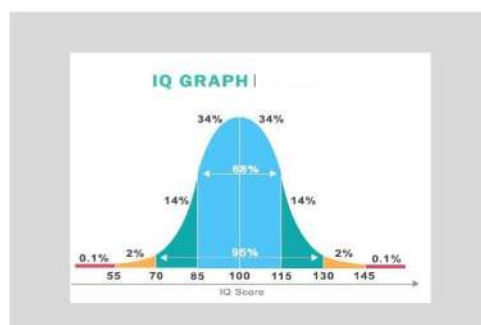
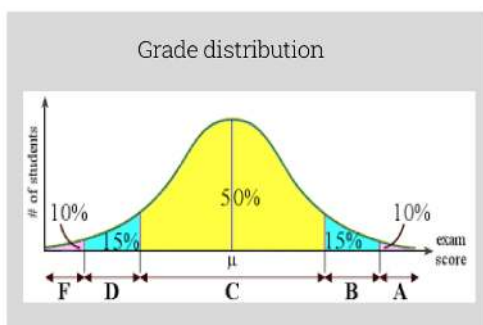
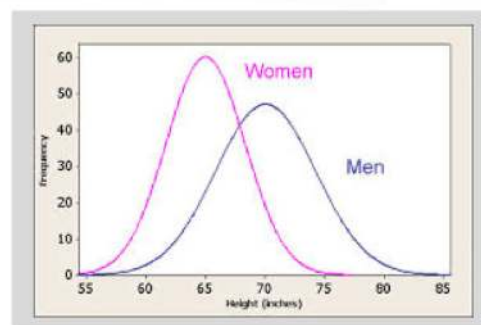
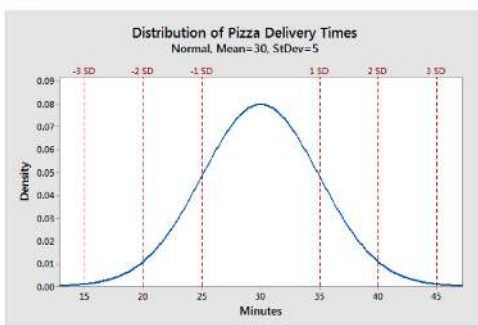
The least likely values are 10 and 80 (presenting 2% probability), since they are the ones furthest away from the center

PROVIDE EXAMPLES OF NORMAL DISTRIBUTION AND DRAW THE RELATIVE GRAPHS

The main examples of normal distribution are:

- Distribution of pizza delivery times
- Grade distribution
- Women and men height
- IQ level

The graphs representing them are the following:



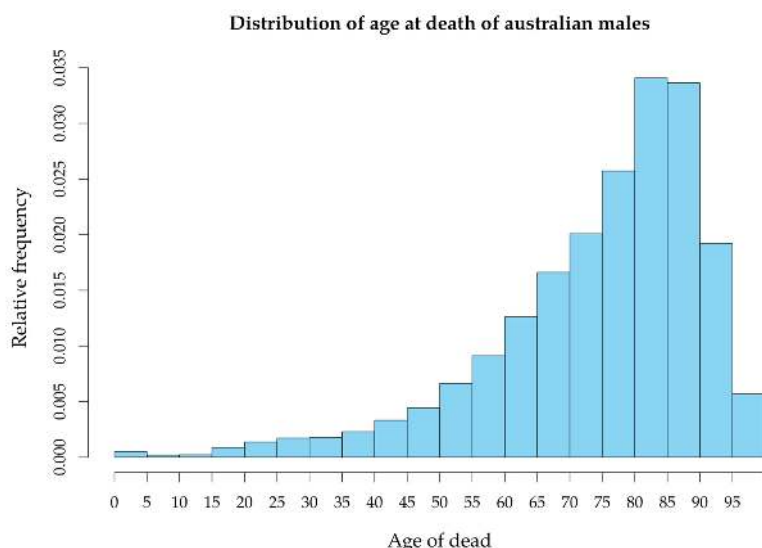
DEFINE LEFT SKEWED NORMAL DISTRIBUTION, PROVIDING AN ANALYTICAL AND A GRAPHICAL EXAMPLE

Left skewed normal distribution is a particular kind of normal distribution, where the values of the observations cluster more around the right side of the distribution

An analytical example is given by the following table

Values	Probabilities	Cumulative Probabilities
10	0.02	0.02
20	0.03	0.05
30	0.05	0.10
40	0.05	0.15
50	0.10	0.25
60	0.15	0.40
70	0.40	0.80
80	0.20	1.00

A graphical example may be the one related to the distribution of age at death of Australian males (normally clustering more around the right side of the distribution, i.e. when people are older)



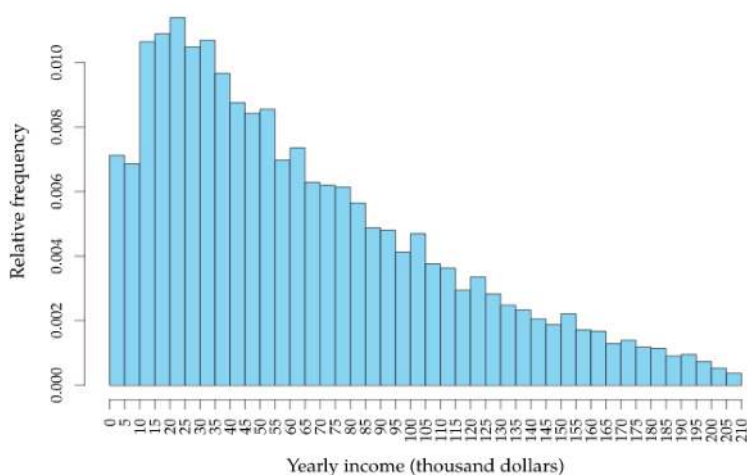
DEFINE RIGHT SKEWED NORMAL DISTRIBUTION, PROVIDING AN ANALYTICAL AND A GRAPHICAL EXAMPLE

Right skewed normal distribution is a particular kind of normal distribution, where the values of the observations cluster more around the left side of the distribution

An analytical example is given by the following table

Values	Probabilities	Cumulative Probabilities
10	0.20	0.20
20	0.40	0.60
30	0.15	0.75
40	0.10	0.85
50	0.05	0.90
60	0.05	0.95
70	0.03	0.98
80	0.02	1.00

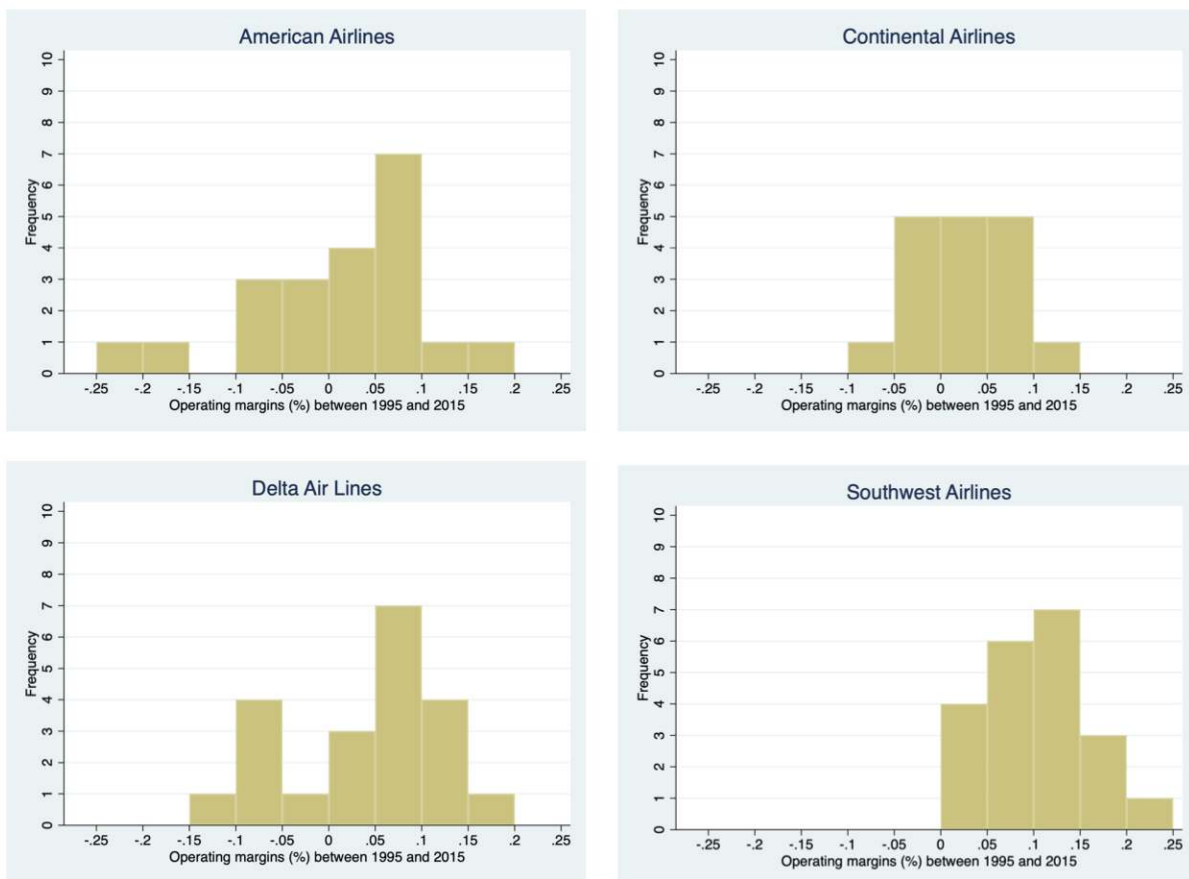
A graphical example may be the one related to yearly income and relative frequency (normally clustering more around the left side of the distribution, i.e. where yearly income is lower)



DISCUSS NORMALITY DISTRIBUTION ANALYZING AIRLINES

When airlines are evaluated singularly on their operating margin considered over a certain period of time (e.g. 1995-2015), it is likely to see that the existing distribution is not normal

A graphical representation may show things more clearly

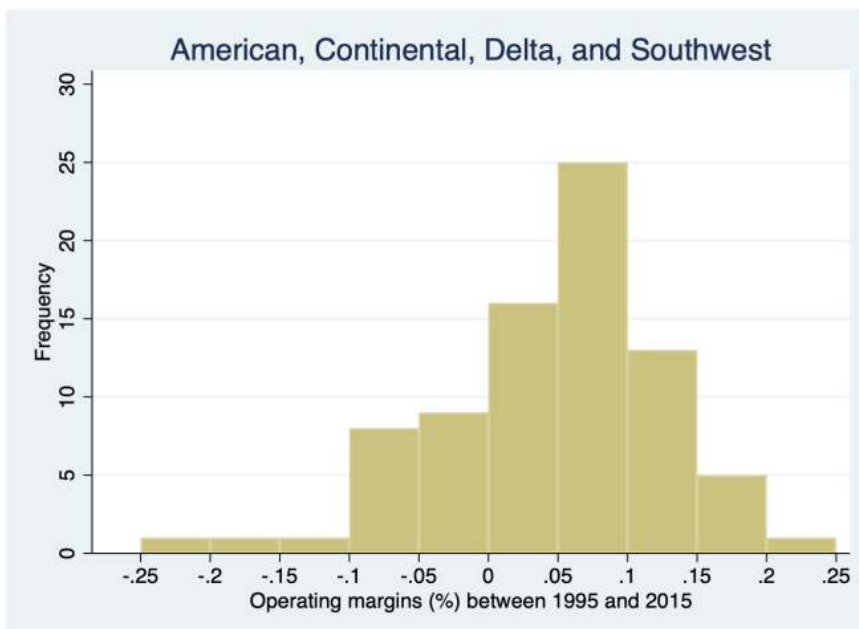


The cause for which normal distribution does not appear resides in the fact that operating margin changes year after year without presenting the independence necessary to guarantee normal distribution

Indeed, it's unlikely that observations are strictly independent, since the variable being measured (i.e. operating margins) for the observation is influenced by or related to the values of variables for other observations (e.g. industry-wide factors, economic conditions etc)

The best way in order to generate a normal distribution is to evaluate those companies' operating margin together, all in a single graph

A graphical representation of it is the following



Therefore, the conditions necessary or normal distribution are respected:

- Observations: the more they are the better the normal distribution curve looks like
- Independence: values of a random variable do not have to be influenced by or related to the values of the variable for other observations

PROVIDE A DEFINITION OF SUMMARY STATISTICS (OR MOMENTS)

Probability distributions have summary statistics, or moments. Summary statistics are used to describe data or the sample. The two most important statistics are:

- Mean
- Standard deviation (i.e. the square root of the variance)

DEFINE AND PROVIDE AN EXAMPLE OF THE CONCEPT OF MEAN

The mean is an indicator which tells you where the center of the distribution is positioned

Means, though, do not tell you whether the values of the observations are concentrated around it, or dispersed away from

Anyway, in order to evaluate if the mean is high or low, it is fundamental to have a point of reference

For example, to evaluate if Bocconi mean of students' height actually is 175, we first need to understand with respect to who

PROVIDE AND EXPLAIN THE MEAN FORMULA AND SHOW AN EXAMPLE

The mean formula is described as

$$\mu = \sum_{i=1}^n p_i x_i$$

Where x_i is the value of an observation, and p_i is the probability of whether that value occurs.

As an example, consider the following table

Values	Probability	Cumulative Probabilities
10	0.20	0.20
20	0.10	0.30
30	0.20	0.50
40	0.20	0.70
50	0.10	0.80
60	0.05	0.85
70	0.10	0.95
80	0.05	1.00

The mean of the distribution in the table is:

$$10*0.20 + 20*0.10 + 30*0.20 + 40*0.20 + 50*0.10 + 60*0.05 + 70*0.10 + 80*0.05 = 37$$

DEFINE AND PROVIDE AN EXAMPLE OF THE CONCEPT OF VARIANCE

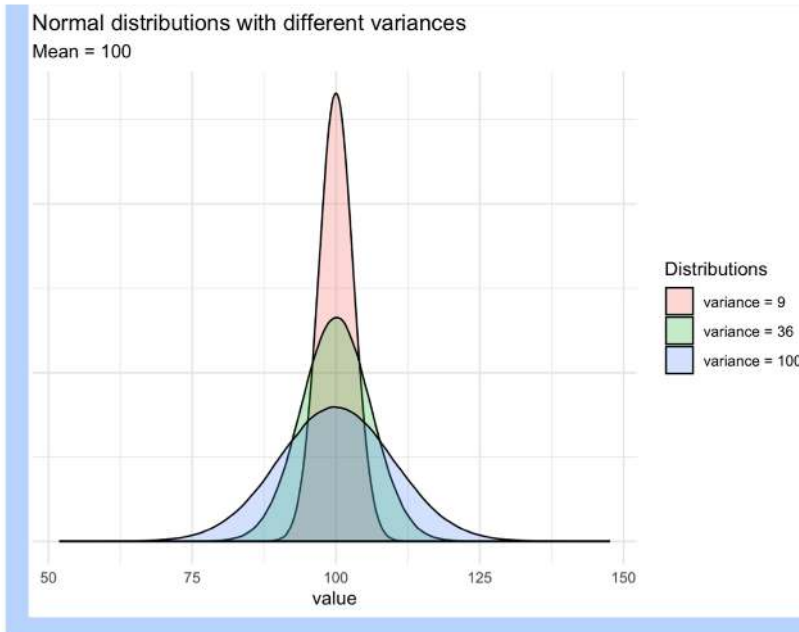
Variance is a measure of the spread or dispersion of a set of data points or the variability of a random variable

It quantifies how individual values in a dataset or the potential outcomes of a random variable differ from the mean (average) value

Variance can be distinguished in two types:

- Small variance: there is a narrow and tall distribution, which means that the potential outcomes of a random variable are closely clustered around the mean value
 - Example: most of the Bocconi students' heights are around 175 cm
- High variance: there is wide and relatively flat distribution, which means that the potential outcomes of a random variable are significantly deviating from the mean value
 - Example: many Bocconi students are either very short (155 cm) or very tall (195 cm)

The graphical representation, indicating small and high variance, is the following



PROVIDE AND EXPLAIN THE VARIANCE FORMULA AND SHOW AN EXAMPLE

The variance formula is described as follows

$$\sigma^2 = \sum_{i=1}^n p_i (x_i - \mu)^2$$

Where x_i is the value of an observation, and p_i is the probability of whether that value occurs

As an example, consider the following table

Values	Probability	Cumulative Probabilities
10	0.20	0.20
20	0.10	0.30
30	0.20	0.50
40	0.20	0.70
50	0.10	0.80
60	0.05	0.85
70	0.10	0.95
80	0.05	1.00

The variance of the distribution in the table is: $(10 - 37)^2 * 0.20 + (20 - 37)^2 * 0.10 + (30 - 37)^2 * 0.20 + (40 - 37)^2 * 0.20 + (50 - 37)^2 * 0.10 + (60 - 37)^2 * 0.05 + (70 - 37)^2 * 0.10 + (80 - 37)^2 * 0.05 = 431$

DEFINE STANDARD DEVIATION AND PROVIDE THE FORMULA

The standard deviation provides a more interpretable measure of dispersion by quantifying the average deviation from the mean in the same units as the data

In this way, it becomes easier to understand the spread or variation in the data

Indeed, while variance is often used in statistical calculations and hypotheses, standard deviation is frequently used for practical interpretation and communication of the variability within data

The formula is defined as follows

Standard deviation = $\sqrt{\text{Variance}}$

In the case of the example before, the standard deviation is the square root of 431, i.e. 20.76

DEFINE CONDITIONAL PROBABILITY AND PROVIDE REAL LIFE EXAMPLES

Conditional probability is defined as the probability of an event (situation, characteristic, condition,...) occurring given that another event has already taken place

Moving to real life, conditional probability is represented in the following two contexts:

- If you want to know the probability that a football player goes to a FC next season, it is useful to know whether the team can afford to pay him
- If you want to know the probability that customers will buy your new product, it is useful to know what a sample of them think of the test version

DISCUSS, USING CONDITIONAL PROBABILITY, IF SHARE NOW SHOULD BE IN BARCELONA

Considering a situation in which the boss asks to assess the business case for Share Now of entering Barcelona, it is necessary to understand how probable is that Share Now turns into profit in the new city

First, we need to consider the aims imposed:

- The average subscriber has to drive at least 20 hours per year

Now, we need to analyze what variables the probability of turning a profit could depend on:

- Driving licenses: knowing how many people own a license is fundamental to understand how many people could potentially utilize the service
- Similar services already in the city: useful in order to get an idea of the amount and the strength of the competitors
- Drivers that drive 20/h a year: necessary information to know how probable is to reach the aim
- Public transportation: knowing how many people use public transportations and evaluating their efficiency is a good indicator to understand the percentage of success of the service
- Percentage of car ownership

- Consumer preferences: evaluating consumer preferences is fundamental to introduce the service efficiently
- Insurance policy: evaluating deeply the insurance policy is necessary to avoid incurring in legal issues
- Education: knowing the tax of highly educated people is extremely important, since usually educated people are more open to those types of services

DISCUSS MORE DEEPLY THE IMPORTANCE OF EVALUATING PER-CAPITA INCOME

If we consider per-capita income and we want to know if it makes more likely that Share Now will turn a profit in the city, the answer may be:

- Maybe yes: high-income people do not like to waste time in the traffic and are ready to pay for rental of small cars
- Maybe not: high-income people like to own their car
- Maybe it has not impact: not a variable or different effects that balance each other

It is therefore necessary to check data to know whether an event (like profit) depend on something else (like per-capita income)

DEFINE A FREQUENCY (MORE PRECISELY, CONTINGENCY) TABLE AND MARGINAL FREQUENCIES. THEN, PROVIDE AN EXAMPLE

Consider the following table

	Italy	Korea	Others	MARGINAL
2	0	2	0	2
3	1	5	0	6
4	3	1	0	4
5	9	2	2	13
6	8	2	4	14
7	21	0	5	26
8	9	0	2	11
9	7	0	2	9
10	4	0	0	4
11	1	0	0	1
14	0	0	2	2
23	0	0	1	1
MARGINAL	63	12	18	93

The frequency table to the left report the number of letters of the last name of 93 students, based on whether they originate from Italy, Korea or somewhere else

The number of letters in the last name is our random variable X

Now, let us introduce the concepts of “contingency table” and “marginal frequencies”:

- A contingency table (e.g. the one above) shows the values of X contingent on another variable
- Marginal frequencies are the totals of rows and columns (that is, the “last” row/column)

COMPUTE CONDITIONAL PROBABILITIES (P(X|Y)) RELYING ON THE TABLE ABOVE

For the next probabilities we are going to compute, considering this table may be useful to make the concept more visible

		Area of origin			MARGINAL
		Italy	Korea	Others	
# letters in last name (X)	2	0	2	0	2
	3	1	5	0	6
	4	3	1	0	4
	5	9	2	2	13
	6	8	2	4	14
	7	21	0	5	26
	8	9	0	2	11
	9	7	0	2	9
	10	4	0	0	4
	11	1	0	0	1
	14	0	0	2	2
	23	0	0	1	1
	MARGINAL	63	12	18	93

- What is the probability of a student with 5 letters in his or her last name?

		Area of origin			MARGINAL
		Italy	Korea	Others	
P(s) # letters in last name (X)	2	0	2	0	2
	3	1	5	0	6
	4	3	1	0	4
	5	9	2	2	13
	6	8	2	4	14
	7	21	0	5	26
	8	9	0	2	11
	9	7	0	2	9
	10	4	0	0	4
	11	1	0	0	1
	14	0	0	2	2
	23	0	0	1	1
		MARGINAL	63	12	18

• Answer:

$$\frac{\# \text{ outcomes that meet my condition}}{\# \text{ possibilities}} = \frac{13}{93} = 13.9\%$$

-What is the probability of a student with 5 letters in his or her last name given that the student is Italian?

• Answer: $P(X=5 | \text{Italy}) = 9/63 = 14.3\%$

Note that the conditioning event is often called a condition, clue, data point or signal (being Italian)

DISCUSS IF AKINATOR IS AN EXAMPLE OF CONDITIONAL PROBABILITY

Akinator can be considered as an example of conditional probability

In fact, when Akinator tries to guess animal, he starts with a uniform probability distribution in which every option has the same likelihood, i.e.

$$P(\text{Panda bear}) = P(\text{Horse}) = P(\text{Cat}) = \dots$$

Then, by asking questions, he collects clues, thus moving from the initial uniform marginal distribution to more precise conditional distributions, until the following condition is reached

$$P(\text{Panda bear} | \text{all the conditions}) = 1$$

PROVIDE A DEFINITION OF CONDITIONAL EXPECTATION

Conditional expectation is the expected value of a random variable, given that another event has already taken place

WRITE DOWN CONDITIONAL EXPECTATION FORMULA AND PROVIDE AN EXAMPLE

The formula can be described as follows

$$E(X|Y) = \sum_{i=1}^n p(x_i|Y) x_i$$

That is, you multiply all the values by their respective conditional probabilities, contingent on Y, and then you add them up

As an example, consider the following table, then compute the conditional expectation

$$E(X|Italy) = 2 * 0/63 + 3 * 1/63 + 4 * 3/63 + 5 * 9/63 + 6 * 8/63 + 7 * 21/63 + 8 * 9/63 + 9 * 7/63 + 10 * 4/63 + 11 * 1/63 + 14 * 0/63 + 23 * 0/63 = 7$$

$E(X | Italy) = 7 = \#$ of letters the last name will have on average given the student is Italian.

PROVIDE A DEFINITION OF JOINT PROBABILITY

Joint probability is defined as the probability that two events take place together at the same time

WRITE DOWN THE FORMULA AND PROVIDE AN EXAMPLE

The formula of joint probability is

$$P(X,Y) = P(X|Y)*P(Y)$$

That is, the probability that Y happens times the probability that X happens once we know that Y happened

As an example, consider the following table, then compute the joint probability

		Area of origin			MARGINAL
		Italy	Korea	Others	
# letters in last name (X)	2	0	2	0	2
	3	1	5	0	6
	4	3	1	0	4
	5	9	2	2	13
	6	8	2	4	14
	7	21	0	5	26
	8	9	0	2	11
	9	7	0	2	9
	10	4	0	0	4
	11	1	0	0	1
	14	0	0	2	2
	23	0	0	1	1
	MARGINAL	63	12	18	93

E.g.

$$P(X=5, \text{Italy}) = P(X=5 | \text{Italy}) * P(\text{Italy}) = 9/63 * 63/93 = 14.3\% * 67.7\% = 9.7\%$$

i.e. probability that the student is Italian **AND** the last name has 5 words

EXPLAIN THE DIFFERENCE BETWEEN CONDITIONAL AND JOINT PROBABILITIES

The difference between conditional and joint probabilities resides in different features:

- Formula

- Conditional probability: $P(X|Y)$

- Example: $P(X=5 | \text{Italy}) = 9/63 = 14.3\%$

- Joint probability: $P(X,Y) = P(X|Y)*P(Y)$

- Example: $P(X=5, \text{Italy}) = 9/63 * 63/93 = 9.7\%$

- Definition
 - Conditional probability: it quantifies the likelihood of one event occurring given that another event has already occurred
 - Joint probability: it quantifies the likelihood of two or more events occurring simultaneously
- Interpretation
 - Conditional probability: it provides a way to focus on and calculate the probability of one event in the context of another event
 - Joint probability: it is the probability of the simultaneous occurrence of multiple events, showing the combined likelihood of all those events happening together
- Purpose
 - Conditional probability: it is useful for modeling and solving problems involving decision-making, diagnosis and predicting outcomes based on known information or constraints
 - Joint probability: it is employed in scenarios where you want to understand the probability of multiple events happening together, such as in reliability analysis and product quality testing

COMPUTE PROBABILITIES REFERRING TO THE FOLLOWING GRAPH

	Gen Z (up to 24)	Millennials (25-40)	Gen X (41-56)	Boomers and older (57+)	TOTAL
Remained	200	115	180	210	705
Left	120	160	530	670	1,480
TOTAL	320	275	710	880	2,185

The graph shows a company that is investigating the retention of customers

Considering a sample of 2185 customers who signed a contract 5 years ago, the company is willing to understand if its belief is

correct: the age group of customers could have an impact on the retention rate

QUESTION 1

What is the probability of retaining a customer?

$$P(\text{RETAIN}) = \frac{\text{REMAIN}}{\text{TOTAL}} = \frac{705}{2185} = 32.2\%$$

QUESTION 2

What is the probability of retaining a GenZ customer?

$$P(\text{RETAIN} | \text{GEN Z}) = \frac{200}{320} = 62.5\%$$

QUESTION 3

What is the probability of being a GenZ customer who remains?

$$P(\text{RETAIN, GEN Z}) = P(\text{GEN Z} | \text{REMAIN, GEN Z}) = \frac{200}{705} \cdot \frac{705}{2185} = 9\%$$

OR $P(\text{REMAIN} | \text{GEN Z, REMAIN}) = \frac{200}{320} \cdot \frac{320}{2185} = 9\%$

In order to compute joint probability, it is sufficient to write down the ratio with the number of GenZ remained as a numerator and the total of customers as a denominator

COMPUTE THE RETENTION RATES RELYING ON THE TABLE ABOVE AND DISCUSS THE IMPORTANCE OF THOSE IN BUSINESS

Retention rates are fundamental in business since they allow the company to understand the groups that are more likely to remain and those who are more likely to leave, thus trying to improve strategies in order to retain them

Relying on the example above, let us compute the different rates

$$\text{Gen Z} = \frac{200}{320}$$

$$\text{Millennials} = \frac{115}{275}$$

$$\text{Gen X} = \frac{180}{710}$$

$$\text{Boomers} = \frac{210}{880}$$

As we can observe, GenZ is the most involved in the company, instead Boomers are the ones who are the most likely to leave this market

Thus, the company, after verifying the lack of independence of the variable in question, should apply a new strategy in order to retain boomers, thus increasing or, at least, maintain stable the profitability

DISCUSS THE CONCEPT OF INDEPENDENCE

Independence can be defined as follows

If the conditioning event, or signal, is independent from the event we are interested in, then it does not help to predict it

In this case, the signal is said to be not informative

DISCUSS THE JOINT PROBABILITY WITH INDEPENDENT EVENTS, PROVIDING AN EXAMPLE

Normally, Joint probability presents the following formula: $P(X,Y) = P(X|Y)*P(Y)$

But, if X and Y are independent, we can rewrite $P(X|Y) = P(X)$

So, in case of independence: Joint probability = $P(X|Y)*P(Y) = P(X)*P(Y)$

In order to provide an example, let us consider the action of rolling two dice

Considering X=probability of rolling 6 in the first round (i.e. 1/6) and Y=probability of rolling 6 in the second round (i.e. 1/6), their joint probability is the product of the two probabilities (i.e. 1/6 X 1/6)

PROVIDE A PRACTICAL EXPLANATION REGARDING THE RELATIONSHIP BETWEEN INDEPENDENCE AND CONDITIONAL PROBABILITY

The relationship can be expressed as follows:

- Two events are likely to be independent when the conditional probability is very close to the relative marginal probability
- Two events are likely to be independent when the conditional productivity is quite distant from the relative marginal probability

As an example, consider the table below

		Area of origin			MARGINAL
		Italy	Korea	Others	
# letters in last name (X)	2	0	2	0	2
	3	1	5	0	6
	4	3	1	0	4
	5	9	2	2	13
	6	8	2	4	14
	7	21	0	5	26
	8	9	0	2	11
	9	7	0	2	9
	10	4	0	0	4
	11	1	0	0	1
	14	0	0	2	2
	23	0	0	1	1
	MARGINAL	63	12	18	93

To explain the first possibility, let us compute the following probabilities

$$P(X=5 \mid \text{Italy}) = 9/63 = 14.3\%$$

$$P(X=5) = 13/93 = 14.0\%$$

Although the two events (i.e. five letters and being Italian) are not independent, the conditional probability (i.e. five letters when you are Italian) is very close to the marginal probability of having five 5 letters

In conclusion, from the definition above, we can state that being Italian is not an informative signal, since it does not affect the final probability

To explain the second possibility, let us compute the following probabilities

$$P(X=3 \mid \text{Korea}) = 5/12 = 41.7\%$$

$$P(X=3) = 6/93 = 6.4\%$$

$$P(X=3 \mid \text{Italy}) = 1/63 = 1.6\%$$

$$P(X=3) = 6/93 = 6.4\%$$

In this case, dependency is easily verifiable: indeed, being Korean or Italian may give a prediction whether the last name has 3 letters

In fact:

- If the individual is Korean, there is a sufficiently high probability of having a 3-letters last name
- If the individual is Italian, there is a quite low probability of having a 3-letters last name

In conclusion, from the definition above, we can state that being Italian or Korean is an informative signal, since it affects the final probability

DISCUSS THE IMPORTANCE OF PROBABILITY WITH RESPECT TO MANAGEMENT

The main features that make probability extremely important in a managerial environment are:

- Predict events: indeed, a probabilistic view of the inner and external environment may help the company to avoid the harmful risks of overconfidence, thus guaranteeing a more pragmatical and straightforward approach to the various issues
- Decide actions: using probability allows the company to strongly improve its decision-making process, thus producing more concrete and wise decisions and choices

