MASTER MEIM 2022-2023

Business Funding and Analysis

Master 2022-2023

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Learning Outcomes

1. What are the main sources of financing for a business
2. The relationship between financing and life cycle of a company
3. Key characteristics and main types of funding
4. How to do a business analysis
5. Case studies

Business Funding

- There are a variety of ways that you can source external funds for your business, and the options for small business funding are growing all the time. Most options fall into one of two broad categories:

    1. Debt
    2. Equity

- Before considering specific sources, it is important for you to understand these two types as they are interested in very different things, and are useful for different situations.

Business Funding

Debt funding

- Debt funding involves the business taking out a loan, usually from a bank or other financial institution.

- Debt funding comes in many forms:

Long-term loans

- may be used for capital expenditure and are often secured against assets in the business, or with personal guarantees from the owners.

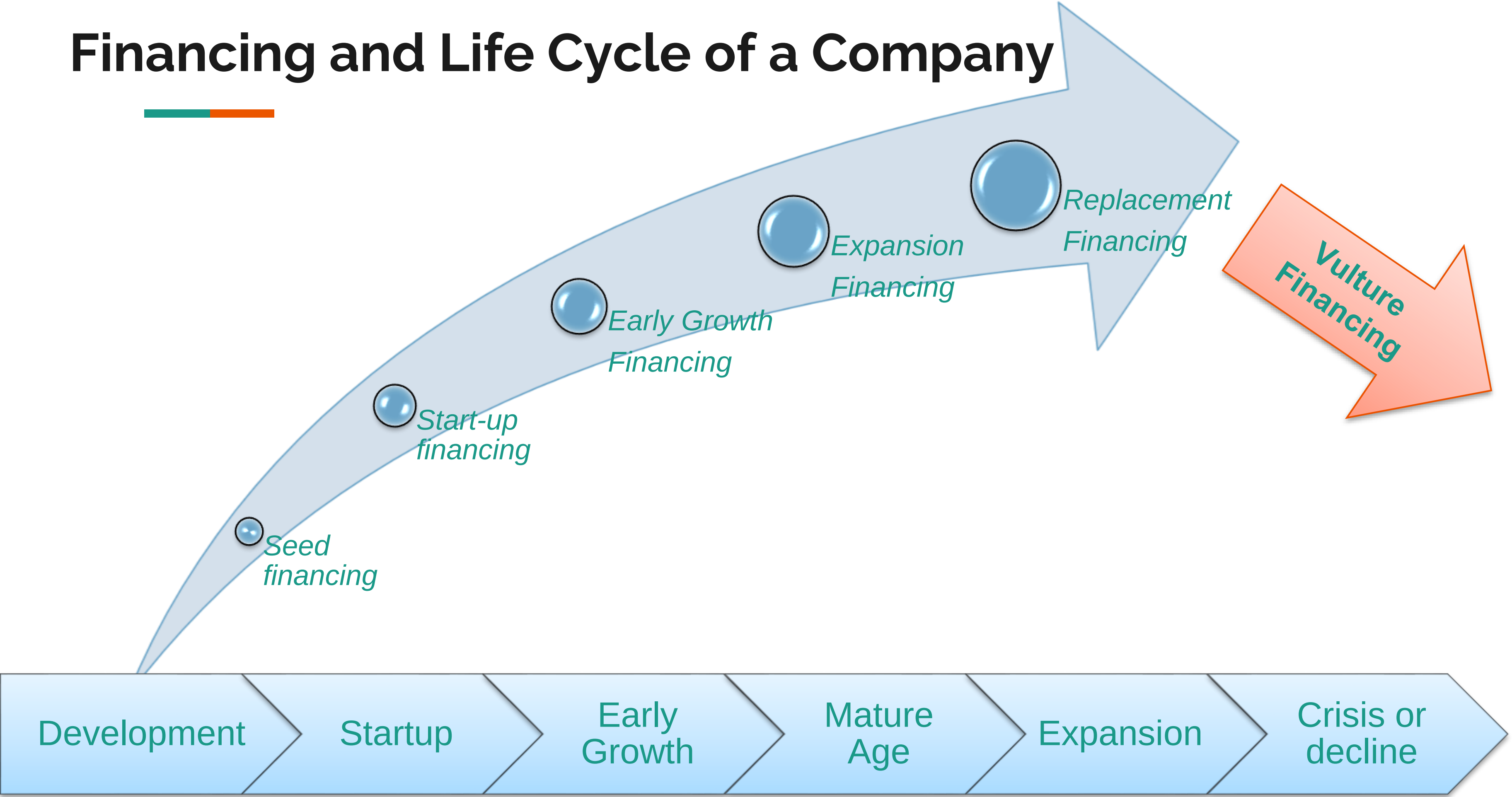
Short-term loans

- are more commonly used for working capital. Their offer may be based more on the health of your relationship and your records with a financial institution.

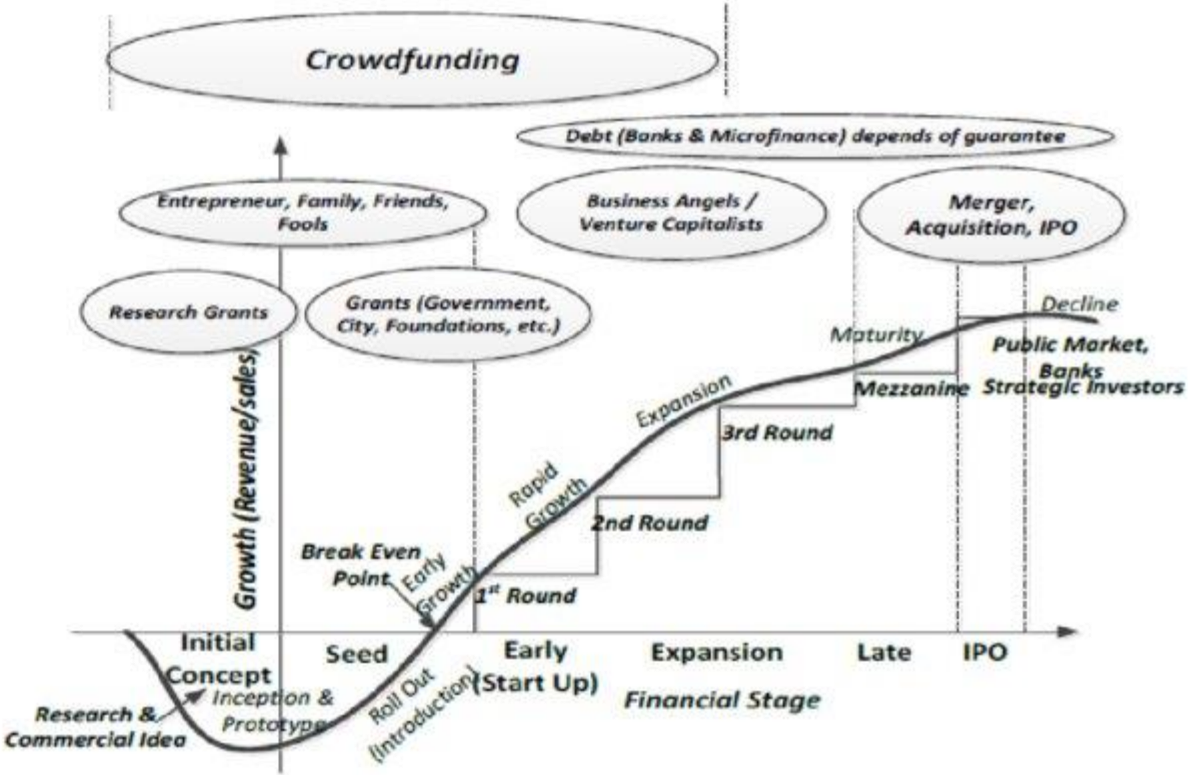
Equity funding

- In contrast to debt funding, equity capital is not usually repaid to the investor over a fixed period, and there is no interest.
    - Instead, equity investors get ownership or equity in the business.
    - If, however, the business is unprofitable, then the funder makes no money back at all.
    - As with debt, there are many forms of equity capital, often separated by the level of investment or the stage of the business.

Financing and Life Cycle of a Company



Business Funding

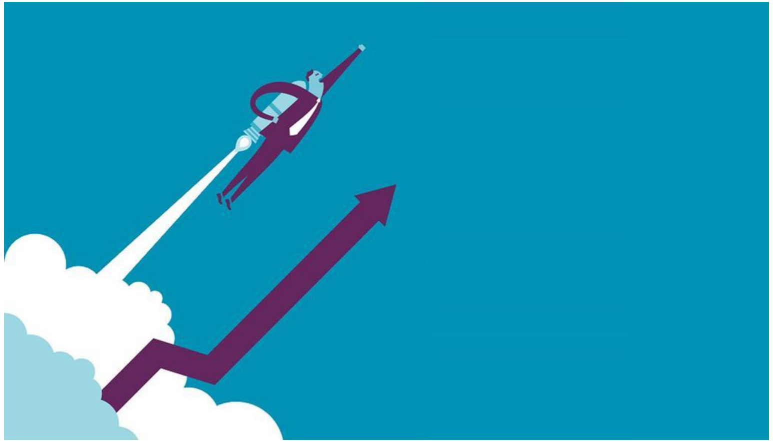


Family, Friends & Fools

- They are the group of people supporting starting projects. In other words, they are the believers.

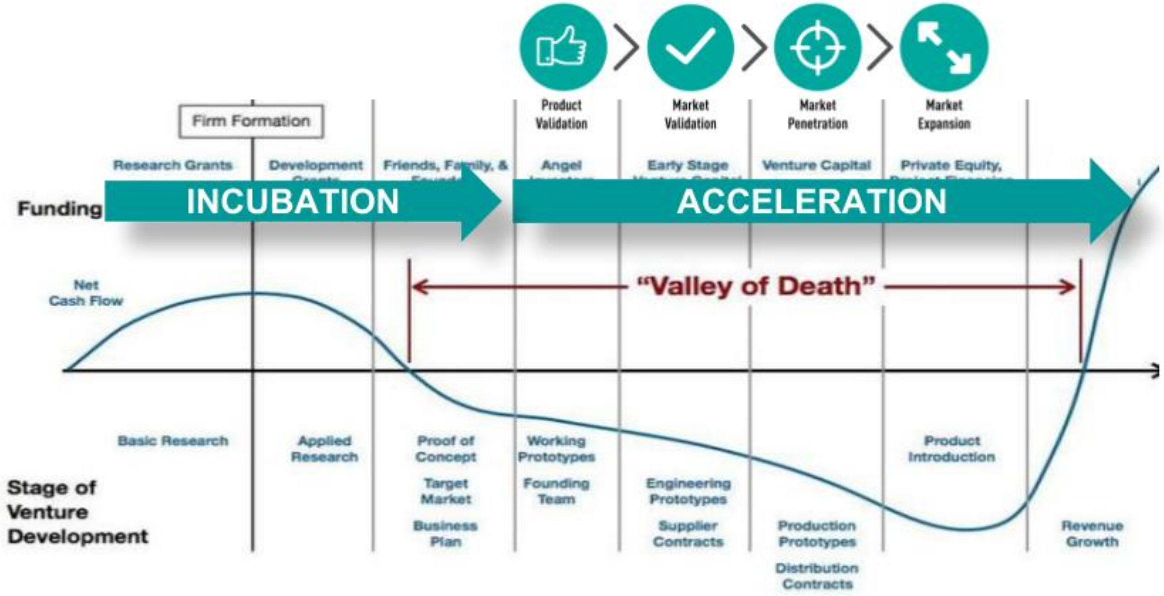
- They are people who want to support the project, sometimes because they believe in it. Hence, they are parents, cousins, grandparents, friends.

