

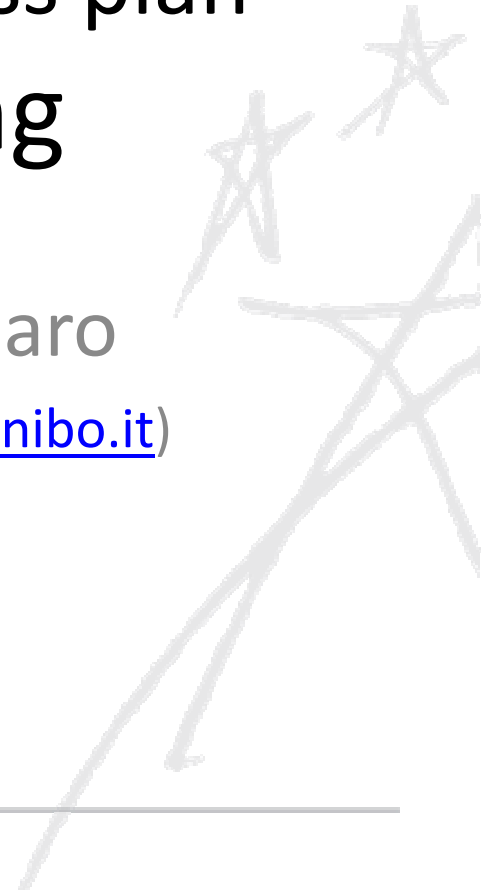


Creation of a successful business plan

Financial programming

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UNIBO





Why should I write a business plan?

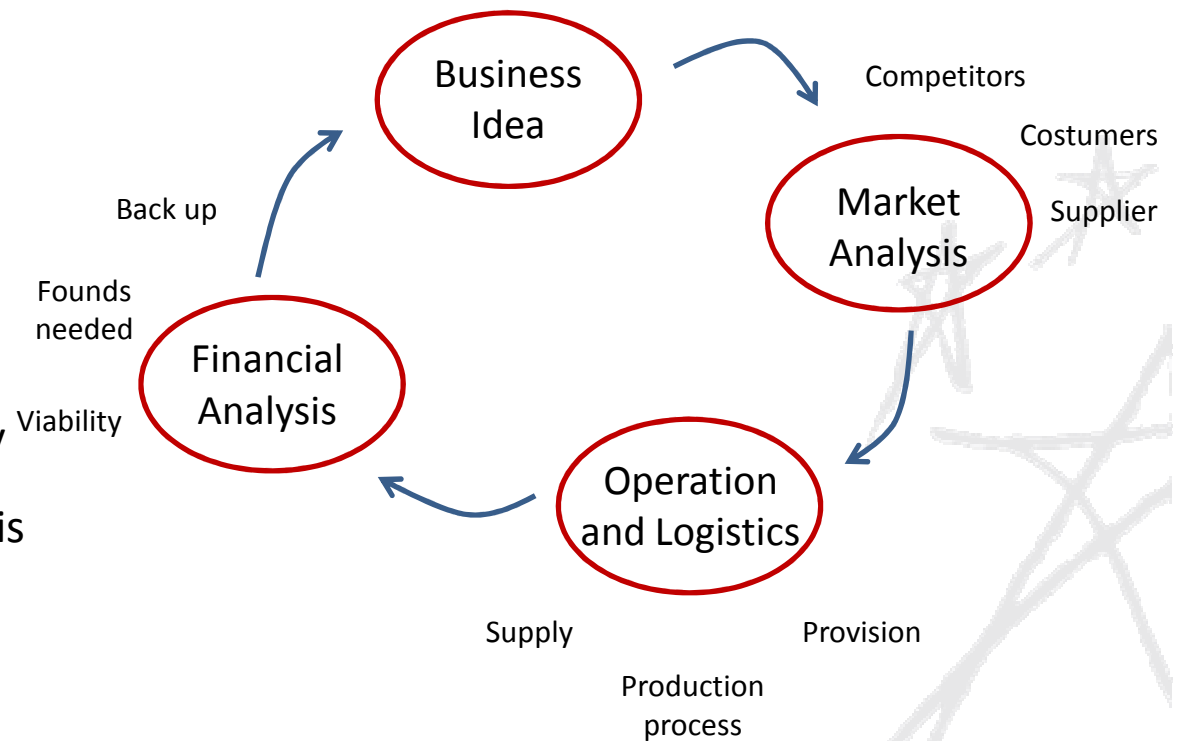
- 1) Because it helps me to:
 - Clarify my business idea
 - Spot potential problems
 - Measure my progress
- 2) Secure investments
- 3) Secure a loan from a bank
- 4) Convince consumers, suppliers and potential employees to support my ideas





Write a business plan

- 1) Executive summary
- 2) Owners Background
- 3) Product and services
- 4) Market Analysis
 - 1) The market
 - 2) Market research
 - 3) Marketing strategy
 - 4) Competitor analysis
- 5) Operation and Logistics
- 6) Financial forecasts
 - 1) Financial statements
 - 2) Back up plan





1) Executive summary

1) Business summary

Explain: 1) **what** you are going to sell, **where** and to **whom**

2) your business name and why you chose it

3) what type of business have you chosen to be and why

2) Business aims

List your goals: you should divide your objectives into short term, mid term and long term

3) Financial summary

1) describe the financial goals for the first year (the turnover you want to make and the amount of cash you hope you have left in the business at the end of your first year of trading)

2) state what money you need to start your business

3) explain where you will get the money from (the bank, family)



2) Owner's and business partners background

Explain: 1) why you want to start your own business

2) why you think you have the experience, ability and commitment to make your idea a success

3) what are your education, qualification, work experience and training

3) Product and services

What are you going to sell?

Describe: 1) the basic product service you are going to sell

2) the different type of product services you are going to be selling

3) when you are going to sell such product-services and why



4) Market Analysis –Customers

- 1) explain whether your costumers are businesses or individuals
- 2) describe your typical costumer
(i.e. income and age for individuals, sector and size for businesses)
- 3) describe where your typical costumers are based
- 4) explain what prompt your costumers to buy your products/services
(i.e. when costumers receive a big salary bonus)
- 5) describe factors that help your costumers choose which business to buy from
(i.e. experience, distance, fashion)
- 6) explain whether you have sold any product already
(i.e. how much sales and how much money you made)
- 7) explain how many costumers you have waiting to buy from you
(i.e. costumers letter of intent)



4) Market Analysis –Market research

- 1) Desk research (uses information from the internet and books)
 - a) how big the market is (how many sales take place in a year)
 - b) trends in your market (sales trends, variation in costumers attitudes)
- 2) Field research (asking potential costumers their opinion of your business)
 - a) ask if people will buy from your business, at your price in your location
 - b) ask if people already buy from a similar business, which is the business, if they are wishing to switch to your business and why
 - c) explain how you choose the people to complete the questionnaire and
how many people completed it
- 3) Test trading (practice your business)
 - a) how many product you tried to sell/you sold and at what price
 - b) the key thing you learned and the key thing you will change



4) Market Analysis –Market research

An example..... To explore the local market and verify if there is a demand for my special cheese products I made both a Test trading and a Field research. I obtained the following market scenarios:

THE MARKET (expected demand for the cheese produced by my own)

| | Minimum willingness to pay | | Average willingness to pay | | Maximum willingness to pay | |
|------------------|----------------------------|----------------------|----------------------------|----------------------|----------------------------|----------------------|
| | <u>Price (€/kg)</u> | <u>Quantity (kg)</u> | <u>Price (€/kg)</u> | <u>Quantity (kg)</u> | <u>Price (€/kg)</u> | <u>Quantity (kg)</u> |
| Caciotta (cow) | 6 | 10,800 | 8 | 7,200 | 10 | 3,600 |
| Ricotta (Cow) | 2 | 3,240 | 2 | 2,160 | 3 | 1,620 |
| Caciotta (sheep) | 8 | 4,800 | 13 | 3,200 | 16 | 1,600 |
| Ricotta (Sheep) | 2 | 1,920 | 3 | 1,280 | 4 | 960 |

Verifying if peoples are interested to by my products is not enough!!! I need to know if people already purchase similar products, where they use to buy such products, how much they pay for it.



4) Market Analysis –Marketing strategy

- 1) Word of mouth
- 2) Advertising (method used, period, frequencies and costs)
- 3) Leaflet and business cards (kind of material, quantity, way to distribute the material
to whom and where, costs)
- 3) Direct marketing (method used and way to find names and contact details of potential costumers)
- 4) Social media (detect the social network preferred by your target market, get feedback
on product design)
- 5) Tradeshow and exhibitions (which event are you planning to attend, when, how much
it cost)
- 6) Web sites (building and maintenance costs, use of online shop)



4) Market Analysis –Competitor analysis

A competitor is any business that offer a product service that is similar to yours

Focuses on those from which costumers are most likely to buy from instead of you, then explain:

- 2) Who they are where they are, what they sell, how much it cost, how much big the company is, what its strength and weaknesses are
- 3) SWOT analysis of your business against competitors

Table of competitors

| Name, location and business size | Product/service | Price | Strengths | Weaknesses |
|----------------------------------|-----------------|-------|-----------|------------|
| | | | | |

SWOT analysis

| | |
|--|--|
| Strengths (i.e. highlights the peculiarities of your product, location) | Weaknesses (i.e. lack of experience, money) |
| Opportunities (i.e. changes in the law, market trends) | Threats (i.e. a large shopping mall opening up) |



4) Market Analysis –Competitor analysis

An example..... To consolidate the information obtained from costumers I need to know who are my local competitors, how much they are popular, what the peculiarities of their products, how the sell the product, to whom, what are their competitive strategies:

THE MARKET (Competitors of my martket)

| | <u>Quantity of cheese sold (kg/Year)</u> | <u>Relative market share(%)</u> | <u>Average price (€/kg)</u> | <u>Estimated production costs (€/kg)</u> | <u>Markup (%)</u> |
|---------------|--|---------------------------------|-----------------------------|--|-------------------|
| Competitor 1 | 207,600 | 0.74 | 10 | 6 | 0.67 |
| Comptetitor 2 | 10,380 | 0.04 | 14 | 10 | 0.40 |
| Comptetitor 3 | 20,760 | 0.07 | 12 | 8 | 0.50 |
| Comptetitor 4 | 41,520 | 0.15 | 12 | 8 | 0.50 |



5) Operation and Logistics

- 1) Production (how long will it take to make your product? Do you have to pay upfront?)
 - 2) Delivery to costumers (how long will it take to deliver your product to costumers?)
 - 3) Payment (when will you get paid and how?)
 - 4) Suppliers (when will you pay them?)
 - 5) Premises (where will you run your business from?)
 - 6) Equipment (what equipment do you need? How much it will cost? Do you own it already?)**
 - 7) Transports (How will you get about to pick up stocks/meet costumers?)
 - 8) Legal requirements (Do you need a trading licence?)
 - 9) Insurance (What type of insurance do you need? How much is it costs?)
 - 10) Management and stuff (peoples involved in your business and duties)
-



5) Operations and Logistic

An example..... EQUIPMENT: I need to make an investment to run my business. I could choose among alternatives plants with different production capacities and costs:

CAPITALS required for a mini-dairy

| EQUIPMENT LIST | Production capacity (kg of processed milk/year) | | | TIME HORIZON (years) |
|---|---|--------------|--------------|----------------------|
| | 72000 | 96000 | 144000 | |
| | COST (€) | | | |
| Basic components | | | | |
| Boiler group + heating unit (from 300 to 600 lt) | 12000 | 22000 | 22000 | 5 |
| Various tools (buckets, shovels, blades, molds, etc.) | 500 | 750 | 1000 | 5 |
| Cool room with shelves (10 m2) | 5000 | 7500 | 10000 | 5 |
| Other Basic components | 500 | 1000 | 1500 | 5 |
| Total basic components | 21000 | 29500 | 38000 | |
| Additional components | | | | |
| Sale desk | 2800 | 4650 | 6500 | 5 |
| Other additional components | 3000 | 3000 | 3000 | 5 |
| Total additional components | 7500 | 10750 | 14000 | |
| Building renovation (130 mc) | 39000 | 39000 | 39000 | 20 |
| Total investment costs | 67500 | 79250 | 91000 | |



5) Operations and Logistic

An example..... EQUIPMENT: What the size of my business? Assuming that I want to maximize my income and that, except for investments, costs are proportional to the quantity of milk processed.

CHOICE OF THE BUSINESS SIZE (expected revenues - fixed costs)
€/year

| Expected quantity of milk to be processed (lt/year) | Production Capacity (lt/year) | | |
|---|-------------------------------|-------|--------|
| | 72000 | 96000 | 144000 |
| 122,182 | 50913 | 70034 | 91107 |
| 81,455 | 83119 | 93457 | 91107 |
| 40,727 | 57725 | 55375 | 53025 |



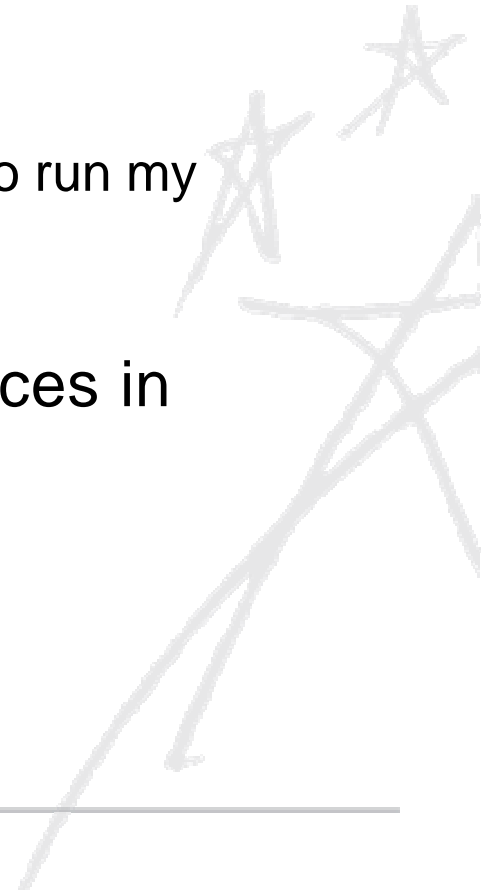
6) Financial Forecasts

How much money will I make? In need to answer the following questions:

1. **Feasibility** – Is it worth to begin my business?
2. **Sustainability** – How much money should I need to run my business?

