

PROMOVE Comércio

Mozambique

Costing and Pricing with focus to Export

Webinar

18. November 2021

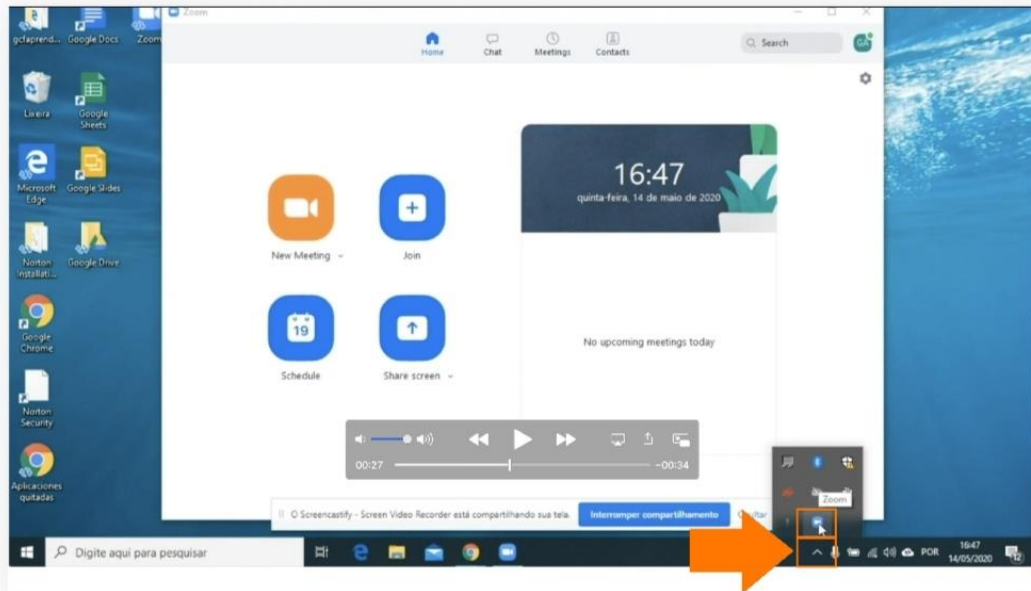
Wolfgang Wiegel

United Nations Industrial Development Organization (UNIDO)



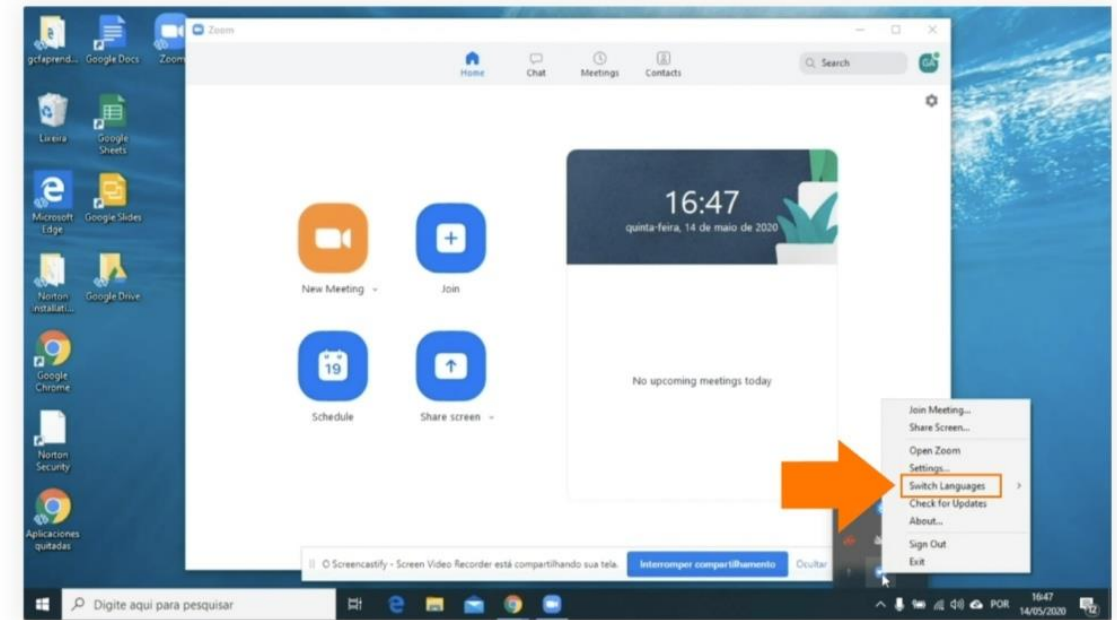
Passo 1

No canto superior direito da sua tela inicial do Windows, clique na seta que expandirá as opções de programas instalados. Clique sobre o ícone do **Zoom**.