Accelerators



- An accelerator, sometimes referred to as a seed accelerator, is a business program that supports early-stage, growth-driven companies through education, mentorship and financing.
    - Startups typically enter accelerators for a fixed period of time and as part of a cohort of companies.
    - While accelerator programs can provide beneficial resources to organizations at all stages of development, most focus on those that are pre-revenue.

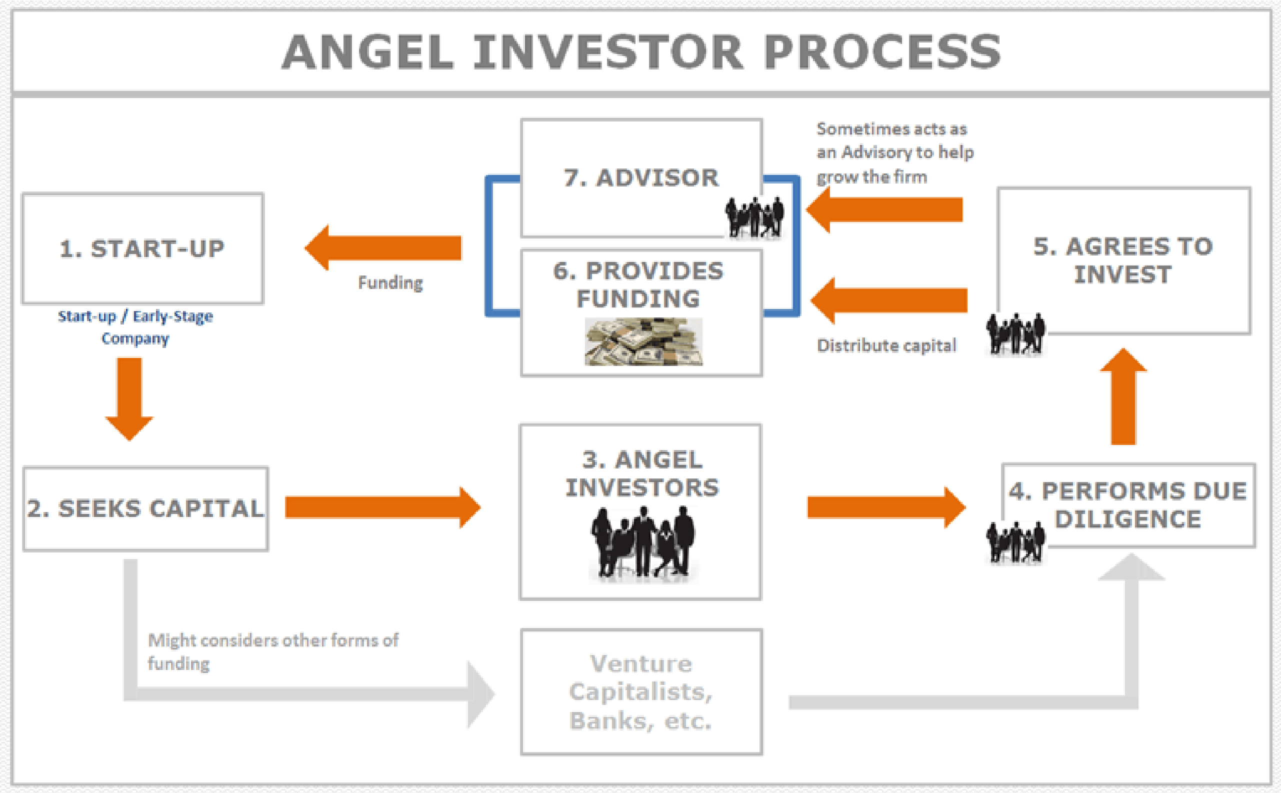
Accelerators and Incubators



Business angels

- A business angel is a private individual, often with a high net-worth, and usually with business experience, who directly invests part of their assets in new and growing private businesses.
  - Contrary to Venture Capital firms, business angels often invest their own money and at one of the most riskiest stages for startups, thus their importance in every single startup market.

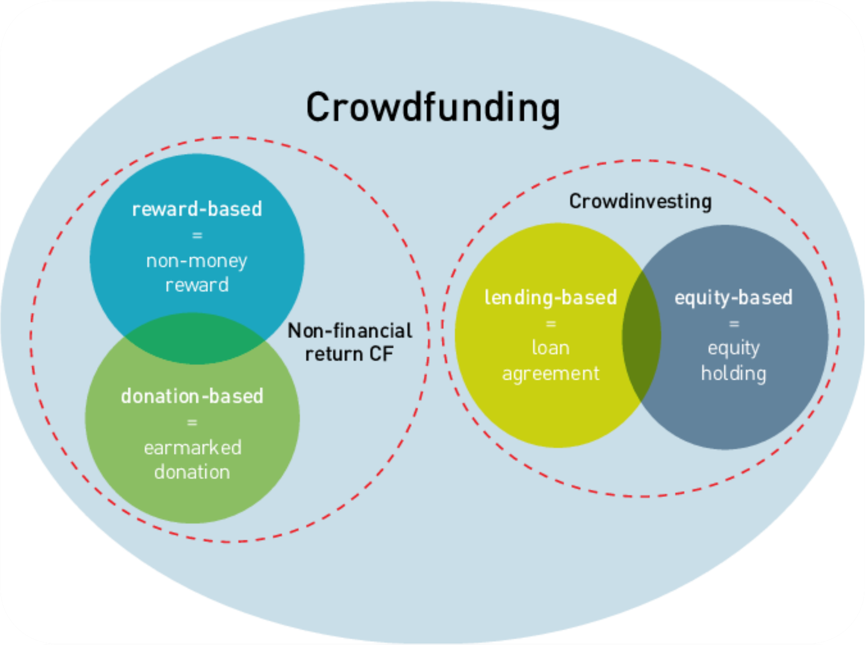
Business angels

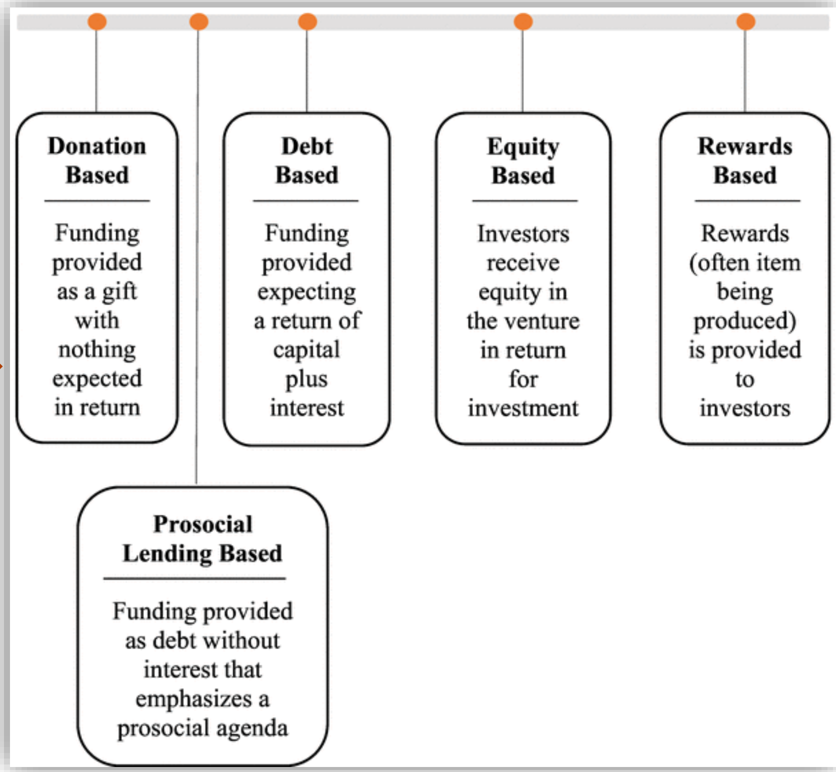


Crowdfunding

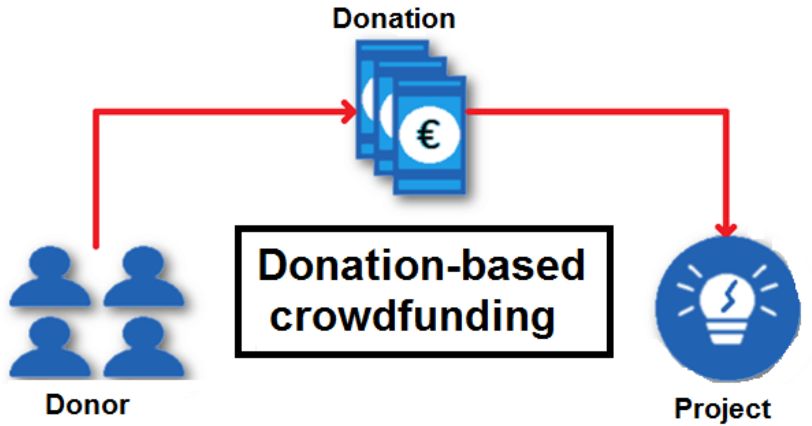
- The European Commission in 2018 defined Crowdfunding as: “The basic function of Crowdfunding can be described as an open call via the Internet for the provision of funds by the public at large to support specific initiatives by typically small fundraisers.
    - The investors/lenders can provide the means as a pure donation (intangible reward) or in exchange for some form of reward in order to compensate for the financial risk taken (tangible reward).
    - It generally takes place on Crowdfunding platforms, that is, internet-based platforms that link fundraisers to funders”.