To answer this question you need to plan resources in advance:

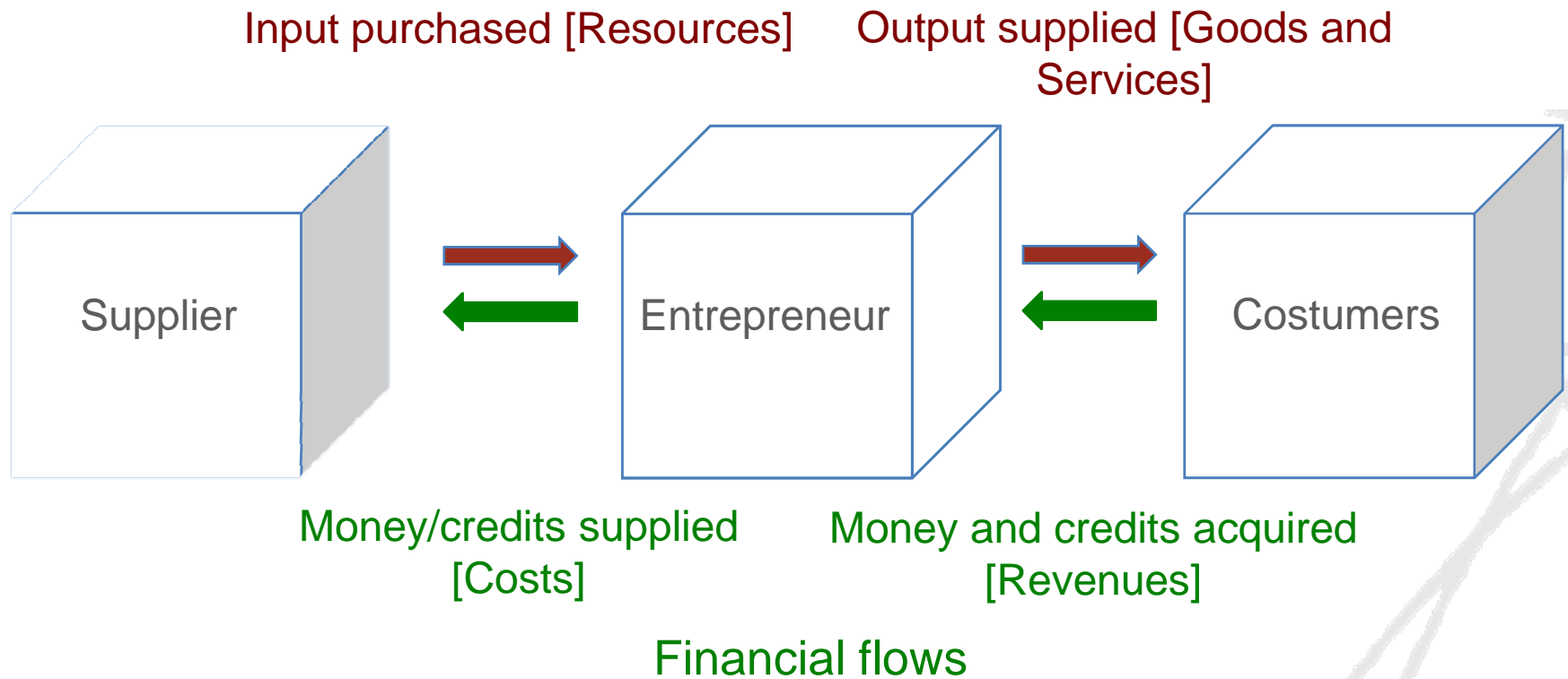
1. **Good/Services** (purchased and sold)
2. **Financial resources** (cash in / cash out)





6) Financial Forecasts

Resources flows





6) Financial Statements

Financial Statements reflect business activities, revenues and expenses for each accounting period. The three main financial statements are:

1. **The Balance Sheet** – illustrates a company's book Value
2. **Income Statement** – shows how assets and liabilities are used
3. **Cash Flow Statement** – shows the company cash activities

Fundamentals Financial Statemetns

Additional instruments:

1. **Break Even Point** – illustrates the minimum quantity that must be produced to recover costs
2. **NPV** – illustrates the present value of the investment



6) Financial Statements

Financial Statements reflect business activities, revenues and expenses for each accounting period. The three main financial statements are:

- | | | | |
|-------------------------------|---|---|---|
| 1. The Balance Sheet | } | based on an accrual basis (due or received) | |
| 2. Income Statement | | → | based on the actual receipt and payment of cash |
| 3. Cash Flow Statement | } | | |
- Fundamentals Financial Statements

Additional instruments:

1. **NPV – illustrates the present value of the investment**
-



6) Income Statement

Costs and Revenues are the basic elements of the Income Statement:

- **Costs** – money spent to purchase services and goods
- **Revenues** – Money earned by selling good and services produced

$$\text{Revenues} - \text{Costs} = \text{Income}$$





7) Income Statement

Costs can be classified in:

1. **Capital costs** - Costs incurred prior to run the business
 - infrastructures,
 - machinery,
 - tools, etc.;
2. **Operational costs** – Costs incurred while running the business
 1. **Fixed costs** – *costs not varying with the production*
 - rents,
 - maintenance,
 - debts, etc.;
 2. **Variable costs** – *costs varying with the production*
 - ingredients,
 - energy,
 - salaries, etc.





6) Income Statement

| INCOME STATEMENT | |
|--|---------|
| REVENUES | €/year |
| Sales revenues | 109,307 |
| Total revenues | 109,307 |
| EXPENSES | |
| Costs of good sold (ingredients, energy, etc.) | 46,122 |
| Marketing | 1,000 |
| Labour | 31,279 |
| Interest expenses | 3,170 |
| Overheads | 4,612 |
| Machinery depreciation | 15,850 |
| Total expenses | 102,033 |
| NET INCOME (after taxes) | 5,819 |

Sales revenues includes credits VS costumers accrued during the financial year!!!

Operational costs includes debit VS costumers accrued during the financial year!!!