EXPLAIN THROUGH AN EXAMPLE THE POTENTIAL RISKS OF A LACK OF INSUFFICIENT PROBABILISTIC INFORMATIONS

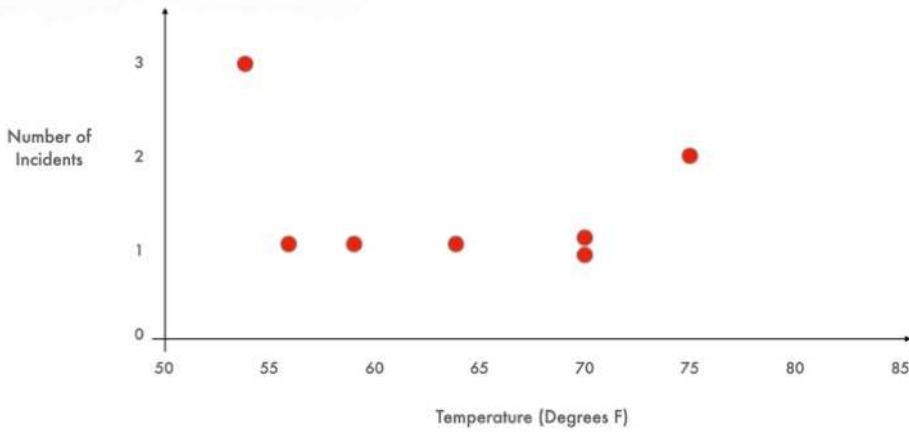
Consider a company whose brand-new robot, on certain days, comes to a halt all of a sudden. The CEO thinks that low temperature is the cause of the robot's failing

The first step is to provide a theory

In this case, it is represented by a "if-then" statement, i.e. if the temperature in the factory is low, then the robot fails

The second step is to test the theory, by looking at the times the robot failed in the days with low temperature

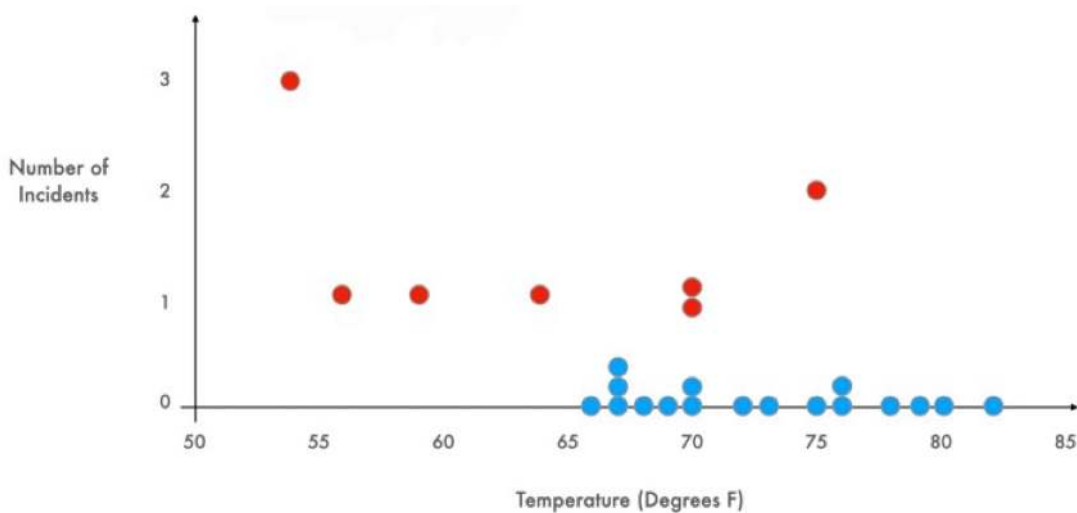
Engineers then provide the following graph, which presents number of accidents at different recorded temperatures



In terms of probability, it can be seen as the conditional probability $P(\text{low temperature} | \text{accident})$

Anyway, the experiment lacks of some datas, such as the analysis of the days without incidents (indeed, maybe the temperature was low on those days too and nothing happened)

Thus, the new graph is



Where the blue dots represent the times in which robot operates without incidents

Therefore, the final table is the following

	Days with accidents	Days without accidents	Total
Low temp (< 65° F)	6	0	6
High temp (≥ 65° F)	4	17	21
Total	10	17	27

From the first (incomplete) graph, which was showing only the column “days with accidents”, the verifiability was limited, since

$$P(\text{Low temperature} \mid \text{accident}) = 6/10 = 60\%$$

Instead, based on the new theory, the verifiability is now complete, since

$$P(\text{accident} \mid \text{Low temperature}) = 6/6 = 100\%$$

PROVIDE A DEFINITION OF THEORY

A theory is a series of logical steps linking antecedents to consequences (i.e. If P then Q, if Q then R, if R then S, ..., if V then Z, you eventually show that if P then Z)

DISCUSS THE IMPORTANCE OF THEORIES

Theories are fundamental since they provide the factors and the datas to examine:

- The factors that affect the outcome improve the ability to make an accurate prediction
- The data found provide signals for the conditional probabilities, i.e. for improving the predictions

The required steps relative to a theory are:

1. Theorize “If A, then B”
2. Collect all the cases with A, and then measure B in them

3. Calculate $P(B|A)$

4. If needed, repeat with a theory about A, and so on

PROVIDE AN EXAMPLE TO EXPLAIN THE POTENTIAL CONSEQUENCES OF A WRONG THEORY

In 1986 the Space Shuttle Challenger disaster occurred

One of the causes was given precisely by an inaccurate theory regarding the relationship between O-Ring incidents and joint temperature

Indeed, only incidents when O-Rings failed were taken into account, without considering both failures and successes (i.e. flights with no incidents)

Therefore, the cold weather allowed hot cases to escape from the joint, damaging the external fuel tank and, in the end, making the shuttle break

EXPLAIN THE DIFFERENT STEPS IN ORDER TO PREDICT EVENTS, PROVIDING AN EXAMPLE

The aim is to consider a target event and predict whether it will occur

For the sake of simplicity, we want to know for instance if there are at least 10 supporters of Inter Milan in a class

FIRST STEP: THEORY AND PRIOR PROBABILITY

In order to build a theory for the example above, we consider several factors, such as:

- The city in which the University is located
- The city from which students come from
- The gender distribution

Based on this theory, it is possible to envision a certain probability (e.g. 60%) that there can be at least 10 supporters of Inter Milan in the class, called prior probability

SECOND STEP: REVISION OF THE THEORY

Now, it is necessary to decide whether:

- Continue with the prior probability
- Look for more information/signals

There are two ways to collect signals:

1. Ask others (experts)
2. Collect data (data analysis)

Anyway, for lots of companies this process requires a huge expenditure of money

POINT 1: ASK OTHERS

Relying on the example above, the way to improve revision of the theory is to ask the classmates what they think the probability of having at least 10 supporters is

At this point, there are two possibilities:

- If the classmates say a probability higher than the prior probability (e.g. 80%), then we update the probability to a higher level than the prior of 60% (e.g. 70%)
- If the classmates say a probability lower than the prior probability (e.g. 40%), then we update the probability to a lower level than the prior of 60% (e.g. 50%)

The new probability is called posterior probability

POINT 2: COLLECT DATA

In the example above, in order to collect data it is possible to take a sample of 20 students in the class and check how many of them are supporters of Inter Milan

At this point, there are two possibilities:

- If they are at least 2 (10%), update your posterior probability upward
- If not, update your posterior probability downward

PROVIDE A SYNTHETIC SCHEME ANALYZING THE DIFFERENT STEPS NECESSARY IN ORDER TO PREDICT EVENTS

In order to predict events, it is necessary to consider the following steps:

STEP 1 (i.e. theory): Look at the class with a theory and mind and set a prior probability

STEP 2 (i.e. look for more information): Ask friends (i.e. ask others and collect data) and update the prior probability (multiple times), generating posterior probabilities

STEP 3 (i.e. define the expectations): Decide when to stop collecting data/signals and to finalize the probability, that is, a posterior probability that cannot be improved further

PROVIDE A FORMAL AND A TECHNICAL DEFINITION OF PRIOR PROBABILITY

Prior probability is definable as the predicted probability of an event before data is collected. It is the best assessment of the probability of an outcome based on the current knowledge

From a formal point of view, relying on the example before, it can be written as

$$P(Y) = 60\%$$

Where Y = at least 10 students in the class support Inter Milan

PROVIDE A FORMAL AND TECHNICAL DEFINITION OF POSTERIOR PROBABILITY

Posterior probability is definable as the revised probability of an event occurring after taking new information into account

From a formal point of view, relying on the example before, it can be written as

$P(Y|S)$ = probability of event Y given the observed signal S

Where S = what the data of your friends said

From the example above, we see that:

- If $S=80\%$, then $P(Y|S=80\%)=70\%$
- If $S=40\%$, then $P(Y|S=40\%)=50\%$

DESCRIBE THE RELATIONSHIP AND POTENTIAL INTERCONNECTION BETWEEN PRIOR AND POSTERIOR PROBABILITIES

There could be a series of priors, signals, posteriors, in which each posterior becomes prior before the next signal

The formal definition of their relationship is definable as follows

$$P(Y) \xrightarrow{S_1} P(Y | S_1) \xrightarrow{S_2} P(Y | S_1, S_2) \xrightarrow{S_3} P(Y | S_1, S_2, S_3)$$

Relying on the example above, the chain would be represented as follows:

$$P(Y) = 60\% \xrightarrow{S_1 = 40\%} P(Y | S_1 = 40\%) = 50\% \xrightarrow{S_2 = 45\%} P(Y | S_1 = 40\%, S_2 = 45\%) = 48\%$$

EXPLAIN THE RELATIONSHIP BETWEEN PREDICTING EVENTS AND ESTIMATING PAYOFFS IN DECISION MAKING, PROVIDING AN EXAMPLE

Since every event is associated with the outcome of an action, making predictions helps in the process of estimating payoffs and, consequently, in understanding whether or not to take that action

In order to understand more deeply the importance of estimating payoffs, we can rely on the example above

The given condition is that you pay 1000 euros upfront, and you receive 100 euros per student who support Inter Milan in a class of 100 students

Therefore:

- If at least 10 students support Inter, you break-even (i.e. total cost=1000 euros and total income=100 euros X 10 students=1000 euros)
- If less than 10 students support Inter, you lose money
- If more than 10 students support inter, you gain money

DESCRIBE THE DIFFERENT FACTORS THAT ARE INVOLVED IN ESTIMATING PAYOFFS

Actions \ Scenarios	At least 10 Inter supporters	Less than 10 Inter supporters
Pay 1,000 upfront	PROFIT	LOSS
Not pay 1,000 upfront	0	0

The table above is a simplified representation of an usual situation regarding estimating payoffs

There are different factors we need to keep in mind in order to make a good decision:

- Actions: it is the set of options that is available on you
 - You decide on this

- Scenarios: it is the state of the world you are going to face, that is, what could happen
- You do not control it (i.e. it is what you predict)
- Outcomes: they are the outcomes of each action-scenario
- This is what you are assessing

Thus, considering the elements above, we can define prediction as the process of estimating the probability of the different outcomes

In the example provided, the higher the probability that at least 10 students support Inter Milan, the more likely it is that you get a profit

DISCUSS HOW TO EFFECTIVELY OPERATE THE DECISION, HIGHLIGHTING THE IMPORTANCE OF FINDING A CRITERION

When, after the probability estimation, we have reached a posterior probability, it is necessary to understand if it is worth it to make the decision

To do so, a criterion reveals to be fundamental

DESCRIBE THE TWO APPROACHES RELATIVE TO THE CRITERION

When establishing a criterion, there exist two potential approaches:

- Approach 1: think of a threshold probability
 - Fixing a threshold, indeed, allows the decision-maker to evaluate the different aspects more wisely, thus arriving to a more critical final decision
 - For example, before doing shopping it is necessary to fix an economic threshold, which allows the buyer to weight the aesthetic preferences and the budget (i.e. a boundary set before)
- Approach 2: assign values (profit and losses)

- This method reveals to be more precise in order to reach a clearer understanding of the quantitative consequences of a certain action

ANALYZE THE SECOND APPROACH, HIGHLIGHTING THE FEATURES OF THE TWO SUB-APPROACHES

The approach of assigning values consists in assigning values to profit and losses in the action-scenario matrix, given the probability previously estimated

This method presents two further approaches:

- Value model: it consists in calculating monetary values of profits and losses that could be made in the different scenarios
- Utility model: it consists in attributing “utilities” that represent how much you enjoy a positive outcome or how much you suffer a loss

DESCRIBE THE FEATURES OF THE VALUE MODEL, THEN HIGHLIGHTING THE WAYS IN ORDER TO MAKE THE DECISION

For the sake of simplicity, we consider the representation of the value model relative to the example above

Actions \ Scenarios	At least 10 Inter supporters	Less than 10 Inter supporters
Pay 1,000 upfront	+500€	-500€
Not pay 1,000 upfront	0	0

The meaning of the outcomes in a value model is the following:

- If there are at least 10 students supporting Inter, on average there are 15 students supporting Inter
- Revenue – cost = $15 \times 100€ - 1000€ = 500€$
- If there are fewer than 10 students supporting Inter, on average there are 5 students supporting Inter

- Revenue – cost = $5 \times 100\text{€} - 1000\text{€} = -500\text{€}$

Now, we can discuss the way to make a decision through the value model

The value model derives a threshold probability based on the expected outcomes. Further, the threshold in the value model is the minimum probability required to make the expected value

The criterion thus implies the choice of the action with the greater expected value

Relying on the example above, it is first necessary to compute the expected values relative to the two possible actions

$$\text{Expected value (Pay 1,000)} = 500 * P(Y|S) - 500 * (1 - P(Y|S))$$

$$\text{Expected value (Not pay 1,000)} = 0 * P(Y|S) + 0 * (1 - P(Y|S)) = 0 + 0 = 0$$

The aim, as the definition says, is to have:

$$\text{Expected value} \geq 0$$

Since the value is given by the following formula

$$500 * P(Y|S) - 500 * (1 - P(Y|S))$$

Then, it is easy to see that this inequality is true if

$$P(Y|S) \geq 1/2$$

Which will then be the threshold (i.e. $P^* = 50\%$)

Now, to verify if the above statement is correct, consider, for example, $P(Y|S) = 55\%$

Then, we can easily compute the expected value, that is

$$\text{Expected value (Pay 1,000)}$$

$$= (500 * 0.55) - (500 * (1 - 0.55)) =$$

$$= (500 * 0.55) - (500 * 0.45) =$$

$$= 275 - 225 = 50$$

Since the value is greater than 0, then the condition is verified

DESCRIBE THE MEAN FEATURES OF THE UTILITY MODEL, HIGHLIGHTING THE WAYS TO MAKE A DECISION

In order to understand how utility model works, we have to start from providing a definition of utilities

Utilities consist in how much you enjoy a positive outcome or how much you suffer from experiencing a loss

This depends on:

- Monetary values (since money always provides a utility itself)
- Other aspects of the decision

For example, opposite utilities (i.e. utilities and disutilities) are represented as follows:

- You may be very worried about losing money (risk aversion) and the loss of 500 euros has a disutility of 700
- You may be very excited if you run a successful project, and turn the profit of 500 euros has an utility of 1000

Provided the definition of utility, we can now assert that the utility model is based on the calculation of the expected utility of the actions, which represents the same concept of expected value, but with utilities in place of monetary values

Thus, in order to find the minimum probability from which it is worth it to take an action, we need to set the following threshold

Expected utility ≥ 0 (given that the second action does not presents utility 0 for each scenario)

For the sake of simplicity, we can consider the following table

Actions \ Scenarios	At least 10 Inter supporters	Less than 10 Inter supporters
Pay 1,000 upfront	800	-400
Not pay 1,000 upfront	0	0

First, it is necessary to analyze the different elements that characterize it:

- 800 is the utility if the project succeeds
- -400 is the utility if the project fails

Now, let us consider the formula for expected utility

$$800 \cdot P(Y|S) - 400 \cdot (1 - P(Y|S))$$

Thus, the threshold is given by setting

$$\text{Expected utility} \geq 0$$

Which gives us

$$P(Y|S) > 1/3 \text{ or } P^* = 33\%$$

This means that starting from a probability of 33% I will decide to pay 1000 upfront

RELYING ON THE TABLE ABOVE, DISCUSS THE CASE IN WHICH BOTH ACTIONS HAVE NON-NULL UTILITIES

Relying on the table above, we can consider a more complicated case in which the second action (i.e. not pay 1,000 upfront) provides the following utilities:

- 200, if there are at least 10 Inter supporters
- -100, if there are less than 10 Inter supporters

In this case, in order to find the precise probability from which we start making the decision, we have to make sure that the expected

utility of the first action is greater than or equal to the one of the second action,
that is:

$$800p + (-400)(1-p) \geq 200p + 400(1-p)$$

PROVIDE A COMPARISON BETWEEN VALUE MODEL AND UTILITY MODEL

The utility model and the value model are formally equivalent

Further, value model is a special case of the utility model, in which your utility depends only on monetary value

The main difference, then, is the following:

- Value precisely indicates the size of profit/loss related to a decision
- Utility indicates what provides you happiness, i.e. what is important for you

WRITE DOWN A FRAMEWORK FOR MANAGERIAL DECISION-MAKING

For an efficient decision-making process, it is necessary to follow some fundamental steps:

- Define actions and scenarios: it is thus important to ask ourselves what are the possible courses of action, acknowledging what you can control and you cannot
- Define actions and scenarios: understand what are the possible combinations, thus assigning the payoffs derived from pair
- Estimate the probability: it is now important to have a theory, estimate our priors, and decide whether to revise them
- Make a decision: the decision may be based either on a predefined threshold or on monetary values/utility

DISCUSS THE IMPLICATIONS OF PROBABILITY FOR BUSINESS

In business, it is important to assess if my data merely correlate or if there is a causal relationship between events

For example, if I launch a marketing campaign and I see that my sales are increasing, the following questions are likely to pop up on mind:

- Is that the consequence of the marketing campaign?
- What else could be the cause of an increase in sales?

I thus need to understand what causes the changes, otherwise I may waste money

For example, in an ineffective marketing campaign, the increase in sales could be the result of an overall increase in prices of the main competitors

HIGHLIGHT THE DISTINCTION BETWEEN CORRELATION AND CAUSATION, PROVIDING SOME EXAMPLES TO EXPLAIN THE DANGERS OF MIXING THEM UP

There are several differences between correlation and causation

The main difference between correlation and causation is the following:

- Correlation measures the extent to which two or more variables are related (i.e. when one moves, so does the other, either in the same or opposite direction)
- Causation indicates that one event is the result of the occurrence of the other event (i.e. a cause and effect relationship takes place)

It is though extremely frequent the tendency to mixing them up

For the sake of simplicity, let us provide some simple examples:

- Both ice cream sales and shark attacks increase when the weather is hot and sunny, but they are not caused by each other

- The real cause is represented by the good weather, with lots of people at the beach, both eating ice cream and having a swim in the sea)
- Married men live longer than single men (there exists, then, a correlation between the two status)
- The real cause is represented by the scientifically proved fact the healthy, educated and wealthy men are usually married more than poor men (that is, the welfare is the cause of this correlation)
- Children who sleep with lamps during night are more likely to be shortsighted than the ones who do not
- The real cause is not represented by a particular power of the lamp, but, on the other hand, the correlation can be explained since parents with shortsighted children are more likely to keep the lamp on, so make them see better
- There is a strong link between kids with good grades and kids with high esteem
- Good grades are the real causes of a rise in self-esteem, and not vice-versa
- The presence of rain and the use of the umbrella are strictly correlated
- Rain causes the use of umbrella, and not vice-versa

Therefore, some relationships are causal, but we need to have theories to argue that a correlation represents a causal relationship

ANALYZE THE DECISION-MAKING PROCESS RELATED TO THE SOUTHWEST AIRLINES CASE

In 2016, the situation was the following:

- Analysts were pressuring Southwest to introduce fees to increase revenue

- Southwest's CEO was worried that fees could undermine customer trust

The decision-making process, to minimize the risks of a harmful failure, has to be divided in various steps

STEP 1: ACTIONS

The company needs to understand how many actions are available, though always trying to keep the model as simple as possible

Thus, the possible actions are reduced to two:

- Action 1: Introduce fees
- Action 2: Do not introduce fees

STEP 2: SCENARIOS

The main features of a relevant scenario are the following:

- They must be important for our decision
- They should be out of our control (once we take the action)
- We have to be able to estimate the probability that they happen
- They should produce payoffs (values or utilities), depending on our actions

In the Southwest case, the scenarios are reduced to two:

- Scenario 1: Customers' trust is not impacted
- Scenario 2: Customers' trust is impacted

STEP 3: DECISION MODEL

At this point, it is necessary to choose a decision-making framework

The options are the following:

- Threshold

Scenarios Actions	Customer trust not impacted	Customer trust damaged
Introduce fees	100	-300
Not introduce fees	0	0

-Value Model

-Utility Model

It is important to choose a model you can actually use, given

the information you have

In the specific case of Southwest, the most intuitive one is the utility model

STEP 4: UTILITIES

Now, the company needs to assign utilities, strongly linking them to its strategy

In the specific case, we can assign utilities in order to reflect the serious damage on Southwest that results from implementing a strategy that damages customer trust

Therefore, the framework will be the following

STEP 5: THRESHOLD

At this step, the company needs to compute how probable we want the event “customer trust not impacted” to be, in order to introduce the fees

In order to do so, we need to calculate the threshold, by setting

Expected value ≥ 0

Since utility 0 is associated to the second action (i.e. “not introduce fees”)

In the specific case, let us compute the threshold as follows

$$P \cdot 100 + (1 - P) \cdot (-300) \geq 0$$

$$100P - 300 + 300P \geq 0$$

$$400P \geq 300$$

$$P \geq 75\%$$

STEP 6: ESTIMATE PROBABILITY

STEP 6.1: HAVE A THEORY

For first, it is fundamental to build a solid theory, based around the following question

“What are the antecedents of customer trust, for an airline company?”

Thus, the theory can be formulated as follows

“If an airline company is..., or does ..., then customers trust it”

STEP 6.2: FORMULATE A PRIOR PROBABILITY

After building the theory, the company needs to formulate a prior probability that customer is not impacted by the increase in fees

To do so, we need to rely to previously given datas, such as known research results

In the specific case, let us assume that research shows that trust depends a lot on keeping promises

The company, then, has to:

- Evaluate if this information is relevant to the case

- If so, make it partly affect the prior probability

STEP 6.3: ASK EXPERTS

For first, a company needs to figure out who to speak to in order to improve the prior probability

The main categories which should be taken into account are the following:

- Consultants
- Equity analysts
- Experienced Southwest's managers
- What the other airline companies have already done (e.g. WestJet, JetBlue)
- Loyal customers (surveys, focus groups)

At this point, the company has to start understanding if it is worthy to update its prior probability

STEP 6.4: COLLECT DATA

Secondly, the company needs to collect data by conducting experiments on a route or few routes, as suggested by the JP Morgan's analyst

Anyway, it is necessary to highlight that signal can be extremely costly for companies, which means that this process has to be carefully taken under control

At this point, the company has to understand if it is worthy to update its prior probability

STEP 6.5: FORMULATE A POSTERIOR PROBABILITY

After asking experts and collecting datas, the company needs to evaluate if it is necessary to update the prior probability in one of the following three ways:

1. Rising its value
2. Maintaining its value constant
3. Reducing its value

The new probability obtained is said to be posterior probability

STEP 6.6: STATE THE FINAL ESTIMATE

After repeating the process of asking/researching several times, depending on the specific situation, the company needs to arrive to a ultimate posterior probability, definable as final probability

STEP 7: MAKE THE DECISION

The company, in the end, has to make a decision, relying on whether the final estimate is larger or smaller than the threshold

DISCUSS BRIEFLY WHAT SOUTHWEST ACTUALLY DID

The company, even though constantly pressured by analysts' and media, has made the following decisions:

- It has never changed its fee policy
- It has ever ran an experiment

These two choices ultimately reflect the strong point of view of the CEO and highlight even more clearly his willingness to maintain a strong long-run relationship with customers, primarily based on loyalty and trust

DISCUSS HOW IS PROFITABILITY AFFECTED BY DIFFERENT OPERATIONAL CHOICES

The company's operational profitability is given by a fundamental financial measure that is the operating income, also known as operating profit

The formula in order to compute it is the following

$$\text{PROFIT} = \text{REVENUE} - \text{COSTS}$$

$$\begin{aligned} R_v = P_v &= R_v * Q - (FC + VC) \\ &= R_v * Q - FC - C_v * Q \end{aligned}$$

Further, the profitability is usually affected by the following elements:

- Price: indeed, potentially the higher the price the higher the profit (even though profit not always increases)
- Cost: if cost gets reduced, then the profit may go up
- Quantity: potentially the higher the quantity the higher the profit (even though profit not always increases)
- Structural determinants

For the sake of simplicity, we put price and cost in the category “purchasing and selling prices”

DESCRIBE THE DIFFERENT STRUCTURAL DETERMINANTS, ANALYZING THEIR IMPORTANCE

Structural determinants are useful since they help provide a framework for understanding and analyzing various aspects of society, economics and organizations

Structural determinants can be defined as follows:

- Production capacity (strictly related to the concept of maximum capacity): it represents the production capability and resources available to meet the demand of the market or customers
- Economies of scale
- Economies of learning

- Economies of scope: it occurs when a single firm produces two goods at a lower average expense than what it would cost two separate firms to produce the goods separately
- Industry: the type of industry may affect the profitability (e.g. pharmaceutical industry is characterized by a higher average profitability)
- Vertical integration: it is a business strategy in which a company expands the operations by internalizing or controlling different stages of the supply chain, from raw materials to the distribution of the final product or service
- Horizontal integration: it is a business strategy in which a company expands by acquiring or merging with competitors operating in the same industry and at the same stage of the supply chain
- Price levels
 - Purchasing prices: price of inputs bought from suppliers
 - Selling prices: price of outputs sold to consumers
- Volumes: in business, they refer to the overall scale of activities often involving the quantity of products, services and resources exchanged within a specific period or market
 - Different volumes influence operating profits by changing both total costs (via variable costs) and revenues

Further, remember that all the three “economies” allow the companies to reduce cost, thus guaranteeing a useful tool in order to rise competitive advantage

DISCUSS THE DIFFERENT PRICE LEVELS

The price levels are characterized by various elements strictly interconnected among them:

1. Suppliers

- Cost structure: the price at which suppliers provide raw materials or components to the focal company directly affects the cost structure of the company
- Profit margins: an increase in supplier prices may lead the focal company to consider raising its prices to maintain profit margins

2. Focal company

- Wholesale prices: the company sells its products to retailers at a specific wholesale price
- Competitive positioning: the pricing decisions of the focal company influence how competitive its products are in the market (i.e. it is fundamental to find the right mean between maximizing profits and retaining retailers)

3. Retailers

- Mark-Up and retail prices: retailers set their own mark-up on products to cover their costs and earn a profit. Thus, if the wholesale price increases, likely also the retail price increases
- Client demand: the price levels set by retailers impact client demand

4. Clients

- Changes in pricing at the client level can affect overall market demand, thus impacting company and retailers directly and suppliers indirectly

Furthermore, purchasing prices and selling prices depend on:

- Internal factors (e.g. power of the firm in negotiating with suppliers or setting selling prices)
- External factors (e.g. industry trends, competition levels)

PROVIDE A DEFINITION OF BREAK-EVEN ANALYSIS,
HIGHLIGHTING THE IMPORTANCE OF BREAK-EVEN POINT

BEA illustrates and models the relation between volumes produced and sold by a firm, and its operating income

Further, the break-even analysis is useful to find the break-even point, i.e. that point where

$$TR=TC$$

Therefore, the formula that yields the break-even point is extremely useful in order to understand how much to produce and when the firm can start to sell and make profit

REMINDER FOR THE EXAM!