Types of crowdfunding





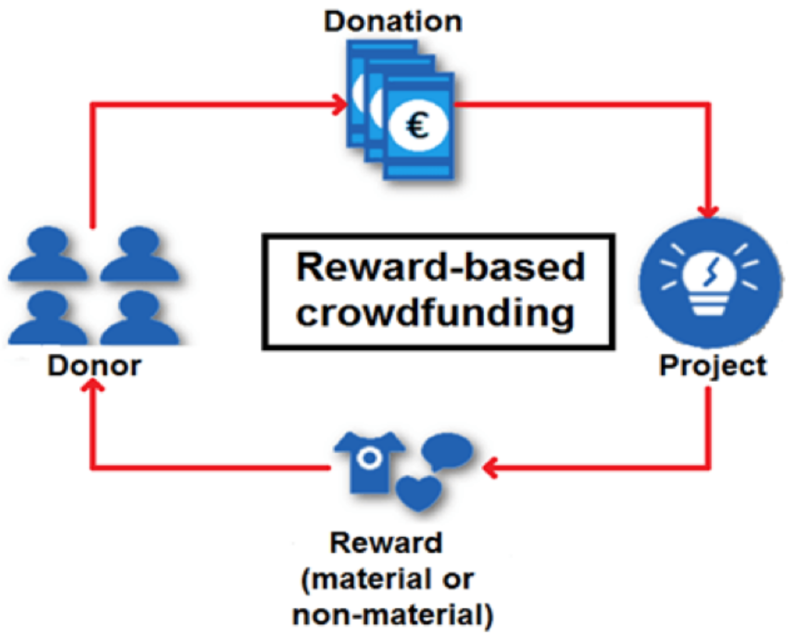
Donation-Based Crowdfunding



- Individuals donate small amounts to meet the larger funding aim of a specific charitable project while receiving no financial or material return.

- In return, the backers may receive token rewards that increase in prestige as the size of the donation increases.
    - For the smallest sums, however, the funder may receive nothing at all.

Rewards-Based Crowdfunding



- Rewards-based crowdfunding is where individuals donate to a project or business with the expectation of receiving a non-financial reward in return, such as goods or services at a later stage.

Debt-Based Crowdfunding

- In debt-based crowdfunding, investors are given a choice to put their money into the security of a business, a debt instrument such as corporate bonds, for example.
  - This type of investment vehicle is issued by a company that needs to finance a planned merger deal, acquire a smaller business, etc.
  - Usually, the interest rates on top of the loan principal are not that high because while using the Internet as an instrument to source the funds, it's easy to cut down costs on administration.

Equity-Based Crowdfunding

- Equity crowdfunding consists of selling a stake in your business to a number of investors in return for investment.
    - The existence of equity funding is well established, with private equity, venture capital and angel investing long playing a role in developing companies.
    - The main difference between equity crowdfunding and these traditional models, rather than establishing a one-to-one relationship, it is offered to a wide range of potential investors, some of whom may also be current or future customers.
    - Equity crowdfunding does this by matching companies with would-be angels via an internet-based platform.

Crowdfunding: an example

FUNDING

Spark To Go

Make bubbles, not waste – make your favorite sparkling drink wherever you are!

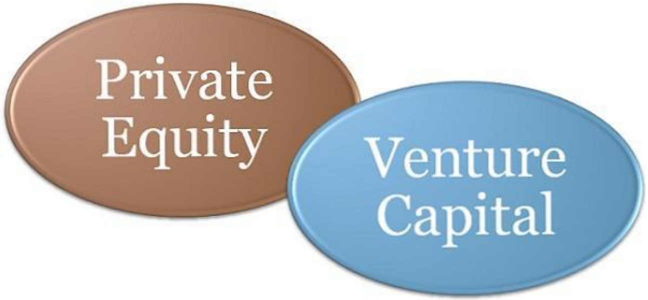
Spark To Go
1 Campaign | Munich, Germany

€12.622 EUR 194 backers

42% of €30.000 Fixed Goal 28 days left

https://www.indiegogo.com

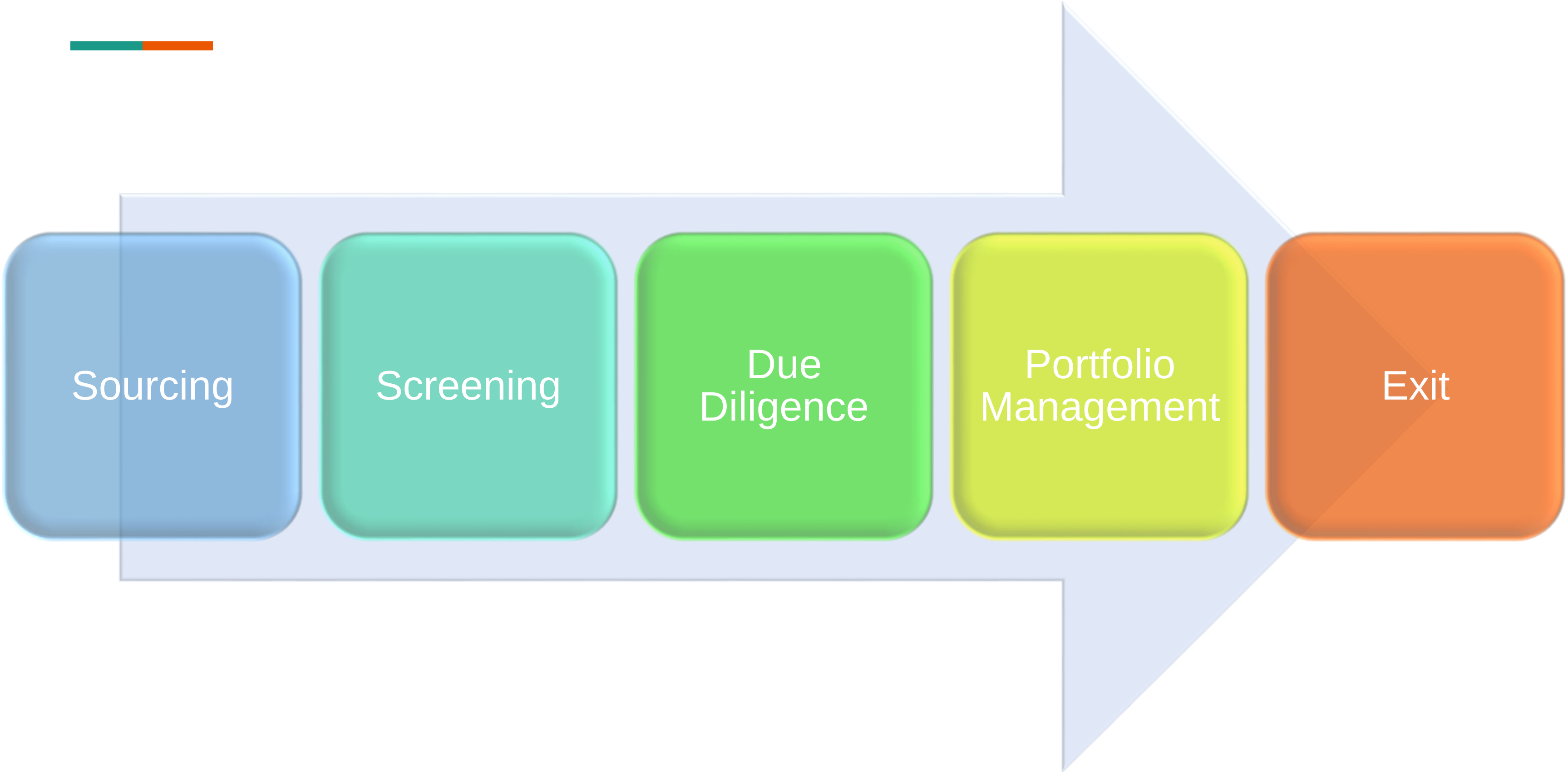
Private Equity and Venture Capital



- According to the European Private Equity & Venture Capital Association (EVCA) “*Private equity is the provision of equity capital by financial investors – over the medium or long term – to non-quoted companies with high growth potential*”.

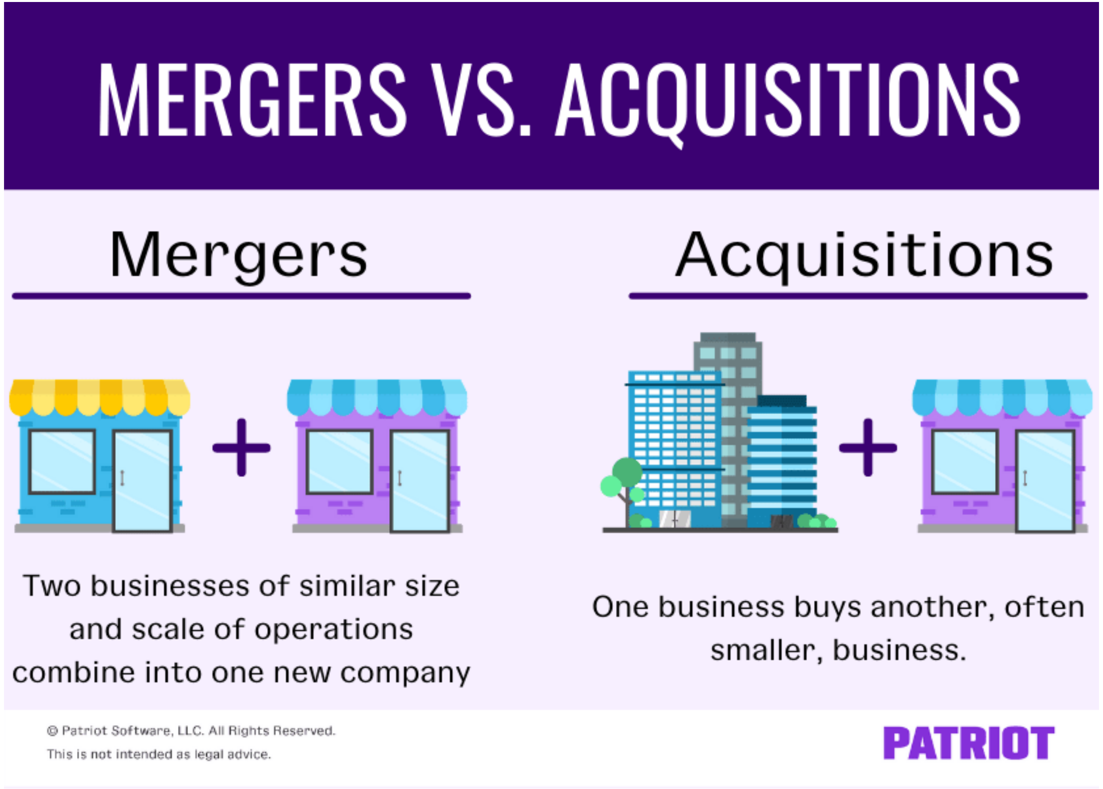
- VC refers to equity investments made for the launch, early development, or expansion of a firm.
  - Widely defined as the "business of building businesses", VC has a particular emphasis on entrepreneurial undertakings and less mature firms.

STAGES OF THE INVESTMENT PROCESS



Mergers & Acquisitions (M&A)

- A merger occurs when two separate entities combine forces to create a new, joint organization.
- An acquisition refers to the takeover of one entity by another.
- As an aspect of strategic management, M&A can allow enterprises to grow or downsize, and change the nature of their business or competitive position.



Key reasons for M&A

Companies pursue mergers and acquisitions for several reasons. The most common motives for mergers include the following:

- Value creation
- Diversification
- Acquisition of assets
- Eliminations of Competition
- Tax purposes
- Incentives for managers

Mergers & Acquisitions: Value creation

- Two companies may undertake a merger to increase the wealth of their shareholders. Generally, the consolidation of two businesses results in synergies that increase the value of a newly created business entity.