This items is excluded from the cash flow statement because it is a non cash item

Varying with the production

NOT Varying with the production



6) The Balance Sheet

Assets, Liabilities and Owner's Equity are the basic elements of the Balance Sheet Statement:

- **Assets** – The capital invested in the business
- **Liabilities** – The financial resources borrowed
- **Owner's Equity** – The owned financial resources

$$\mathbf{Assets = Liabilities + Equity}$$





6) The Balance Sheet

| BALANCE SHEET | | |
|--|-----------------------|--------|
| Assets are listed in order of liquidity | ASSETS | €/year |
| | Current assets | 24,819 |
| | Credits VS costumers | 1,000 |
| | Inventories | 5,000 |
| | Investments | 63,400 |
| | Other assets | 0 |
| | Total assets (A) | 94,219 |
| Liabilities are listed in order of maturity | LIABILITIES | |
| | Current liabilities | 5,000 |
| | Debit VS Suppliers | 0 |
| | Long term liabilities | 63,400 |
| Equity are listed in order of liquidity | OWNERS EQUITY | |
| | Social Capital | 15,000 |
| | Stocks | 5,000 |
| | Net Income (NI) | 5,819 |
| | Total liabilities | 94,219 |
| | ROI (NI / A) | 0.06 |

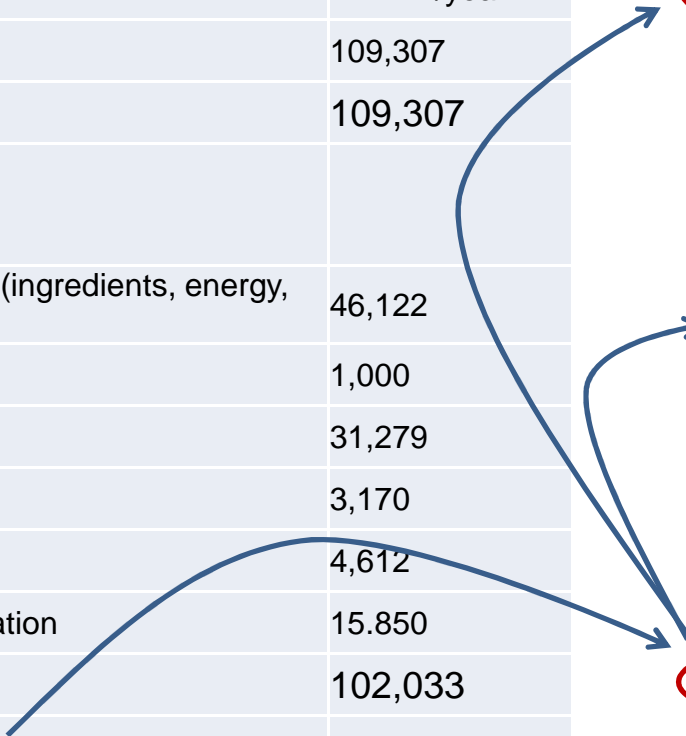
Particularly relevant to get bank loans



6) Connecting the IS and the BS

| INCOME STATEMENT | |
|--|----------------|
| | €/year |
| REVENUES | |
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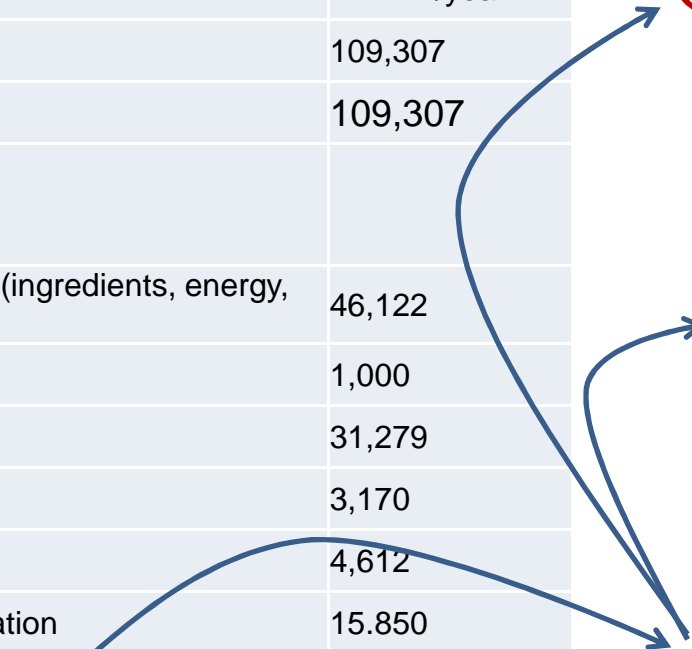
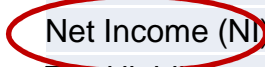
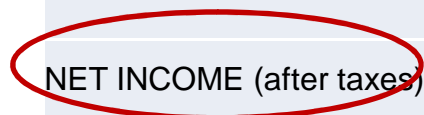




6) Connecting the IS and the BS

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6) Connecting the IS and the BS

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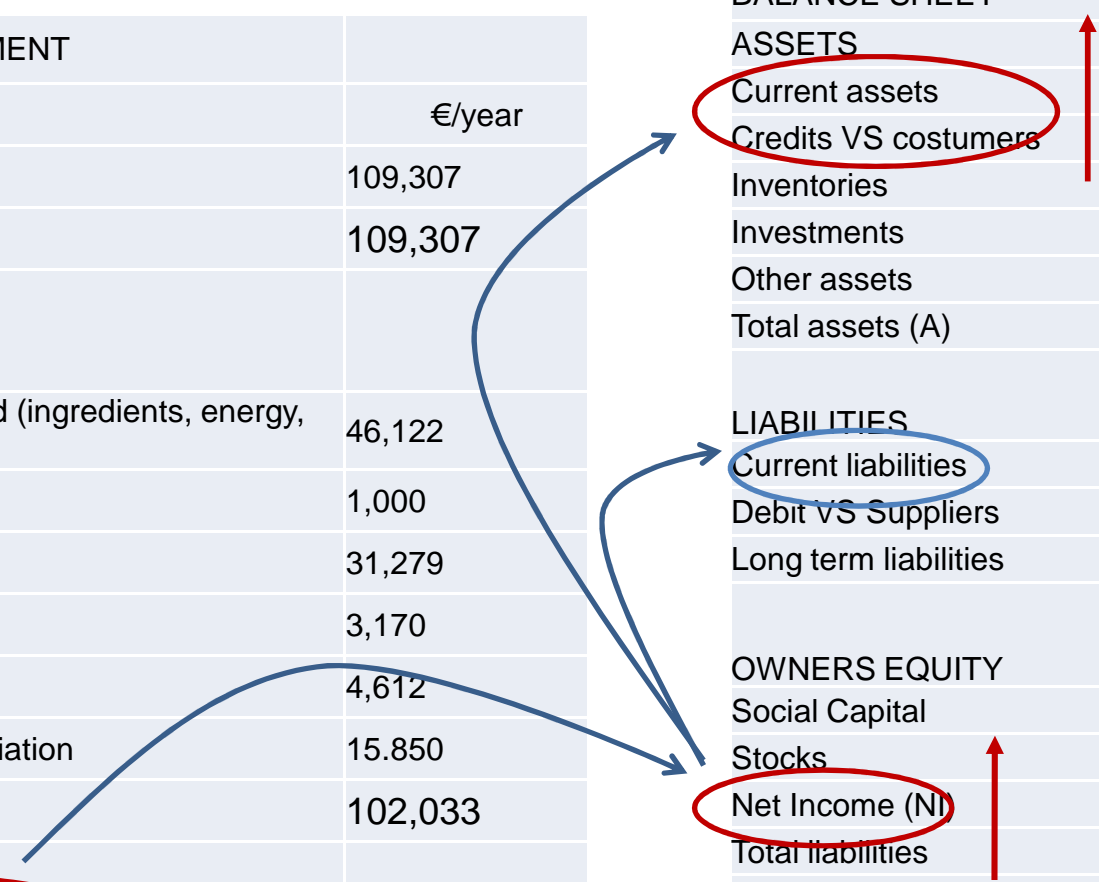
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NET INCOME (after taxes)

Net Income (NI)

Current assets
Credits VS costumers

Current liabilities





6) Cash Flow Analysis

Assets, Liabilities and Owner's Equity are the basic elements of the Balance Sheet Statement:

- **Operating** – Ordinary expenses and sales
- **Investing** – Capital purchases
- **Financing** – Financial resources invested in the activity (owned, external)

Net Cash Flow = Cash inflow – Cash Expenditure



6) Cash Flow Analysis

Why do I need it?