Before the exam, look at slide 10 of slideset “BEP analysis_BC”

You will find some exercise questions

DEFINE THE CONCEPT OF VARIABLE COSTS AND PROVIDE GRAPHS AND EXAMPLES

Variable costs are defined as those costs which present a strong and direct link with production and sales value

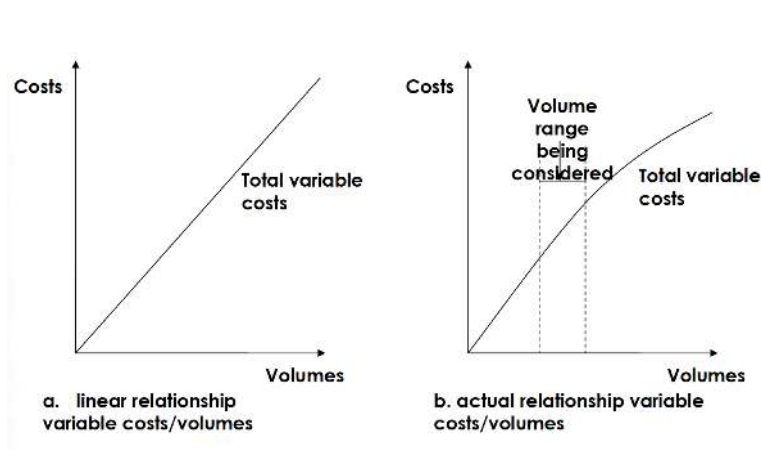
Some examples are the following:

- Sales commission: indeed, the more people work and produce sales the higher the sale commission will be
- Raw materials: the higher the quantity produced the higher the demand for raw materials will be
- External production processes (e.g. delivery charges): indeed, the higher is the amount delivered, the higher are the delivery charges
- Direct labour cost

Further, whenever the word “direct” is given, this means that we are dealing with a variable cost From a graphical point of view, variable costs present the following characteristics:

- They depart from the origin of the axes
- They increase as the quantity increases
- There exist two relationships variable costs/volumes:
 - Linear relationship variable costs/volumes: it means that the variable costs curve increases at a constant rate
- It is almost never findable in the real world
 - Actual relationship variable costs/volumes: it means that, due to several factors such as economies of scale or other cost structures, the variable costs curve may increase at a decreasing rate and/or exhibit variations or non-linearity
- It is the most frequent in the real world

The following graphs perfectly explain the two types of relationships



DEFINE THE CONCEPT OF FIXED COSTS AND PROVIDE GRAPHS AND EXAMPLES

Fixed costs are defined as those costs which present no strong and direct link with production and sales value

Some examples are the following:

- Rent: indeed, rent has to be paid regardless from the fact it is a good or bad period for your business
- Depreciation
- Legal and administrative consulting
- Maintenance: its costs are, in fact, necessary independently from the production

From an applicational point of view:

- Structural fixed costs are connected to the PC (i.e. production capacity)
- Development costs support current activities and future development, that is, they are strictly related to R&D and advertising

From a graphical point of view, fixed costs present the following characteristics:

- They do not depart from the origin of the axes
- They stay constant as the quantity increases (even though, in the case of actual relationship, they can change their value, thus creating a step-function)
- There exist two relationships fixed costs/volumes:
 - Linear relationship fixed costs/volumes: it means that the variable costs curve stays constant at a very same value as the quantity increases
- It is almost never findable in the real world
 - Actual relationship fixed costs/volumes: it means that fixed costs are generally stable over a broad range of activity, then can vary due to factors such as changes in the business model

- It is the most frequent in the real world (e.g. if a firm decides to buy new machineries, the maintenance fixed costs are going to change and then remain stable for a certain range)

The following graphs perfectly explain the two types of relationships

$$\text{BEP} \Rightarrow \text{REVENUE} = \text{COSTS}$$

$$P_u * Q = FC + VC$$

$$P_u * Q = FC + C_u * Q$$

$$P_u * Q - C_u * Q = FC$$

$$Q(P_u - C_u) = FC$$

$$Q = \frac{FC}{P_u - C_u}$$

$$CM_u = P_u - C_u \quad \text{UNIT CONTRIBUTION MARGIN}$$

$$Q = \frac{FC}{CM_u} \Rightarrow \text{HOW MUCH DO I HAVE TO PRODUCE OR SELL TO BREAK EVEN (OR TO MAKE A PROFIT)}$$

$$P_u = P_u = \text{unit selling price}$$

$$C_u = \text{unitary cost}$$

$$Q = Q_{\text{BEP}}$$

EXPLAIN THE NATURE OF LABOUR COSTS

Labor refers to the physical and mental effort that individuals contribute to produce goods and services or perform tasks within an organization or for a specific purpose

In order to identify the nature of labor costs, a distinction reveals to be necessary:

- If labor can be easily increased/decreased or reallocated across business units then labor would be a variable cost
- In practice, labor is regulated and labor laws create hiring/firing costs. Thus, labor costs entail fixed cost components

SHOW HOW TO FIND THE TOTAL COSTS FROM A GRAPHICAL POINT OF VIEW

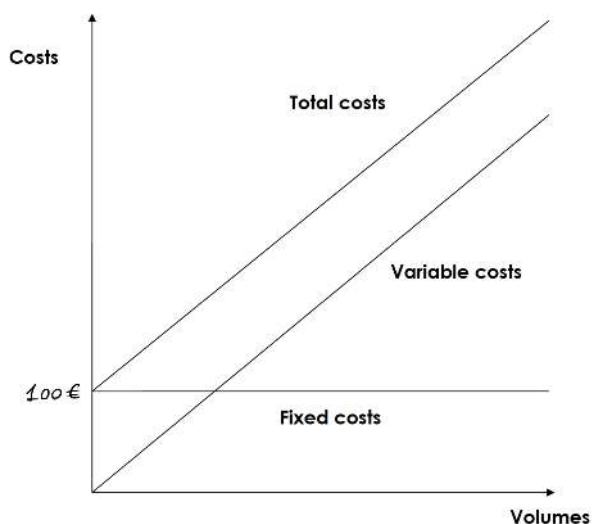
Starting from the general mathematical formula such that

$$TC = VC + FC$$

It is possible to individuate clear steps in order to draw the total cost curve:

- 1) Draw the FC line, which is parallel to the horizontal axis
- 2) Draw the VC line, which departs from the origin of the graph
- 3) Draw the TC line, by drawing a new line that presents the same slope of the VC line but that departs from the intersection between the FC line and the vertical axis

The result is given by the graph below



PROVIDE A DEFINITION OF OPERATIVE BREAK-EVEN POINT

The operative break-even point is the amount of sales that allows the firm to cover its operating costs

This means that operative break-event point is the point where revenue equates costs

EXPLAIN MATHEMATICALLY HOW TO FIND THE OPERATIVE BEP IN QUANTITY (QBEP)

Operative BEP, in quantity, is the production volume for which total revenues (R) are equal to total costs (TC)

In order to find it, let us solve the following equation

EXPLAIN THE MEANING OF THE CONTRIBUTION MARGIN AND WRITE DOWN THE FORMULA

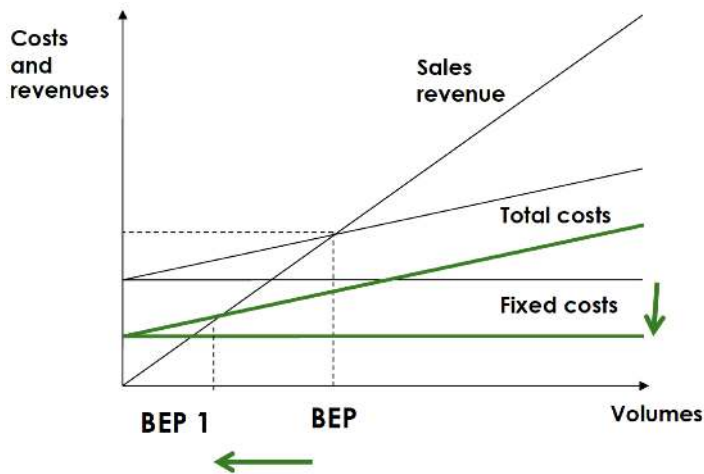
The contribution margin represents the amount of revenue that remains after covering the variable costs associated with producing or selling a product or service

Then, the contribution margin percentage is a financial metric that expresses the contribution margin as a percentage of total revenue

Further, it is used to assess the profitability and efficiency of a company's operations, in particular in relation to the costs associated with producing or selling its products or services

The formula in order to compute it is the following

$$CM \% = \frac{R_v - C_v}{R_v} = \frac{C M_v}{R_v} = \frac{C M}{R}$$



EXPLAIN MATHEMATICALLY HOW TO FIND THE OPERATIVE BEP IN REVENUES (SALES VERSION)

In order to be calculated, it has to be computed with the percentage contribution margin

$$\text{BEP IN REVENUE} = \frac{FC}{CM\%}$$

SHOW THE DIFFERENCE BETWEEN THE TWO APPROACHES FOR BEP COMPUTATION

The two approaches presents many different features, that can be resumed as follows:

- In the case of operative BEP in costs, the aim is to find how many units to produce
- In the case of operative BEP in revenues, the aim is to find how much I have to sell

PROVIDE A GRAPHICAL REPRESENTATION OF THE BEP, POSITIONING OPERATING PROFIT AND LOSS

$$BEP_Q = \frac{FC}{P_u - VC_u}, \quad P_u = 30 \text{€}$$

STEP 1

Calculate FC

$$FC = 2000 + 300 + 200 + 400 + 300 + 500 + 300 = 4000 \text{€}$$

STEP 2

Calculate VC_u (i.e. unit variable cost)

$$VC = 3 + 4 + 2.5 + 2.5 + 2 = 14$$

STEP 3

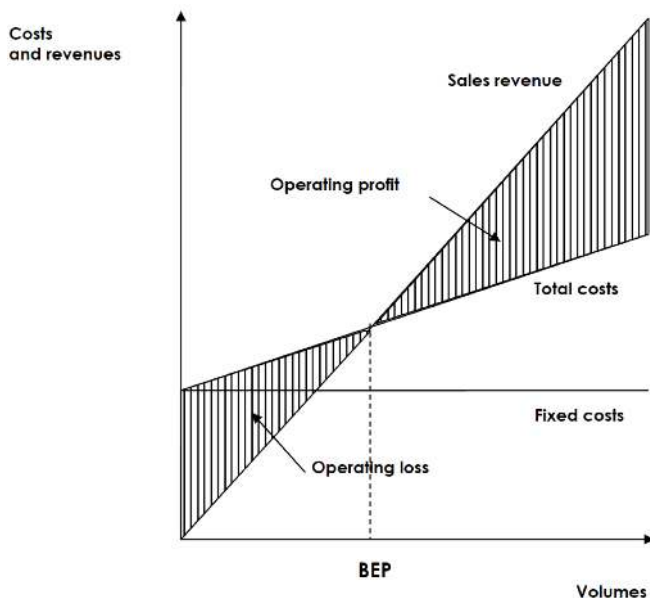
Calculate BEP

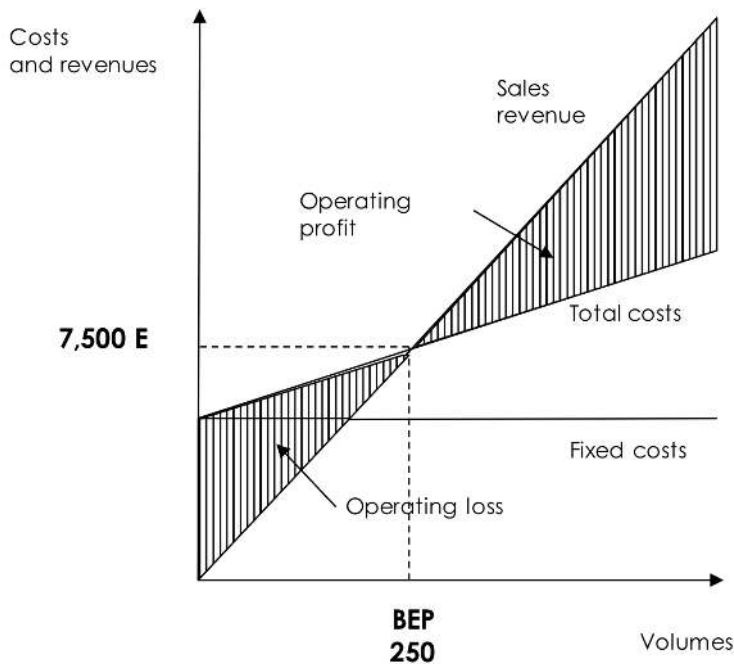
$$BEP = \frac{4000}{(30-14)} = \frac{4000}{16} = 250 \rightarrow \text{\# of tickets I have to sell to start to make a profit}$$

Given the BEP assumes a certain value, it is possible to observe two consequences:

- Above the point in question, there exists an operating profit
- Below the point in question, there exists an operating loss

In order to make this concept clearer, let us consider the following graph

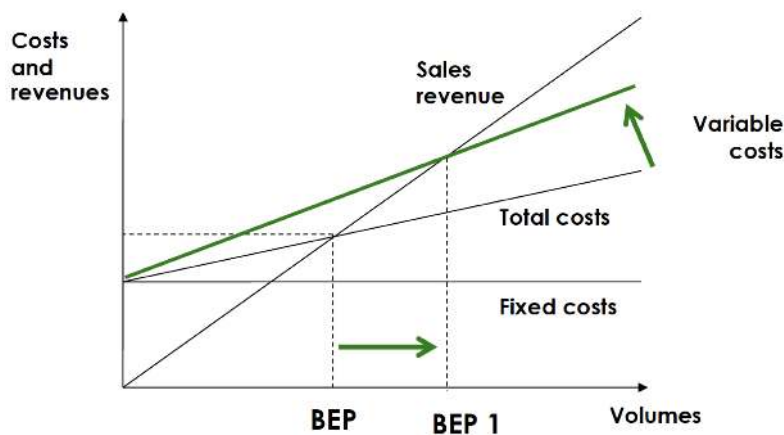




DISCUSS THE RELATIONSHIP BETWEEN BREAK-EVEN POINT AND COST VARIATIONS

If we consider an increase in variable costs, it is possible to observe that the company needs to produce more quantity in order to breakdown

A graphical explanation is given by the following graph



If we consider a decrease in fix costs, it is possible to observe that the company needs to produce less quantity in order to breakdown

COMPUTE THE BEP BY SOLVING THE FOLLOWING EXERCISE

The costs relative to the organization of a party are the following

Now, in order to solve the BEP in quantity we need to consider various steps

FIXED COSTS

Hall (400p)	2000€
Dee-jay	300€
Lights + Decoration	200€
Security	400€
Cleaning	300€
Audio System	500€
Barman	300€

VARIABLE COSTS

Beer	3€ x person
Sparkling Wine	4€ x person
Spirits	2,5€ x person
Soft Drinks	2,5€ x person
<u>Panettone</u>	2€ x person

Ticket price per person = 30 €

The goal, indeed, is to find the number of tickets I have to sell in order to start to make a profit

This statement is precisely equivalent to say that the individual in question needs to find the break-even point, i.e. that point in which revenue equals cost

Now, let us find the BEP in revenue

$$\text{Compute BEP}_{(\text{REVENUE})} = \frac{4000}{\left(\frac{30-14}{30}\right)} = 7500 \text{ €}$$

Contribution margin in terms of percentage

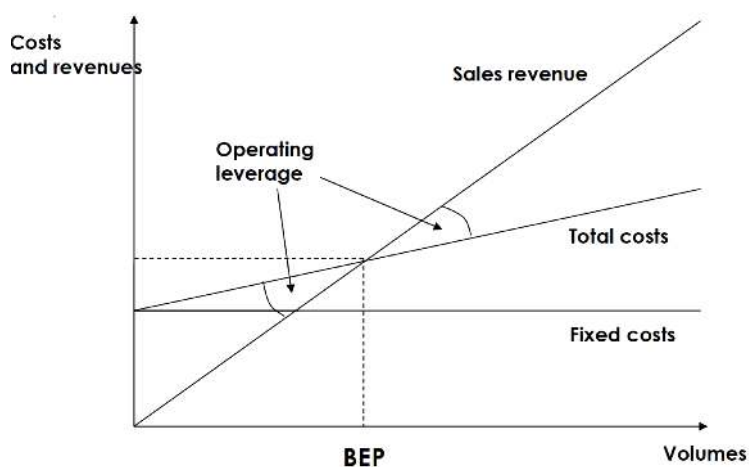
how much I need to sell to start to make a profit

Therefore, putting the BEP in a graph, we can find the following situation

PROVIDE A DEFINITION FOR OPERATING RISKS AND OPERATING LEVERAGE

- Operating risks is linked to two components of the organization's economic structure: BEP and degree of operating leverage
- Operating leverage is the size of the differential (gap) between revenues and total costs above and below the break-even point

A graph representing the operating risks condition is the following



EXPLAIN FROM A RISKINESS POINT OF VIEW THE DIFFERENCES BETWEEN A VERY RIGID AND A FLEXIBLE COST STRUCTURE

Suppose there are exogenous changes in volume

- For a firm with a very rigid cost structure (i.e. high ratio of fixed costs to total costs)
 - The firm will react badly to drops in volumes (there is indeed less room to distribute fixed costs over units of output, thus preventing the company from having the time to change its cost structure in the short-run)
 - The firm will respond positively to increases in volumes

Further, considering a rigid cost structure, to understand the causes that make it react positively it is necessary to have a look at the average cost

Considering two average costs, 499 and 500, a firm will choose the first one

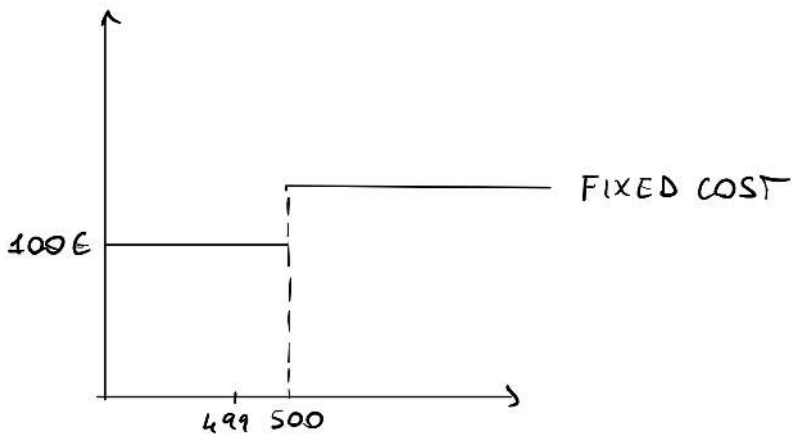
Indeed, since the formula for AVC is

$$AVC = \frac{\text{TOT. COSTS}}{\text{QUANTITY}}$$

Then, a lower AVC implies a higher quantity

Therefore, the firm, choosing 499, will be able to spread all its fixed costs over a higher amount of elements produced

RIGID STRUCTURE



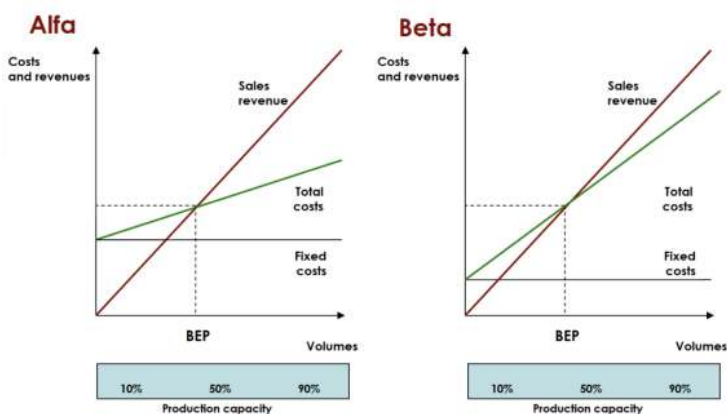
- For a firm with a flexible cost structure (i.e. low ratio of fixed costs to total costs)
 - If volumes drop, the firm can easily reduce costs (indeed, this flexibility allows to easily operate cost structure changes)
 - If volumes increase, the firm experience unavoidable cost increases

STATE AND DESCRIBE THE ELEMENTS OF OPERATING RISKS

The two main elements that characterize operating risks are:

- The level of BEP
 - The higher the BEP, the higher the risk
- The operating elasticity
 - The relationship between total variable costs and fixed costs at the BEP (the higher the elasticity, the lower the risk)

For the sake of simplicity, let us consider the following two firms, which present two different operating risks



DISCUSS IF OPERATING RISKS ALWAYS REVEALS TO BE A BAD THING

Operating risk is not necessarily a bad thing. In fact:

- It amplifies losses, as we move in the area left to the BEP
- It amplifies profits, as we move in the area right to the BEP

Therefore, the choice of two plants with same BEP but different operating risk depends on two main factors:

- Our estimate of how much volumes sold would exceed the BEP
- The manager's degree of risk aversion

PROVIDE A FORMAL AND A MATHEMATICAL DEFINITION FOR OPERATING ELASTICITY

Operating elasticity can be measured by calculating the relationship between total variable costs and fixed costs at the BEP- The higher the operating elasticity, the lower the risk

From a mathematical point of view, I get

$$\text{OP. ELASTICITY} = \frac{\text{VC @ BEP (QUANTITY)}}{\text{FC}}$$

- if > 1 , I have more VC
- if < 1 , I have more FC

Further, trying to replicate the relationship between risk and operating elasticity, we get

↑ OE ↓ RISK

↓ BEP ↓ RISK

From a graphical point of view, operating elasticity reflects into the gap between the lines of total revenues and costs

The consequence, therefore, is the following:

- The wider the wedge between the lines, the higher the risk

APPLICATE THE CONCEPT OF OPERATING ELASTICITY IN A DECISION-MAKING PROCESS BETWEEN TWO PLANTS

The initial framework for the application we are going to provide is the following

	PLANT A	PLANT B
Price	12	12
VCu	1.30	1.20
FC	10,000	15,000
BEP		
Operating Elasticity		

I first need to compute the preference in terms of BEP

$$BEP_A = \frac{10000}{(12-1.3)} = 935 \text{ units}$$

$$BEP_B = \frac{15000}{(12-1.2)} = 1388 \text{ units}$$

I prefer option A, since the value is smaller than value for option B

Thus, in terms of BEP I prefer A b/c

it has lower BEP \rightarrow less risky

Now we need to compute the preference in terms of OE

The formula for OE (operating elasticity) is

$$OE = \frac{VC_u * BEP_A}{FC}$$

Note: first compute BEP_A , and only then OE

$$\frac{1.2 * 135}{10,000} = 0.12$$

$$OE_B = \frac{VC_u * BEP_B}{FC} = \frac{1.2 * 1388}{15,000} = 0.11$$

$OE_A > OE_B \rightarrow$ I prefer option A s/c it is less risky

Therefore, in the end I will choose option A, since it is the less risky option both for BEP and for OE

In the end, my complete framework will be the following

	PLANT A	PLANT B
Price	12	12
VCu	1.30	1.20
FC	10,000	15,000
BEP	$10,000 / (12 - 1.30)$ = 934,57	$15,000 / (12 - 1.20)$ = 1,388.88
Operating Elasticity	$(1.30 * 934,57) / 10,000 = 0.121$	$(1.20 * 1,388.88) / 15,000 = 0.111$

PROVIDE A DEFINITION FOR PROFIT POINT AND WRITE DOWN THE MATHEMATICAL FORMULA

Profit point is definable as sales volume that covers all costs (i.e. operations + financial charges and fiscal costs) and provides an acceptable net income

Thus, focusing on a mathematical approach, we need to add the “target operating income” to fixed costs (i.e. the “income” that covers costs of non-core operations and builds up a desired net profit)

In conclusion, the mathematical formula for profit point is the following

$$BEP(\text{PROFIT POINT}) = \frac{FC + \overset{\text{target operating income}}{\uparrow} TOI}{CM\%}$$

APPLICATE THE PROFIT POINT IN THE EXAMPLE 1 PROVIDED

First, let us start from the analysis of the known datas

$$TFC = 10,000\text{€}$$

$$Ru = 5\text{ €}$$

$$VCu = 2\text{ €}$$

The request regards what is the output necessary to earn 5,000 € as target net income

In order to do so, we need to plug in the correct values

$$BEP = \frac{10000 + 5000}{5 - 2} = \frac{15000}{3} = 5000 \text{ units}$$

APPLICATE THE PROFIT POINT IN THE EXAMPLE 2 PROVIDED

First, let us start from the analysis of the known datas

- Average prize for a meal 16,00 €. (Ru)
- Average cost for a meal 4,00 € (VCu)
- Total fixed costs: 405,000 € (FC)
- Financial charges: Loan of 200,000€ at 12% of interest rate
- Taxes unrelated to income: 6,000 €
- Income taxes: 50% of income before taxes
- Target net income 75,000 €

Now, we are ready to solve the exercise in the following way

$$P_v = 16,00$$

$$VC_u = 4 \text{ €}$$

$$FC = 405,000$$

$$\text{Financial charges: } 200,000 \times 12\% = 24,000 \quad (\text{or } 0.12)$$

Now, to find the income taxes, I need to
arrive to EBT

So, let us reconstruct the income statement

$$\begin{array}{r} \text{Revenue} \\ - \text{Op. costs} \\ \hline \text{EBITDA} \\ - \text{Depreciation} \\ \hline \text{EBIT} \\ - \text{Interest} \\ \hline \text{EBT} = 150000 \text{ €} \\ - \text{taxes} \Rightarrow 50\% \text{ EBT (i.e. } 50\% \cdot 75000) \\ \hline \text{Net income} = 75000 \end{array}$$

If not convinced about this intuitive approach, we can use a more algebraical one

$$EBT - 0.5 EBT = 75000$$

$$EBT = \frac{75000}{0.5} = 150,000$$

Now, we can find BEP for volumes

$$BEP = \frac{405000 + 6000 + 24000 + 75000 + 75000}{16 - 14}$$

$$= 4870$$

Thus, this firm is not only willing to break even, but it guarantees a profit/net income of 75,000 € (i.e. I cover the cost and, consequently, I guarantee that net income)

Now, for the sake of completeness, we can compute the BEP for revenues as follows

$$\begin{aligned} \text{REVENUE} &= \frac{FC + TOI}{CM\%} \\ &= \frac{405,000 + 180,000}{0.75 \left(= \frac{(R_u - VC_u)}{R_u} \right)} \\ &= 739,000 \text{ €} \end{aligned}$$

Therefore, we finally found profit point for the company itself

DEFINE THE PESTEL FRAMEWORK

Pestel framework is a framework that categorizes and analyzes an important set of external factors, i.e.:

- Political
- Economic
- Socio-cultural
- Technological
- Ecological
- Legal

That might impinge upon a firm. These factors can create both opportunities and threats for the firm

EXAMINE AND PROVIDE EXAMPLE TO EXPLAIN THE NATURE OF THE POLITICAL FACTORS

Political factors can be defined as those factors which result from processes and actions of government bodies that influence firm decisions and behavior

For example, US-China trade war since 2016 has direct implications for a number of businesses like Chinese electronics companies

EXAMINE AND PROVIDE EXAMPLE TO EXPLAIN THE NATURE OF THE ECONOMIC FACTORS

The economic factors include macroeconomic factors such as growth rate, employment rates, interest rates, price stability and currency exchange rates

For example, Covid-19 pandemic has the global economy reeling. The main effects of the pandemic for the global economy has been:

- Global economic contraction: indeed, several disruptions to supply chains led to a contraction in economic activity, often marked by recessions
- Unemployment and labor market challenges

- Supply chain disruptions: factory closures, transportation restrictions and shortages of key components severely disrupted global supply chains
- Shifts in consumer behavior: there has been registered a sever decrease in the elasticity of the demand for home entertainment, online services and essential goods
- Debt and financial challenges: governments, businesses and individuals accumulated a significant debt during the pandemic which has to be managed wisely

EXAMINE AND PROVIDE EXAMPLE TO EXPLAIN THE NATURE OF THE SOCIO-CULTURAL FACTORS

The socio-cultural factors are those which capture evolving society's cultures, norms and values

For example, english-language broadcasters are pouring money into Spanish-language networks to leverage on 18% if US Hispanic population. At the same time, food-related companies recognize that people in different regions or cultural groups may have diverse dietary preferences, thus frequently pushing for constant adaptability to customers' preferences, such as McDonald's has been doing with respect to a healthier lifestyle trend

EXAMINE AND PROVIDE EXAMPLE TO EXPLAIN THE NATURE OF THE TECHNOLOGICAL FACTORS

Technological factors are those which capture the application of knowledge to create new processes and products

For example, recent advances in AI and Machine Learning have brought drastic changes in how we work and live

EXAMINE AND PROVIDE EXAMPLE TO EXPLAIN THE NATURE OF THE ECOLOGICAL FACTORS

Ecological factors are defined as those which involve broad environmental issues such as resource constraints, global warming

and climate change, thus presenting threats and opportunities at the same time

For example, Tesla is addressing environmental concerns by building zero-emission battery-powered vehicles. At the same time, companies like Colgate-Palmolive are severely affected by ecological factors such as climate change and global heating, which may strongly reduce the firm's productivity. Further, coffee producers may rearrange their strategy due to the potential water rise, which would provoke a radical change in coffee supply

EXAMINE AND PROVIDE EXAMPLE TO EXPLAIN THE NATURE OF THE LEGAL FACTORS

Legal factors include official outcomes of political processes as manifested in laws, mandates, regulations and court decisions. Further, they are closely related to political factors

For example, in 2018 EU implemented General Data Protection Regulation (GDPR) to apply legal pressure on US tech companies concerning data privacy

STATE THE MAIN FEATURES OF AIRBNB

The main features of Airbnb can be resumed as follows:

- Modern and fresh approach: the company indeed is a new entrant in the global hotel industry
- Strong network: the platform efficiently connects individuals who want to rent out their residences as lodging for travelers
- High diversification: Airbnb offers accommodation in over 81,000 cities in more than 190 countries
- Commission-based profit model: the company makes money by charging a commission for the service to both the hosts and to the guests

EXPLAIN THE MAIN POINTS THAT LED AIRBNB TO A DISRUPTION IN THE HOTEL INDUSTRY

Airbnb led to a disruption in the hotel industry for several reasons:

- **Affordability and matching of different needs:** Airbnb listings often provide more affordable accommodation options than the ones guaranteed by the hotels, which represented a strong advantage both for guests and hosts (indeed in 2008, the year of foundation of the company, a strong economic crisis diminished the purchasing power of the people, leading them to find more affordable options)
- **Variety:** Airbnb offers a high range of accommodations, including unique and personalized spaces that might not be available in traditional hotels
- **Flexible offer:** Airbnb allows hosts to offer flexible rental terms, such as shorter stays or the option to rent just a room
- **Technology and website design:** Airbnb's platform makes it easy for users to book and pay for accommodations through a user-friendly app
- **Community and reviews:** the strong review system allows travelers to share experiences and guarantees a high level of transparency
- **Asset light approach:** the company assumes this approach to circumvent traditional entry barriers in the hotel industry. Indeed, there is no need to spend millions to acquire and manage physical assets or employees
- **Cost structure flexibility:** the company has around 2,500 employees, while Marriott has almost 250,000 employees. This means that the quantity of fixed costs is lower, which provides a huge advantage in case of economic crisis and unexpected changes

CONDUCT A PESTEL ANALYSIS OF AIRBNB

POLITICAL

The main political factors that may affect the business are.