- Essentially, synergy means that the value of a merged company exceeds the sum of the values of two individual companies. Note that there are two types of synergies:

    - Revenue synergies: Synergies that primarily improve the company’s revenue-generating ability. For example, market expansion, production diversification, and R&D activities are only a few factors that can create revenue synergies.

    - Cost synergies: Synergies that reduce the company’s cost structure. Generally, a successful merger may result in economies of scale, access to new technologies, and even elimination of certain costs. All these events may improve the cost structure of a company.

Mergers & Acquisitions: Diversification

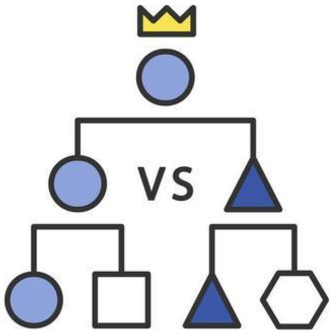
- Mergers are frequently undertaken for diversification reasons. For example, a company may use a merger to diversify its business operations by entering into new markets or offering new products or services.
    - Additionally, it is common that the managers of a company may arrange a merger deal to diversify risks relating to the company’s operations.
- Note that shareholders are not always content with situations when the merger deal is primarily motivated by the objective of risk diversification.
    - In many cases, the shareholders can easily diversify their risks through investment portfolios while a merger of two companies is typically a long and risky transaction.
    - Market-extension, product-extension, and conglomerate mergers are typically motivated by diversification objectives.

Mergers & Acquisitions: Acquisition of assets

- A merger can be motivated by a desire to acquire certain assets that cannot be obtained using other methods.

- In M&A transactions, it is quite common that some companies arrange mergers to gain access to assets that are unique or to assets that usually take a long time to develop internally.
    - For example, access to new technologies is a frequent objective in many mergers.

Mergers & Acquisitions: Eliminations of Competition



- The Merger or Acquisition of two or more companies eliminates competition in an industry.
- It not only lessens the level of competition but also saves the advertising expenses of the company.
    - Thus, ultimately enables the merged company to reduce its production costs.
    - It will also benefit the consumers since they will avail goods at lower prices.

Mergers & Acquisitions: Tax purposes

- If a company generates significant taxable income, it can merge with a company with substantial carry forward tax losses.

- After the merger, the total tax liability of the consolidated company will be much lower than the tax liability of the independent company.

Mergers & Acquisitions: Incentives for managers

- Sometimes, mergers are primarily motivated by the personal interests and goals of the top management of a company.
    - For example, a company created as a result of a merger guarantees more power and prestige that can be viewed favorably by managers.
    - Such a motive can also be reinforced by the managers’ ego, as well as his or her intention to build the biggest company in the industry in terms of size. Such a phenomenon can be referred to as “empire building,” which happens when the managers of a company start favoring the size of a company more than its actual performance.

Mergers & Acquisitions: categories

Generally, mergers can be divided into five different categories:

1. **Horizontal merger**: Merging companies are direct competitors operating in the same market and offer similar products and/or services.

2. **Vertical merger**: Merging companies operate along the same supply chain line.

3. **Market-extension merger**: Merging companies offer comparable products and/or services but operate in different markets.

4. **Product-extension merger**: Merging companies operating in the same market offer products and/or services complementary to each other.

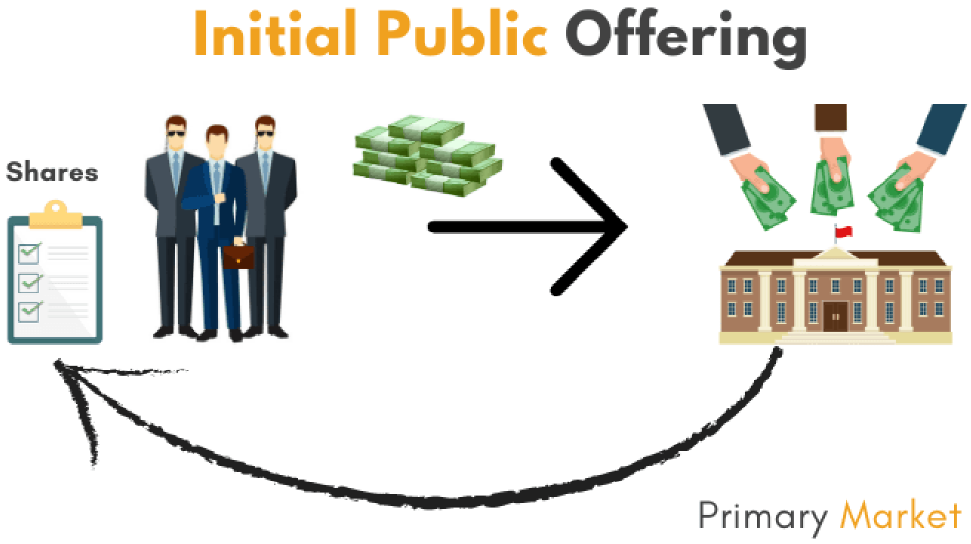
5. **Conglomerate merger**: Merging companies offer completely different products and/or services.

Note that the type of merger selected by a company primarily depends on the motives and objectives of the companies participating in a deal.

Initial Public Offerings (IPO)

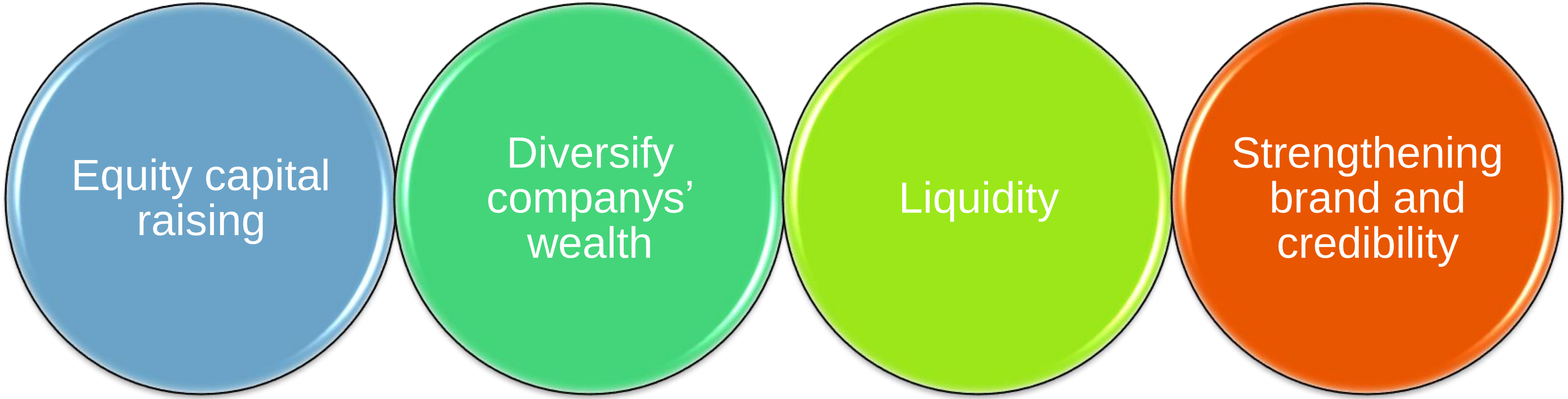
- An initial public offering (IPO) is the process of offering shares of a private corporation to the public in a new stock allotment. Public share allotment allows a company to raise capital from general/public investors.

- The growth from a private to a public company can be a valuable time for private investors to fully realize gains from their investment as it generally includes share premiums for current private investors. Meanwhile, it also allows general investors to take part in the offering.



Why firms go public?

- There are numerous potential benefits to go public, and the most relevant, according to the JP Morgan Chase’s view, are summarized below:



IPO process

Deciding the reason behind the release of Initial Public Offering

Hiring an investment bank

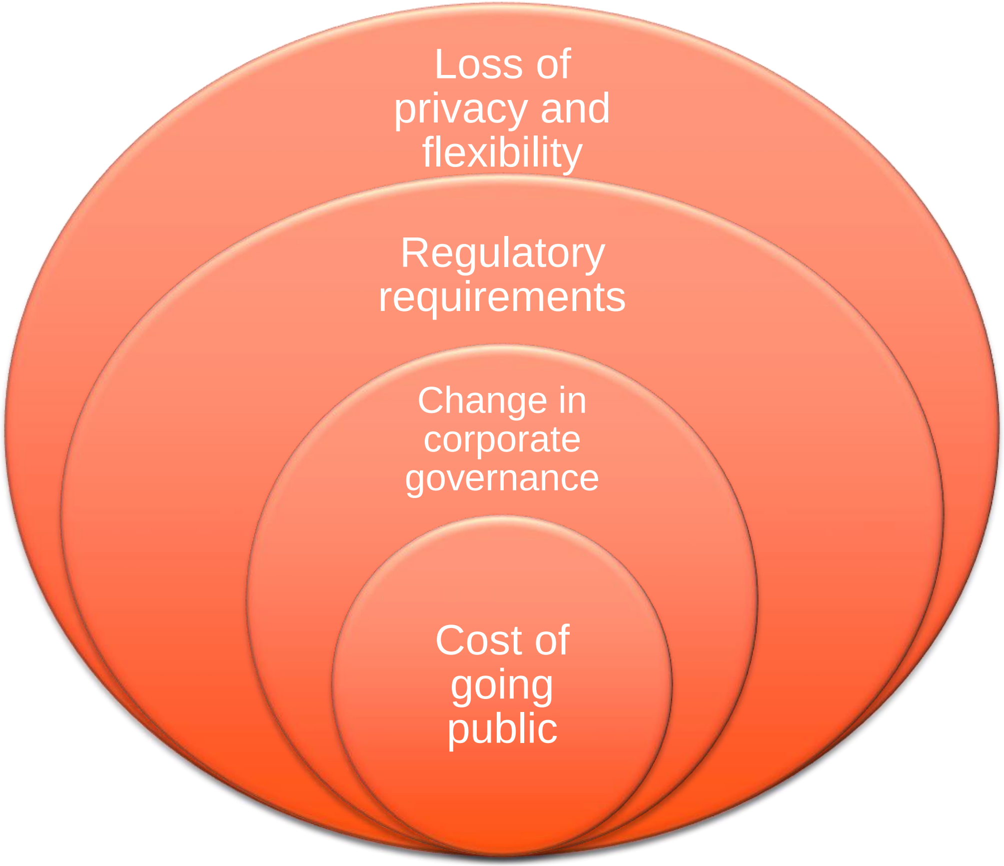
Underwriting Tasks

Conducting pre-IPO analyst research to select an exchange for getting listed

Cost Computing

Marketing, finalizing the IPO price and allocating shares

Going public drawbacks



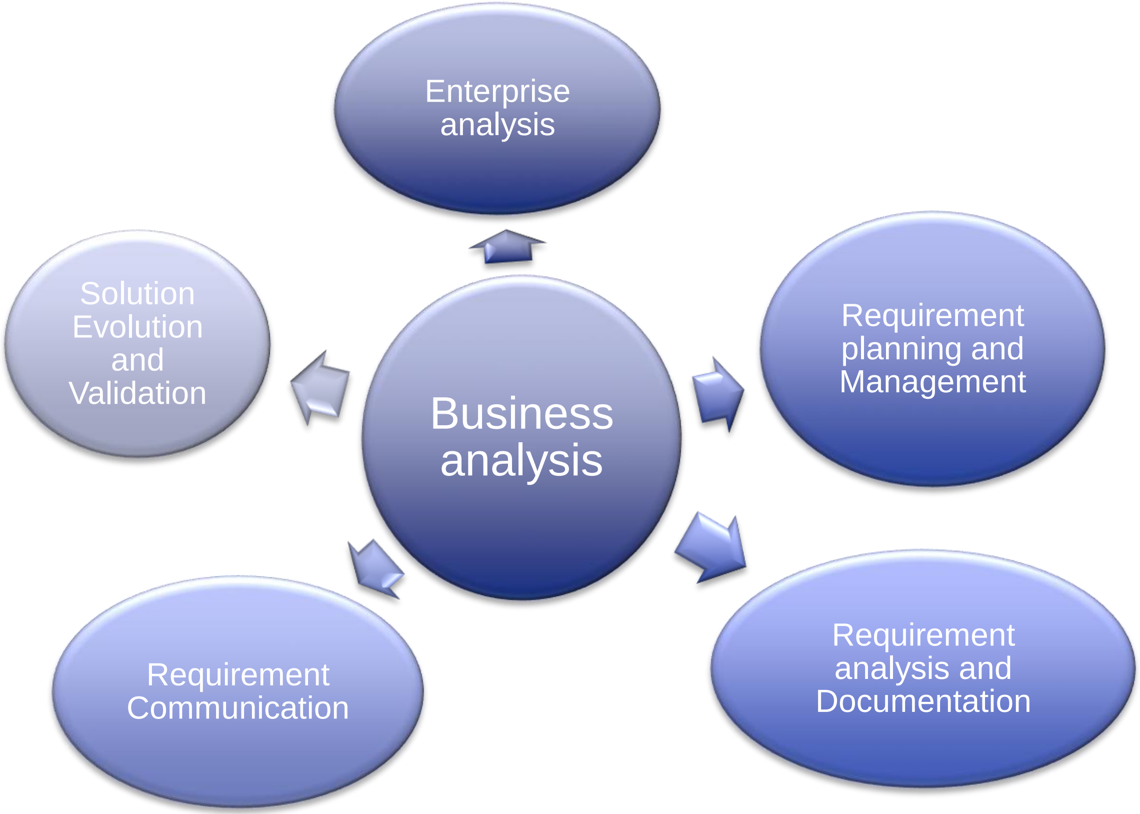
Business analysis

- Business Analysis is a disciplined approach for introducing and managing change to organizations, whether they are for-profit businesses, governments, or non-profits.

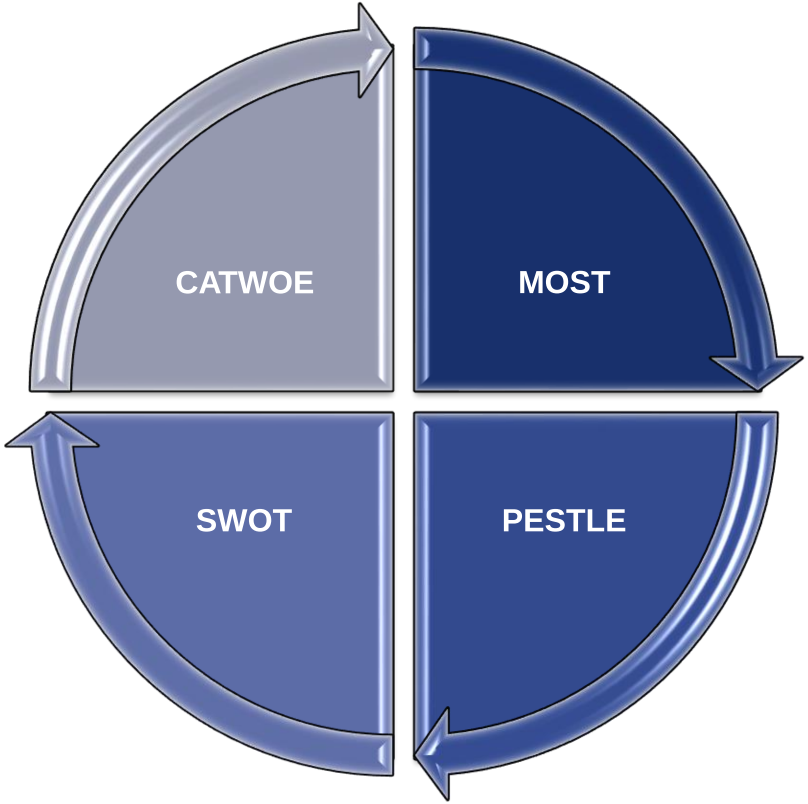
- Business analysis is used to identify and articulate the need for change in how organizations work, and to facilitate that change.

- Business analysts work across all levels of an organization and may be involved in everything from defining strategy, to creating the enterprise architecture, to taking a leadership role by defining the goals and requirements for programs and projects or supporting continuous improvement in its technology and processes.

Business analysis

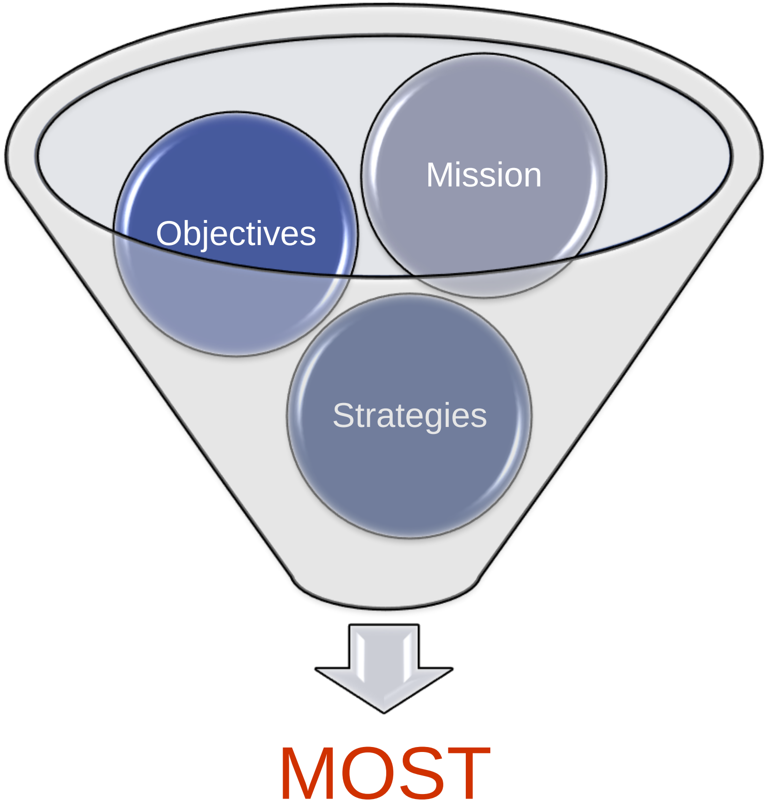


Common Business Analysis Techniques



MOST

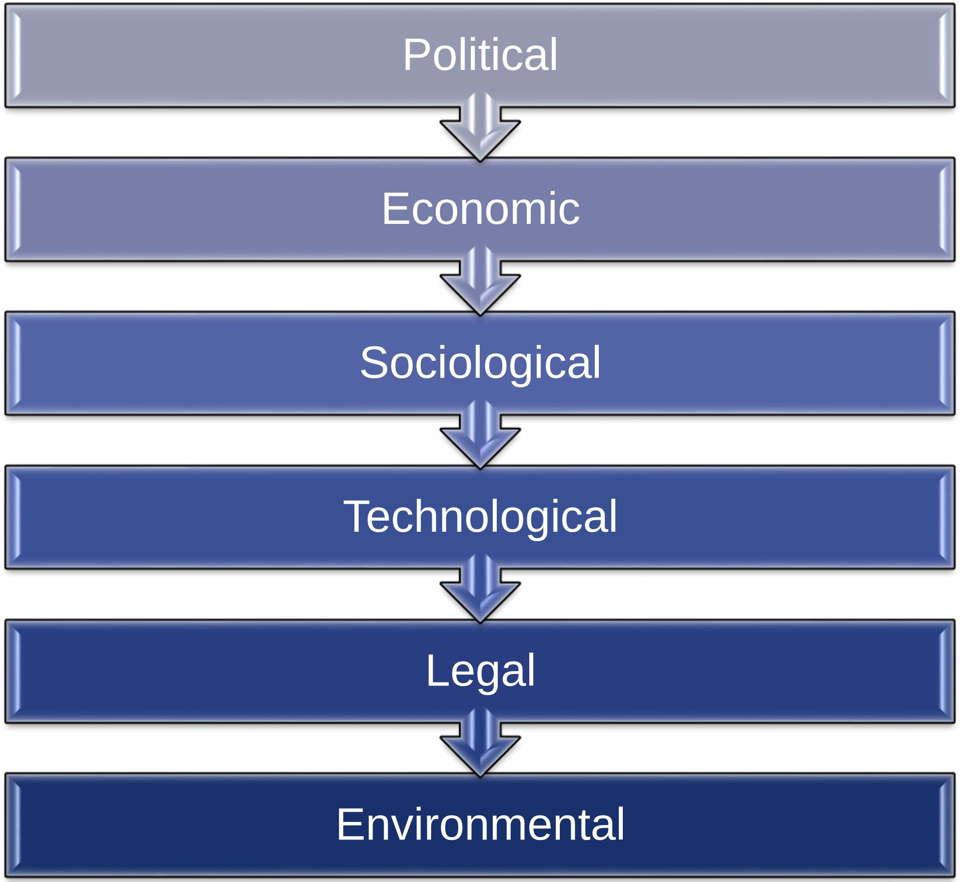
- Most is a short form of Mission, Objectives, Strategies.
- It allows business analysts to perform thorough internal analysis of what is the aim of an organization to achieve and how to tackles such issues.



PESTLE

- Pestle stands for: Political, Economic, Sociological, Technological, Legal, and Environmental.

- This model helps business analysts to evaluate all the external factors which can possibly impression their organization and determine how to address them.