To prevent from any cash deficit and to identify corrective actions, as:

- Delaying payments and/or reducing credits lag to costumers
- Asking for a loan
 - Detecting:
 - The amount of the loan
 - When to ask for a loans
 - When payback the loan





6) Cash Flow Analysis

Let's assume that our Cheese Dairy generate 108.000 €/year of cash inflow and 103.000 €/year of cash expenditure (including your own salary or 'survival budget'):

Apparently there are no problems..... BUT....

We might suffer a financial trouble as cash inflow and cash outflow appear in different periods of the year!!!



6) Cash Flow Analysis

CASH FLOW STATEMENT

| | <u>FIRST Q</u> | <u>SECOND Q</u> | <u>THIRD Q</u> | <u>FOURTH Q</u> |
|--------------------------|----------------|-----------------|----------------|-----------------|
| CASH INFLOW | | | | |
| Beginning cash balance | | | | |
| Sale of dairy products | 16,396 | 38,257 | 37,257 | 16,396 |
| Government Payments | | | | |
| Total inflow | 16,396 | 38,257 | 37,257 | 16,396 |
| CASH EXPENDITURE | | | | |
| Costs of good sold | 11,531 | 11,531 | 11,531 | 11,531 |
| Marketing | 1,000 | | | |
| Capital purchases | | | | |
| Interest | 793 | 793 | 793 | 793 |
| Debt payments | 3,963 | 3,963 | 3,963 | 3,963 |
| Taxes (VAT) | 364 | 364 | 364 | 364 |
| Other expenses | 8,973 | 8,973 | 8,973 | 8,973 |
| Total expenditure | 26,622 | 25,622 | 25,622 | 25,622 |
| Quarterly net cash flow | -10,226 | 12,635 | 11,635 | -9,226 |
| Cumulative net cash flow | -10,226 | 2,410 | 14,045 | 4,819 |

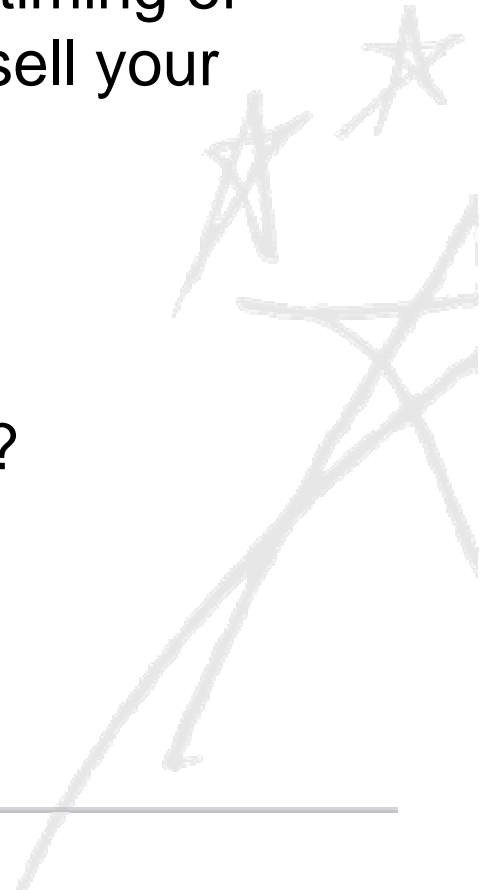


6) Cash Flow Analysis

Let's assume that it is not possible to shift the timing of payments to purchase production factors or to sell your products

I need to ask for a loan....

-how much money should I ask for?
-when do I need to ask for a loan?
-when should I payback the loan?





6) Cash Flow Analysis

CASH FLOW STATEMENT

| | <u>FIRST Q</u> | <u>SECOND Q</u> | <u>THIRD Q</u> | <u>FOURTH Q</u> |
|--------------------------|----------------|-----------------|----------------|-----------------|
| CASH INFLOW | | | | |
| Beginning cash balance | | | | |
| Sale of dairy products | 16,396 | 38,257 | 37,257 | 16,396 |
| Government Payments | | | | |
| Total inflow | 16,396 | 38,257 | 37,257 | 16,396 |
| CASH EXPENDITURE | | | | |
| Costs of good sold | 11,531 | 11,531 | 11,531 | 11,531 |
| Marketing | 1,000 | | | |
| Capital purchases | | | | |
| Interest | 793 | 793 | 793 | 793 |
| Debt payments | 3,963 | 3,963 | 3,963 | 3,963 |
| Taxes (VAT) | 364 | 364 | 364 | 364 |
| Other expenses | 8,973 | 8,973 | 8,973 | 8,973 |
| Total expenditure | 26,622 | 25,622 | 25,622 | 25,622 |
| Quarterly net cash flow | -10,226 | 12,635 | 11,635 | -9,226 |
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6) Cash Flow Analysis

| CASH FLOW STATEMENT | | | | | |
|--------------------------|---------------|----------------|-----------------|----------------|-----------------|
| | | <u>FIRST Q</u> | <u>SECOND Q</u> | <u>THIRD Q</u> | <u>FOURTH Q</u> |
| CASH INFLOW | | | | | |
| Beginning cash balance | <u>11,000</u> | | | | |
| Sale of dairy products | 16,396 | 38,257 | 37,257 | 16,396 | |
| Government Payments | | | | | |
| Total inflow | 27,396 | 38,257 | 37,257 | 16,396 | |
| CASH EXPENDITURE | | | | | |
| Costs of good sold | 11,531 | 11,531 | 11,531 | 11,531 | |
| Marketing | 1,000 | | | | |
| Capital purchases | | | | | |
| Interest | 793 | 1,946 | 793 | 793 | |
| Debt payments | 3,963 | <u>14,963</u> | 3,963 | 3,963 | |
| Taxes (VAT) | 364 | 364 | 364 | 364 | |
| Other expenses | 8,973 | 8,973 | 8,973 | 8,973 | |
| Total expenditure | 26,622 | 26,775 | 25,622 | 25,622 | |
| Quarterly net cash flow | 774 | 11,482 | 11,635 | -9,226 | |
| Cumulative net cash flow | 774 | 12,256 | 23,892 | 14,666 | |



6) Cash Flow Analysis

Now, let's assume that it is possible to shift payments

What can I do?