- Regulation regarding housing laws and guidelines: indeed, political decisions regarding zoning laws and land use policies, as well as occupancy taxes on short-term rentals, may affect the business
- Campaigns to promote tourism: such initiatives may impact the business by increasing demand for short-term rentals, as well as by creating community engagement and perception. At the same time, constant taxation to protect local residences may provoke a negative effect on the business, thus highlighting the ineffectiveness of such campaigns
- Data protection: political decisions regarding data protection emphasize user privacy and, as a consequence, Airbnb must comply with regulations that require transparent communication about the use of data

ECONOMIC

- Economic growth/crisis: a condition of economic growth impacts positively over the company's business, since it guarantees a broader demand, thus producing a higher diversification of offerings. However, a condition of economic crisis would affect the business without creating excessively harmful consequences due to Airbnb's flexible cost structure
- Inflation: a condition of inflation may affect the company's business due to a general increase of prices, fluctuations in exchange rates and changes in interest rates. However, thanks to its overall flexible cost structure, Airbnb can easily react to price changes and, as a consequence, face the shift in consumer's demands, which are more related to essential goods
- Unemployment rates: indeed, on the one hand, the company is advantaged by the consequent increase in host supply, determined

by the seek for alternative source of income, while, on the other hand, it could reduce the demand for short-term stays

- Tourism trends: the more tourism is strongly encouraged by regional government, the higher Airbnb's revenue will be, due to increased demand for accommodations
- Share economy: an model such as peer-to-peer economy, where individuals can borrow, rent or share resources directly with each other, provides several advantages for the company, such as increased market size, diverse accommodation options, adaptability to consumer behaviors and the creation of a solid and trusted community
- Transportation: the higher the efficiency related to transportation, the more inclined to travel the guests will be. Thus, transports' effectiveness is a strong indicator for Airbnb to maintain a strong demand for accommodations

SOCIAL

- Search for authentic experiences: the company shows a strong variety for accommodations, thus guaranteeing wide range of choice and uniqueness
- Sharing with the community: the powerful review system that the platform provides rises the level of transparency and trust
- Generation at ease with technology: the creation of a well-designed and technologically efficient website allows Airbnb to rise the demand driven by the new generations

TECHNOLOGICAL

- Rise of Internet and smartphones: the company invests in several fields related to technology, in order to increase its attractiveness and its efficiency in a long-term perspective

- Functional and intuitive app and website: Airbnb proposes a well-designed website and a functional app in order to further reduce customer's effort in booking an accommodation
- Safe payment technologies: the guarantee for secure transactions helps building trust among users and fostering confidence in the platform
- Personalized recommendations: the use of the most advanced technology in order to discover each consumer's preferences allows the company to provide efficient and personalized advertisement

ENVIRONMENTAL

- Increasing concern for sustainability: the firm must provide sustainable accommodations in order to be on track with the newest trends regarding the overall shift of consumer's demands to more environmentally-friendly products/services
- Sustainable tourism: the firm may exploit this factor to promote eco-friendly practices, thus engaging the local community and encouraging responsible travel. At the same time, the company may not be able to obtain the green certification for the majority of its accommodations, thus restricting the overall demand

LEGAL

- Strict regulation about short rentals: indeed, the request for special permits or licenses for hosts, such as privacy issues or cancellation policy, may require a high amount of time, thus representing a disincentive for the firm's profitability
- Different rules and laws around the world: the company must take into account the variety of laws all over the world, thus needing to adapt its decision to each individual country

In particular, legal concerns have verified mostly in the very last few days, when Italy seized \$835m from Airbnb in tax evasion inquiry

ANALYZE THE POST-COVID EFFECTS ON AIRBNB

During the pandemic (i.e. considering the period 2019-20), the revenues decreased by 1.7 bln (from 4.7 to 3.4) and, at the same time, bookings decreased by 134 mln (from 327 to 193), thus provoking a decrease of 14.1 bln in gross booking value (from 38.0 to 23.9)

This data are the basis that led new competitors to emerge recently, such as Wonder, an hospitality start-up that operates furnished apartment buildings, which are licensed as hotels. In general, the start-up provides a sort of third way, where contactless check-in and online concierge coexist with apartment with kitchens and laundry, so that travelers seeking more isolation and privacy may find their best solution

CONDUCT A PESTEL ANALYSIS FOR HOTEL APARTMENTS (E.G. SONDER)

POLITICAL

- Regulation for hotel apartments is lighter than the one required for home sharing. As a consequence, hotel apartments, since they are licensed as hotels, may experience more benefits than home sharing hosts

ECONOMIC

- Economic growth/crisis: in a condition of economic growth, the hotel apartments' business could experience high rises in revenues. However, in case of economic crisis or unexpected changes, the losses are more than the ones experienced by home sharing, due to home apartments' more rigid cost structure
- Inflation: a condition of inflation may affect the company's business due to a general increase of prices, fluctuations in exchange rates and changes in interest rates. Thus, due to a cost structure dominated by fixed costs, hotel apartments may be affected more than what happens to home sharing hosts

- Tourism trends: political decisions regarding tourism may affect positively hotel apartments, as they guarantee higher revenues
- Transportation: the more efficient the transportation, the easier will be for hotel apartments to grow and to attract a higher amount of customers
- Business travels' trends: an unexpected decrease in business travels could impact negatively both hotel apartments and home sharing, since business travelers represent a large amount of the overall consumers the two services operate with

SOCIAL

- Concerns for hygiene: hotel apartments can be considered safer from this point of view, since they provide constant and regular cleaning services
- Interest in privacy: hotel apartments offer more isolation to the customers, who are then free to work from their hotel rooms

TECHNOLOGICAL

- Home automation: indeed, it is definitely easier to implement new facilities and highly technological services in apartment hotels due to a more centralized control of the structures available

ENVIRONMENTAL

- Energy efficiency: it could be easier to achieve energy efficiency by installing solar panels and other tools in managed apartment buildings, rather than contacting each host and finding new incentives in order to allow a more environmentally-friendly transition

LEGAL

- Isolation: hotel apartments avoid the increased litigation with residents in the building, a frequent phenomenon when dealing with home sharing

EXPLAIN IF AIRBNB SHOULD INTRODUCE HOTEL APARTMENTS BY APPLYING A PROBABILISTIC APPROACH

In order to understand if the best choice for Airbnb is the one of introducing hotel apartments, we first need to follow two steps:

1. Apply the decision-making framework, by identifying actions and scenarios
2. Use the utility model and put the appropriate numbers in the matrix

Actions \ Scenarios	Big growth of the hotel apartment market	No significant growth of the hotel apartment market
Introduce hotel apartments	90	70
Not introduce hotel apartments	50	100

After evaluating the utility values applied, we need to compute the probability threshold for the firm to introduce hotel apartments

To do so, we need to compute the expected utility comparison

Expected utility comparison

$$90p + 70(1-p) \geq 50p + 100(1-p)$$

$$p^* = 42.8\%$$

Thus, Airbnb should introduce hotel apartments if it believes that there is a greater probability than 42.8% that the hotel apartment market will experience a big growth

Therefore, Airbnb needs:

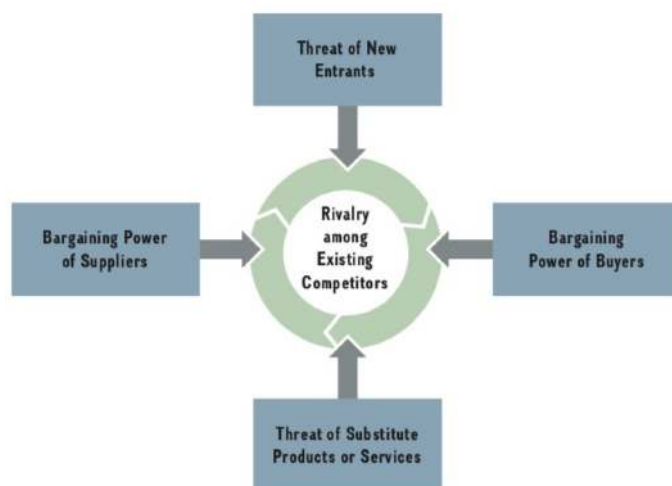
- A theory of how customers will evolve in the post-pandemic world
- To collect insight from experts
- To run experiments with hotel apartments

At the moment, the company is running several experiments. Indeed, in the last couple of years, Airbnb opened branded apartment buildings and condo-hotels towers, added more boutique hotels and acquired hotel-booking app HotelTonight

EXPLAIN THE MEANING OF FIVE FORCES MODEL

Porter's Five Forces is a business analysis model that helps to explain why various industries are able to sustain different levels of profitability. In particular, this model identifies an industry's profit potential, thus helping understanding how firms can be positioned within an industry to gain and sustain competitive advantage

The model and, in particular, the relationship between the forces are represented by the following scheme



DEFINE WHAT IS AN INDUSTRY

An industry is definable as a group of incumbent companies that face more or less the same set of suppliers and buyers

DISTINGUISH THE DIFFERENT TYPES OF EFFECTS ON FIRM PERFORMANCE

The potential effects on firm performance may be of two types:

- Industry effects: they consist in attributing a firm performance to the economic structure of the industry in which the firm operates
- Firm effects: they consist in attributing firm performance directly to the actions strategic leaders take

In particular, we can provide some examples for the two types of effects:

- Industry effects:
 - Regulatory environment: changes in regulations may deeply affect the whole industry, thus having an impact on all the companies
 - Technological disruptions: industries experiencing rapid technological advancement may see widespread effects such as the adoption of new technologies
 - Commodity price volatility: industries such as oil and gas are directly impacted by fluctuations in commodity price
 - Global events: events like geopolitical tensions, natural disasters or global health crises can have widespread industry effects
- Firm effects:
 - Management quality: a company with effective and visionary leadership may outperform its competitors
 - R&D and innovation: firms heavily invested in R&D, such as Apple or Google, can experience positive firm effects
 - Brand equity: strong brand equity can lead to increased customer loyalty and premium pricing

- Employee talent and skills: firms attracting top-tier talent and investing in employee development may have a competitive edge in terms of productivity

EXPLAIN HOW TO COMPUTE INDUSTRY AND FIRM EFFECTS

In order to compute industry and firm effects, it is necessary to use different statistical moments (mean and variance)

In particular:

- Industry effect is defined as the average operating margin of the industry
- Firm effects are defined as the variance/standard deviation of the operating margins in the industry

Furthermore, the standard deviation reveals to be fundamental since, statistically, 68% of the observations are expected to fall in the following interval: average - 1 standard deviation; average + 1 standard deviation

PROVIDE THE MAIN KEY INSIGHTS UNDERLYING FIVE FORCES

The main key insights underlying five forces are:

- Competition should be broadly defined, which means:
 - It includes other forces in an industry, such as buyers, suppliers, potential new entrants and substitutes
 - All these forces attempt to extract value from the industry away from the focal firm
- Profit potential, which drives to the following conclusions:
 - The stronger the Five Forces, the lower the industry's profit potential, and vice versa
 - Firm's ideal position in an industry should relax constraint and reduce the power of strong forces, while leveraging and taking advantage of weak forces

EXPLAIN THE MEANING OF THE THREAT OF ENTRY AND PROVIDE AN EXAMPLE

The threat of entry describes the risk of potential competitors entering the industry. Further, potential new entry reduces an industry's profitability

The elements that make the threat higher are:

- High barriers to entry, such as:
 - Economies of scale: industries where existing companies benefit significantly from economies of scale create a barrier for new entrants due to cost disadvantages
 - Capital requirements: high initial investment needs can discourage new entrants
 - High switching costs for consumers: high switching costs can deter customers from trying new products or services
 - Government policies: licensing requirement, safety standards and environmental regulations can either increase or decrease entry barriers
 - Credible threat of retaliation: new entrants should evaluate carefully the advantages the incumbents enjoy, thus understanding if, for instance, fighting a price war is considerable as definitely too risky). In that case, new entrants have no incentive in entering the market, since they would very likely cut off from it
 - Patents: the presence of patents represents a high barrier for the new entry since it shows a clear and explicit advantage for the incumbent which cannot be overcome by the new entrant for a certain period of time
- Strong brand loyalty and differentiation: industries where customers are highly loyal and products and services are highly differentiated make it harder for new entrants to compete

- Control over inputs: incumbents with control over essential inputs can limit the availability of resources to potential new entrants

The elements that make the threat lower are:

- Low barriers to entry: new entrants can operate at a smaller scale without a significant cost disadvantage, since economies of scale are minimal
- Low product differentiation: new entrants in industries whose products are seen as commodities are facilitated
- Easy access to distribution channels
- Low switching costs for customers: if customers can switch between products and brands easily, new entrants could attract them easily
- No government regulations or subsidies: industries with minimal regulatory barriers are more susceptible to new entrants

In the end, threat of entry by new competitors is high when the industry is profitable

For example, Facebook enjoys tremendous network effects, which consist in the trend for which the more people use a social network, the greater the value it generates for producers

However, TikTok manage in to generate 1 bn users in only 5 years. The main causes are the following:

- Diversification in the product: indeed, the social network generated the brand new idea of promoting short videos with music in the background
- Diversification in the searched range of customer: the public TikTok is made for is mainly made by young teenagers, thus moving further away from Facebook in terms of demographics

EXPLAIN THE MEANING OF THE POWER OF SUPPLIERS AND PROVIDE AN EXAMPLE

Power of suppliers consists in the common power such that industry suppliers reduce industry profit potential by capturing part of the economic value by demanding higher prices for their inputs and/or reducing the quality of the input or service delivered

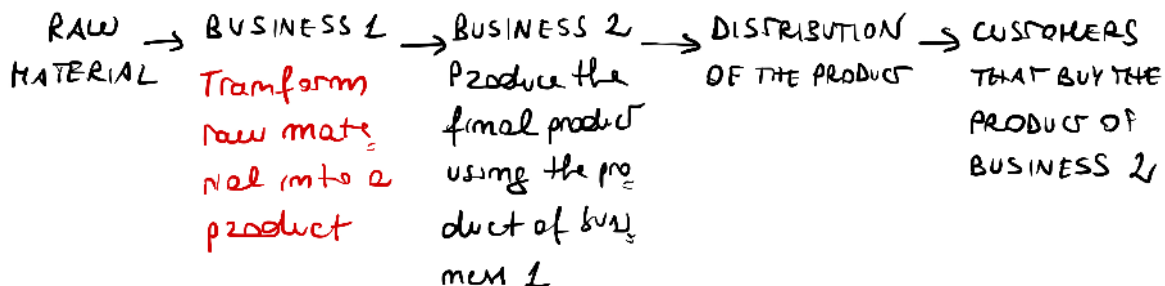
The relative bargaining power of suppliers is high when:

- Suppliers offer differentiated products: this means that the customer has no other choice than buying the product offered by this supplier in order to experience the unique value provided
- Suppliers do not depend on the industry for a large portion of their revenues: there is more choice possibility for the supplier itself, which can easily invest more money in other industries in which it operates
- The supplier's industry is more concentrated than the industry it sells to: suppliers are generally big and they control high share in market industry. For instance, Boeing and Airbus create a highly concentrated industry, which rise their power
- Incumbents face large switching costs when changing suppliers: the presence of switching costs induce the customer to stick with its supplier. For instance, in the IT system environment, a company cannot change supplier without incurring in an extremely high cost
- Absence of readily available substitutes for the products that the suppliers offer: the customer is strictly dependent on the product sold by the supplier
- Suppliers can credibly threaten to forward-integrate the industry: this means that the company is moving in one of the two directions of the supply chain, thus deciding to engage in the distribution of its product

The relative bargaining power of suppliers is low when:

- Suppliers offer likely homogeneous goods: this means that, if the good is a commodity, the customer has no particular interest in buying a particular supplier's product
- Suppliers depend only on one industry: in this case, the supplier's interest in not losing its position in the only industry which it operates in makes it often reduce prices
- Incumbents face low switching costs: as a consequence of the homogeneity of the goods sold, the incumbents often may switch from one to another supplier without incurring in many costs
- Suppliers inability to credibly threaten to forward-integrate the industry: when suppliers' concentration is lower than the one of the industry it operates in, then a potential vertical integration does not represent a menace at all

In particular, the supply chain is described by the following



For example, let us consider the producer of aluminum can and Coca-Cola. In this case, the suppliers' threaten for forward-integration is quite low, since starting competing with one of the giants of the soft drink industry would represent a light menace for the customer

EXPLAIN THE MEANING OF THE POWER OF BUYERS AND PROVIDE AN EXAMPLE

Power of buyers consists in the power buyers have in demanding lower prices or higher product quality which increases production costs and reduces producer margins and revenue. In this way,

powerful buyers capture economic value, reducing the industry's profitability

The power of buyers is high when:

- There are a few buyers: when the number of customer is low, the suppliers are willing to rise the quality of their products and, at the same time, to lower the price of their products, in order not to lose the few buyers they have
- The industry's products are standardized or undifferentiated commodities: customers are indifferent among different suppliers' products, thus producing an incentive for suppliers to achieve a cost leadership by reducing prices
- Buyers face low or no switching costs: when the switching costs are low, buyers can switch to other suppliers quickly, thus being more sensitive and less constrained in front of price changes
- Buyers can credibly threaten to backwardly integrate into the industry: if the buyers have a strong position in the marketplace, they could easily menace the suppliers to start producing their products by their own

The power of buyers is low when:

- There are numerous buyers: when the number of customers is high, the suppliers are willing to lower the quality and rise the prices, since their operations are less risky
- The industry's products are differentiated: the power of buyers is low since they have no choice among producers
- Buyers face high switching costs: when the switching costs are high, buyers have an incentive to stick with their suppliers, whose power then will be higher
- Buyers are not able to threaten to backwardly integrate into the industry: whenever the buyers' industry is less concentrated than

the one of the suppliers, then backward integration is not a threaten

For example, let us consider the producer of aluminum can and Coca-Cola. Coca-Cola, being unsatisfied with the suppliers' offers, could threaten to backwardly integrate the production of aluminum can through the acquisition of an organization. Due to the huge capital and financial background Coca-Cola owns, this would be a strong menace for the supplier, since it would lose an important customer and it would be overwhelmed by a rising competitive rivalry

EXPLAIN THE MEANING OF THREAT OF SUBSTITUTES AND PROVIDE AN EXAMPLE

The threat of substitutes assesses the likelihood that alternative products or services outside the industry will attract customers away from existing businesses. In particular, substitutes are products or services available from outside the given industry that come close to meeting the needs of current customers. In addition, threat of substitutes reduces industry's profit potential by limiting the price that industry's competitors can charge for their products and services

The factors that make threat of substitutes high are:

- Availability of alternatives: if customers have numerous alternatives, they are more likely to consider switching
- High price-performance trade-off: if substitute products or services offer similar benefits at a lower price or with better performance, customers may be more inclined to switch
- Low switching costs for customers: if there are minimal financial or time-related barriers to switching, the threat is higher
- Low differentiation: if substitute products present a strong level of homogeneity, then the threat is higher
- Weak brand loyalty: the lower the brand recognition and customer loyalty, the higher the threat

- High cross-price elasticity of demand: this means that customers are responsive to price changes in substitute products. Thus, if the demand for one product is highly influenced by price changes in another, then the threat is high
- Rapid changes in consumer preferences: rapid changes in consumer preferences or emerging trends may increase the threat

The factors that make threat of substitutes low are:

- Limited availability of alternatives: if customers have few alternatives, they are less likely to switch
- Low price-performance trade-off: if substitute products do not offer great differences in terms of benefit produced with respect to the focal company, the threat remains low
- High switching costs for customers: if the barriers to switch are high, customers are less willing to switch to substitutes
- High differentiation and uniqueness: if the focal firm products are differentiated and unique, it will be hard for substitutes to replace them, thus showing the value of a strong brand identity and recognition
- Strong brand loyalty: the more the brand loyalty the more difficult will be for substitutes to gain market share
- Low cross-price elasticity of demand: if the demand for one products is not influenced by price changes in another, then the threat is low
- Slow changing trends in consumers' preferences: if consumer preferences tend to be static, then the position of the focal firm in the marketplace will be consolidated, thus making it harder for substitutes to emerge

For example, let us consider the case of RedBox, a movie rental company whose movie rentals are available for 2\$. RedBox is a substitute for cinema and platforms such as Netflix or Amazon

Prime, since it fulfills the same need. In particular, the public to which RedBox addresses its products is mainly composed of old people and people who do not watch many movies a month (indeed, for movie lovers, paying 2 dollars for each movie would be much more pricey than making a monthly subscription to Netflix for 10 dollars). However, even though RedBox is a substitute, it does not represent a menace for Netflix and other analogous platforms, since the position of the latter in the marketplace results much stronger than the one occupied by RedBox

EXPLAIN THE MEANING OF THE RIVALRY AMONG COMPETITORS AND PROVIDE AN EXAMPLE

The rivalry among existing competitors measure the intensity with which incumbents fight each other for market share. In particular, competitors use lower prices (and then, lower revenue) or use differentiation strategy (and then, higher costs) to attract customers from rivals, depressing profits

Furthermore, all other forces exert pressure on rivalry (for instance, powerful buyers force incumbent to fight each other in lowering prices)

Rivalry is high when:

- High number of competitors: companies have to fight for market share, customers and resources, thus rising the rivalry
- Slow market growth: fast-growing markets may offer more opportunities for multiple companies to thrive, thus increasing competition for a limited number of customers
- High fixed costs and strategic commitments to the industry: industries with high fixed costs can experience intense competition as companies strive to maximize capacity utilization. In general, strategic commitments to the industry may represent either a positive or a negative effect for the competitive rivalry. Indeed, they represent long-term, irreversible decisions and investments that a company makes to strengthen its position in

the market. In case of common decisions, such as fixed costs implementation, this would yield a strengthening in rivalry. However, if they represent single companies' decisions, such as long-term contracts and patents, this would reduce the rivalry

- Lack of differentiation: if the products are perceived as almost homogeneous, companies may compete primarily on prices
- Low switching costs for customers: if customers can easily switch from one product to one another, companies are more willing to retain customers by rising competition
- Capacity utilization: when industry capacity exceeds demand, companies may engage in aggressive pricing to fill excess capacity
- Low brand loyalty: consumers are more likely to switch to competing products, thus rising rivalry
- High exit barriers: if exiting an industry is difficult and costly, companies may persist in the market even during tough times, contributing to high rivalry

Rivalry among existing competitors is low when:

- Market dominance: when one or few companies dominate the market, they may have significant control over pricing, distribution and other key factors
- Collaboration and partnerships: collaborative efforts among competitors can lead to a more cooperative industry environment
- Low amount of competitors: there is a low number of companies that have to compete, thus reducing rivalry
- Strategic commitments to the industry: introduction of patents and long-term contracts may reduce the rivalry among competitors, since it would further complicate the entrance of new firms, whose costs would be extremely high

- Strong differentiation: if companies produce unique products distinct from their competitors, this would decrease price sensitivity and strengthening brand loyalty
- High switching costs for consumers: the higher the switching costs the less consumers are willing to switch from one competitor to one another, thus diminishing the competitive rivalry
- High brand loyalty: if brand recognition and loyalty is high, this means that customers are going to consistently choose one brand over competitors, even when other options are available
- Low exit barriers: if exiting a market is straightforward and not costly, companies are more willing to exit the market during tough times, contributing to low rivalry

DEFINE THE CONCEPT OF CONCENTRATION

Concentration refers to the distribution of market share among the existing companies in an industry. In particular, it is a measure of how competitive or monopolistic an industry is. Indeed, high concentration implies that a few companies dominate the market, while low concentration implies a higher fragmentation of the market among many competitors

EXPLAIN THE RELATIONSHIP BETWEEN CONCENTRATION AND RIVALRY AMONG COMPETITORS

Through the concept of relative concentration, that is assessing the distribution of market share among competitors and understanding how competitive power is distributed relative to other entities, we can understand the impact on rivalry. In particular:

- High concentration implies that a small number of large firms dominate the market. In this scenario rivalry among competitors may be less intense due to the influence of dominant firms: However, competition among these large firms can still be significant

- Low concentration implies that numerous small and medium-sized firms may operate, each of them with a relatively small market share. In such a fragmented market, rivalry may increase

STATE THE FACTORS THAT INFLUENCE CONCENTRATION

The factors are several:

- Barriers to entry: high barriers to entry can contribute to high concentration limiting the entry of new competitors
- Economies of scale: larger companies enjoying cost advantages lead to higher concentration since smaller companies struggle to compete
- Differentiation: unique feature capturing larger market shares may contribute to concentration
- Regulation: government regulations can influence the structure of an industry in different ways. On the one hand, regulatory measures may limit concentration to promote competition, while in other cases they may inadvertently contribute to higher concentration
- Mergers: if larger firms acquire smaller ones, it can lead to increased concentration

EXPLAIN AND COMPUTE METRICS TO MEASURE CONCENTRATION

CONCENTRATION RATIO

The concentration ratio is a simple measure that indicates the percentage of market share held by the largest companies in the industry. It is typically expressed as a percentage of the total market share held by the top firms

For example, a four-firm concentration ratio (CR4) of 60% means that the top four companies control 60% of the market. The higher the percentage, the more concentrated the industry

The formula, thus, is the following

$$CR_n = MS_1 + MS_2 + \dots + MS_n$$

HERFINDHAL INDEX

This index is a more detailed measure of market concentration. It squares the market share of each firm in the industry and then sums these squared market shares. It gives more weight to larger firms, providing a more nuanced view of concentration. The higher the index value, the higher the concentration. Indeed, the range goes from 0 (perfect competition) to 10,000 (monopoly)

The formula, thus, is the following

$$HI = MS_1^2 + MS_2^2 + \dots + MS_n^2$$

EXPLAIN THE MEANING OF CLASSES OF CONCENTRATION

Classes of concentration represent the classification of concentration into different types based on the distribution of market share among competitors

Industries are classified as follows

CR ₄	HI	Industry
0 – 0.40	0 – 0.15	Not concentrated
0.40 – 0.70	0.15 – 0.25	Moderately concentrated
> 0.70	> 0.25	Highly concentrated

CONDUCT A CONCENTRATION ANALYSIS RELYING ON THE GIVEN DATA

Industry	CR ₄	HI	Concentration
Coffee	0.55	0.11	Moderate to low
Mobile phones	0.81	0.24	High

- HI is relatively low for coffee, which indicates a low level of concentration in the industry, and, thus, a high fragmentation of the industry beyond the four leaders
- Instead, in the mobile phones industry, even though concentration ratio is absolutely high, the HI results to produce a moderately concentrated industry, which means that there is some fragmentation among small players

EXPLAIN THE STRATEGIC ROLE OF COMPLEMENTS, ALSO KNOWN AS THE SIXTH FORCE

A complement is a product, service or competency that adds value to the original product offering when the two are used in tandem

The strategic role of complements consists in:

- Increased customer value: when customers see that using two products together provides a more comprehensive solution, it can increase their loyalty
- Revenue diversification: if one product faces challenges, the success of complementary products can help offset potential losses
- Ecosystem building: the ecosystem approach encourages customers to stay within the product family, leading to increased customer retention
- Cross-selling and upselling opportunities: by bundling or promoting complementary products, companies can encourage customers to purchase additional items

OPERATE A PORTER ANALYSIS FOR THE AIRLINE INDUSTRY

THREAT FOR NEW ENTRANTS

The threat of new entrance seems to be relatively low for several reasons:

- Possibility to rent planes: new companies may lower the costs in the short-term by starting renting their planes and, only later on, they could afford strong investments
- Point-to-point model: new entrants may decide to avoid the creation of costly hubs and adopt a more affordable strategy, thus guaranteeing higher possibility of successful entrance in the industry
- Low profitability: airline industry shows an overall low profitability, which strongly contributes in rising the possibility of entrance for the new companies
- Available technology: every company may use the existing technology without incurring in extremely high costs
- Low entry barriers: the lack of high entry barriers allow new entrants to easily enter the market

POWER OF CUSTOMERS

The power of customers is overall high for the following reasons:

- High price sensitivity: the customer's demand is elastic, which means that they could easily switch from the current firm in case of price change
- Low switching costs: the low differentiation between airlines of the same category may induce customers to easily switch from one company to another one
- Transparency of information: the ease with which consumer can buy tickets by having in front of them all possible options represents a factor which rises their power

However, there are some elements that lower this power, such as:

- Customers' fragmentation: no customer holds a huge amount of power, since there is a high quantity of consumers interesting in the acquisition of flights every day

POWER OF SUPPLIERS

The power of different suppliers is high, such as:

- Aircraft producers: there exists indeed a duopoly between Boeing and Airbus
- Specialized personnel: the strong tendency to unionization of pilots provides them with a high power. Indeed, when pilots thrive the company actually ends up in an extremely complicated situation
- Fuel suppliers: even though companies like Delta decided to vertical integrate, fuel suppliers rely on the scarce economic power of some smaller companies, thus providing their products at a relatively high price
- Engine manufacturers: the amount of engine manufacturers is pretty low in the industry, which represents a factor which increases the strength of the company

THREAT OF SUBSTITUTES

The threat of substitutes is high since it is represented mainly by the following elements:

- Alternative modes of transportation: the most direct substitutes are cars, buses, trains and ships
- Vacation alternatives: cruise ships or road trips can serve as substitutes for air travel, especially for leisure travelers

RIVALRY AMONG COMPETITORS

Rivalry among competitors is extremely intense.

- Price wars: airlines often engage in price wars to attract customers, thus offering discounts and promoting special deals. Price wars can negatively impact profit margins for all competitors

- Market share: airlines may engage in aggressive marketing, network expansion and service enhancement to capture a larger share of the market
- Alliances and partnerships: airlines form alliances and partnerships to expand their reach and offer passengers more travel options. These collaborations thus can enhance competitiveness by providing access to a broader network

ANALYZE THE THREATS AND THE POSSIBLE REACTION FOR WALMART

As said by the CEO of Walmart, there are several threat that the organization has to face, such as:

- E-commerce: the passage to the e-commerce mode in numerous sectors represents the result of a strong technological change that will radically change the ranking among industries
- Increasing competition: the presence of new players in the grocery industry, such as Amazon, represents a strong threat for Walmart, that have to face an increase in strong competition
- Creation of new jobs as a result of innovation: the continuous changes in technological trends may impact the way people work, thus requiring constant investments in research for the company
- Mexican borders and trade war with China: Walmart strongly relies on Mexico and China for its sales and the two phenomena may negatively affect the company's revenues
- Slowing global growth: a slow global growth may represent one of the most harmful causes of increase in rivalry and competition, thus provoking a big threat for the company

However, in order to react to these threats, Walmart should take several measures such as:

- Research in IT: the company must constantly invest in information technology in order to keep track of consumers' preferences and adapting the production in different ways
- Omnichannel: the company indeed, even though the profitability coming from people who buy at the stores is higher, must adapt their sales channel to every consumer's request, thus creating an omnichannel
- Customer loyalty: the firm needs to find new and innovative methods in order to retain customers in a more efficient and sincere way
- Productivity: the firm, which occupy a strong cost leadership position, must able to continue offering consumers low prices, thus maintaining the leadership over strong new entrants such as Amazon through, among the other things, investing in e-commerce
- Reducing costs by motivating employees: employee turnover indeed is very costly, which means that the more motivated is the workforce, the more efficient it will be

DEFINE CHANGE IN STRUCTURE OVER TIME THROUGH INDUSTRY CONSOLIDATION AND PROVIDE USEFUL EXAMPLES

Industry consolidation represents a strategic process where companies combine their operations, assets or resources to achieve various objectives, such as gaining market share, improving efficiency or reducing competition

In particular, industry consolidation leads to fewer competitors which implies higher industry profitability, mostly driven by the leverages on which the few players can work on, such as price increase

The main cause of this resides in the fact that industry structure is not stable, but dynamic over time

For example, several large mergers in the US domestic airline industry lead to higher ticket prices and fewer choices for customers making the industry more profitable

DEFINE CHANGE IN STRUCTURE OVER TIME THROUGH CONVERGENCE AND PROVIDE USEFUL EXAMPLES

Industry convergence consists in the process by which formerly unrelated industries begin to satisfy the same customer need. Further, convergence is usually brought on by technological advances and can lead to emerge of entirely new industries

For example, acquisitions by internet companies is changing the industry structure and forcing traditional media companies like Time Warner and Disney to adapt

For example, an example of digital convergence is given by the smartphone, which allows to provide a strong convergence of elements coming from different industries in one device

DESCRIBE THE LIFECYCLE FOR INDUSTRIES

The output (in terms of volume or revenues) of an industry goes through a life cycle characterized by 4 stages: introduction growth, maturity and decline

Introduction stage

The introduction stage has the following characteristics:

- Low growth: the industry indeed is in its infancy
- High uncertainty: there is uncertainty about market acceptance, technology and business models
- Limited competition: the number of competitors is more likely to be low
- Investment R&D: companies invest in research and development to refine products or services

In order to minimize the risks, there are some strategies:

- Market education: companies try to educate customers about the new products or services
- Building awareness: the industry must produce marketing efforts create awareness
- Investment in innovation: companies must consider innovation as one driver to a solid growth in the future

Growth stage

The growth stage has the following characteristics:

- Rapid expansion: the industry experiences significant growth in sales and revenue
- Increasing competition: new competitors enter the market
- Improved profitability: economies of scale and increased sales contribute to improved profitability
- Technological advancements: continued innovation and technology improvements improve

In order to minimize the risks, there are some strategies:

- Market expansion: companies focus on expanding market share
- Brand building: building a strong brand becomes fundamental for differentiation
- Capacity expansion: the companies provide investments in production capacity to meet growing demand
- Market diversification: the companies must explore new market segments and product variations

Maturity stage

The maturity stage has the following characteristics:

- Slowing growth: the rate of industry growth slows down as the market becomes saturated
- Intense competition: price competition may become prevalent
- Market saturation: the majority of potential customers have adopted the product or service
- Consolidation. mergers and acquisitions may occur as companies seek to gain market share

However, to minimize the risks, there are some strategies:

- Cost reduction: companies focus on cost-cutting to maintain profitability
- Market segmentation: targeting specific market segments to differentiate products or services
- Product differentiation: emphasizing unique features or brand image to stand out
- Global expansion: companies should try to explore international markets for growth opportunities

Decline stage

The decline stage has the following characteristics:

- Negative growth: industry sales and revenue decline as demand contracts
- Consolidation: weaker firms exit the market and industry consolidation occurs
- Technological obsolescence: advances in technology may make existing products obsolete
- Increased price pressure: companies may engage in price wars to maintain market share

To minimize the risks, we have several strategies:

- Cost management: companies should focus on cost reduction and operational efficiency
- Diversification or exit: companies, at this stage, must decide whether to explore new product lines or exit the declining market
- Harvesting: this means that short-term profitability from existing products must be maximized
- Niche focus: companies must target specialized segments or niche markets, which are defined as segments of the market that target a unique set of customers with distinct needs and preferences

EVALUATE THE INDUSTRY LIFE CYCLE, HIGHLIGHTING COMPETITION, SALES, CASH FLOW AND PROFIT

Introduction

- Competition: in the introduction stage there are few competitors, since the level uncertainty is still particularly high
- Sales: revenues increase, but still at a slow pace
- Profit: profit is decreasing, since company's costs are initially particularly high, and revenues are not so high to compensate them
- Cash flow: cash flow is decreasing and lower than the profit due to the high initial investments and the low initial sales

Growth

- Competition: in the growth stage many companies decide to enter the market, since opportunities seem to be increasing
- Sales: revenues start to increase at a higher pace, driven by the higher amount of entries
- Profit: profit is increasing, even though not reaching extremely high values, since revenues are now starting to compensate the high investments of the first phase

- Cash flow: cash flow is increasing but is still less than the profit, since working capital requirements may not immediately impact the profit reported on the income statement, but they can tie up cash, reducing the overall cash flow

Maturity

- Competition: there is a “shake-out” and consolidation, which means that the number of competitors starts to stabilize
- Sales: revenues reach their maximum point in the very end of the maturity stage
- Profit: profit grows as the maturity phase proceeds, thus reaching its maximum point
- Cash flow: during the maturity stage cash flow strongly increases, thus even becoming higher than the profit in the middle of the phase, due to depreciation, which does not affect cash flow, and working capital adjustments