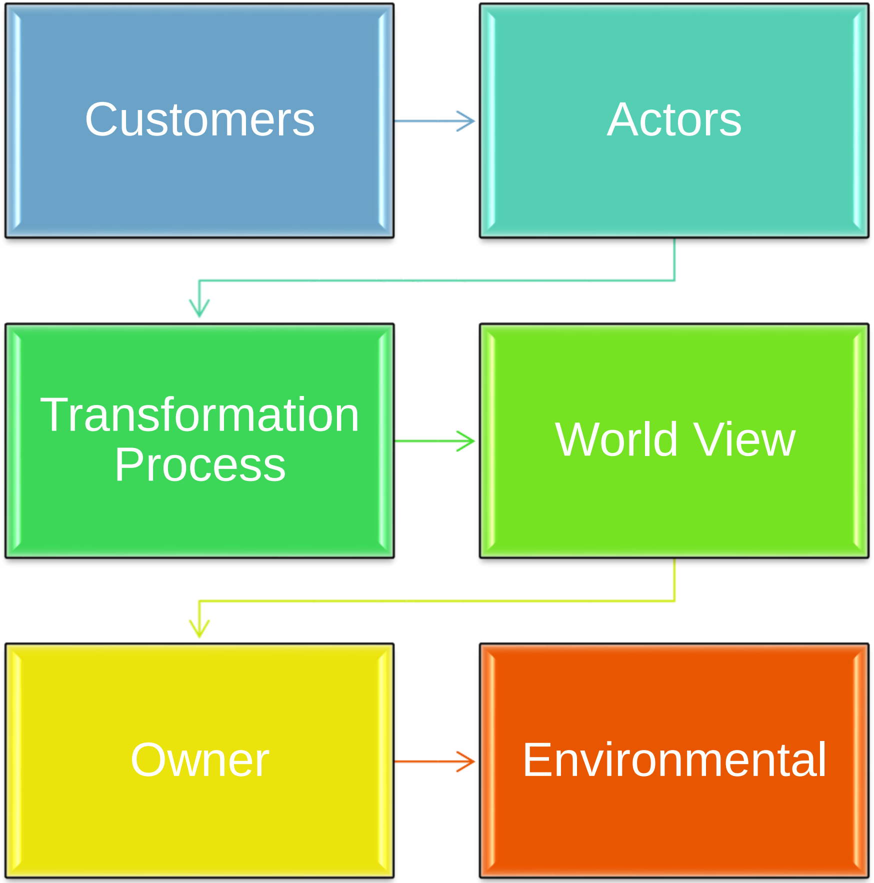


- SWOT is a full form of Strengths, Weaknesses, Opportunities, and Threats.
    - It allows for the proper allocation of resources.

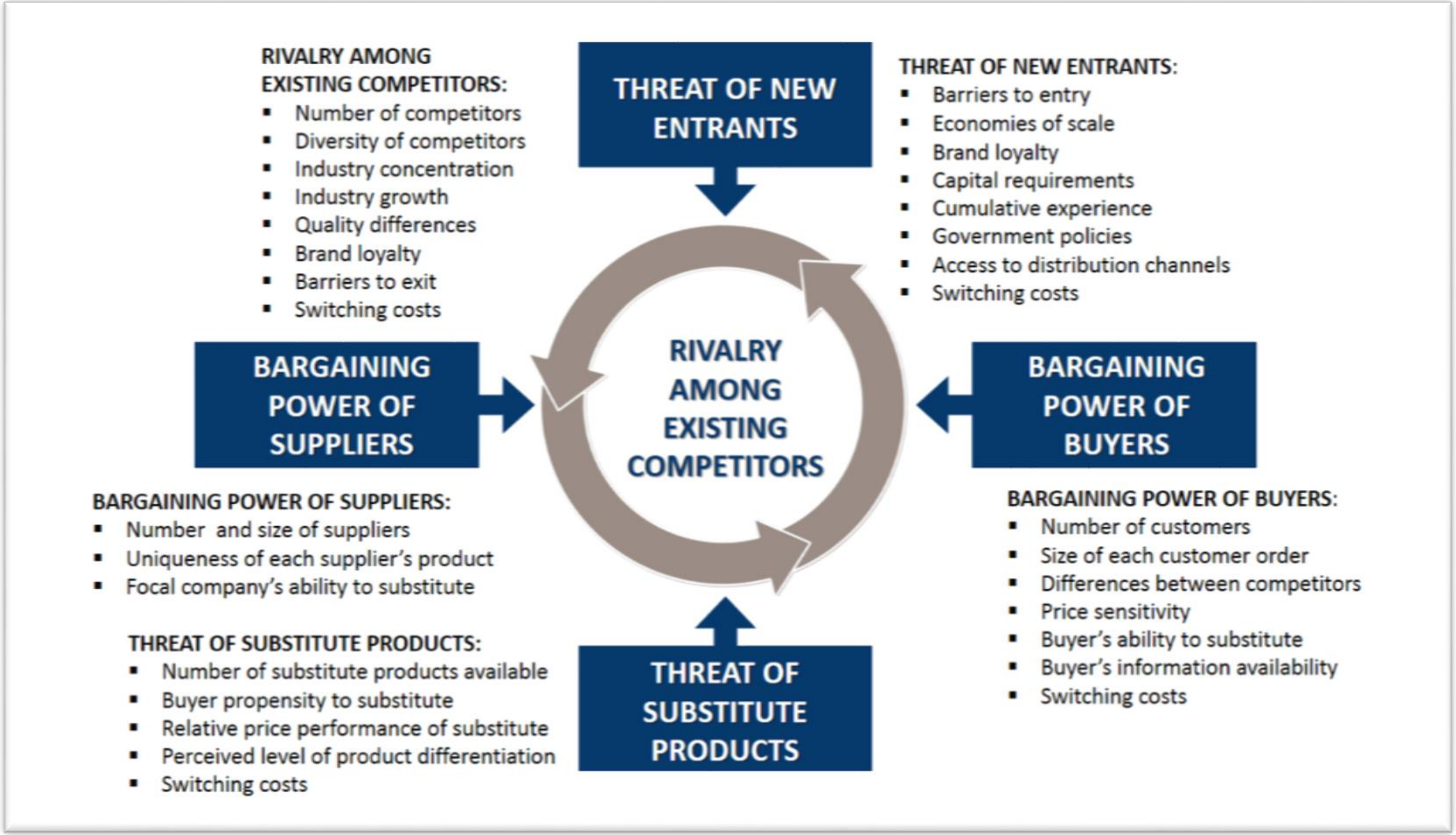
CATWOE

- CATWOE is an acronym for: Customers, Actors, Transformation Process, World View, Owner, and Environmental.

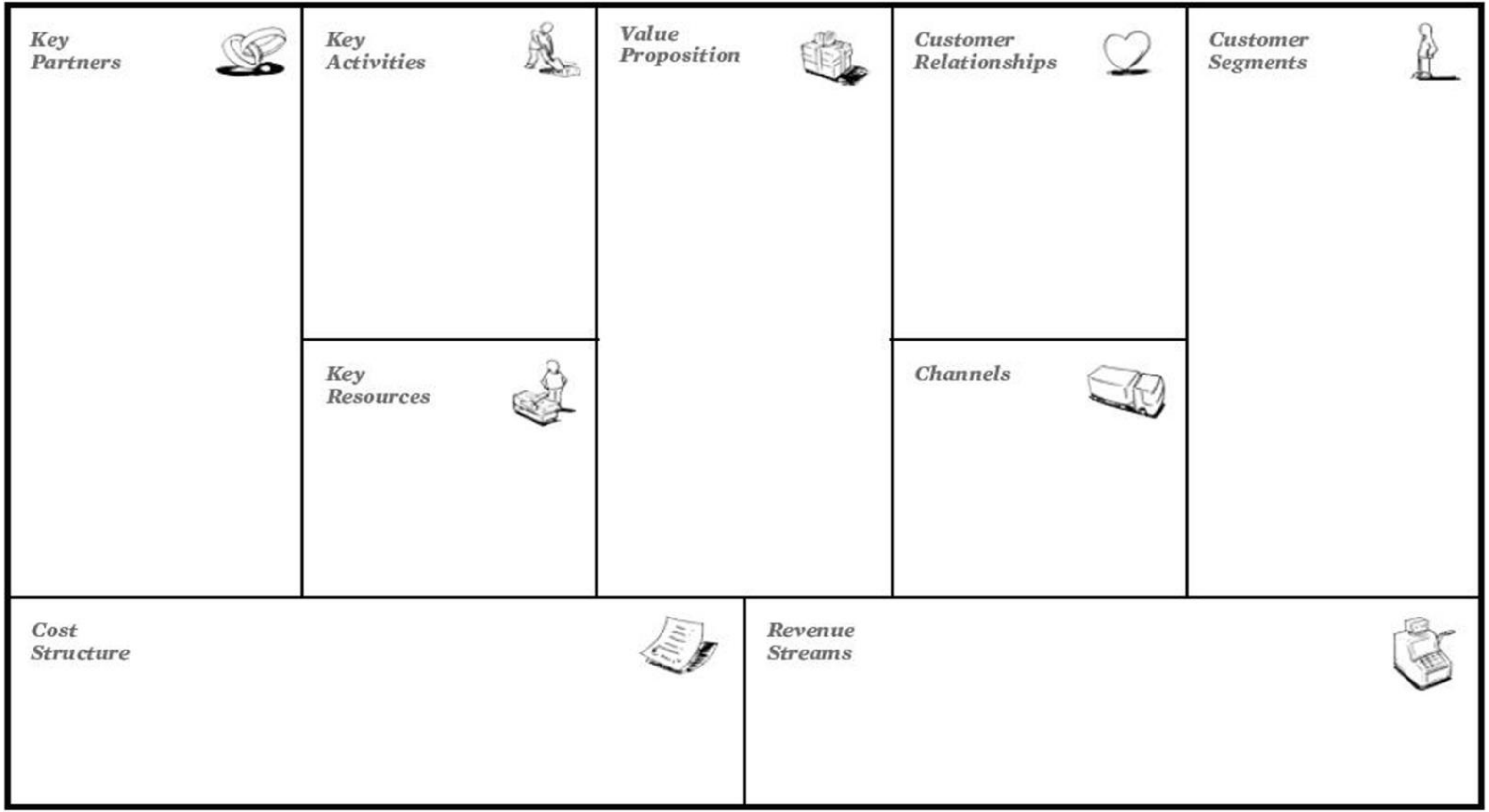
- This technique helps you to recognize processes that may be affected by any action the business undertakes.