6) Cash Flow Analysis

CASH FLOW STATEMENT

| | <u>FIRST Q</u> | <u>SECOND Q</u> | <u>THIRD Q</u> | <u>FOURTH Q</u> |
|--------------------------|----------------|-----------------|----------------|-----------------|
| CASH INFLOW | | | | |
| Beginning cash balance | | | | |
| Sale of dairy products | 16,396 | 38,257 | 37,257 | 16,396 |
| Government Payments | | | | |
| Total inflow | 16,396 | 38,257 | 37,257 | 16,396 |
| CASH EXPENDITURE | | | | |
| Costs of good sold | 11,531 | 11,531 | 11,531 | 11,531 |
| Marketing | 1,000 | | | |
| Capital purchases | | | | |
| Interest | 793 | 793 | 793 | 793 |
| Debt payments | 3,963 | 3,963 | 3,963 | 3,963 |
| Taxes (VAT) | 364 | 364 | 364 | 364 |
| Other expenses | 8,973 | 8,973 | 8,973 | 8,973 |
| Total expenditure | 26,622 | 25,622 | 25,622 | 25,622 |
| Quarterly net cash flow | -10,226 | 12,635 | 11,635 | -9,226 |
| Cumulative net cash flow | -10,226 | 2,410 | 14,045 | 4,819 |



6) Cash Flow Analysis

| CASH FLOW STATEMENT | | | | |
|--------------------------|----------------|-----------------|----------------|-----------------|
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| Total inflow | 16,396 | 38,257 | 37,257 | 16,396 |
| CASH EXPENDITURE | | | | |
| Costs of good sold | 11,531 | 11,531 | 11,531 | 11,531 |
| Marketing | 1,000 | | | |
| Capital purchases | | | | |
| Interest | | | | <u>3,170</u> |
| Debt payments | | <u>7,925</u> | 3,963 | 3,963 |
| Taxes (VAT) | | | | 1,455 |
| Other expenses | | 8,973 | 17,945 | 8,973 |
| Total expenditure | 12,531 | 28,428 | 33,438 | 29,090 |
| Quarterly net cash flow | 3,865 | 9,829 | 3,819 | -12,694 |
| Cumulative net cash flow | 3,865 | 13,695 | 17,514 | 4,819 |



6) Cash Flow Analysis

Now, let's assume that it is possible to get payments in advance or to reduce the duration of credits to some costumers

What can I do?





6) Cash Flow Analysis

CASH FLOW STATEMENT

| | <u>FIRST Q</u> | <u>SECOND Q</u> | <u>THIRD Q</u> | <u>FOURTH Q</u> |
|--------------------------|----------------|-----------------|----------------|-----------------|
| CASH INFLOW | | | | |
| Beginning cash balance | | | | |
| Sale of dairy products | 16,396 | 38,257 | 37,257 | 16,396 |
| Government Payments | | | | |
| Total inflow | 16,396 | 38,257 | 37,257 | 16,396 |
| CASH EXPENDITURE | | | | |
| Costs of good sold | 11,531 | 11,531 | 11,531 | 11,531 |
| Marketing | 1,000 | | | |
| Capital purchases | | | | |
| Interest | 793 | 793 | 793 | 793 |
| Debt payments | 3,963 | 3,963 | 3,963 | 3,963 |
| Taxes (VAT) | 364 | 364 | 364 | 364 |
| Other expenses | 8,973 | 8,973 | 8,973 | 8,973 |
| Total expenditure | 26,622 | 25,622 | 25,622 | 25,622 |
| Quarterly net cash flow | -10,226 | 12,635 | 11,635 | -9,226 |
| Cumulative net cash flow | -10,226 | 2,410 | 14,045 | 4,819 |



6) Cash Flow Analysis

| CASH FLOW STATEMENT | | | | |
|--------------------------|----------------|-----------------|----------------|-----------------|
| | <u>FIRST Q</u> | <u>SECOND Q</u> | <u>THIRD Q</u> | <u>FOURTH Q</u> |
| CASH INFLOW | | | | |
| Beginning cash balance | | | | |
| Sale of dairy products | 28,396 | 26,257 | 37,257 | 16,396 |
| Government Payments | | | | |
| Total inflow | 28,396 | 26,257 | 37,257 | 16,396 |
| CASH EXPENDITURE | | | | |
| Costs of good sold | 11,531 | 11,531 | 11,531 | 11,531 |
| Marketing | 1,000 | | | |
| Capital purchases | | | | |
| Interest | 793 | 793 | 793 | 793 |
| Debt payments | 3,963 | 3,963 | 3,963 | 3,963 |
| Taxes (VAT) | 364 | 364 | 364 | 364 |
| Other expenses | 8,973 | 8,973 | 8,973 | 8,973 |
| Total expenditure | 26,622 | 25,622 | 25,622 | 25,622 |
| Quarterly net cash flow | 1,774 | 635 | 11,635 | -9,226 |
| Cumulative net cash flow | 1,774 | 2,410 | 14,045 | 4,819 |

6) Connecting the IS and the BS to the CF

| CASH FLOW STATEMENT | INCOME STATEMENT | BALANCE SHEET |
|--------------------------|--|-----------------------|
| CASH INFLOW | REVENUES | ASSETS + |
| Beginning cash balance | Sales revenues | Current assets |
| Sale of dairy products | Total revenues | Credits VS costumers |
| Government Payments | | Inventories |
| Total inflow | | Investments |
| | EXPENSES | Other assets |
| CASH EXPENDITURE | Costs of good sold (ingredients, energy, etc.) | Total assets (A) |
| Costs of good sold | Marketing | LIABILITIES |
| Marketing | Labour | Current liabilities |
| Capital purchases | Interest expenses | Debit VS Suppliers |
| Interest | Overheads | Long term liabilities |
| Debt payments | Machinery depreciation | |
| Taxes (VAT) | Total expenses | OWNERS EQUITY |
| Other expenses | | Social Capital |
| Total expenditure | | Stocks |
| | NET INCOME (after taxes) | Net Income (NI) |
| Quarterly net cash flow | | Total liabilities |
| Cumulative net cash flow | | |
| | | ROI (NI / A) |

6) Connecting the IS and the BS to the CF

| CASH FLOW STATEMENT | INCOME STATEMENT | BALANCE SHEET |
|--------------------------|--|-----------------------|
| CASH INFLOW | REVENUES + | ASSETS - |
| Beginning cash balance | Sales revenues | Current assets |
| Sale of dairy products | Total revenues | Credits VS costumers |
| Government Payments | EXPENSES | Inventories |
| Total inflow | Costs of good sold (ingredients, energy, etc.) | Investments |
| CASH EXPENDITURE | Marketing | Other assets |
| Costs of good sold | Labour | Total assets (A) |
| Marketing | Interest expenses | LIABILITIES |
| Capital purchases | Overheads | Current liabilities |
| Interest | Machinery depreciation | Debit VS Suppliers |
| Debt payments | Total expenses | Long term liabilities |
| Taxes (VAT) | NET INCOME (after taxes) | OWNERS EQUITY |
| Other expenses | | Social Capital |
| Total expenditure | | Stocks |
| Quarterly net cash flow | | Net Income (NI) |
| Cumulative net cash flow | | Total liabilities |
| | | ROI (NI / A) |