Decline

- Competitions: there is a strong exit of companies, driven by the technological obsolescence and the negative growth
- Sales: revenues are decreasing at a decreasing rate, due to market saturation and in the changes in consumer preferences, as well as product maturity
- Profit: profits are declining as a consequence of the drop in revenues, thus making it harder for the companies to compensate the amount of costs
- Cash flow: cash flow is declining due to combined effects of decreased sales revenue and operational inefficiencies, such as decreased economies of scale. In particular, cash flow tends to assume higher values than profit in the decline phase due to different factors such as non-cash expenses (amortization and depreciation), that may affect profits but do not affect cash flow

PROVIDE A DEFINITION OF STRATEGIC GROUPS, HIGHLIGHTING THE KEY FEATURES

Strategic groups can be defined as the set of companies that pursue a similar strategy within a specific industry in their quest for competitive advantage

The key features of strategic groups are the following:

- Intensity of rivalry within groups: firms within the same group compete more directly with each other and may experience more similar challenges
- Different external environment effects: for instance, a technology-driven industry may be more responsive to changes in the regulatory environment related to intellectual property. At the same time, different industries serve diverse consumer bases with unique preferences
- Different five forces effects: strategic groups are affected differently from the five forces of Porter due to industry-specific barriers, diverse buyers bases, dependency on key inputs and different market concentration
- Level of profitability: indeed, strategic groups with a more cost-effective operational structure may achieve higher profitability. At the same time, strategic groups which guarantee a stronger product differentiation and market positioning, as well as consumer loyalty, are mostly able to generate a higher profit
- Similar resource utilization: firms in the same strategic group may deploy similar technology, marketing strategies and other assets that contribute to their competitive advantage within the group

EXPLAIN THE MAIN GOAL OF THE STRATEGIC GROUPS MODEL

The strategic groups model provides several extremely important factors:

- Differences in firm's performance: strategic groups model explains differences in firm performance within the same industry by clustering firms into groups based on a few key dimensions
- Barriers to entry and mobility: the strategic groups model highlights that barriers to entry and mobility can vary among groups. This means that some groups may experience higher entry barriers, thus making it harder for new firms to join, while others may be more open to new entrants
- Strategic group dynamics over time: the strategic groups model shows how new entrants, shifts in consumer preferences and in technology may lead to the emergence of new groups or the evolution of existing ones
- Implications for strategic decision-making: companies can use insights from the model to inform their own strategic choices, identifying new opportunities for competitive advantage

EXPLAIN HOW PORTER'S FIVE FORCES AFFECT THE STRATEGIC GROUPS WITHIN THE AIRLINE INDUSTRY DIFFERENTLY

THREAT OF NEW ENTRY

- Low cost companies: there is a high threat of new entry driven by the lower entry barriers, the weaker capital requirements and the more flexible cost structure, characterized by a point-to-point model
- High-cost companies: there is a low threat of new entry due to high entry barriers, strong investments and capital requirements and a rigid cost structure, dominated by the overwhelming presence of fixed costs and a hub-based model

POWER OF BUYERS

- Low cost companies: bargaining power of buyers is high since passengers mostly make purchasing decisions based on price, without generating a strong brand loyalty

- High-cost companies: premium services, loyalty and extensive route network manage to reduce the power of buyers, who carefully evaluate these additional services

POWER OF SUPPLIERS

- Low-cost companies: the power of suppliers is generally high, especially for aircraft manufacturing and fuel, as the market offers a limited amount of providers. However, these airlines could negotiate bulk deals, reducing dependency on specific suppliers
- High-cost companies: the power of suppliers is lower due to the company's higher flexibility in negotiating with producers given their larger scale and recognition

THREAT OF SUBSTITUTES

- Low-cost companies: the threat is relatively low as air travel is a unique and time-efficient mode of transportation. However, alternative transports such as buses or trains may represent a threat on certain routes
- High-cost companies: the threat is high due to premium transportation options, such as first-class train services or private transportation

COMPETITIVE RIVALRY

- Low-cost airlines: the rivalry is high as they often compete on price leadership. Indeed, price wars and the need for operational efficiency guarantee a much stronger conflict among companies
- High-cost airlines: the rivalry is lower since they often choose a differentiation strategy, thus competing on the basis of service quality, amenities and brand reputation. However, the rivalry may be more intense on specific market segments

DEFINE CORE COMPETENCIES AND PROVIDE SOME EXAMPLES

Core competencies are defined as those factors that allow firm's ability to gain and sustain competitive advantage by differentiating its products and services from rivals, creating higher value for the customer and offering products at lower costs. Core competencies are unique strengths, embedded deep within the firm

Let us consider several examples

AMAZON

The company's core competencies are:

- Superior IT and AI capabilities, thus providing a constant incentive to innovation and development
- Superior customer service, which strengthen brand recognition and trust among consumers
- Diversification across different industries, thus allowing the company to create higher flexibility
- Establishing an ecosystem, which implies the establishment of an interconnected and interdependent network of products and services able to enhance customer experience

Practically, they are applied in:

- Online retailing, an explicit representation of Amazon technological innovation and broad networking
- Full vertical integration, resulting from the development in the R&D department and the seek for higher flexibility and independence

APPLE

The company's core competencies are:

- Superior industrial design in integration of hardware and software, thus guaranteeing a competitive advantage driven by the lack of dependence on key retailers
- Superior marketing and retailing experience, through the creation of an innovative store design and a constant customer support
- Establishing an ecosystem of products and services, which is useful in order to rise the amount of combined purchases and maintain a solid and constant customer trust and brand recognition

Practically, they are applied in:

- Creating innovative and category-defining mobile devices and software services, thus engaging customer experience and promoting a sense of exclusivity

COCA-COLA

The company's core competencies are:

- Superior marketing and distribution, thus ensuring product availability, cost minimization and customer solid trust
- Distribution network, which increases the company's market penetration and accessibility

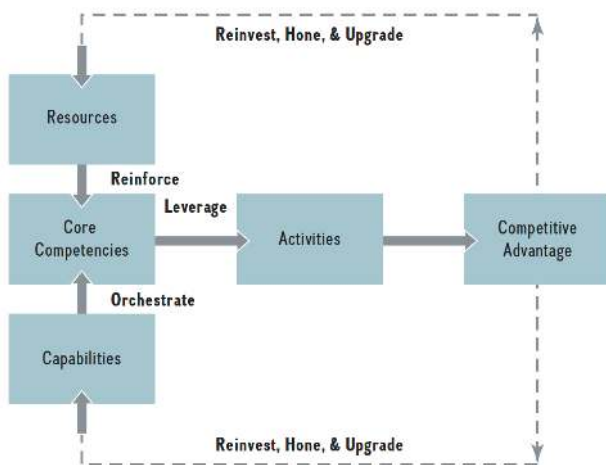
Practically, they are applied in:

- Leveraging one of the world's most recognized brands into a diverse lineup of soft drinks, thus providing a stronger adaptability and brand extension
- Global availability of the product, which allows the company to provide a revenue growth and a stronger exploitation of phenomena such as economies of scale

EXPLAIN THE RELATIONSHIP CORE COMPETENCIES, RESOURCES AND CAPABILITIES, HIGHLIGHTING HOW THEY CAN GENERATE A COMPETITIVE ADVANTAGE

Core competencies must be constantly nourished by several factors in order to provide an actual competitive advantage for the company itself. Indeed, tangible and intangible resources provide a strong reinforcement thanks to their quality and abundance. At the same time, capabilities orchestrate core competencies, thus ensuring that resources are applied in a vivid and positive way. As a consequence, core competencies provide a leveraging in those firm's activities which are able to create and deliver value to customers. Thus, in this way, the company may face a strong competitive advantage. Further, the position gained allows the firm to generate profits and to reinvest them in its resources and capabilities, thus being able to fuel the cycle, reinforce existing core competencies and, finally, enhance the firm's overall competitiveness

The following scheme provides a synthetic explanation of the concept



PROVIDE A DEFINITION OF CAPABILITIES

Capabilities represents the organizational and managerial skills necessary to deploy a diverse set of resources. Thus, capabilities are often a combination of skills, processes and organization know-how

For instance, it is valuable to take into, among the others, account financial management capability, which is the ability to effectively manage financial resources, and supply chain management

capability, that is the ability to efficiently manage the sourcing, production and distribution of goods or services

PROVIDE A DEFINITION OF ACTIVITIES

Activities are those distinct and fine-grained business processes that enable firms to add incremental value by transforming inputs into goods and services

For instance, activities may be classified in:

- Primary activities, such as operations and marketing and sales activities
- Support activities, such as procurement (i.e. activities related to the acquisition of goods needed for production) and human resource management
- Cross-functional activities, such as quality management, risk management and strategic planning

EXPLAIN THE MAIN FEATURES OF A RESOURCE-BASED VIEW (RBV)

RBV is as management theory and strategic framework that focuses on the internal resources and capabilities of a firm as sources of competitive advantage and sustained superior performance

The two main key assumptions are:

- Resource heterogeneity: indeed, bundles of resources, capabilities and competencies differ across firms and, as a consequence, this explain why organizational culture is difficult to imitate
- For example, for Southwest it reveals to be fundamental to invest in personnel, while Alaska Airline culture is different
- Resource immobility: resources do not move easily from firm to firm, thus providing a strong “stickiness” and a higher difficulty in imitating

- For example, it's hard to move resources from Delta to Southwest, since the first one bases its culture on differentiation, while the second one bases it on price leadership

PROVIDE A DEFINITION OF RESOURCES, HIGHLIGHTING THE DIFFERENT TYPES

Resources can be defined as any assets that a firm can draw on when formulating or implementing a strategy

They can be distinguished in:

- Tangible, i.e. visible and made by physical attributes
 - For example, we consider labor, capital, land, PPE
- Intangible, i.e. invisible and made by no physical attributes
 - For example. We consider culture, knowledge, reputation and intellectual property

DEEPLY ANALYZE THE MAIN KINDS OF RESOURCES

PHYSICAL RESOURCES

The main physical resources are represented by PPE, typically acquired by firms at market price. In particular:

- Property: land and buildings owned by the company for its operation
- Plant: machinery, equipment and other physical assets
- Equipment: tools, vehicles and other assets

However, physical resources are characterized by heterogeneous distribution for different firms, thus regarding:

- Firm location: indeed, a cost-leadership grocery company, such as Walmart, is more inclined to settle its stores in large areas outside the city center. At the same time, luxury brands are more inclined

to rent more luxurious and unique places, in order to maintain coherency with their strategy

- Geographic access to key inputs: the geographic distribution of physical assets can be influenced by the availability of key inputs such as raw materials, skilled labor and infrastructure. Thus, firms may decide to locate their facilities based on these considerations
- Industry dynamics: the distribution of physical resources can shape the dynamics of an industry. For instance, industries with a few large players with significant investments in specialized equipment may have different competitive dynamics than industries with smaller players with more standardized assets

HUMAN RESOURCES

The main features of HR are:

- Attract and retain talent: indeed, the goal is being able to attract high-quality talent, thus creating a positive work environment and growth opportunities
- Enhance employee productivity: this can be reached through effecting training, development and performance management
- Creating a positive work culture: while hiring, it is fundamental to keep track of the ability of the new employee to foster a positive and inclusive work culture that values diversity and promotes teamwork and well-being

For example, Google clearly assets that fair hiring process is the first step in order to truly build a solid and consistent diversity of perspectives and experiences

ORGANIZATIONAL/INTANGIBLE RESOURCES

The main features of organizational/intangible resources are:

- Knowledge and intellectual capital

- Brand and reputation: the recognition built over time through consistent performance and positive interactions, are critical intangible assets
- Culture and values: the shared values, norms and behaviors shape how work is done and influences employee engagement
- Innovation and creativity: the ability to develop new ideas are intangible resources that drive long-term competitiveness

For example, Zappos organizational culture is based on several unique factors such as holacracy, a self-management approach which minimize hierarchy, and the culture of happiness

DESCRIBE THE MAIN FEATURES OF THE VRIO FRAMEWORK

The VRIO framework is a strategic management tool that helps organizations analyze the internal resources and capabilities that contribute to their competitive advantage

The acronym stands for:

- Valuable: valuable resources enable a firm to increase its economic value creation
- Rare: if a resource is rare, this means that the organization has a competitive advantage due to the possess of something unique or uncommon in the industry (i.e. one or few firms possess it)
- Costly to imitate: firms that do not possess the resources are unable to develop or buy the resource at a reasonable price, due to, among the other reasons, time constraint or patents. Thus, both direct imitation, i.e. copying or replicating the resource, and substitution, i.e. finding an alternative that serves the same purpose, is extremely hard to implement
- Organized to capture value: in order to create competitive advantage, the company must present an effective organizational structure and coordinating systems

CREATE A VRIO FRAMEWORK FOR XEROX PARC

Xerox PARC is renowned for its contributions to the development of innovative technologies, including the graphical user interface (GUI), ethernet and laser printing

However, in order to understand why the company couldn't actually provide a solid competitive advantage, we must consider its VRIO framework

VALUABLE

The GUI was a highly valuable resource, since it revolutionized the way users interacted with computers, making them more accessible and user-friendly

RARE

During its initial development, the GUI was a rare and groundbreaking innovation not widely available in the computing industry (indeed, in order to develop it, they had to recruit the most valuable geniuses in computer science)

COSTLY TO IMITATE

The GUI was initially difficult for other firms to imitate due to its pioneering nature and the expertise required to develop similar systems

ORGANIZED TO CAPTURE VALUE

One critical point that may have denied a competitive advantage was the challenge of effectively organizing and exploiting the GUI. Indeed, Xerox faces difficulties in commercializing the technology, and its failure to bring GUI-based products to market in a timely manner allowed other companies to leverage and commercialize the innovation

EXPLAIN THE CORRELATION BETWEEN VRIO AND COMPETITIVE ADVANTAGE

Every point of the VRIO framework provides a strong incentive to competitive advantage, thus providing strong lacks to the company in case of its absence

VALUABLE

- If a resource or capability is valuable, it enables the firm to exploit opportunities or defend against threats, contributing to a competitive advantage
- If a product is not valuable, this provokes limited customer appeal and higher price sensitivity, thus guaranteeing a competitive disadvantage

RARE

- If a resource is rare, it means the firm possesses something unique or uncommon, providing a basis for sustained advantage
- If a resource is not rare, competitors may quickly acquire or imitate it, eroding the advantaged

COSTLY TO IMITATE

- If a resource is difficult to imitate, it creates barriers for competitors, helping the firm maintain its advantage
- If a resource is easy to imitate, this would provoke a loss in market share and a rise in price competition, thus eroding the competitive advantage

ORGANIZED TO CAPTURE VALUE

- Effective organization and exploitation are necessary for translating the potential of valuable, rare and inimitable resources into a sustained competitive advantage
- If a firm is not organized to capture value, this could lead to inefficient operations, failure to meet customer needs, as well as missed market opportunities and strategic incoherence, thus denying a long-term competitive advantage

EXPLAIN HOW TO SUSTAIN A COMPETITIVE ADVANTAGE

Several conditions allow firms to protect their resources, competencies and capabilities

- Better expectations of future values: if better expectations can be systematically repeated over time, through a solid data analysis and scenario planning, a firm develops a sustainable competitive advantage
- Intellectual property protection: this can be reached through patents, copyrights, trademarks and trade secrets (e.g. the recipe for Coca-Cola and Nutella)
- Social complexity: firms must keep in mind that different social and business systems interact and are combined
- For example, at Zappos, organizational culture and the industry must be considered together in order to guarantee this solid advantage
- Causal ambiguity: by making sure that cause and effect of the phenomenon are not apparent, the firm can maintain its competitive advantage, thus protecting against imitation and increasing managerial discretion
- For example, one of the ways in which Apple guarantees its competitive advantage is the difficulty to pinpoint the sources of its success
- Path dependence: decisions made in the past limit the options one faces. Indeed, time compression diseconomies make difficult for rivals to replicate a resource quickly
- For example, GM lost its advantage in electric cars since it changed strategy, while Toyota continued to invest in electric cars having 30 years later a competitive advantage due to its cumulative learning and experience

APPLY THE VRIO FRAMEWORK TO ASML

The VRIO framework can be represented as follows

What's the resource on which ASML's competitive advantage is based?	Extreme ultraviolet (EUV) light technology to etch integrated circuits onto silicon wafers.
Is this resource VALUABLE? Why?	Yes. It allows the etching of smaller components than previous technology (Deep ultraviolet).
Is this resource RARE? Why?	Yes. ASML is the monopolist of this technology.
Is this resource COSTLY TO IMITATE? And what are barriers to imitation that protect it?	Yes. Path dependence/time compression diseconomies: it took twenty years to arrive at the technology and cannot be replicated quickly. Better expectations: ASML invested in the technology before the others. Trade secrets: ASML tries to protect the technology from industrial espionage.
Is this resource ORGANIZED? Why?	Yes. ASML is the manufacturer of the equipment and receive funding from customers to develop further research.

DEFINE THE CONCEPT OF VALUE CHAIN, HIGHLIGHTING THE DIFFERENT COMPONENTS

The value chain comprehends the internal activities a firm engages in when transforming inputs into outputs. Each activity adds incremental value and incremental costs

The components are:

- Primary activities
 - Inbound logistics/Supply chain management: receiving, storing and distributing inputs of a product or service
 - Operations: the actual production or service activities that transform
 - Outbound logistics/Distribution: the activities required to get the finished product or service to the customer
 - Marketing and sales: the activities involved in promoting and selling the product
 - After-sale service: activities that enhance the value of a product, such as customer support and maintenance
- Support activities

- Procurement: the process of sourcing raw materials and components
- Technology development: R&D, process automation, IT operations and other technological activities in support of primary activities
- HR management: activities related to recruiting, training and retaining employees
- Accounting and finance: activities providing the necessary financial information for decision-making and risk management
- Infrastructure: range of support systems such as IT, finance and other administrative functions

ANALYZE FIVE GUYS MAIN FEATURES BY HIGHLIGHTING ITS CORE COMPETENCIES, STRATEGY AND PRIMARY ACTIVITIES

CORE COMPETENCY

The core competency of Five Guys, an American fast restaurant chain, regards a superior ability to deliver fresh, customized hamburgers using only the highest quality ingredients

CHOICES STRENGTHENING COHERENCY WITH THE STRATEGY

Five Guys' strategy, based on the constant provision of high quality and differentiation with respect to the majority of the fast food chains, is strengthened by several choices made over time:

- No food delivery until the pandemic: the firm was willing to preserve customer's trust by serving only hot and qualitative meals. Indeed, food delivery could harm the quality of the product, thus generating incoherency
- No market expenditures: the company is further remarking its differentiation and value-based strategy by distancing from the strong marketing policies adopted by other fast food chains
- Menu based on few products: through this decision, the company guarantees two advantage. For first, it highlights the quality

provided by focusing on a small set of specialities. Secondly, it rises its negotiating power with the suppliers

PRIMARY ACTIVITIES

In order to better comprehend the company's strategy, we need to analyze its primary activities

- Supply chain management: the company sets specific quality standards for their ingredients, thus strictly selecting its suppliers and guaranteeing constant and high value for its customers
- Operations: the company specifically allocates certain machinery, tools or equipments for particular tasks, processes or products, thus providing high specialization, efficiency and quality control
- Distribution: the firm strategically selects locations that are deemed appropriate and advantageous for the distribution of its products, thus improving market demand and accessibility
- Marketing and sales: the company relies on a sales team which is enthusiastic, driven and engaged in their work, thus constantly increasing sales performance and customer satisfaction, as well as brand recognition
- After sales: Five Guys tries to guarantee a strong level of care, support and attention to customers after their purchase, thus ensuring customer satisfaction and building loyalty

STRATEGIC ACTIVITY SYSTEMS

Strategic activity systems refer to the interconnected and interdependent set of activities an organization performs to create, produce and deliver its products or services

The key elements are the following:

- Interconnected activities: activities within a strategic system are interconnected, meaning that the performance and efficiency of

one activity can impact others, thus providing several effects throughout the entire organization

- Efficient resource allocation: organizations can strategically allocate resource to various activities within the system in order to optimize performance and create value
- Competitive advantage: when an organization effectively design and manages its activity systems, it can achieve cost advantages and differentiation, thus gaining a stronger competitive advantage
- Synergy and difficulty to imitate: strategic activity systems emphasize synergy, where the combined effect of performing activities together is greater than the sum of individual activities. This synergy rises overall effectiveness and competitiveness, thus rising higher barriers for competitors and making it more difficult to imitate its products
- Dynamic capabilities: successful organizations continually adapt and evolve their strategic activity systems to respond to changes in business environment, thus requiring dynamic capabilities to innovate and adjust activities over time

For example, in 1996 IKEA's strategic activity systems were characterized by several elements contributing to its competitive advantage, such as cost leadership, product development and design, self-service model and optimization in supply chain management

DEFINE A SWOT ANALYSIS AND PROVIDE A GENERAL FRAMEWORK

A SWOT analysis is a strategic planning tool used to identify and evaluate the strengths, weaknesses, opportunities and threats involved in a business or project. It provides a comprehensive overview of the internal and external factors that may impact the success or failure of an organization

The following SWAT matrix, a four-quadrant table that visually represents the internal and external factors, allows for the identification of strategic insights and actions based on the intersections of these factors



ANALYZE THE IMPORTANCE OF THE VARIOUS MATRIX ENTRANTS
FOCUS ON THE STRENGTHS-OPPORTUNITIES

A company should try to effectively use an internal strength in order to exploit an external opportunity. Organizations in this quadrant can focus on maximizing their competitive advantages to exploit market trends, even though often involving aggressive expansion

FOCUS ON THE WEAKNESSES-THREATS

Companies should try to eliminate or minimize an internal weakness in order to mitigate an external threat, thus avoiding to incur in potentially harmful situations. Indeed, these organizations should develop strategies that address their vulnerabilities while responding to external threat, thus involving cost-cutting or restructuring

FOCUS ON THE STRENGTHS-THREATS

Companies should use an internal strength to minimize the effect of an external threat. This might include enhancing product differentiation, improving operational efficiency or diversifying into new markets

FOCUS ON THE WEAKNESSES-OPPORTUNITIES

Companies should shore-up an internal weakness to improve its ability to take advantage of an external opportunity. This could involve strategic alliances, capacity building or process improvements

CONDUCT A SWOT ANALYSIS FOR STARBUCKS

Starbucks is an American multinational chain of coffee houses and roasters operating in more than 30,000 locations worldwide

In order to have a broader understanding of the company's actual condition, we need to conduct a SWOT analysis

STRENGTHS

- High profitability: indeed, its revenues are 23.5 bn USD
- Strong brand recognition: the company can rely on a strong customer trust
- Worldwide presence: the firm has shops in all continents
- Great supply chain: the company gives a strong attention to both primary and support activities, thus guaranteeing a great and sustainable supply chain
- Atmosphere in Starbucks locations: the shops guarantee a comfy and urban atmosphere, thus attracting a broad range of customers
- Differentiation: the company produces highly differentiated products, thus always attracting a high demand worldwide
- Secret recipes: the firm is careful in generating causal ambiguity in order to assume a strong competitive advantage

WEAKNESSES

- Lack of customization: products are not customized to local tastes, thus, for instance, providing the same coffee in every country
- High price: the products result too expensive for many customers (indeed, coffee costs 3 euros on average)

OPPORTUNITIES

- High reliability in replication: indeed, the business model assumed can be easily replicated to access new countries, even though this could present some threats in several cases

THREATS

- Volatility in the cost of coffee: indeed, the company is constantly exposed to rises in the cost of coffee and dairy products
- Healthier trends: trends towards healthier life style, thus reducing fat drinks and sweets, represent a strong incentive for Starbucks to operate some changes in its production
- Saturation of US market: the US market is saturated, where almost 15,000 of Starbucks locations are located, thus slowly provoking a decrease in the rate of new customer acquisitions
- Social factors and culture: social habits may represent a threat for the company when deciding to open in a new country. For example, Starbucks was afraid of opening stores in Italy due to several factors, such as the strong Italian coffee culture

EXPLAIN FROM A PROBABILISTIC POINT OF VIEW WHY STARBUCKS SHOULD HAVE ENTERED ITALY

Starbucks was afraid of failing in opening stores in Italy due to several factors, such as:

- Very strong Italian coffee culture
- Low prices: indeed, customers are used to pay 1 euro for their coffee
- Customer loyalty: the majority of customers have created strict bonds with small bars in which they could also create a direct relationship with the barman and a more friendly environment

- Brand reputation: indeed, failing in Italy, the heart of worldwide coffee culture, would have represented a strong risk for the company's reputation

However, applying the utility model matrix, it is possible to highlight the probability threshold from which it would have been useful for the company to enter Italy

Scenarios \ Actions	Italians love Starbucks	Italians hate Starbucks
Enter Italy	100	-200
Not enter Italy	0	0

Benefits of adding a new market, probably not huge (most Italians will continue to go to their bars)

Losses in Italy + potentially big harm to the global reputation of Starbucks

From the analysis above, by computing the expected utility percentage, Starbucks should have entered Italy if it believed there was a greater probability than 67.7% that Italians would love its restaurant

SHOW THE LIMITS AND OPPORTUNITIES FOR STARBUCKS THROUGH A VRIO FRAMEWORK

A VRIO analysis allows the company to understand what are the strengths and weaknesses of its product in the perspective of a sustainable competitive advantage

VALUABLE

Company's brand, associated with quality coffee and cozy ambiance, can be a valuable resource in attracting Italian customers who are willing to try a unique coffeehouse experience. At the same time, the variety of coffee beverages provides value to customers who seek a range of options beyond traditional Italian coffee

RARE

Even though the Starbucks brand is valuable, its rarity may be lower in Italy due to the presence of well-established local coffee brands and a strong coffee culture

COSTLY TO IMITATE

Even though Starbucks' uniqueness is a fundamental factor to take into account, the cozy and inviting store ambiance is pretty easily imitable, as well as the emphasis on training baristas with specialized knowledge and the introduction of innovative products. However, while other coffee chains can invest in branding effort, imitating Starbucks' level of global brand recognition is a complex and costly undertaking

ORGANIZED

Starbucks has a strong organizational culture mostly based on training and a customer-centric approach, which represents a strong basis in order to guarantee a sustainable competitive advantage. At the same time, the company's constant ability to adapt its offerings to local preferences while maintaining a global brand image represents a clear organizational strength, which is useful in the perspective of a long-term competitive advantage

In conclusion, as the VRIO framework shows, factors such as value and organization are able to contribute positively to Starbucks' entry into the Italian market. However, various factors, such as the lack of a strong rarity for the product and the easy imitability of features such as the store ambiance, represent risks that the company should take into account when making such a decision

EXPLAIN THE MAIN LACKS OF STARBUCKS, HIGHLIGHTING WHAT THE COMPANY ACTUALLY DID

Thus, the company needed:

- A theory of how Italians would react to Starbucks restaurants
- Collecting insights from experts (probably pessimistic)

- Running experiments with restaurants in Italy, even though it would have been a serious risk

As a matter of fact, Starbucks made some consistent decisions:

- They worked on the probability of success by putting in a very high level of effort, ultimately culminated in the opening of a big roaster in Milan. Indeed, such a flagship restaurant would have presented a global advertising value even in case it was unprofitable, thus minimizing the company's action risks.
- They combined their resources with Percassi Group, a local partner that had a long experience as a franchisee of big brands. Indeed, Percassi had the knowledge of the Italian market and retail sector that Starbucks lacked, thus providing expert insights and running "experiments" based on previous valuable experiences

DEFINE A BUSINESS-LEVEL STRATEGY

A business-level strategy is definable as the set of the goal directed actions managers take in their quest for competitive advantage when competing in a single product market

Indeed, managers need to answer to four main questions:

- 1) Who are the customers
- 2) What customer needs will the firm satisfy
- 3) Why does the firm want to satisfy them
- 4) How will the firm satisfy them

EXPLAIN WHY AND HOW INDUSTRY AND FIRM EFFECTS JOINTLY DETERMINE COMPETITIVE ADVANTAGE

In order to understand what is the combined effect produced by industry and firm in order to determine a competitive advantage, we need to consider them separately

Industry effects are solid bases in order to reach a competitive advantage when the following factors are respected:

- Strong industry attractiveness: indeed, a company which shows a constant ability to respond strategically to the Porter's five forces, as well as a capacity in leveraging and aligning with complements is more inclined in reaching a sustainable competitive advantage
- Knowledge regarding strategic groups' differences: firms within strategic groups may face similar competitive forces, which imply that identifying strategic groups can help a firm to determine its competitive position and potential sources of differentiation

Firm effects contribute to the creation of a competitive advantage through the implementation of a strategy based on either one of the two following positions:

- Value position: firms that effectively position themselves to deliver superior value whether through product quality, innovation or other factors, can achieve a competitive advantage by meeting or exceeding customer expectations
- Cost position: achieving cost leadership provides a competitive advantage by allowing a firm to offer products at lower prices or maintain higher profit margins

In the end, the main joint determinants of competitive advantage are:

- Alignment and fit: indeed, firms that strategically align their capabilities with industry dynamics, customer needs and competitive forces are more likely to achieve a sustainable competitive advantage
- Dynamic capability building: firms that invest in dynamic capabilities in response to changes in the industry environment are better positioned for sustained competitive advantage over time

EXPLAIN THE TWO GENERIC STRATEGIES, THUS HIGHLIGHTING THE MAIN DIFFERENCES

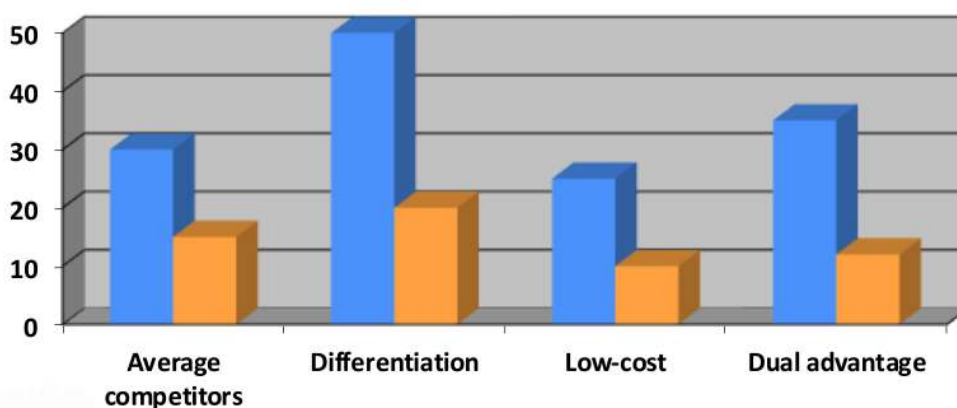
Generic strategies divided in two categories:

- Differentiation strategy: companies are seeking to create higher value for customers by delivering products with unique features at similar cost but higher price
 - For example, Tesla offers highly differentiated products and pursues a small market segment
- Cost-leadership strategy: companies are seeking to create the same or similar value for customers at a lower cost
 - For example, GM has a broad scope and ranges from the low-cost positioned Chevy brand (cost leadership strategy) to the differentiated Cadillac brand (differentiation strategy)

SHOW HOW THE CREATION OF A COMPETITIVE ADVANTAGE ACTUALLY HAPPENS

A firm has competitive advantage if it manages to create a wider gap between the willingness to pay (value) it generates among buyers and the costs it incurs than its competitors

As shown in the graph below, strong differentiation strategy may lead the company to a consistent competitive advantage over time, as well as what happens in the scenario of a dual advantage. In this case, a firm successfully combines cost efficiency with differentiation in order to create a unique and competitive position in the market