Porter's five forces analysis



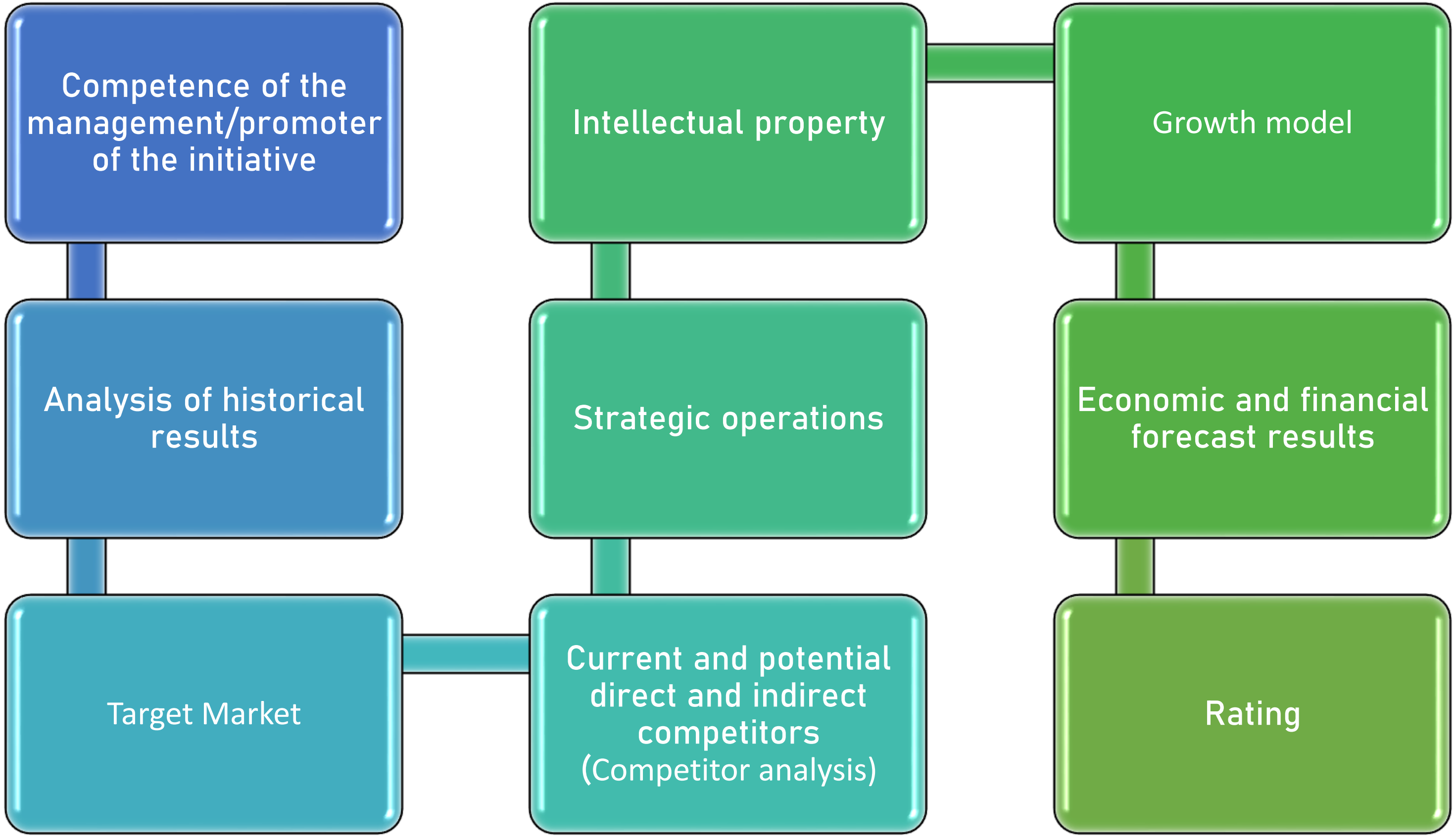
Business Model Canvas



Business Model Canvas

1. Customer segments
List the top three segments. Look for the segments that provide the most revenue.
2. Value proposition
What are your products and services? What is the job you get done for your customer?
3. Revenue streams
List your top three revenue streams. How does the firm make the revenues?
4. Channels
How do you communicate with your customer? How do you deliver the value proposition?
5. Customer relationships
How does this show up and how do you maintain the relationship?
6. Key activities
What do you do every day to run your business model?
7. Key resources
The people, knowledge, means, and money you need to run your business.
8. Key partners
List the partners that you can't do business without (not suppliers).
9. Cost structure
List your top costs by looking at activities and resources.

Business Plan



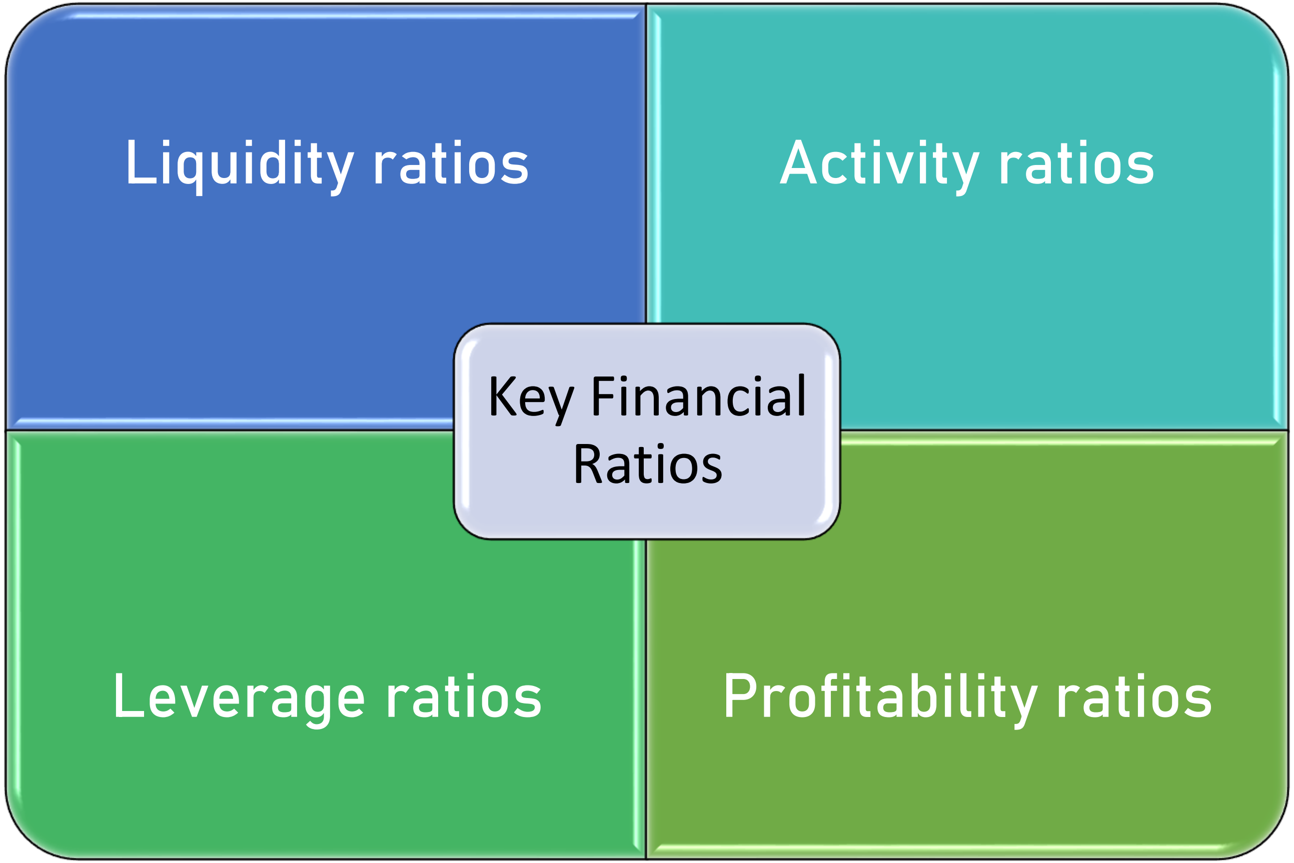
Qualitative analysis

- QUALITY MANAGEMENT
- QUALITY OF OWNERSHIP
- QUALITY GOVERNANCE MECHANISMS
- STRATEGIC POSITIONING

Financial Statement Analysis

The role of financial statement analysis is to use financial reports prepared by companies, combined with other information, to evaluate the past, current, and potential performance and financial position of a company for the purpose of making investment, credit, and other economic decisions.

Key Financial Ratios



Key Financial Ratios – Liquidity Ratios

Current Ratio

Quick Ratio (Acid-Test Ratio)

Cash Flow Liquidity Ratio

Key Financial Ratios – Liquidity Ratios

Short-term Solvency

Measure ability to meet cash needs as they arise

Predicts future ability of the firm to meet prospective needs for cash

Analysis of selected financial ratios

Comparison of ratios to industry averages

Important to creditors, suppliers, and management

Key Financial Ratios – Liquidity Ratios

Current Ratio:

- Commonly used measure of the ability of a firm to meet its debt requirements as they come due
- Necessary to evaluate the trend of liquidity over a period of time and compare with industry competitors

$$\textit{Current Ratio} = \frac{\textit{Current Assets}}{\textit{Current Liabilities}}$$

Key Financial Ratios – Liquidity Ratios

Quick Ratio (Acid-Test Ratio):

- More rigorous test of short-run solvency than the current ratio
- Numerator eliminates inventory (the least liquid current asset and the most likely source of losses)
- Necessary to evaluate the trend of liquidity over a period of time and compare with industry competitors

$$\boldsymbol{Quick\ Ratio} = \frac{Current\ Assets\ - Inventory}{Current\ Liabilities}$$

Key Financial Ratios – Liquidity Ratios

Cash Flow Liquidity Ratio:

- Considers cash flow from operating activities
- Uses cash and marketable securities as an approximation of cash resources in the numerator of the ratio
- Cash Flow Liquidity Ratio = (Cash and Cash Equivalents + Marketable Securities + Cash Flow From Operating Activities) / Current Liabilities

$$\textit{Cash Flow Liquidity Ratio} = \frac{\textit{Cash and Cash Equivalents} + \textit{Marketable Securities} + \textit{Cash Flow From Operating Activities}}{\textit{Current Liabilities}}$$

Key Financial Ratios – Activity Ratios

- Inventory Turnover
- Accounts Payable Turnover
- Fixed Asset Turnover
- Total Asset Turnover

Operating Efficiency

Measure liquidity of specific assets and efficiency of managing assets

Key Financial Ratios – Activity Ratios

Inventory Turnover:

- Measures <u>how many times</u> on average <u>inventory is sold during the year</u>
- Measures <u>efficiency of a firm in managing its inventory</u>

$$\boldsymbol{Inventory\ Turnover} = \frac{Cost\ of\ goods\ sold}{Inventory}$$

Key Financial Ratios – Activity Ratios

Fixed Asset Turnover:

- Assesses management's effectiveness in generating sales from investments in fixed assets
- Considers only the firm's investment property, plant, and equipment
- High ratio generally means only a small investment is required to generate sales (and thus the firm will be more profitable).

$$\textit{Fixed Asset Turnover} = \frac{\textit{Net Sales}}{\textit{Net Property, plant, equipment}}$$