6) Connecting the IS and the BS to the CF

| CASH FLOW STATEMENT | INCOME STATEMENT | BALANCE SHEET |
|--------------------------|--|-----------------------|
| CASH INFLOW | REVENUES | ASSETS |
| Beginning cash balance | Sales revenues | Current assets |
| Sale of dairy products | Total revenues | Credits VS costumers |
| Government Payments | | Inventories |
| Total inflow | | Investments |
| | EXPENSES + | Other assets |
| CASH EXPENDITURE | Costs of good sold (ingredients, energy, etc.) | Total assets (A) |
| Costs of good sold | Marketing | LIABILITIES |
| Marketing | Labour | Current liabilities |
| Capital purchases | Interest expenses | Debit VS Suppliers |
| Interest | Overheads | Long term liabilities |
| Debt payments | Machinery depreciation | |
| Taxes (VAT) | Total expenses | OWNERS EQUITY |
| Other expenses | | Social Capital |
| Total expenditure | | Stocks |
| | NET INCOME (after taxes) | Net Income (NI) |
| Quarterly net cash flow | | Total liabilities |
| Cumulative net cash flow | | |
| | | ROI (NI / A) |



6) Connecting the IS and the BS to the CF

| CASH FLOW STATEMENT | INCOME STATEMENT | BALANCE SHEET |
|--------------------------|--|-----------------------|
| CASH INFLOW | REVENUES | ASSETS |
| Beginning cash balance | Sales revenues | Current assets |
| Sale of dairy products | Total revenues | Credits VS costumers |
| Government Payments | | Inventories + |
| Total inflow | | Investments |
| | EXPENSES | Other assets |
| CASH EXPENDITURE | Costs of good sold (ingredients, energy, etc.) | Total assets (A) |
| Costs of good sold | Marketing | LIABILITIES |
| Marketing | Labour | Current liabilities |
| Capital purchases | Interest expenses | Debit VS Suppliers |
| Interest | Overheads | Long term liabilities |
| Debt payments | Machinery depreciation | |
| Taxes (VAT) | Total expenses | OWNERS EQUITY |
| Other expenses | | Social Capital |
| Total expenditure | | Stocks |
| | | Net Income (NI) |
| Quarterly net cash flow | | Total liabilities |
| Cumulative net cash flow | NET INCOME (after taxes) | |
| | | ROI (NI / A) |



6) Connecting the IS and the BS

CASH FLOW STATEMENT

CASH INFLOW

Beginning cash balance
Sale of dairy products
Government Payments
Total inflow

CASH EXPENDITURE

Costs of good sold
Marketing
Capital purchases
Interest
Debt payments
Taxes (VAT)
Other expenses
Total expenditure

Quarterly net cash flow

Cumulative net cash flow

INCOME STATEMENT

REVENUES

Sales revenues
Total revenues

EXPENSES

Costs of good sold (ingredients, energy,
etc.)
Marketing
Labour
Interest expenses **0**
Overheads
Machinery depreciation

Total expenses

NET INCOME (after taxes)

BALANCE SHEET

ASSETS

Current assets
Credits VS costumers
Inventories
Investments
Other assets
Total assets (A)

LIABILITIES

Current liabilities
Debit VS Suppliers
Long term liabilities

OWNERS EQUITY

Social Capital
Stocks
Net Income (NI)
Total liabilities

ROI (NI / A)



6) My back up plan

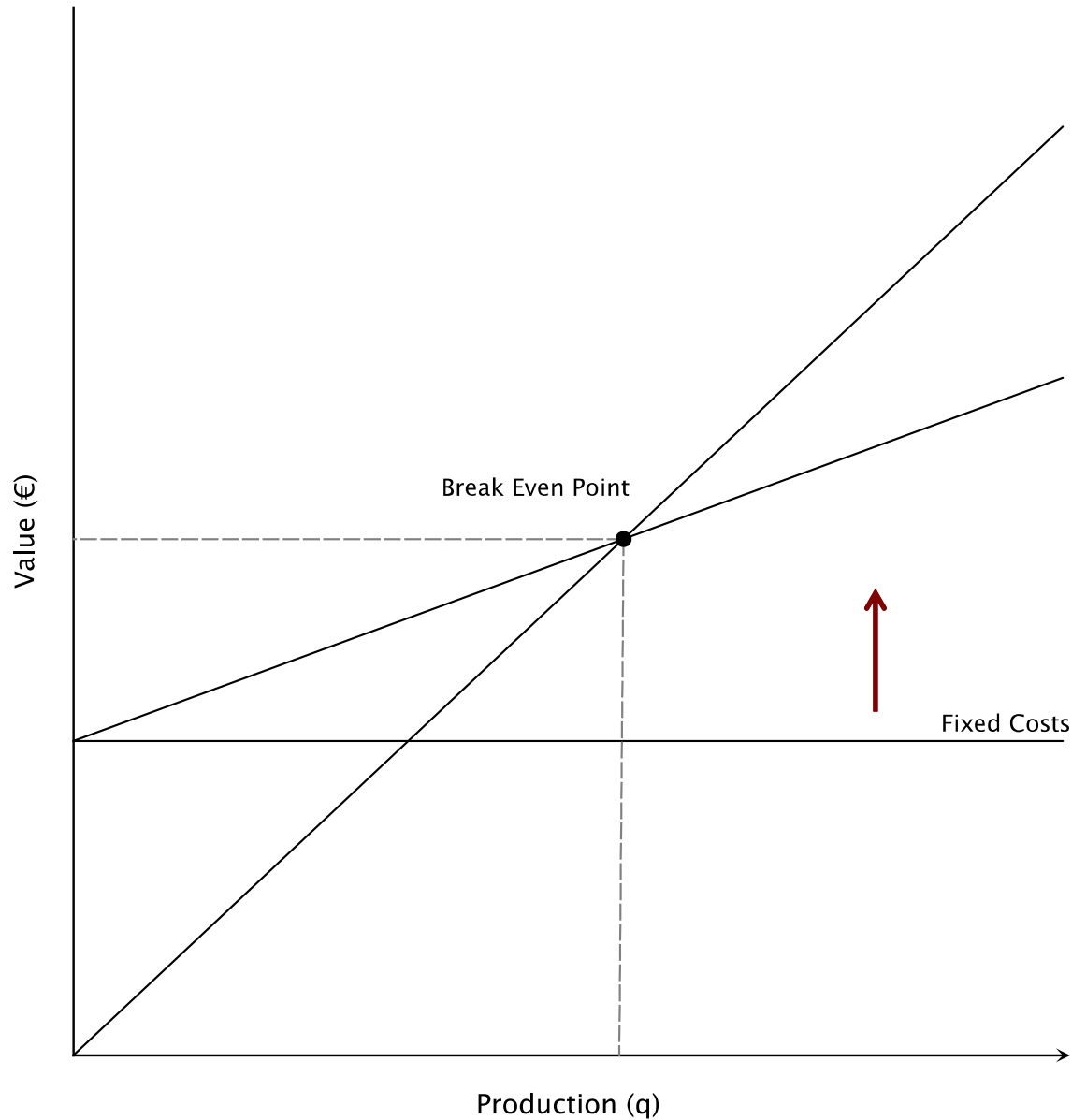
The 'what if' scenario

What if doesn't work out as you imagined?