GIVE A DEFINITION OF COMPETITIVE SCOPE AND SHOW THE RELATIONSHIP WITH THE DIFFERENT STRATEGIC POSITIONS

Competitive scope is the size (narrow or broad) of the market in which a firm chooses to compete

Further, the matrix created by the relationship between competitive scope and strategic position is able to generate four different entrants corresponding to the respective strategies chosen by the companies:

- Focused cost leadership: it is realized when a company assumes a cost position and a narrow competitive scope
- Cost leadership: it is realized when a firm assumes a cost position, while operating in a broad competitive scope
- Focused differentiation: it happens when a firm is differentiated while operating in a narrow competitive scope
- Differentiation: it verifies when a company assumes a differentiated position while operating in a market which presents a broad size (i.e. broad competitive scope)

PROVIDE AN EXAMPLE IN ORDER TO APPLY THE MATRIX TO THE AIRLINE INDUSTRY

BROAD COMPETITIVE SCOPE

- Considering the airline industry, firms such as Delta and Southwest operate in a broad competitive scope, which allows the business to serve a diverse customer base, reducing dependency on a specific market segment and mitigating risks associated with changes in customer preference. At the same time, though, this provides an increase in costs and a potential market saturation

- However, Delta provides a differentiated position in the marketplace through the implementation of a full-service carrier, a hub-and-spoke network and a global reach, while Southwest occupies a cost-based position which relies on low-cost carrier, point-to-point network and price-friendly policies

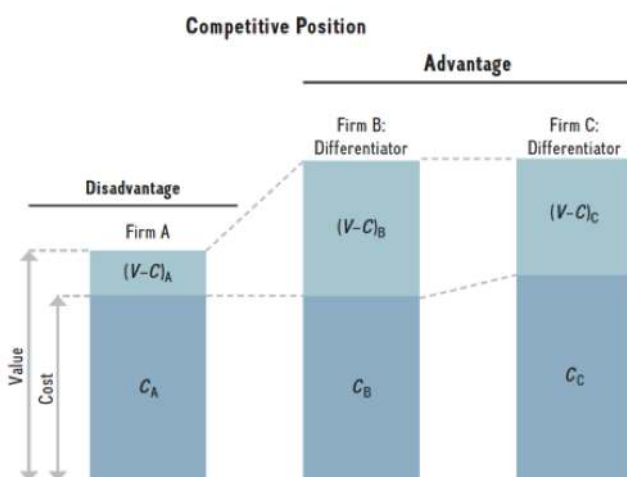
NARROW COMPETITIVE SCOPE

- At the same time, companies like Netjets and Spirit decide to operate in a narrow competitive scope, which empowers their specialization and targeted marketing, while, at the same time, increasing their market dependence and vulnerability to external factors, such as the dependence on key customers
- However, NetJets provides a strongly differentiated position, guaranteed through private jet services, high-end luxury travel and personalized services. On the other hand, Spirit's airlines is known for its position as an ultra-low-cost carrier, which is highlighted by the fact it provides affordable air travel options by offering low base fares and charging fees for additional services

EXPLAIN THE GOAL OF A DIFFERENTIATION STRATEGY

The goal of a differentiation strategy is that of adding unique features that will increase the perceived value of goods and services in the minds of consumer so they are willing to pay a higher price

In order to achieve a competitive advantage in a differentiation strategy, the firm must try to rise the value while keeping constant (or slightly higher) the cost



STATE THE VALUE DRIVERS TO IMPROVE FIRM'S STRATEGIC POSITION

Improving a firm's strategic position involves a combination of various value drivers, such as:

- Product features: innovative and high-quality products features, as well as customizable features allow the firm to set apart from competitors and, at the same time, meet diverse customer needs
- For example, OXO produces utensils with ergonomically designed soft black rubber grips
- Customer service: responsive support, tailoring interactions to individual preferences and consistency in delivering a high-quality service are important elements in order to differentiate the firm from competitors with generic support, thus ensuring customer satisfaction and loyalty
- For example, Zappos superior customer service is guaranteed by offering free shipping both ways
- Complements: complementary products or services allow the company to generate strategic partnership and build a strong ecosystem which leads to increased customer loyalty and revenue
- For example, Vodafone and Tim try to differentiate through the creation of complementary bundles

EXPLAIN THE EVOLUTION OF A COMMODITY PRODUCT LIKE COFFEE

The evolution of a commodity product like coffee through differentiation involves the process of adding unique features and qualities, thus creating added value for consumers

In order to do so, companies choose different strategies, such as:

- Product quality and origin differentiation: by highlighting the specific geographic origin of the coffee beans, the company is able to create a unique selling proposition
- Brand image: developing a strong brand identity through factors such as logo design and overall marketing strategy is fundamental in order to differentiate the product
- Storytelling: sharing the story behind the coffee can create a connection with consumers, thus adding perceived value
- Customization: allowing customers to create their own coffee blends can attract consumers seeking a personalized experience
- Unique packaging: eye-catching and environmentally friendly packaging can contribute to product differentiation of store shelves

SHOW HOW STARBUCKS DIFFERENTIATION STRATEGY EVOLVED OVER TIME

The different steps in Starbucks differentiation strategy over time are the following:

- Focus on high-quality coffee beans (1970s-1980s): the emphasis was on offering a premium product compared to the lower-quality coffee available at the time
- Distinctive store design and employee training (1980s-1990s): the stores became known for their unique design and cozy atmosphere and the company implemented barista training programs in order to increase the level of customer service
- Brand diversification and product customization (1990s-2000s): Starbucks moved beyond being just a coffee retailer, introducing new products and various customization options, thus contributing to a more comprehensive brand identity

- Mobile app and mobile ordering (2000s-2010s): Starbucks invested in technology, introducing a mobile app that allowed customers to order ahead, customize drinks and earn rewards
- Premiumization (2010s-present): Starbucks continued to position itself as a premium coffee brand, thus constantly elevating customer experiences

HIGHLIGHT APPLE'S DIFFERENTIATION STRATEGY, THUS SHOWING WHY CONSUMERS ARE WILLING TO PAY A HIGH PRICE FOR THEIR PRODUCTS

Customers are willing to pay a high price for an Apple product due to several differentiating factors, mainly related to:

- Product's features, such product design, aesthetics, functionality, quality, durability
- Customer service, such as timely delivery and constant support for any necessity

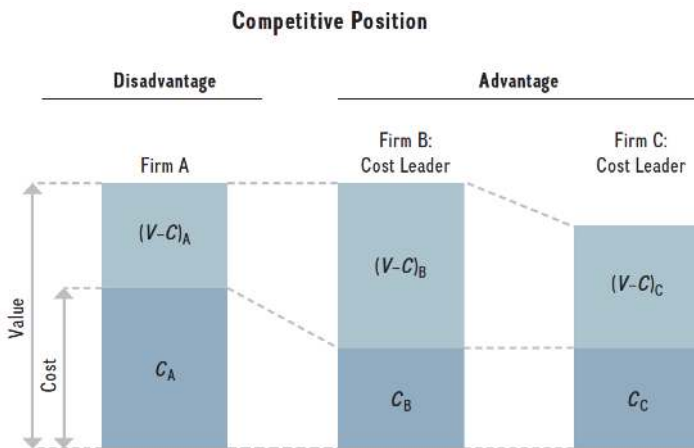
In this way, the company is able to maintain relatively low costs of production, while, at the same time, constantly rising the prices, thus reflecting the customer's willingness to pay, which is, sometimes, even higher than the actual price

Indeed, through a solid and consistent differentiation strategy, Apple is able to strongly increase its revenues by charging higher prices than its competitors, such as Nokia, while maintaining overall the same costs of production

EXPLAIN THE GOAL OF A COST-LEADERSHIP STRATEGY

The goal of cost-leadership strategy consists in reducing the firm's cost to manufacture a product or to deliver a service below that of its competitors while offering adequate value

In order to achieve a competitive advantage in a cost-leadership strategy, the firm must try to lower prices, while maintaining the same (or slightly lower) value



DESCRIBE THE COST DRIVERS TO IMPROVE FIRM'S STRATEGIC POSITION

Cost drivers play a crucial role in determining a firm's strategic position and competitiveness. The key cost drivers are:

- Cost of input factors: firms should try to access to lower-cost input factors through the exploration of alternative, cost-effective course for raw materials and an efficient management of labor
- Economies of scale: firms can improve their strategic position by expanding production in order to leverage economies of scale, which means decreasing the cost per unit as output increases
- Learning-curve effects: it refers to the observation that as firms gain experience in performing a task or producing a product, they tend to become more proficient, leading to improved productivity and cost efficiency. Indeed, technology remains constant and cumulative output increases
- Experience curve: the basic idea is that as a company produces more units of a product or delivers more services, it Gais experience and learns how to produce more efficiently, leading to a reduction in the average cost per unit. Indeed, the technology changes and the cumulative output remains constant

EXPLAIN THE MEANING OF PRODUCTION CAPACITY

PRODUCTION CAPACITY

Maximum units of output that can be produced in a given period, using current resources

CURRENT PRODUCTION CAPACITY

Units of output that are produced in a given time-frame

DEGREE OF UTILIZATION OF PRODUCTION CAPACITY

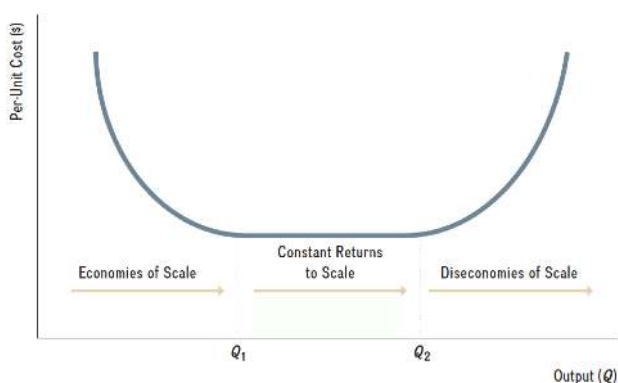
The ratio of current production capacity to production capacity

EXAMPLE

Egea has a PC of 10.000 books a year, but its CPC is 7.000. Therefore, its degree of utilization is 70%

DESCRIBE HOW PRODUCTION CAPACITY IS RELATED TO EACH SECTOR

- Manufacturers: output is measured in number of shoes, books and cars. Thus, increasing PC means increasing them
- Management consulting: increasing PC means increasing the number of days, persons and skills



-Retail companies: the company sells the service of displaying goods on the shelf in order to sell them. Thus, increasing PC means increasing the size of the store

-Airline companies: output is measured as number of available seats and miles flown. Increasing PC means increasing the number of flights of each plane, reducing legroom to increase seats

DEFINE AVERAGE UNIT COST

The AUC is the ratio of production costs

$$AUC = \frac{\text{TOTAL COSTS}}{\text{QTY PRODUCED}}$$

to actual quantity produced

COMPARE AVERAGE COSTS RELATED TO TWO DIFFERENT ROOMS

	ROOM A (100 sq.m)	ROOM B (150 sq.m)
<i>PROF. DESK + PROJECTOR</i>	1*3.500=3500	1*3500=3500
<i>BOARD</i>	2*500=1000	2*500=1000
<i>TILES (60€ per sq.m)</i>	60*100=6000	55*150=8250
<i>PAINT (20€ per sq.m)</i>	20*100=2400	20*150=3000
<i>LAMPS (400 € each)</i>	6*400=2400	10*400=4000
<i>AIR CONDITIONING (800 € each)</i>	4*800=3200	5*800=4000
<i>WINDOWS (2000 € each)</i>	2*2000=4000	3*2000=6000
<i>DOORS (1800€ each)</i>	1*1800=1800	1*1800=1800
<i>DESKS (100 € each)</i>	100*100=10000	150*90=13500
TOTAL COSTS	34.300	45.050
AVERAGE COST	343	300,3

DEFINE ECONOMIES OF SCALE

Economies of scale are defined as a reduction in average unit costs that result from increasing the production capacity (under the assumption that utilization rate is the same). Thus, the graph is the following

DESCRIBE THE SOURCES OF ECONOMIES OF SCALE

- Indivisibility of certain output: even if production capacity is low, some inputs cannot be brought in sub-units. Hence, the related costs do not increase when PC increases (or increase less than proportionally)
- For example, as space increases, the door and the professor desk remain one
- Effect of specialization: larger size means that resources can be employed in a more specialized way
- For example, a R&D department allocates people to specific projects and investing in specialized machines that enhance efficiency
- Lower per unit purchasing: higher volumes imply negotiate favorable price for buying in bulk. Indeed, for suppliers higher volumes means lower transaction costs (billing, administrative costs, transport and delivery). Moreover, this is possible due to the higher bargaining power (indeed, you buy more desks for the classroom)
- Employing specialized systems and equipment: larger output allows firms to invest in more specialized systems and equipment, such as ERP software or manufacturing robots
- For example, Tesla's Model 3 high demand allow to employ robots but driving down costs
- Taking advantage of certain physical properties: the volume of a body increases disproportionately more than its surface, thus lowering average unit costs
- For example, Walmart can stock much more merchandise and handle inventory more efficiently

DESCRIBE THE RISKS COMING FROM ECONOMIES OF SCALE

The risks are several:

- Diseconomies of scale: a large facility becomes difficult to control due to technical constraints, managerial complexity and transportation costs, thus rising the average unit cost as the quantity increases
- Quality: in the classroom example, as the size increases, the quality of teaching may decrease (indeed, there could be more difficult interactions)
- Range of variation: some costs do not vary in a certain range of volumes, but, however, they increase for other ranges
 - For example, increasing classroom size from 150 to 200 may not increase cost a lot, but increasing to 400 does, thus provoking harmful effects on the average unit cost

DEFINE FIXED-COSTS ABSORPTION

Fixed-cost absorption is an accounting method that consists in dividing fixed costs across larger units of output produced (given a production capacity)

Further, FCA economies can be realized by increasing the rate of utilization (for a given PC). Indeed, by increasing the rate of utilization for a given production capacity, a business can spread its fixed costs over a larger number of units

In addition, these economies are higher if fixed costs represent a larger fraction of total costs. Indeed, when fixed costs represent a larger fraction of total costs, the impact of spreading these costs over a larger production volume is more significant. For this cause, industrial production, whose significant portion of costs is composed of fixed costs, benefits more than trade and intermediaries

COMPARE ECONOMIES OF SCALE AND FIXED-COSTS ABSORPTION

Economies of scale provide a lower AUC as PC goes up, thus maintaining the same degree of utilization. However, FCA provides a

lower AUC as the degree of utilization goes up, thus maintaining the same PC

	AUC	PC	DEGREE OF UTILIZATION
Economies of scale	↓	↑	=
Fixed cost absorption	↓	=	↑

EXPLAIN HOW TO QUANTIFY EoS AND FCA?

- Scale economies: in order to quantify EoS we need to write $AUC_A - AUC_B$ at the same production capacity
- We compute AUC of B at the same current production capacity using the following formula

$$\frac{\text{Fixed Costs}_B}{\text{Max Capacity}_B \times \text{CPC}_A} + \text{VCU}_B$$

- Fixed cost absorption: we need to compare AUC at different levels of production capacity, thus writing $AUC_B \text{ at } x\% - AUC_B \text{ at } y\%$

DEFINE LEARNING CURVE EFFECTS AND LEARNING ECONOMIES

- The learning curve represents the relationship between cumulative production and the average cost per unit. Learning curve effects describe the phenomenon where the more a task is performed, the more cost-effective the process becomes. Further, the learning curve is often visualized as a graph where the AUC decreases as cumulative production or experience increases
- Learning economies are incremental and predictable decrease in unit costs of output as the cumulative production volume increases. Indeed, as a business gains experience and expertise, it may achieve learning economies, which lead to lower production

costs per unit, thus guaranteeing several benefits such as cost reduction, improved quality and overall operational efficiency

SHOW HOW LEARNING ECONOMIES DIFFER AMONG INDUSTRIES

In the late 1960s, BCG (Boston Consulting Group) emphasized that not all processes and products have the same potential for improvement over time. Indeed, some industries or products offer greater opportunity for cost reduction and efficiency improvement as experience accumulates due to the nature of the production processes or the complexity of the products

Further, BCG noted that the greatest leverage from the experience curve is typically realized in the early stages of a product's lifecycle. Indeed, as a company starts producing and gaining experience, the learning curve effects can have a substantial impact

For example, significant drops in unit cost due to learning curve effects are the following:

- Aerospace 85%
- Shipbuilding 80-85%
- Complex machine tools 75-85%
- Repentine electronics manufacturing 90-95%

In all those industries, where there is need for precision and technological innovation, the leaning curve can lead to remarkable cost reductions over time

STATE THE SOURCES OF LEARNING ECONOMIES

The sources of learning economies are several:

- Enhanced human skills: the ability of people to learn to improve their work habits and perform assigned tasks more quickly and better. This applies to all employees and managers, not just to those directly involved in production

- Simplification of products and processes: when people gain experience regarding a certain product or production process, they can also grasp possible pathways to simplification, leading to greater efficiency at lower costs
- Better selection of materials: understanding which production resources are most appropriate for carrying out a given activity
- Higher coordination: people must interact and utilize different kinds of plants and equipment as they carry out the activities. With experience, individuals get to know one another and learn to work in teams and coordinate different processes
- Higher programmability of activities: events become more predictable and response-time to non-standard circumstances is quicker and more effective. This makes it possible to plan processes more effectively by timing each operation, optimizing the mix of different production capacities and coordinating resources

ASSERT THE RISKS RELATED TO LEARNING ECONOMIES

- Assumption of consistent demand: if there is an assumption of growing demand and the market experiences a downturn, the benefits of learning economies may not be fully realized, leading to excess capacity and higher unit costs
- Technological changes: rapid technological changes may impact effectiveness of accumulated learning, thus often requiring relearning and adaptation, potentially disrupting established cost structure
- Time constraint: achieving learning economies often involves upfront investments in technology and process optimization. As a consequence, there is a risk that these reruns on these investments may be delayed, thus not making the business see the immediate cost reductions driven by learning economies

- Increased competition: as companies gain experience and achieve learning economies, it becomes easier for new entrants to replicate processes and technologies, thus leading to increased competition, potentially eroding the competitive advantage gained through learning
- Fixed investment costs: there is a risk if these fixed costs are substantial and the expected volume of production is not realized, as it could lead to underutilization of assets and higher average costs
- Market dynamics: changes in market dynamics, such as shifts in consumer preferences, regulatory changes or the emergence of new competitors can impact the effectiveness of learning economies. Indeed, a company heavily reliant on learning economies may find it challenging to adapt to these changes quickly
- Strategic and structural rigidity: a company heavily committed to its existing production processes may become strategically rigid, thus representing a disadvantage if more agile competitors emerge or if changes in the business environment require a shift in strategy
- For example, there are several learning economies mistakes made by Ford in Model T's production, such as failure innovate and update the Model to meet changing consumer preference, resistance to model changes and underestimating consumer demand for variety (indeed, the firm's reluctance to provide variety other than "black option" led to a loss of market share

DEFINE ECONOMIES OF SCOPE

Economies of scope describe the saving that come from producing two outputs at less cost than producing each output individually, even though using the same resources and technology

SHOW WHAT ARE THE ECONOMIES OF SCOPE DRIVERS

The economies of scope drivers are several:

- Complementarities in the production and in the distribution of products/services: companies can achieve economies of scope by sharing inputs, warehousing, purchasing, production processes and distribution channels across multiple products or services
- For example, if two products share common components or use the same distribution network, it can lead to cost savings through efficient resource utilization
- Deployment of unique assets and capabilities: leveraging unique assets and capabilities, such as a strong brand reputation, across several products allows a company to spread the cost associated with building and maintaining those assets
- Use of same advertising campaign: in this way, companies reduce marketing and promotional costs. This is particularly effective when products share target markets, as a unified campaign can enhance brand recognition
- Amortizing expenses related to generic R&D: when R&D efforts contribute to the development of multiple products, these expenses can be spread across those products, thus reducing the AC of R&D per product, allowing the company to benefit from economies of scope
- Creation of exit barriers and lock-in effects for consumers: companies can create exit barriers and lock-in effects for consumers by establishing interconnected products or services
- For example, Apple's product ecosystem includes several devices so that once consumers invest in this ecosystem, they may be less likely to switch to competitors, leading to customer retention

EXPLAIN HOW ARMANI MANAGES TO ACHIEVE ECONOMIES OF SCOPE

Armani achieves economies of scope thanks to:

- Diversification of product portfolio: by offering products across different categories, Armani attracts a diverse customer base with varying preferences and tastes, allowing it to enter multiple consumer segments
- Specialized labels: the use of specialized labels allows Armani to differentiate its products, appeal to different customer segments and create a stronger brand presence in various market segments
- Intangible assets
 - Brand advantage and corporate image: by applying its luxurious and elegant brand identity across different product categories, Armani capitalizes on the reputation it has built over the years. Indeed, customers are willing to pay a premium for Armani products, thus enhancing its value
 - Know-how: the brand leverages its accumulated knowledge and design capabilities, thus maintaining consistent quality, design aesthetics and craftsmanship across offerings

EXPLAIN HOW CAN A DIFFERENTIATION STRATEGY AND A COST LEADERSHIP STRATEGY PROTECT/HARM YOU FROM THE 5 FORCES OF PORTER

DIFFERENTIATION STRATEGY

Threat of new entrants:

Benefits: differentiation acts as a barrier to entry due to intangible resources such as reputation for innovation, quality or customer service

Risks: high differentiation might attract new entrants that believe they can also create unique products. If the differentiation is easily imitable, even at a lower cost, the threat of new entrants could increase

Power of suppliers

Benefits: differentiation can protect against supplier power by making a company's products unique and less dependent on standardized inputs. Indeed, suppliers may have less power if the differentiated features require specialized components

Risks: if differentiation involves relying on unique or scarce inputs, suppliers may gain more power. Indeed, limited availability of specialized inputs can lead to a higher supplier power

Power of buyers

Benefits: a differentiation strategy can protect against buyer power by creating brand loyalty. If consumers value the unique features of a products, this could reduce the price sensitivity

Risks: high differentiation can also harm by increasing buyer power if customer do not perceive the unique features as significant, thus prioritizing price

Threat of substitutes

Benefits: differentiation protects against substitutes by making the product distinct. Indeed, customers may find it challenging to switch to alternatives lacking of the other firm's unique features

Risks: if competitors offer similar differentiation, replacement may take place, especially when faced with innovation

Rivalry among existing competitors

Benefits: differentiation reduces competitive rivalry by creating brand loyalty and reducing price sensitivity, thus making it harder to switch to competing products

Risks: if multiple companies offer similar differentiated products, competition may focus on price. However, rivalry could increase also in case of increasing differentiation of product features that do not create value but raise cost, often even above unacceptable threshold

COST LEADERSHIP STRATEGY

Threat of new entrants

Benefits: cost leadership acts as a barrier to entry based on economies of scale. New entrants must achieve similar cost efficiencies to compete on price, which can be challenging without the same scale of operations

Risks: if new entrants can achieve cost efficiencies or if the market does not require a significant scale advantage, the barrier to entry may be lower, thus rising the space for replacement

Power of suppliers

Benefits: cost leadership protects against supplier power by allowing the company to negotiate lower input costs due to the volume of purchasing, thus having more space to deal with suppliers

Risks: it could be a harm when depending on a limited number of suppliers or standardized inputs, thus provoking a strong sensitivity to supply chain changes

Power of buyers

Benefits: cost leadership protects against buyer power by offering lower prices, and making customers' prioritize lower costs over other factors

Risks: if cost leadership leads to a focus on price at the expense of other factors, such as quality and customer support, then customers might become more price-sensitive

Threat of substitutes

Benefits: cost leadership protects against substitutes by offering lower prices. Indeed, customers may be less inclined to switched to higher-priced alternatives

Risks: if substitutes can offer comparable value at a similar or lower cost, then replacement may take place, especially when faced with innovation

Rivalry among existing competitors

Benefits: there is protection against price wars since lowest-cost firm will definitely win, thus providing an advantage to the cost leader

Risks: rivalry may rise when the focus of competition shifts to non-price attributes and, further, the lowering costs drives a value creation below the acceptable threshold

DISCUSS HOW DOES SUSTAINABILITY OF COMPETITIVE ADVANTAGE WORK

The sustainability of a competitive advantage refers to the ability of a firm to maintain its advantageous position in the market over an extended period. Usually it is analyzed by looking at three levels within an industry: the top third, middle third and a bottom third. In particular:

- Top third: companies enjoy sustained competitive advantages due to factors such as strong brand recognition, technological leadership or unique capabilities. In particular, sustainability is reached through constant investments in innovation, R&D and customer service
- Middle third: companies do not have the same level of resources or differentiation as top-tier companies. Here sustainability relies on their ability to identify and capitalize on cost efficiencies, niche markets and specific customer needs
- Bottom third: companies face a higher risk of struggling to sustain a competitive advantage. Indeed, they could be more vulnerable to changes in market conditions or economic downturns. As a consequence, sustainability in this third can be improved through operational efficiency and cost control

However, even though the three thirds seem to be particularly defined and distinguishable in a first time, along time they tend to converge towards an average. Indeed, competitors may have more information in order to imitate what companies belonging to higher

thirds actually do. As a consequence, most differentiated companies are inclined to lower their price, thus provoking a higher uniformity in terms of advantage

EXPLAIN HOW THE SUCCESS OF SMARTPHONES INFLUENCED SEVERAL DEVICES' SALES

The increase in smartphone's sales severely influenced numerous devices, thus provoking harmful drops in the period 2007-2016:

- Digital cameras (-66%): integration of high-quality cameras and advancements in mobile photography made users find smartphones more convenient for everyday photography
- MPS (-87%): the rise of music streaming apps and the convergence of functions in one device provoked a shift in consumer behavior, thus leading customers to prefer carrying one single device
- Portable navigation systems (-80%): integration of GPS technology and real-time updates induced customers to the navigation services offered on the smartphones
- Camcorders (-93%): video recording strong capabilities, social media integration and compact and portable design have led customers to switch very frequently to smartphones

EXPLAIN THE DIFFERENTIATION STRATEGY OF GILLETTE

The main features of Gillette's differentiation strategy are the following:

- Devotion to quality: the company has always tried to guarantee the highest quality through the use of high-quality material as well as investing in precision engineering to create sharp and durable blades
- Constant introduction of more performing models: the company frequently introduces new and advanced razor models through

investments in R&D and the strategy of satisfying different customer preferences and shaving needs

- Premium prices: the company positions itself as a premium brand and, as consequence, rises prices relying on the perceived superior value and the strong brand loyalty gained over time

HIGHLIGHT THE MAIN FEATURES OF DOLLAR SHAVE CLUB'S STRATEGY

Dollar Shave Club (DSC), a brand which provides an online subscription service with several offers as well as basic but functional products, presents a strategy based on several factors:

- Convenience of auto-replenishment: through the subscription model where customers can sign up for regular deliveries of razors and the guarantee of automatic shipments, the company eliminates the need for customers to remember to purchase shaving supplies regularly
- Low price: the company's cost-effective solutions are directed to customers who are seeking quality products without a premium price
- Direct-to-consumer channel: the company eliminates the need for intermediaries, such as retailers, thus establishing a direct relationship with its customers and enhancing customer interaction
- Irreverent and anti-establishment brand attitude: the company has cultivated a brand identity which challenges traditional norms and embraces an irreverent attitude, thus creating an identity that resonates with customers looking for a break from more conventional and established brands

Even though DSC incorporates elements of differentiation, such as its irreverent brand attitude and unique marketing approach, the strategy is primarily based on cost-leadership

HIGHLIGHT THE MAIN FEATURES OF HARRY'S

Harry's is a brand which provides several benefits, such as a subscription service and a vintage aesthetic as well as qualitative products reached through its integrated manufacturing and owned blade factory. Thus, it presents a strategy based on several factors:

- Convenience of auto-replenishment: through the subscription model where customers can sign up for regular deliveries of razors and the guarantee of automatic shipments, the company eliminates the need for customers to remember to purchase shaving supplies regularly
- Affordable price (but not low): the firm shows as a brand that offers quality razors at an affordable price, thus guaranteeing a balance between quality and affordability, even though not being positioned as the lowest-priced option in the market
- Direct-to-consumer channel and availability in supermarkets: the omnichannel presence of the firm both online and in supermarkets allows consumers to choose their preferred purchasing method, thus rising their trust
- Premium image: the firm tries to build a strong brand perception through branding, packaging and marketing that convey a sense of quality and sophistication

Even though cost is a factor in Harry's strategy, as we can see considering the quite affordable price, the differentiation elements, such as the premium image and the omnichannel approach, make the company's strategy mostly based on differentiation

HIGHLIGHT GILLETTE'S RISKS AND PROVIDE A PROBABILISTIC OVERVIEW ABOUT THE POSSIBILITY OF CUTTING PRICES

The company was facing several risks, such as:

- Declining market: the market for men's shaving was declining since men shaved less often and spent more money on toiletries and perfumes

- Unsuccessful choices: Gillette launched Gillette Shave Club in 2015, trying to replicate DSC and Harry's model, but without reducing prices. However, the club's success was limited
- Overconfidence on innovation: equity analysts were complaining that Gillette was not listening to customers and that "super premium innovation" was not the only way to win in the product category
- Decrease in elasticity: according to estimates, the elasticity of demand to price for Gillette's shaving products ranged between -0.50 and -1.10

Thus, from a probabilistic point of view, it is necessary to observe what is the threshold from which the company should actually cut prices. In order to do so, we need to use utility model and wisely fill the matrix

Scenarios	Demand is elastic	Demand is inelastic
Cut prices	100	-300
Not cut prices	0	0

By operating the expected probability calculus, we understand that Gillette should have cut prices if it believed there was a greater probability than 75% that demand was inelastic

EXPLAIN HOW GILLETTE COULD HAVE CLEARLY UNDERSTAND THE ACTUAL PROBABILITY OF SUCCESS

Gillette needed:

- A theory of how customers would react to price cuts
- Collecting insight from experts (which, in this case, would have been probably supportive)

- Running experiments with cutting price, thus finding some safe and effective ways

The theory was willing to address the reasons why customers were leaving. As a first answer, the company thought prices were the only reason, thus working on finding a price point at which customers would prefer to stay with Gillette (superior quality) than to adopt inferior brands

Indeed, in 2017, the firm reduced prices by about 12% on average and up to 20% on certain products

However, as an equity analyst said, the price point was not the only issue, but the firm should have considered also other elements, such as:

- Distrust for big brands: people are willing to be doing things their own way, thus provoking a higher distrust of big brands and harming brand affinity
- Loss in market share: in the grooming market, which combines shaving, toiletries and perfumes, shaving has experienced a decline in market share due to changing beauty standards, cultural shifts and casualization of workplaces, further increased by the rise of remote work
- Overall market shrinking: the whole market is shrinking due to several factors, such as market saturation, lifestyle changes and pandemic impact, thus altering some individuals' grooming routines

As a consequence, Gillette's competitors took some important decisions, such as:

- DSC has recently started distribution in stores
- Harry's has entered UK and has plans to enter other European countries

Therefore, Gillette should take several measures, such as:

- Innovation and product development: the firm should introduce further innovations in razor technology, thus introducing features that cater to changing consumer preferences, such as precision and skin sensitivity
- Diversification in product portfolio: the firm should consider diversifying the product portfolio beyond traditional shaving products, thus involving entering related markets, such as skincare or other personal care items. Indeed, diversification can help offset declines in one segment
- E-commerce: the company should leverage e-commerce platforms and direct-to-consumer channels to adapt to changing consumer shopping habits
- Sustainability initiatives: the firm should promote environmentally conscious initiatives, such as recyclable packaging and sustainable sourcing of materials, in order to respond to the consumer demand for eco-friendly products
- Strengthen customer loyalty: the firm should implement customer engagement programs and personalized marketing, such as innovating subscription models

EXPLAIN WHY AMAZON IS ON ITS WAY TO BECOME THE “EVERYTHING” STORE

Amazon's expansion into various product categories has contributed to its reputation as a comprehensive and all-encompassing platform. Several factors support the notion that Amazon is on its way to become the “everything” store, such as:

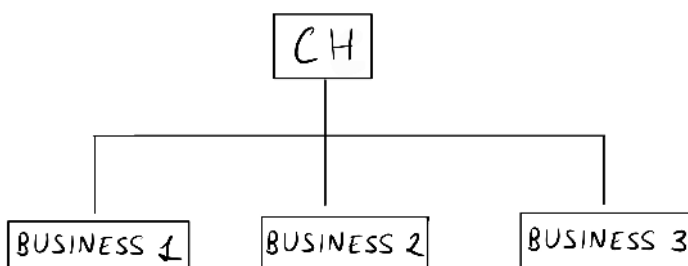
- Expansion into new markets: Amazon continually explores and enters new markets, such as the acquisition of Whole Foods to expand into the grocery industry. Investments in sectors like healthcare, entertainment and logistics show the firm's ambition to diversify its offerings, thus willing to become the “everything” store

- Product diversity: Amazon offers an incredibly wide range of products, thus generating a platform that serves as a one-stop shop for customers seeking various items
- Third-party marketplace: the inclusion of a third-party marketplace allows independent sellers to list their products on Amazon, further reinforcing its position as a comprehensive retail platform
- Amazon Prime ecosystem: the subscription service offers additional benefits such as free and fast shipping, access to Prime Video, Prime Music etc, thus enhancing customer loyalty and encouraging users to rely on Amazon for a broader array of services
- Amazon web services (AWS): Amazon's cloud computing division, AWS; is a major player in the global cloud services market and, even though not specifically related retail, contributes to Amazon's overall dominance and financial strength
- Innovative technologies: investments in AI, machine learning and robotics do not only improve internal operations but also enhance a broader range of customer experiences and services

DEFINE CORPORATE STRATEGY

Corporate strategy is defined as the decisions that senior management makes and the goal-directed actions it takes to gain and sustain competitive advantage in several industries and markets simultaneously

Therefore, the scheme is the following



EXPLAIN WHY DO FIRMS NEED TO GROW

Firms need to grow for several causes:

- To increase profitability: profitable growth allows businesses to provide a higher return for their shareholders or owners
- To lower costs: larger firms may benefit from economies of scale, deriving down average costs as their output increase
- To increase market power: firms can change industry structure in their favor by buying out their competitors. As a consequence, there is a strong interconnection with the five Porter's forces. Indeed a firm with higher market power can:
 - Invest in creating barriers to entry, thus reducing threat of new entrants
 - Effectively set prices, reducing the bargaining power of buyers
 - Obtain negotiate strength and favorable terms with suppliers, thus reducing their power
 - Invest in product differentiation, making its offerings unique and reducing the threat of substitutes
 - Engage in strategic moves such as mergers and acquisitions to consolidate its market position, reducing competitive rivalry
- To reduce risk: competing in different industries might allow firms to compensate for lower performance in certain sectors
- To motivate management: growing firms afford career opportunities and professional development for employees

STATE THE THREE DIMENSIONS ALONG WHICH THE FIRMS CAN GROW, THUS PROVIDING THE QUESTIONS THEY ANSWER

Firms can grow along three dimensions, each one of them represents a strategy that is able to enhance the firm's overall performance.