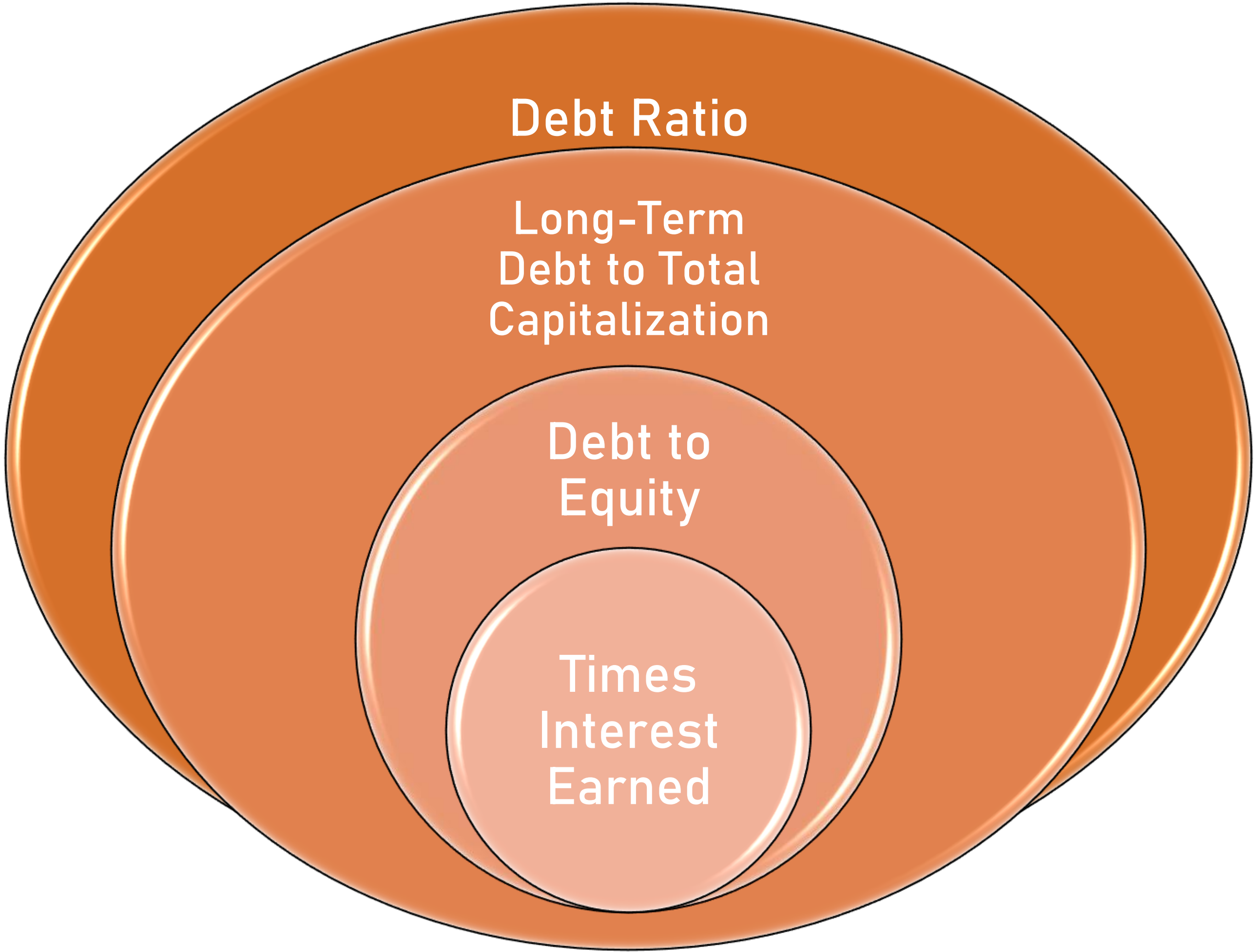
Key Financial Ratios – Activity Ratios

Total Asset Turnover:

- Assesses management's effectiveness in generating sales from investments in assets
- Considers all assets
- High ratio generally means only a small investment is required to generate sales (and thus the firm will be more profitable).

$$\textbf{\textit{Total Asset Turnover}} = \frac{Net\ Sales}{Total\ Assets}$$

Key Financial Ratios – Leverage Ratios



Key Financial Ratios – Leverage Ratios

- Capital structure and long-term solvency
- Measure ability to pay long-term debt: the extent of financing with debt relative to equity and ability to cover interest and other fixed charges
- Use of debt provides a trade-off of risk and return
- Debt ratios do not present the whole picture with regard to risk.

Key Financial Ratios – Leverage Ratios

Debt Ratio:

- Measures the extent of the firm's financing with debt
- Considers the proportion of all assets that are financed with debt

$$\boldsymbol{Debt\ Ratio} = \frac{Total\ liabilities}{Total\ assets}$$

Long-Term Debt to Total Capitalization:

- Measures the extent of the firm's financing with debt
- Reveals the extent to which long-term debt is used for the firm's permanent financing

$$\boldsymbol{Long\ Term\ Debt\ to\ Total\ Capitalization} = \frac{Long\ Term\ Debt}{Long\ Term\ Debt + Stockholders'equity}$$

Debt to Equity:

- Measures the extent of the firm's financing with debt
- Measures the riskiness of the firm's capital structure in terms of the relationship between the funds supplied by creditors (debt) and investors (equity)

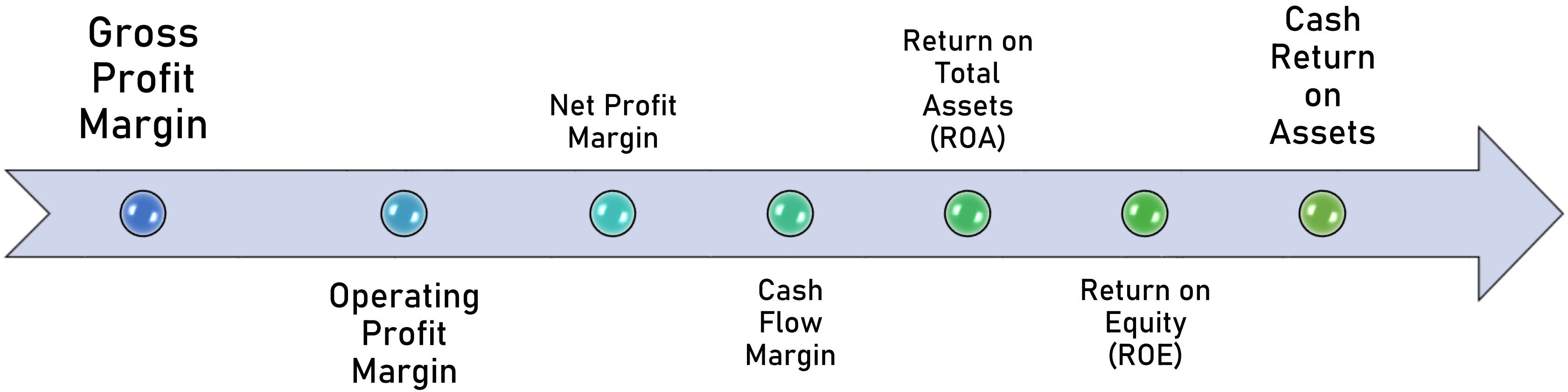
$$\boldsymbol{Debt\ to\ Equity} = \frac{Total\ liabilities}{Stockholders'\,equity}$$

Times Interest Earned:

- Indicates how well operating earnings cover fixed interest expenses
- The higher the ratio, the better

$$\boldsymbol{Times\ Interest\ Earned} = \frac{Operating\ profit}{Interest\ expense}$$

Key Financial Ratios – Profitability Ratios



Measure the overall performance of a firm and its efficiency in managing assets, liabilities, and equity

Analysis of how well the firm has performed in terms of profitability

Requires evaluation of several key ratios

Key Financial Ratios – Profitability Ratios

Gross Profit Margin:

- Represents firm's ability to translate sales dollars into profits
- Shows the relationship between sales and the cost of products sold
- Measures the ability to control costs of inventories or manufacturing and to pass along price increases through sales

$$\boldsymbol{Gross\ Profit\ Margin} = \frac{Gross\ profit}{Net\ sales}$$

Key Financial Ratios – Profitability Ratios

Operating Profit Margin:

- Represents firm's ability to translate sales dollars into profits
- Measures overall operating efficiency
- Incorporates all expenses associated with ordinary business activities

$$\boldsymbol{Operating\ Profit\ Margin} = \frac{Operating\ profit}{Net\ sales}$$

Key Financial Ratios – Profitability Ratios

Net Profit Margin:

- Represents firm's ability to translate sales dollars into profits
- Measures profitability after consideration of all revenue and expense, including interest, taxes, and nonoperating items

$$\boldsymbol{Net\ Profit\ Margin} = \frac{Net\ earnings}{Net\ sales}$$

Key Financial Ratios – Profitability Ratios

Cash Flow Margin:

- Measures ability to translate sales into cash
- Cash is needed to service debt, pay dividends, and invest in new capital assets.

$$\boldsymbol{Cash\ Flow\ Margin} = \frac{Cash\ flow\ from\ operating\ activities}{Net\ sales}$$

Key Financial Ratios – Profitability Ratios

Return on Assets (ROA):

- Measures the overall efficiency of the firm in managing its total investment in assets
- Indicates the amount of profit earned relative to the level of investment in total assets

$$\boldsymbol{ROA} = \frac{Net\ earnings}{Total\ assets}$$

Key Financial Ratios – Profitability Ratios

Return on Equity (ROE):

- Measures the overall efficiency of the firm in generating return to shareholders
- Calculated as return on common equity if a firm has preferred stock outstanding

$$\boldsymbol{ROE} = \frac{Net\ earnings}{Stockholders'\,equity}$$

Key Financial Ratios – Profitability Ratios

Cash Return on Assets:

- Offers a useful comparison to return on investment
- Measures the firm's cash-generating ability of assets

$$\boldsymbol{Cash\ Return\ on\ Assets} = \frac{Cash\ flow\ from\ operating\ activities}{Total\ assets}$$

Z-score - Altman

Z-score bankruptcy model:

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1X_5$$

X_1 = working capital / total assets

X_2 = retained earnings / total assets

X_3 = earnings before interest and taxes / total assets

X_4 = market value of equity / total liabilities

X_5 = sales / total assets

Zones of discrimination:

$Z > 2.99$ – "safe" zone

$1.81 < Z < 2.99$ – "grey" zone

$Z < 1.81$ – "distress" zone

❖ An increase in the *Z-score* value is associated to a lower risk of financial distress.

Z-score – Altman [2]

Z-score bankruptcy model (non-manufacturers):

$$Z = 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4$$ [5]

Z-score bankruptcy model (emerging markets):

$$Z = 3.25 + 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4$$

X_1 = (current assets − current liabilities) / total assets

X_2 = retained earnings / total assets

X_3 = earnings before interest and taxes / total assets

X_4 = book value of equity / total liabilities

Zones of discrimination:

$Z > 2.6$ – "safe" zone

$1.1 < Z < 2.6$ – "grey" zone

$Z < 1.1$ – "distress" zone

❖ An increase in the *Z-score* value is associated to a lower risk of financial distress.

Conclusion

Project and case study:

- The students should analyze the companies I give and also they have to think about how they can implement their business through the types of business funding used.

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Thank you for your attention

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