- Changes that you might be able to make in the short term (i.e. work with a cheaper supplier, negotiate shorter payment terms, boost sales, etc.)
- Changes that you might be able to make in the long term (i.e. support that might be available from the bank or the Government, train your staff, etc.)



6) My back up plan



- Output Price variation

- Input Price variation
- Variation in seasonality
- Variation on the efficiency of input usage

- Unexpected extra fixed costs

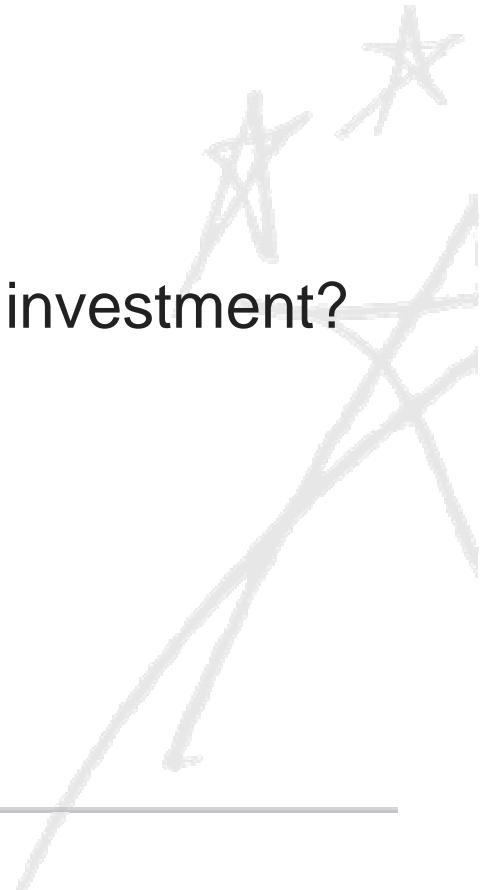


Strategic Planning

Is it worth to run my business?

If yes....

- What is my rate of return on investment?
- How much time do I need to payback the investment?





Strategic Planning

In general, an investment project generates negative net cash flows in the initial stage of the project and positive net cash flows in the succeeding stages.

We must take into account when cash flows are generated if we want to compare cash flows in different periods of the project life.



Strategic Planning

Thus we need to account for TIME

How do TIME affect the value of money?

Ex. A Bank is offering us a loan of .90 € with the promise to payback 1 € at the end of the month (value of the loan + the interest).

If we payback 1 € after 1 year, that amount will be valued + or – by the Bank?



Strategic Planning

The example of the Bank can be translated in: it is worth of to have an egg today rather than an egg tomorrow? The answer is obvious.

But...

How can I evaluate if it is better an egg today rather than a hen tomorrow?

I need to know how to calculate the present value of the cash flows foreseen to be generated in the near future

Or in other words.... How and how much the TIME condition the value of money?



Strategic Planning

Net Present Value of the cash flows foreseen to be generated during the life time of a project

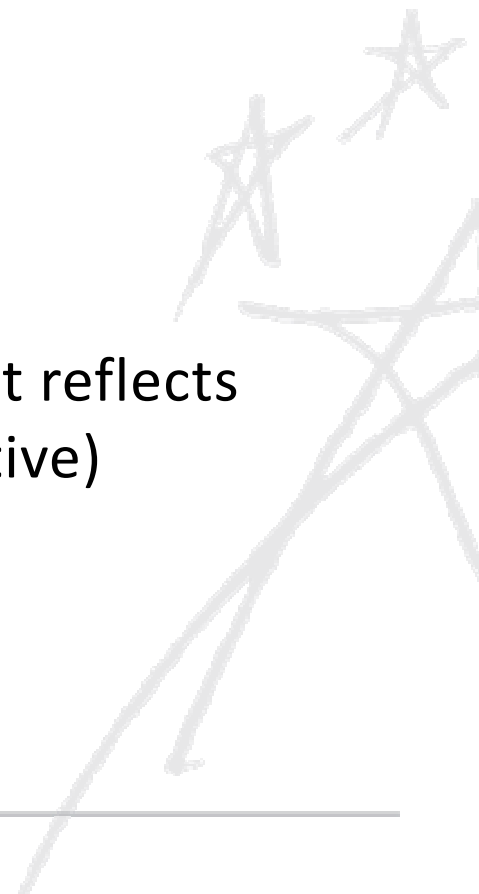
$$NPV = \sum_{t=0}^T \frac{F_t}{(1+r)^t}$$

r discount rate or opportunity cost of the capital (it reflects the value of the best available investment alternative)

t time

T project time horizon

F_t net cash flow (Revenues - Costs)





Strategic Planning

r (discount rate) or opportunity cost of the capital. This is the key item to calculate the present value of future cash flows. The value of r depends on:

- 1) **How the time affect the value of money.** It is worth to obtain money soon, rather than waiting. As soon I have the opportunity to use money, as soon I will have the opportunity to use it to improve my wealth.
- 2) **The rate of return of the best investment alternative.** If there are no alternatives I need to consider as a benchmark the rate of return of saving my money in the bank.
- 3) **The risk of failure.** I need to include and additional leverage to the rate of return to cover any risk of failure. Thus the return on investment must compensate any risk of failure.



Strategic Planning

| STRATEGIC PLANNING | | | | | |
|------------------------------|----------|----------|----------|-----------------|----------|
| Time horizon | 9 years | | | Pay back period | |
| Interest rate | 7% | | | | |
| | YEARS | | | | |
| | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> |
| Cash Inflow | | | | | |
| Cheese sold | | 114,307 | 114,307 | 114,307 | 114,307 |
| Total inflow | - | 114,307 | 114,307 | 114,307 | 114,307 |
| Cash Expenditures | | | | | |
| Operational costs | | 83,013 | 83,013 | 83,013 | 83,013 |
| Capital purchases | 79,250 | | | | |
| Total expenditures | 79,250 | 83,013 | 83,013 | 83,013 | 83,013 |
| Yearly net present value | -79,250 | 27,333 | 25,545 | 23,874 | 22,312 |
| Cumulative net present value | -79,250 | -51,917 | -26,372 | -2,498 | 19,814 |



Strategic Planning

| STRATEGIC PLANNING | | | | | |
|------------------------------|----------|----------|----------|-------------------------|----------|
| Time horizon | 9 years | | | | |
| Interest rate | 14% | | | Internal rate of return | |
| | YEARS | | | | |
| | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> |
| Cash Inflow | | | | | |
| Cheese sold | | 114,307 | 114,307 | 114,307 | 114,307 |
| Total inflow | - | 114,307 | 114,307 | 114,307 | 114,307 |
| Cash Expenditures | | | | | |
| Operational costs | | 83,013 | 83,013 | 83,013 | 83,013 |
| Capital purchases | 79,250 | | | | |
| Total expenditures | 79,250 | 83,013 | 83,013 | 83,013 | 83,013 |
| Yearly net present value | -79,250 | 23,947 | 20,948 | 18,325 | 16,030 |
| Cumulative net present value | -79,250 | -55,303 | -34,355 | -16,030 | 0 |