- Vertical integration: it involves the firm's expansion along the industry value chain, encompassing activities from the raw materials stage to the final delivery of products and services to end customers, thus providing cost efficiency, quality control and market power
- It answers the question: "What stages of the industry value chain should the company participate?"
- For example, McDonald's has backward integration by owning a significant portion of its supply chain, such as distribution centers ownership, and forward integration by operating a substantial number of its restaurants
- Diversification: diversification involves a firm expanding its product or service offerings beyond its current range, providing risk mitigation, revenue stability and capital utilization
- It answers the question: "What range of products and services should the company offer (and not offer)?"
- For example, Virgin differentiates itself from music and airlines to telecommunications and space travel thus standing out for its unconventional and customer-centric approach
- Geographic scope: geographic scope refers to a firm's expansion into different regional, national or global markets. This can involve exporting products, establishing subsidiaries or entering into strategic partnerships in new locations
- It answers the question: "Where should the company compete geographically?"
- For example, LVMH owns a portfolio of luxury brands, thus remarking a strong presence in key global markets with retail outlets, boutiques and distribution networks in numerous countries

DEFINE WHICH CORPORATE STRATEGIC DECISIONS HAS AMAZON TAKEN TO ENSURE ITS CONTINUED GROWTH

Amazon has implemented a range of corporate strategic decisions to ensure its continued growth, such as:

- Geographic diversification: in 1998 Amazon took a crucial step by launching its first non-US site in the UK. In this way, Amazon tapped into international markets, broadening its customer base and establishing its global presence, thus paving the way for its evolution to become a global e-commerce giant
- Vertical integration: in 2012, Amazon invested in vertical integration by acquiring Kiva Systems, a robotics company specializing in automation for fulfillment centers. In this way, the use of robotic systems reduced the labor required to pick, pack and ship products and, further, strengthened Amazon's control over its supply chain
- Product diversification: in 2017, Amazon acquired Whole Foods Market, a high-end grocery chain. In this way, the company was able to diversify its product offerings and capture a share of the grocery market, thus enhancing its revenue streams and customer base

HIGHLIGHT THE CONCEPTS THAT GUIDE CORPORATE STRATEGIC DECISIONS

The concepts that guide corporate strategic decisions are several:

- Core competencies: unique strengths embedded deep in a firm that allow differentiation of its products and services
- Economies of scale: occur when a firm's average cost per unit decreases as its output increases
- Economies of scope: arising from producing two or more outputs at less cost than producing each output separately
- Transaction costs: costs associated with an economic exchange

DESCRIBE HOW THE GUIDING CONCEPTS FOR CORPORATE STRATEGIC DECISIONS ARE APPLIED TO THE AMAZON CASE

CORE COMPETENCIES

Amazon's core competencies underpin its success and drive its competencies. The key core competencies are:

- AI capabilities: these capabilities provide product enhancement and improved customer experience, thus making the company more desirable and strengthening its strategic position as a major technology influences in the global market
- Logistics optimization: the company excels in supply chain optimization, thus employing innovative solutions such as robotics and automation in warehouses to streamline operations
- Customer-centric approach: Amazon's commitment to customer satisfaction is a core tenet. Indeed the company always tries to prioritize customer needs such as offering a range of services, including fast shipping, exclusive content and other benefits

ECONOMIES OF SCALE

Amazon's key source of scale has come from its ability to amortize its massive investment in the Web shopping engine across multiple categories, thus not limiting it for selling products. Indeed, instead of companies buying and maintaining their own computer servers, they can use AWS, which offers computing power, storage and database as needed. Thus, the fact AWS combines the usage from many customers allows it to offer services at a lower cost due to higher EoS. However, creating such a platform is challenging for the majority of its competitors, thus further strengthening Amazon's position in the market

ECONOMIES OF SCOPE

Amazon's distribution network ranks among the largest networks for fulfilling direct customer orders. Indeed, shipping a range of products is more efficient than shipping a single producers and Amazon sells an extremely broad range of products. As a result it

can negotiate favorable deals with freight companies, thus exploiting economies of scope

TRANSACTION COSTS

Through one-click purchasing and Prime subscription, Amazon reduces:

- The cost of finding what the customer wants
- The time it takes to get it into his hands
- The effort it would take to returning
- The added cost of shipping
- The payments process

Thus dramatically lowering consumers' cost of engaging with their markets and thereby lowering transaction costs

DEFINE TRANSACTION COSTS

Transaction costs can be defined as all internal and external costs associated with an economic exchange, whether it takes place within the boundaries of a firm or in markets

PROVIDE A DISTINCTION BETWEEN INTERNAL AND EXTERNAL COSTS

INTERNAL COSTS

Internal costs pertain to organizing economic exchange within the boundaries of a firm or organization. These are the costs associated with coordinating and managing activities, decisions and exchanges that take place within the company

For example, we can consider:

- Decision-making: the time and resources spent by managers and employees to make decisions within the company

- Communication: costs related to conveying information with different departments of the organization
- Monitoring: expenses associated with supervising and ensuring the tasks are carried out effectively
- Recruiting and retaining: costs associated with recruiting and retaining employees in order to rise value within the firm

EXTERNAL COSTS

External transaction costs are the costs incurred outside the boundaries of a firm, specifically related to economic exchanges that take place in external markets. More specifically, they are the costs of searching, negotiating and enforcing contracts with firms or individuals in the open market

EXPLAIN WHEN FIRMS SHOULD MAKE OR BUY A PRODUCT

Transaction costs determine and predict firm boundaries in two ways

MAKE

The firm has to answer the following question: “should firm activities be pursued in-house?”

The answer is positive if

$$C_{\text{in-house}} < C_{\text{market}}$$

The solution is to vertically integrate

BUY

The firm has to answer the following question: “should goods and services be obtained externally?”

The answer is positive if

$$C_{\text{in-house}} > C_{\text{market}}$$

The solution is to contract with market players

COMPARE ORGANIZING ECONOMIC ACTIVITY THROUGH FIRMS AND MARKETS

Economic activity can be organized in two primary ways:

- Economic activity through firms: firms are organized entities that bring together resources to produce goods or services. These entities operate in a hierarchical structure, often led by management, and involve internal coordination and control mechanisms
- The main characteristics are a centralized decision-making, internal coordination and internal transactions
- Economic activity through markets: markets refer to the decentralized exchange of goods and services between buyers and sellers. In a market system, transactions take place based on supply and demand forces, and prices are determined through the interaction of buyers and sellers
- The main characteristics are a decentralized decision-making, price determination by market forces, external coordination and external transactions

ORGANIZING ACTIVITY THROUGH FIRMS

ADVANTAGES

- Command and control: firms provide a hierarchical structure with clear lines of authority and decision-making, thus allowing for efficient coordination and the ability to implement strategies from top management
- Coordination: firms can coordinate various activities within their organizational boundaries, ensuring that different departments work together towards common goals

- Transaction-specific investments: firms facilitate investments that are specific to certain transactions, as the organization can ensure the continuity of these investments
- Community of knowledge: firms foster a shared knowledge, creating an environment where expertise and information can be collectively utilized

DISADVANTAGES

- Administrative costs: firms incur administrative costs associated with managing hierarchies, coordination and decision-making processes
- Low-powered incentives: in large firms, employees might have less direct impact on the firm's overall success, resulting in potentially harmful lower-powered incentives
- Principal-agent problem: the issue arises when there is a misalignment of interests between the owners (principals) and the managers (agents) of a firm

ORGANIZING ACTIVITY THROUGH MARKETS

ADVANTAGES

- High-powered incentives: markets offer high-powered incentives for individual participants, as success is often directly tied to individual efforts, such as commissions for salespeople
- Flexibility: markets provide flexibility for buyers and sellers to adjust their activities based on changing conditions, demand and supply, as it happens in stock market

DISADVANTAGES

- Opportunism: it occurs when participants in a market act in their self-interest without considering the impact on others, potentially leading to unfair practices, such as salesmen misrepresenting the quality of a product

- Incomplete contracting: contracts in the market may be incomplete, lacking detailed specifications for all potential contingencies, leading to disputes, as it often happens in a real estate contract
- Enforcement of contracts: in markets, enforcing contracts may be challenging, especially when legal frameworks are weak or when parties are geographically weak. For instance, enforcing a contract with an international supplier might be hard due to legal differences between countries

STATE THE ALTERNATIVES ON THE MAKE-BUY CONTINUUM

The “make-or-buy continuum” represents a spectrum of options for organizations when deciding whether to produce goods or service internally (make) or to procure them from external sources (buy)

Along the continuum there exist various alternatives, each of them offering a different level of integration or collaboration

The alternatives are, moving from buying externally to making internally:

- Buy: purchasing goods or services from external suppliers in the open market
 - For example, a company buys raw materials from suppliers for its manufacturing process
- Short-term contracts: engaging in contractual agreements with external suppliers for a limited duration
 - For example, a software development company hiring a contractor for a specific project
- Long-term contracts: entering into extended contractual agreements with external suppliers, typically for a more extended period

- For example, an automotive manufacturer signing a long-term contract with a supplier for a steady supply of components
- Equity alliances: establishing a partnership with an external entity by acquiring a significant ownership stake, often through the purchase of equity
- For example, a technology company investing in and acquiring a stake in a startup with innovative technology
- Joint ventures: forming a separate legal entity with an external partner to jointly undertake a specific business venture
- For example, two companies partnering to create a joint venture for the development and marketing of a new product
- Parent-subsidary relationship: establishing a hierarchical structure where one entity (the parent) owns a controlling interest in another (the subsidiary)
- For example, a multinational corporation owning and controlling various subsidiaries in different countries
- Make: producing godson services internally within the organization
- For example, a software company developing its own software products using in-house teams

A synthetic scheme is the following



DEFINE AND ANALYZE SHORT-TERM CONTRACTS THROUGH SOME EXAMPLES

Short-term contracts describe contracts to be awarded with a short duration, generally less than one year

Short-term contracting process is characterized by several steps

- When engaging in short-term contracting, a firm sends out requests for proposals to several companies
- Suppliers who receive the RFP initiate competitive bidding for business proposals
- After the suppliers have submitted their business proposals, the buying firm evaluates them based on various criteria
- After selecting a supplier, the firm enters into contract negotiations with the chosen supplier
- The short-term contract allows for a somewhat longer planning period compared to individual market transactions, thus allowing both parties to be aligned on expectations and requirements
- The buying firm can often demand lower prices as suppliers strive to offer the most competitive and attractive proposals to secure the contract

For example, while both Toyota and GM are major players in the automotive industry, their approaches to short-term contracting are different

- Toyota is known for fostering long-term relationships with its suppliers, thus emphasizing collaboration, trust and mutual benefit rather than relying solely on competitive bidding
- GM often engages in competitive bidding processes to secure the best possible prices and has a diverse network of suppliers, thus assuring a broad and competitive supply base

Therefore, GM, thanks to competitive bidding processes, may be able to better exploit cost efficiency and maintain a solid competitiveness over time. However, strong competitive bidding could represent an incentive for suppliers to compromise their quality or reliability, especially if the cost threshold requirement is extremely low. As a consequence, this could result for the focal firm in additional costs, rework or damage its reputation and recognition

DEFINE STRATEGIC ALLIANCES AND ANALYZE ITS COMPONENTS

Strategic alliances are voluntary arrangements between firms that involve the sharing of knowledge, resources and capabilities with the intent of developing processes, products or services

LONG-TERM CONTRACTS

Long-term contracts are contracts longer than a year, which help facilitating transaction-specific investments through several factors, such as commitment and assurance, reduced uncertainty, economies of scale (since they often involve large quantities or more extended production runs) and relationship building

For example, between McDonald's and Disney there was a historic promotional marketing alliance that spanned several years, related to the inclusion of Disney-themed toys in McDonald's Happy Meals. As a consequence, this helped cross-promotion, which is a condition in which both companies benefit from each other's popularity

EQUITY ALLIANCES

Equity alliances are partnerships in which at least one partner takes partial ownership in the other partner, thus promoting risk mitigation, synergy and innovation and shared expertise

For example, Coca-Cola and Monster have entered into a strategic partnership which sees Monster assume control of Coke's energy brands and Coke assumes control of Monster's non-energy brands. In addition, Coca-Cola also takes a 16.7% stake in Monster. In this way,

the two companies provide stronger synergy and innovation, as well as shared expertise

JOINT VENTURES

Joint ventures happen when two or more partners create and jointly own a new organization, thus providing incentives for cost efficiency, improved competitive positions and global expansion

For example, Walt Disney Company has bought \$8.6 billion stake in Hulu, a streaming service that offers on demand streaming of TV shows, completing its takeover of the streaming service. As a consequence, this has represented an incentive to strengthen both competitive positions and improve their global expansion

EXPLAIN PARENT-SUBSIDIARY RELATIONSHIP

Parent-subsidiary relationship describes the most-integrated alternative to performing an activity within one's own firm boundaries. In particular, the model provides that the corporate aren't owns the subsidiary and can direct it via command and control. The relationship may guarantee advantage in terms of control and decision-making and efficient resource allocation

For example, GM was the parent company that owned both Vauxhall, which represented the British subsidiary of GM, and Opel, which was the German subsidiary. Both bands operated as part of GM's global automotive portfolio

SHOW WHY NESPRESSO PREFERRED VERTICAL INTEGRATION

Nespresso has employed a form of vertical integration in its business model due to several strategic advantages:

- Environmentally-friendly approach: the company has implemented a holistic approach to sustainable development, given by:
 - Focus on achieving specific targets in sustainable coffee sourcing

- Attention on the use and disposal of capsules
- Effort in reducing the carbon footprint of a cup of coffee
- Quality control: vertical integration allows the company to have direct control over the entire coffee production process, from sourcing the beans to manufacturing the coffee capsules, thus enhancing quality management and consistency
- Supply chain efficiency and responsiveness: direct oversight of production, distribution and retailing enables the company to manage inventory efficiently and respond quickly to market demand, thus trying to overcome price volatility
- Brand consistency: Nespresso maintains a consistent brand image and product quality across all stages of production and distribution, thus rising brand recognition
- Customization: Nespresso can experiment with new coffee blends and capsule designs, responding to changing consumer preferences

As a result, in 2009 the company reached several results:

- 80% of its coffee sourced from its AAA Sustainable Quality Program
- 75% of used Nespresso capsules used for recycling
- 20% reduction in carbon footprint needed to produce a cup of Nespresso coffee

SHOW THAT VERTICAL INTEGRATION VARIES DEPENDING ON THE INDUSTRY

Even though some industries have historically been characterized by high degree of vertical integration (e.g. oil industry), in the same industry competitors may vary considerably in their degree of vertical integration

For example, in the apparel industry:

- Zara and Benetton produce internally almost all the phases
- Calvin Klein and H&M manage the brand but the production is outsourced
- Other companies are in between

DEFINE VERTICAL INTEGRATION

Vertical integration can be defined as the firm's ownership of its production of needed inputs or of the channels by which it distributes its outputs

DEFINE INDUSTRY VALUE CHAIN AND RELATE IT TO VERTICAL INTEGRATION

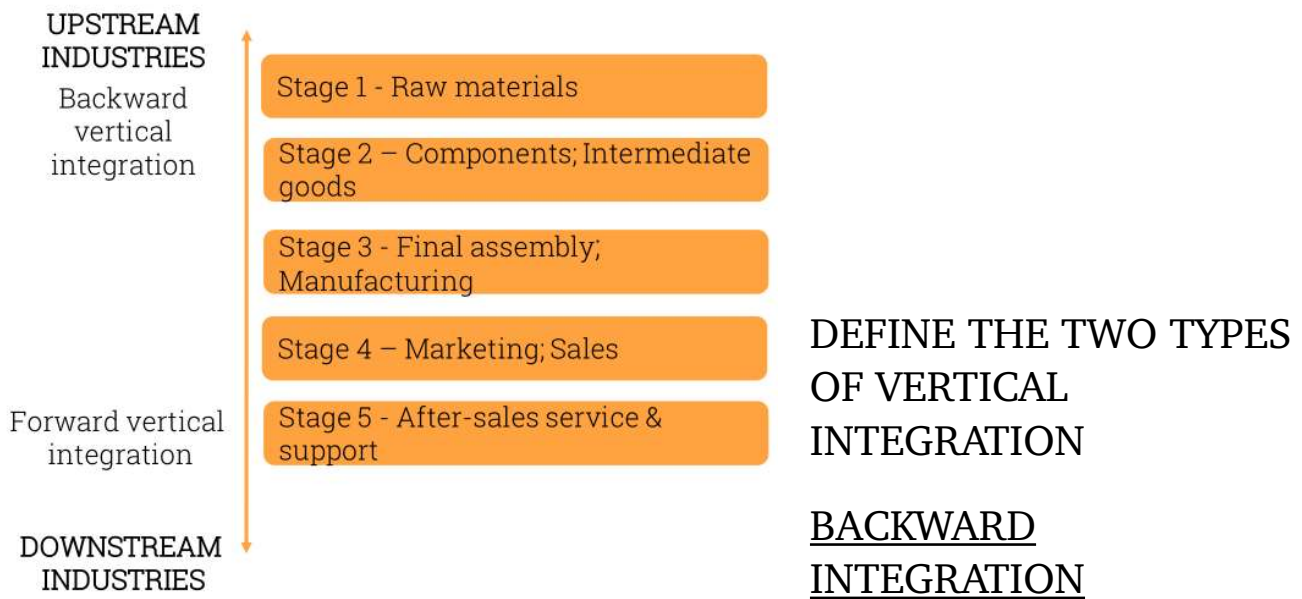
Industry value chain depicts transformation of raw materials into finished goods and services. Further, each vertical stage represents a distinct industry

In addition, industries are divided in two categories:

- Upstream: refers to activities or stages that are closer to the beginning of the production chain
- Downstream: refers to activities or stages that are closer to the end-user or consumer
- Raw materials
 - Backward integration: involves acquiring and controlling sources of raw materials or inputs
 - Relation to value chain: a company engaging in backward integration may acquire mines, farms and other sources to secure a direct supply of raw materials, thus ensuring a stable and controlled supply chain
- Components/Intermediate goods
 - Backward integration: involves acquiring suppliers or manufacturers of components used in the production process

- Relation to value chain: the integration into component production enhances control over quality, cost and timely delivery, leading to operational efficiencies
- Final assembly/Manufacturing
- Backward integration: may involve owning the facilities responsible for the final assembly of products
- Relation to value chain: companies may vertically integrate by directly controlling the assembly process, ensuring optimal production and quality standards
- Marketing and sales
- Forward integration: involves acquiring distribution channels, retail outlets or marketing agencies
- Relation to value chain: forward integration in marketing allows companies to control the distribution and promotion of their products, thus enhancing customer trust
- After-sales service
- Forward integration: involves owning service centers, customer support operations, or other post-sale service providers
- Relation to value chain: by integrating forward into after-sales service, companies can directly manage customer support, thus enhancing the overall customer experience

The following scheme represents a synthetic representation of the model



Backward integration

means moving ownership of activities upstream to the originating inputs of the value chain. Thus, it is a business strategy where a company extends its operations to control and own the sources of inputs or raw materials that are used in the production process

The main characteristics are:

- Supplier control: such companies seek greater control over their supply chain by owning or controlling the suppliers
- Risk mitigation: it helps mitigating risks associated with the supply of critical inputs, such as fluctuations in prices or disruptions in supply
- Quality control: backward integration allows for direct control over the quality of the inputs used

FORWARD INTEGRATION

Forward integration means moving ownership of activities closer to the end customer. Thus, it is a business strategy where the company extends its operations to control and own distribution channels or retail outlets

The main characteristics are:

- Distribution control: such companies seek greater control over the distribution and sales
- Brand presence: companies strengthen their brand presence by enhancing customer trust
- Market access: forward integration provides direct access to consumers and reduces dependency on external retailers

DESCRIBE THE BENEFITS AND THE RISKS OF INTEGRATION

BENEFITS

The main benefits are:

- Lowering costs: integration allows companies to eliminate intermediaries and achieve economies of scale, thus resulting in cost reductions in various stages of the value chain
 - Example: a manufacturer integrating by acquiring a material supplier can achieve cost efficiencies
- Improving quality: direct control over production processes and inputs enables companies to maintain a consistent level of quality, thus reducing the risk of quality variations introduced by external suppliers
 - Example: a technology company manufacturing its own components can better control quality standards
- Facilitating scheduling and planning: better coordination and synchronization across different stages of the value chain is provided, thus reducing delays
 - Example: an integrated manufacturing company can align production schedules with raw material availability, thus reducing production bottlenecks

- Facilitating investments in specialized assets: more confidence in investing in specialized assets, knowing that they are aligned with company's strategic goals
- Example: an automotive manufacturer investing in a facility equipped with the most advanced technologies is willing to integrate in order to gain more control over the production of essential components
- Securing critical supplies and distribution channels: integration mitigates the risks associated with external suppliers or distributors, thus securing stable supply of critical inputs and efficient distribution channels
- Example: a food manufacturer integrating ensures a stable and controlled supply of raw ingredients

RISKS

The main risks are:

- Increasing costs: there is a risk that the initial investments, ongoing operational expenses and management complexities might lead to higher overall costs
- Example: setting up in-house production facilities may initially incur capital expenses, impacting short-term financial performance
- Reducing quality: in some cases, managing complex integrated operations might lead to challenges in maintaining consistent quality standards
- Example: quality may be harmed especially if there are difficulties in adapting to new technologies or processes
- Reducing flexibility: integration can make a company less flexible in responding to changes in the market conditions or shifts in consumer preference, thus limiting agility and responsiveness

- Example: a fully integrated supply chain might struggle in adapting quickly to sudden changes in demand patterns
- Increasing the potential for legal repercussions: integration may lead to legal challenges, especially if the company faces accusations of anti-competitive practices
- Example: acquiring a significant share of the market through integration may lead to legal investigations and potential consequences

EXPLAIN WHEN DOES IT MAKE SENSE TO VERTICALLY INTEGRATE

It makes sense to vertically integrate in several situations:

- Market risk and reliability: vertical integration may be considered when external conditions are too risky or unreliable, such as geopolitical uncertainties or frequent disruptions. Thus, if depending on external suppliers is too risky, companies may choose to integrate, thus gaining more control and stability
- Failure of vertical markets: the failure or inefficiency of vertical markets can be a compelling reason for companies to vertically integrate. Indeed, the main characteristics of vertical markets are:
 - Small number of buyers and sellers: limited options for both in the market
 - High asset specificity: investments in assets that have low value in alternative uses and are specific to the transaction
 - Frequent transactions: the cost associated with frequent transactions is high
- High asset specificity: when transactions involve highly specialized asset that are not easily transferable or have limited alternative uses, vertical integration becomes more attractive, thus reducing the risk of dependence on external parties

- High transaction costs: in industries where transaction costs are prohibitively high due to frequent exchanges and complex coordination, vertically integrating is a solution, thus eliminating the need for constant negotiations and transactions with external partners
- Strategic control: when a company seeks strategic control over critical aspects of its business, vertical integration allows to increase control while decreasing dependency
- Risk mitigation: in volatile markets or industries with high uncertainty, vertical integration is a risk mitigation strategy, by allowing the company to have more influence over the supply chain
- Competitive advantage: if vertical integration offers a unique competitive advantage, such as faster time-to-market and improved quality control, then it is a strategic choice for differentiated companies

DEFINE DIVERSIFICATION

Diversification is defined as an increase in the variety of products and services a firm offers or markets and the geographic regions in which it competes

STATE THE VARIOUS TYPES OF DIVERSIFICATION STRATEGIES

Diversification strategies can be:

- Product diversification strategy: a firm that is active in several different product markets
- Geographic diversification strategy: a firm that is active in several different countries
- Product-market diversification strategy: a company that pursues both a product and a geographic diversification

DESCRIBE BENEFITS AND RISKS OF A PRODUCT DIVERSIFICATION STRATEGY, PROVIDING SOME EXAMPLES

There are several benefits, such as:

- Revenue stability: diversifying into different product lines or markets can provide revenue stability. Indeed, if one market experiences a downturn, other diversified areas may continue to generate income
- Risk mitigation: diversification spreads business risk. Indeed, a diversified portfolio can help cushion the impact of a particular product unexpected challenges on overall business performance
- Growth opportunities: product diversification opens up new markets and growth opportunities, thus tapping into different customer segments or addressing emerging trends
- Competitive advantage: company is able to cater to a broader customer base and compete more effectively in the market

There are several risks, such as:

- Operational complexity: each product line may have unique requirements and production processes, increasing the challenges of coordination
- Market uncertainty: introducing new products carries its own risks, including market acceptance and changing consumer preferences
- Capital drain: diversification requires significant financial resources, and if not managed properly, it can strain the company's capital
- Brand dilution: diversification may dilute the brand identity if consumers associate the company with too many unrelated products

For example, Coca-Cola and Pepsi provide two different strategies regarding product diversification:

- Coca-Cola focuses on soft drinks and thus on a single product market
- Pepsi is more product diversified, since it sells other beverages and different types of chips in addition to soft drinks

DESCRIBE BENEFITS AND RISKS OF A PRODUCT DIVERSIFICATION STRATEGY, PROVIDING SOME EXAMPLES

There are several benefits, such as:

- Access to new markets: geographic diversification allows a company to tap into new markets, thus contributing to overall business growth
- Reduced dependency: relying on a single market exposes the company to specific risks. Diversification helps spreading and mitigating those risks
- Cost efficiencies: entering new markets may provide economies of scale, potentially lowering costs
- Diversified revenue streams: a diverse geographic portfolio can provide stability, as downturns in one region may be offset by growth in another
- Access to talent: diversification may provide access to a more diverse workforce, offering advantages in problem-solving

There are several risks, such as:

- Political and regulatory risks: political instability or changes in regulatory environments in new markets can pose risks to operations
- Cultural challenges: adapting to local cultures can be challenging, thus rising the risk of failures

- Currency fluctuations: operating in multiple currencies exposes the company to currency exchange rate fluctuations, affecting costs and profits
- Brand consistency: maintaining a consistent brand across diverse markets may be challenging, thus affecting customer trust
- Local competition: local competitors may have advantages in understanding and serving the needs of the local market, thus rising the barriers to entry

For example, KFC and Chick-fil-A provide two different strategies regarding geographic diversification:

- KFC, world's largest quick-service chicken restaurant chain operates 20,000 outlets in some 120 countries, thus providing high geographic differentiation
- Privately held Chick-fil-A, world's second largest quick-service chicken restaurant, is a direct competitor to KFC and operates in the US only with 2,200 locations

EXPLAIN THE DIFFERENT TYPES OF DIVERSIFICATION

The types of diversification differ on the percentage of revenue obtained from one single business and the relationship of core competencies across business units:

- Single business: it derives more than 95% of revenues from one business, thus showing a low level of diversification
 - For example, Birkenstock makes only contoured cork shoes
- Dominant business: it derives between 70-95% of revenues from one single business, which implies that it pursues at least one other business activity, thus showing a relatively low level of diversification

- For example, Harley-Davidson generates 80% of its revenue by selling its iconic motorbikes and the remaining 20% from motorcycle parts and accessories
- Related diversification: it derives less than 70% of revenues from a single business, and other businesses are linked to the primary business
- For example, J&J operates in related industries of pharma, medical devices and consumer health
- For example, Disney is a conglomerate that has engaged in extensive related diversification, expanding its business across various segments within the entertainment industry. Indeed, none of the business generate more than 70% of its revenue and there exist strong synergies between its existing businesses
- Unrelated diversification: it derives less than 70% of revenues from a single business, and there are few, if any, linkages among businesses
- For example, Tata conglomerate operates in unrelated industries of chemicals, communications, consultancy, automobiles and hospitality
- For example, 3M has historically pursued an unrelated diversification strategy, entering diverse markets with a wide array of products, such as office suppliers, healthcare products, electronics and energy

EXPLAIN WHAT ARE THE BENEFITS AND DISADVANTAGES OF A DIFFERENTIATION STRATEGY

A differentiation strategy provides benefits given by several sources of value and challenges given by several sources of costs

The sources of value creation are:

- Economies of scope: companies can achieve economies of scope by leveraging shared resources and capabilities across multiple businesses, thus reducing costs and improving efficiency
- Economies of scale: diversification can lead to economies of scale, where the increased size of the overall organization results in lower average costs per unit
- Financial economies: diversification can provide financial benefits through the internal capital market. Indeed, profits generated by successful business units can be used in order to fund and support struggling units, thus balancing the financial portfolio

The sources of costs are:

- Coordination costs: ensuring that different business units work together efficiently requires effective communication and coordination, which could increase costs
- Loss of focus: company spread its resources and attention across multiple business areas, thus making it possible that this lack of focus impact the overall performance of the company
- Consistency and reputation: company's reputation could be diluted if associated with too many disparate product and services. This inconsistency may confuse customers and weaken the overall brand image
- Difficulty in knowledge transfer: knowledge and competencies that are successful in one business unit may not easily transfer to another, due to the individual industries' unique requirements
- Influence (political costs): governments and regulatory bodies may closely monitor or impose restrictions on large and diversified companies

EXPLAIN HOW DOES DIVERSIFICATION INFLUENCE THE FIRM'S PERFORMANCE

In order to improve decision-making, it is necessary to ask whether the individual businesses are worth more under the company's management than if each were managed individually

- Firms that pursue unrelated diversification are often unable to create additional value and experience a diversification discount
- A diversification discount is a situation where the market values a diversified company at a lower multiple or lower overall value compared to the sum of its individual business units if they were separated
- Firms that pursue related diversification are more likely to improve their performance and experience a diversification premium
- A diversification premium occurs when the market values a diversified company at a higher overall value compared to the sum of its individual business units

DESCRIBE PROS AND CONS OF A RELATED AND UNRELATED DIVERSIFICATION STRATEGY

RELATED DIVERSIFICATION

The main benefits are:

- Synergies and economies: synergies among different business units leverage shared resources, technology and capabilities, thus leading to cost savings and operational efficiencies
- Risk reduction: the risk of market fluctuations may be mitigated by a diversified portfolio, thus improving stability
- Cross-selling opportunities: it leverages the customer base of one business unit to promote offerings from another
- Brand and reputation enhancement: the guarantee of consistency and relationship among several business could strengthen brand reputation

- Knowledge transfer: knowledge developed in one business unit can be easily transferred to other related businesses, thus enhancing efficiency

The main disadvantages are:

- Industry dependence: if related industries face downturns, the entire diversified portfolio may be negatively impacted
- Coordination: managing a portfolio of related businesses requires effective coordination, rising costs and complexity in managing decision-making
- Market dynamics: technological disruptions or regulatory changes in a related industry can have cascading effects
- Competitive pressures: business within the same industry may end up competing against each other, potentially eroding profitability and market share

UNRELATED DIVERSIFICATION

The main benefits are:

- Risk mitigation: risk mitigation is provided by spreading investments across different industries. Indeed, a downturn in one industry may be offset by growth in another
- Financial flexibility: profitable business units can help the firm facing challenges, thus providing financial flexibility and stability through the diversified portfolio
- Innovation opportunities: diversity may lead to cross-industry innovation, since ideas and technologies from one business unit are applied creatively in another
- Market independence: businesses are less affected by similar market dynamics, thus reducing vulnerability to industry-specific risks

The main disadvantages are:

- Coordination: little synergy leads to coordination challenges, increasing complexity in decision-making
- Lack of core competencies: there may be a lack of core competencies needed to excel in unrelated industries, potentially leading to underperformance
- Resource allocation issues: poor resource allocation may result in underinvestment in some units and overinvestment in others
- Loss of focus: loss of focus makes it difficult to develop and maintain a competitive advantage in any particular industry

DESCRIBE THE BCG GROWTH-SHARE MATRIX

For a diversified firm, in order to understand how to improve its strategy, it is necessary to constantly evaluate which business it is worth it to invest or divest in

In order to do so, the leader must ask two main questions:

- 1) What is the position of the business within a particular market?
- 2) What is the growth rate of the market?

One helpful tool to guide corporate portfolio planning is the Boston Consulting Group (BCG) growth-share matrix

The matrix locates the firm's individual strategic business units in two dimensions:

- 1) Relative market share (horizontal axis)
- 2) Speed of market growth (vertical axis)

The firm plots its strategic business units into one of four categories in the matrix: dog, cash cow, star and question mark, each of them warranting a different investment strategy

DOGS

- Characteristics: they are underperforming business, thus holding a small market share in a low-growth market. They have low and unstable earnings, combined with neutral or negative cash flows
- Strategic recommendations and implications: the strategic recommendations are either to divest the business or to harvest it- This implies stopping investment in the business and squeezing out as much cash flow as possible before shutting it or selling it

CASH COWS

- Characteristics: they compete in a low-growth market but hold considerable market share. Their earnings and cash flows are high and stable
- Strategic recommendations and implications: the strategic recommendation is to invest enough into cash cows to hold their current position and to avoid having them into dog. As a general rule, strategic leaders would want to manage their SBU portfolio in a clockwise manner

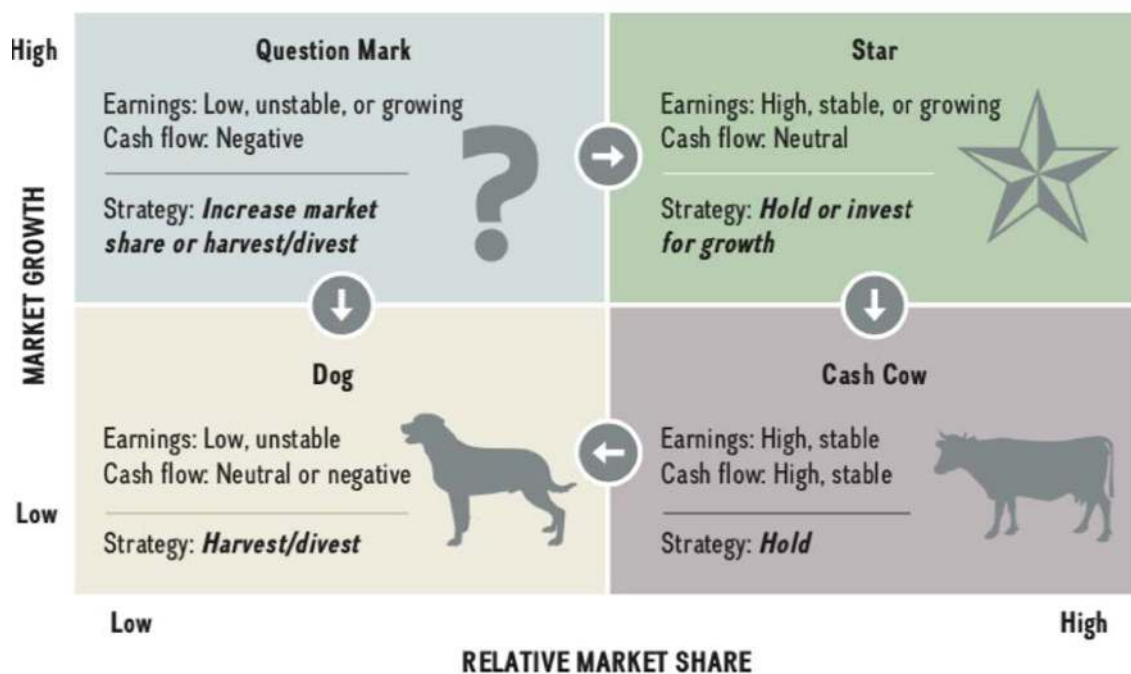
STAR

- Characteristics: they hold a high market share in a fast-growing market. Their earnings are high and either stable or growing
- Strategic recommendations and implications: the recommendation for the corporate strategist is to invest sufficient resources to hold the star's position or even increase investments for future growth. Starts may run into cash cows as the market in which the business is situated slows after reaching the maturity stage of the industry life-cycle

QUESTION MARKS

- Characteristics: their earnings are low and unstable, but they might be growing- The cash flow, however, is negative
- Strategic recommendations and implications: ideally, corporate executives want o investing question marks to increase their

relative market share so they turn into stars. If market conditions change, however, or the overall market growth slows, then a question-mark is likely to turn into a dog. In this case, executives would want to harvest the cash flow or divest the business



DESCRIBE AMAZON BCG MATRIX, IDENTIFYING AMAZON'S STAR, CASH COW, QUESTION MARK AND DOG

BUSINESS	INDUSTRY	GRDWITH	RELATIVE MKT SHARE	PERFORMANCE
Amazon Prime Video	Streaming	7%	Amazon 24%, Netflix 20%	Good (star)
Amazon.com	E-commerce	13%	Amazon 37%, Ebay 35%, Walmart 6%	Bad (result of sev. investment)
Amazon Alexa	Home Assistant	growing	Amazon 60%	Bad
Amazon Kindle	E-reader	stable	Amazon 70%	Decreasing/stable
AWS	Cloud services	growing	Amazon 40%, Microsoft 22%	Good

The various businesses can be classified as follows:

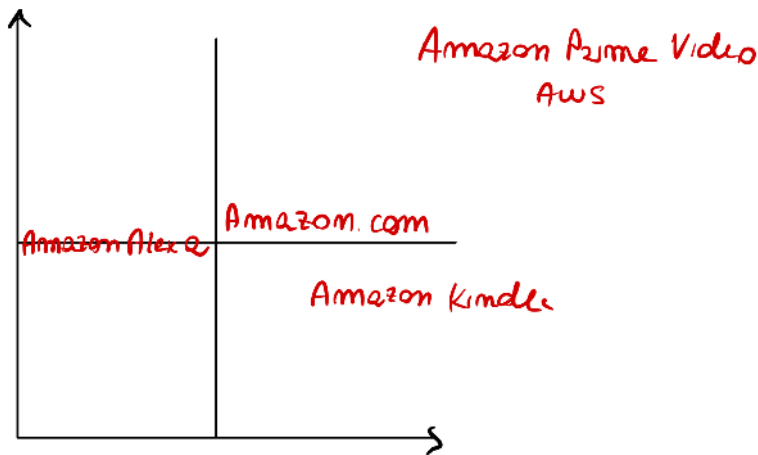
- Amazon prime video: the business operates in the highly competitive and rapidly evolving streaming market. Furthermore,

the business has a significant market share, whose value is even raised by the competitiveness within the industry. For this causes, it can be considered as a star

- Amazon.com: The e-commerce industry is growing quickly and Amazon.com is a mature and dominant player the market. However, in 2022 there has been registered a negative net income, which may weaken the company's position within the market. In any case, despite the concerning performance, the business can be still classified as a star
- Amazon Alexa: the business operated in the smart home devices and voice-enabled technologies market, which presents a relatively high growth potential. However, despite its high market share, the bad performance showed in the last years makes the business stand in between a question mark and a dog
- Amazon Kindle: the e-reader market has faced challenges with the proliferation of multipurpose devices like tablets and smartphones, thus providing a slower growth. However, the high market share (70%) of the business makes it a cash cow
- AWS: the cloud computing platform has been a significant driver of Amazon's profitability. With its high market share and continued growth in the could services industry, AWS can be classified as a star

In conclusion, for business segments classified as stars. Amazon should continue to invest strategically to capitalize on growth opportunities, by expanding service offerings, entering new markets or enhancing existing features. In particular, strategic investment led to solve political tensions are fundamental in order to preserve the high value obtained from Amazon.com. For cash cows, Amazon should invest enough into Kindle to hold their current position and to avoid having them into dog, thus preserving its ecosystem as a whole. For the case of Alexa, Amazon must be aware of the risks of investing in such a business: indeed, if market conditions change, or the overall market growth slows, then it is likely to turn into a dog.

In conclusion, even though there are currently no dogs, the firm must be aware of the constantly changing trends in the industries, which should be incentives for the firm to improve innovation, development and diversification, thus enhancing and strengthening its ecosystem



DISCUSS THE IMPLICATIONS OF THE NUMBERS OF APPLE INC. IN 2020

The main implications are:

- Sales and income: the sales of \$274 billion demonstrate the strong market presence and consumer demand. The company's ability to generate a net income of \$57 billion indicates effective cost management and profitability
- Market capitalization: the valuation of 2 trillion in 2021 reflects the investor confidence in Apple's future growth prospects
- Number of products sold: 250,000 products sold in 2019 show the market leadership of Apple in the technology sector and the strong global economic impact

DESCRIBE THE MAIN LANDMARKS OF APPLE'S HISTORY

- Founding of Apple (1978): Apple was founded by Jobs, Wozniak and Markkula. The company originated in Cupertino and operated from Jobs' garage. The trio played a important role in

the development of the first product, Apple I, a single-board computer. From this first product, Apple started focusing on making simplicity and ease of use as a hallmark

- Initial public offering (1980): Apple went public in 1980, providing it with the capital needed for expansion and development and turning several employees into millionaires
- Impact on the tech industry: through the first innovations Apple emphasized the importance of design, user experience and innovation
- Cultural and technological legacy: Apple, through several investments, has been able to guarantee the foundation for the company's cultural and technological legacy
- Growth of IBM compatibles (1981-1982): IBM's open architecture allowed for compatibility with third-party hardware and software, helping building a solid ecosystem
- Introduction of Macintosh (1984): the Macintosh was designed to be user-friendly, featuring a graphical user interface, and aiming to stand out from the growing competition in PC industry
- Financial challenges (1981-1984): Net income fell by 62% and the company experienced internal turmoil
- Leadership change (1985): Steve Jobs left Apple and went to NeXT Computer and Sculley replaced him as CEO, providing a strategy based on:
 - Leadership in publishing and education: Apple aimed to dominate the publishing and education markets with its Macintosh computers
 - Superior performance: emphasizing performance advantages
 - Plug and play: simplify the user experience

- Transformation efforts (1990): Sculley took on the Chief Technology Officer title and initiated efforts to transform Apple into a low-cost producer to compete with the lower prices of IBM compatibles
- Joint venture with IBM: Sculley formed a joint venture with IBM to develop a new operating system
- MacOS on Intel chips: Sculley also attempted to rework the MacOS to run on Intel chips, departing from Apple's historical use of its own hardware architecture
- Leadership change (1993): after a decline in profits, the BoD replaced Sculley with Spindler, whose strategy was:
 - Cost cutting and international expansion: this included restructuring initiatives to improve efficiency and reduce expenses
- Challenges and results: Apple's market share and competition continued to decline, showing weak financial strength
- Leadership change (1996): Spindler was replaced by Amelio, whose strategy was:
 - Cost cutting and streamline product lines
- Acquisition of NeXT (1997): this acquisition marked the beginning of Jobs' return to Apple
- Leadership change (1997): Jobs returned to Apple as an advisor, but his role expanded extremely quickly, taking soon an active role in the company, whose strategy was:
 - Focusing to Apple's core strengths, emphasizing innovation, design and a user-centric approach
 - Bridging the gap with "Wintel" and brand building: he tried to bridge the gap with the dominant "Wintel" platform, making Macs more competitive and, further, he tried to strengthen brand

building by an empowerment of the online sales channel and the establishment of retail stores

- Introduction of the iMac (1998): the iMac, with its distinctive design and emphasis on simplicity, became a critical product in Apple's revival
- Change in leadership (2011): Tim Cook became Apple's CEO in 2011, whose strategy is:
 - Operational expertise and focus on supply chain management, emphasizing product quality, customer experience and privacy
- Launch of innovative products (2011-now), such as:
 - Apple Watch (2015): it market the entry in the wearable technology market
 - AirPods (2016): they were known for their seamless integration with Apple devices
 - HomePod (2018): it integrates with the Apple ecosystem offering high-quality audio
 - Apple Music (2015): it competes with other streaming platform, strengthening brand recognition
 - Apple Pay (2014): it allows users to make payments securely
 - Apple TV+ (2019): it features original content including TV shows, movies and documentaries
 - Apple Arcade (2019): subscription gaming service offering exclusive games
 - Apple News+ (2019): access to wide range of digital magazines

DEFINE THE SOURCES OF APPLE COMPETITIVE ADVANTAGE

The source of the brand's competitive advantage are:

- Ease of use: Apple products are renowned for their user-friendly interfaces and intuitive design, guaranteeing simplicity and a seamless user experience
- Proprietary environment: Apple operates within a closed ecosystem, offering a range of hardware, software and services that are tightly integrates, thus enhancing quality control and reducing dependence on external environments
- Industrial design: the aesthetics and build quality of Apple devices contribute to the company's strong brand image
- Buyer loyalty: Apple has a dedicated and loyal customer base. Indeed, through the strong customer service experience it increases customer satisfaction and brand loyalty
- Strong brand: the company is associated with innovation, quality and a premium user experience, thus influencing consumer perceptions and purchasing decisions
- Ecosystem of complements: Apple has built an extensive ecosystem of complementary products and services, creating a cohesive user experience
- Economies of scale: bulk purchasing of components, efficient manufacturing processes and the ability to spread fixed costs over a large number of units contribute to cost advantages
- Economies of scope: Apple's diverse product portfolio, made by shared resources and capabilities across different product lines, contributes to efficiency and cost-effectiveness

EXPLORE THE KEY ELEMENTS OF APPLE'S DIFFERENTIATION STRATEGY

The main features of Apple's differentiation strategy are:

- Deliver unique products and services: the emphasis on innovative and unique features sets Apple apart from competitors, rising its perceived value

- Functional features: security, ease of use, plug-and-play functionality and advanced graphic software contribute to the functional appeal of Apple products
- Experience features: Apple products are known for their sleek and visually appealing designs
- Expressive features: Apple has built a community of users who appreciate the expressive aspects of its products
- Create higher value for customers: Apple exploits cutting-edge technology, design aesthetic and user-friendly experiences to create an overall superior user experience
- Charge higher prices: the company's emphasis on quality, design and innovation supports its ability to command a premium in the market
- Economies of scale and scope: Apple's growth and scale have led to significant economies of scale. By producing a wide range of products, Apple can leverage shared resources, components and technologies, enhancing efficiency and reducing costs
- Invest heavily in R&D: the commitment to R&D allows the company to stay at the forefront of technological advancements and continuously introduce new products and features

CONDUCT A PORTER ANALYSIS OF THE PC INDUSTRY

THREAT OF NEW ENTRANTS

The threat of new entrants is medium due to:

- Low barriers to entry
- Standardized components: the fact that components in the PC industry are standardized means that potential new entrants can access similar components as established players

- Cheap distribution: the ease and cost-effectiveness of distribution makes it relatively simple for new entrants to get their products to market
- Ease of assembly: the ease of assembling a computer with purchased components may attract individuals with the knowledge to do so

Therefore, the threat is medium. Indeed, while it is relatively straightforward for new players to enter the market, certain factors act as barriers, such as establishing brand recognition, accessing distribution channels and competing with established players on pricing and features

APPLE RESPONSE

- Vertical integration: by producing its own components and designing its own software, Apple creates a unique ecosystem that can be challenging for new entrants to replicate
- Proprietary technologies and innovation: custom-designed processors such as Apple Silicon and security features raise barriers for new entrants. The dynamic innovation makes it harder for new entrants to catch up quickly
- Brand loyalty and reputation: the strong brand acts as a barrier by influencing consumer perceptions and preferences. Further, through its retail stores, Apple creates a physical space for empowering interaction and enhancing brand loyalty
- Economies of scale and scope: the large-scale production allows the company to reduce the cost per unit, making it challenging for new entrants to compete. Further, the use of several shared resources and technologies allows the company to create a cost-effective structure driven by the exploitation of economies of scope

- Strategic alliances: relationships with distributors and service providers contribute to the efficient operation of its business and supply chain

BARGAINING POWER OF BUYERS

The bargaining power of buyers is high due to:

- Diverse customer segments: the PC industry caters to diverse customer segments, which gives buyers a range of options and choices
- High price sensitivity: the availability of various brands and models, combined with easy access to information, allows buyers to compare prices and seek the best value for their money
- Increased customer sophistication
 - Access to information: specifications, reviews and comparisons make informed buyers better equipped to make wise decisions
 - Care about functionality and efficiency: as technology advances. Customers become more discerning about the features and capabilities of PCs, enhancing their ability to demand high quality products

Therefore, sellers must respond to these factors to remain competitive

APPLE RESPONSE

- Continuous product innovation: by offering unique features and capabilities, Apple aims to reduce direct product comparisons and make its products stand out in the market
- Proprietary ecosystem: by enhancing a closed and holistic ecosystem, where hardware and software are tightly integrated, it makes more challenging for users to switch to competing products
- Strong customer loyalty: the emotional connection users have with the brand and their positive experiences contribute to brand

loyalty, thus reducing the willingness to switch and rising the possibility of charging premium prices

BARGAINING POWER OF SUPPLIERS

The power is high in several suppliers' sectors:

- Microprocessors
 - Dominance of few suppliers: the market is dominated by major players such as Intel and AMD. Suppliers with substantial market share gain lots of power
 - Critical component: microprocessors are a critical component of personal computers, and the availability of high-quality processors is essential, thus increasing their negotiating power
- Operating systems
 - Limited number of major players: it is dominated by Microsoft's Windows as its dominant player
 - Critical software component: operating systems are crucial for the functionality of PCs and the dependency can increase suppliers' power
- The Intel standard: the PC industry has long standardized around the Intel architecture for processors, thus limiting the options for PC manufacturers and enhancing the bargaining power of Intel as a key supplier

APPLE RESPONSE

- Diversification of suppliers: Apple works to diversify its supplier base, reducing reliance on a single supplier for critical components, thus mitigating the risk of dependence on key suppliers
- Vertical integration: the control over both hardware and software aspects of its products allows the company to have more control over its supply chain and reduce dependence on external suppliers

- Long-term contracts: Apple often engages in long-term contracts with key suppliers, providing stability in the supply chain

THREAT OF SUBSTITUTES

The threat of substitutes is medium due to:

- Diverse range of close substitutes:
 - TV set-top boxes: devices that provide television content through streaming services
 - Smartphones and tablets: mobile devices that offer computing capabilities
 - Video game consoles: gaming platforms that can perform various multimedia functions
- Convergence of technologies: the converge of technologies has led to multifunctional devices that can perform tasks traditionally associated with personal computers
- User behavior and cost considerations: as users increasingly adopt mobile devices for various tasks and as they search for a comparable functionality at a lower cost, this can increase the attractiveness of other alternatives
- Ecosystem dynamics: by integrating various devices and services, the companies may minimize the threat by improving the overall user experience

APPLE RESPONSE

- Integrated ecosystem: the company focuses on building an integrated ecosystem where its products seamlessly work together, thus serving as a strategic response to the threat of substitutes
- Cross-device compatibility: it makes more challenging for substitutes to replace the interconnected experience

- Distinctive features and functionality: by introducing features and capabilities, Apple strives to stay ahead of substitutes, maintaining customer interest
- Brand loyalty and user experience: the emphasis on delivering a superior user experience contributes to maintaining brand loyalty

RIVALRY AMONG COMPETITORS

The rivalry is high due to:

- Many competitors: the high number of competitors intensifies competition, weakening the profit potential of the industry
- Increasing concentration: the industry has seen increasing concentration, thus provoking a heightened competition among these major companies
- Rapid obsolescence: the rapid pace of technological advancements leads to products becoming obsolete quickly
- Open standards: the prevalence of open standards can contribute to increased rivalry as companies compete on a common technological platform
- Commoditization: when products and components become standardized, this leads to price competition

APPLE RESPONSE

- Innovation and product differentiation: the company introduces new features, designs and technologies, thus standing out from competitors
- Vertical integration: by controlling both hardware and software aspects of its products, the company optimizes the user experience and differentiate its offerings
- Ecosystem building and customer trust: by creating a comprehensive ecosystem and a retail stores' unique and immersive experience, the firm enhances brand loyalty

- Marketing excellence: effective marketing campaigns, characterized by simplicity, elegance and a focus on user experience reduce rivalry
- Continuous product refresh: by following a strategy of regular product refresh cycles, the company remains competitive, while following any shift in consumer's preferences registered within the marketplace

THREAT OF COMPLEMENTS

The presence of complementary products and services is not perceived as an extreme threat due to:

- Applications
 - Positive interaction: applications such as software can be considered complements to PCs and the availability of a wide range can enhance the user's experience
 - Medium threat: the availability of applications may not represent an immediate threat, especially if the industry has access to a diverse application ecosystem
- Peripherals
 - Enhancing functionality: printers and external storage may enhance the functionality of PCs
 - Medium threat: the threat remains moderate, especially if there is a competitive market for peripherals
- Internet
 - Critical infrastructure: PCs heavily rely on internet connectivity for various functions, such as online services and access to information
 - Medium threat: due to the widespread internet connectivity, we can consider it as not a very strong risk

APPLE RESPONSE

- App Store and software ecosystem synergy: the creation of a strong ecosystem of applications helps creating a positive relationship between hardware and software, reducing the threat of complementary applications
- Peripheral compatibility: Apple designs its products with a focus on compatibility with a range of peripherals, ensuring that users can integrate additional devices into their Apple ecosystem
- Internet-driven services: by offering a seamless connection between devices and cloud services, Apple enhances the overall user experience

EXPLAIN WHY THE PC INDUSTRY IS A CHALLENGING BUSINESS ENVIRONMENT

The causes are several:

- Sophisticated and powerful buyers: buyers, often well-informed and sophisticated, have significant power, thus putting pressure on companies to meet their expectations
- Vicious rivalry: intense competition among numerous players can lead to price wars, aggressive marketing and a constant need for innovation
- Low entry barriers: they can lead to a crowded market with new entrants, thus eroding the profitability margins
- Lots of potential substitutes: the availability of substitutes, such as smartphones and tablets, can divert consumer attention and spending away from traditional PCs
- Complements moving to smartphones and tablets: the shift of complements to smartphones and tablets may reduce the relevance of traditional PCs in certain use cases

- Suppliers appropriating most residual profits: suppliers may capture a significant portion of the industry's economic values, leaving less for the actual manufacturers

DISCUSS WORLDWIDE MARKET SHARES FOR THE INDUSTRY

We can see a very concentrated industry:

- Lenovo: the company has consistently held significant market share, around 25-30%
- HP: it is a major player with a market share of 20-25%
- Dell: it is a prominent player, particularly in the corporate and enterprise markets, with a market share of 15-20%
- Apple: it has a significant presence in the premium segment, with a share of 8-10%
- Acer: it is known for a diverse range of products, including laptops and desktops, with a share of 5-8%
- Asus: it is recognized for gaming laptops and high-performance devices, with a market share among 6-8%

DISCUSS IF APPLE IS IMMUNE FROM MANY OF THE PC INDUSTRY PROBLEMS

Apple is immune from many of the PC industry problems due to several factors:

- Premium positioning and differentiation: even though market share in terms of units sold may not be the higher, this approach allows to command higher profit margins and lower the burden driven by competitive rivalry
- Ecosystem synergy: this helps creating a cohesive system that enhances customer's loyalty and brand recognition
- Vertical integration: the integration leads to a more controlled environment, less dependent on powerful external suppliers

- Less dependence on traditional PCs: this diversification reduces Apple's reliance on the PC market alone, allowing it to navigate shifts in consumer preferences
- Retail strategy: the direct retail strategy further enhancing customer experience, making them address to the company issues normally associated with third-party retail channels
- Global presence: a broad geographic footprint helps mitigating risks associated with regional economic fluctuations

EVALUATE THE SUSTAINABILITY OF APPLE'S COMPETITIVE POSITION BY ANALYZING THE MAIN ISSUES

Analyzing the sustainability of Apple's competitive position involves considering several challenges:

- Declining differentiation
 - Challenge: the perception of declining differentiation due to security vulnerabilities impacting Windows may affect Apple's competitive advantage
 - Response: Apple has to respond by securing its commitment to innovation and differentiation, as well as in an integrated ecosystem
- Application software and developer preference
 - Challenge: developers often prioritize platforms with larger user bases, potentially leading to concerns about a less robust app ecosystem on Apple's platforms
 - Response: the company must continue investing in developer tools and programs, taking into account the fact that App Store is a key driver for app developers
- Operating system development investment

- Challenge: the perceived longer time for Apple to break-even on OS development costs compared to Microsoft may impact its ability to quickly respond to market changes
- Response: the extended development timeline is related to the meticulous and quality-driven development process

Therefore, while challenges exist, Apple's competitive position remains strong due to its ecosystem, brand loyalty and commitment to innovation

DESCRIBE THE EVOLUTION OF APPLE CORE BUSINESS

The main steps are:

- iPod (2001-2022): the iPod was a groundbreaking product that revolutionized the music industry, providing a platform to showcase Apple's design
- iPhone (2007-?): its success directly shaped the company's strategic direction
- iPad (2012-?): the iPad created a new product category and reinforced Apple's commitment to innovation, by offering a versatile computing device

DISCUSS ADVANTAGES AND CHALLENGES FOR THE IPHONE AS THE NEW CORE BUSINESS

The strategic advantages are:

- Ecosystem (App Store): the App Store has created a vibrant ecosystem around the iPhone, providing a platform to create and distribute applications
- Economies of scope: Apple leverage the iOS platform across multiple devices realizing economies of scope
- Economies of scale: mass production and global distribution of iPhone contribute to economies of scale

- Buyers loyalty: Apple's commitment to design, user experience and ecosystem integration fosters strong brand loyalty
- Diffusion to business contexts: the iPhone's success naturally extended to business contexts, thus enhancing a broader customer base and its success

The challenges are:

- Competition: increasing competition from other smartphone manufacturers such as Xiaomi and Samsung challenge Apple's market share
- Fashion/fad: the risk exists that the iPhone's popularity could wane if it's perceived as a temporary fashion statement
- New entrants: the entry of new competitors with innovative offerings at a lower price could disrupt Apple's market position

DEFINE THE FINANCIAL RISKS FOR APPLE

The present situation presents some concerning data, such as:

- iPhone sales: the fact iPhone sales are flat or declining may be attributed to various factors, including market saturation, longer upgrade cycles and increased competition. This represents a strong incentive for the company to try to further diversify its streams
- Macintosh: the macintosh's limited upside may be influenced by factors such as a mature market for personal computers and potential challenges in increasing market share
- iPad sales: the decline in iPad sales could be due to factors like the rise of large-screen smartphones and competition from other tablets and 2-in-1 devices. This is an incentive for the firm to explore new features or markets

EXPLORE THE POTENTIAL AREAS IN WHICH APPLE COULD GROW BEYOND THE IPHONE

Apple has accumulated a substantial amount of cash and strategically investing this capital is a crucial decision for the company's future growth. The potential areas may be:

- Apple Watch

- Strengths: strong demand and high margins, as well as a high integration with the Apple ecosystem
- Challenges: its potential to be the next core business might be limited by its niche market

- Apple Pay

- Strengths: it is a natural extension of iPhone and provides a potential for growth in digital payments, as well as a good implementation in the ecosystem
- Challenges: there is a limited adoption in some regions and it relies heavily on iOS devices

- Apple services

- Strengths: it provides diversification through services like Apple TV+ and Apple Arcade and it provides integration with existing Apple devices
- Considerations: the challenge is to differentiate services in crowded markets

- Driverless cars

- Strengths: it provides the potential to enter a transformative industry and the possibility to leverage existing technologies and user experience expertise
- Challenges: the market has several regulatory uncertainties as well as intense competition

- Financial services (Apple and Goldman Sachs)

- Strengths: it provides an extension of Apple's ecosystem into financial services, thus guaranteeing potential revenue streams through financial transactions
- Challenges: regulatory challenges in the financial sector and the difficulties in ensuring the security and privacy of user financial data

However, the main strategies to keep in mind in the future are:

- Diversification: continued diversification can mitigate reliance on a single product or product category
- Integration: offering seamless experiences across devices and service enhances customer loyalty
- Innovation: this involves enhancing existing products and exploring entirely new markets
- Global expansion: exploring and expanding into emerging markets can unlock new growth opportunities
- Sustainability ad CSR: addressing environmental concerns and aligning with corporate social responsibility (CSR) can enhance Apple's brand image and appeal

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