Passo 2

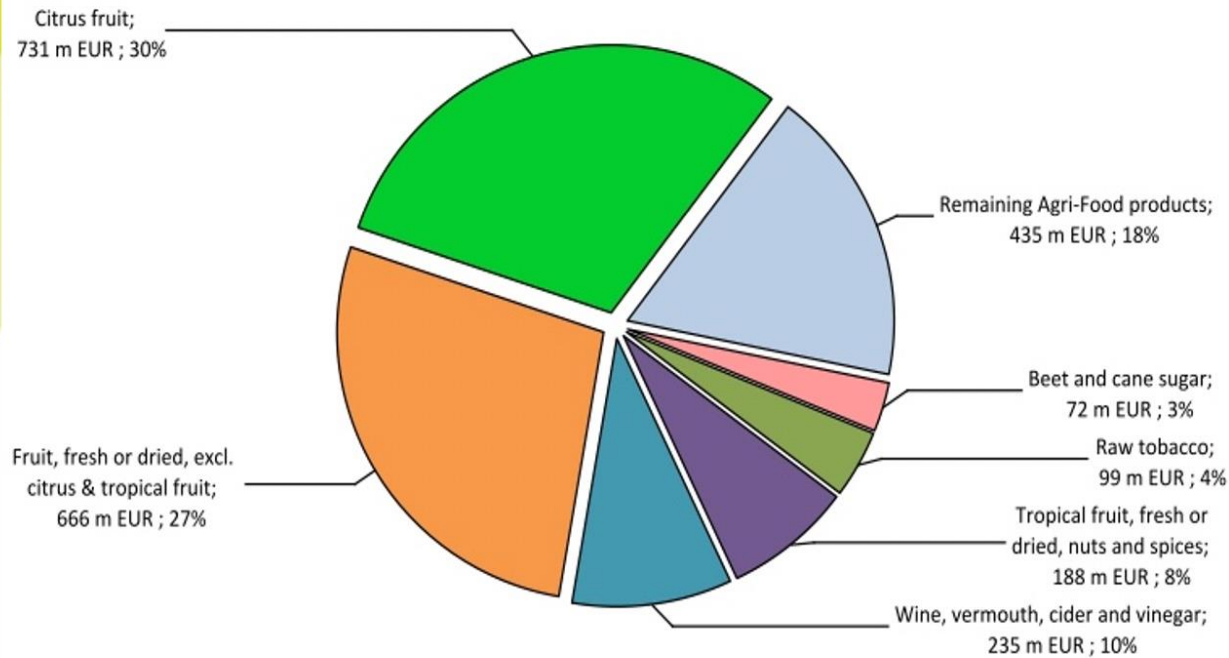
Se abrirá uma lista de ações. Passe o mouse sobre a opção "**Switch Languages**".



How to select your language at ZOOM

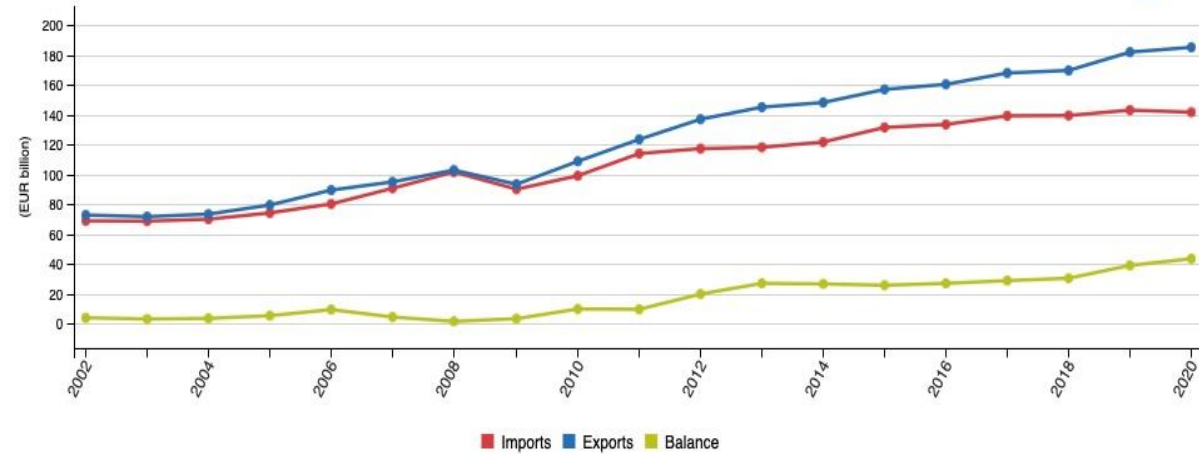
High Demand vs. high Level of Competition

Top EU Agri-Food imports from EPA SADC in 2020



Source: EuroStat

EU trade in agricultural products, 2002-2020



Source: Eurostat (online data code: DS-016894)

eurostat

The trendline indicates trade in agricultural products, exports and imports between the EU and all countries outside the EU. In 2020, extra-EU accounted for 9.0 % of the total extra EU international trade in goods.

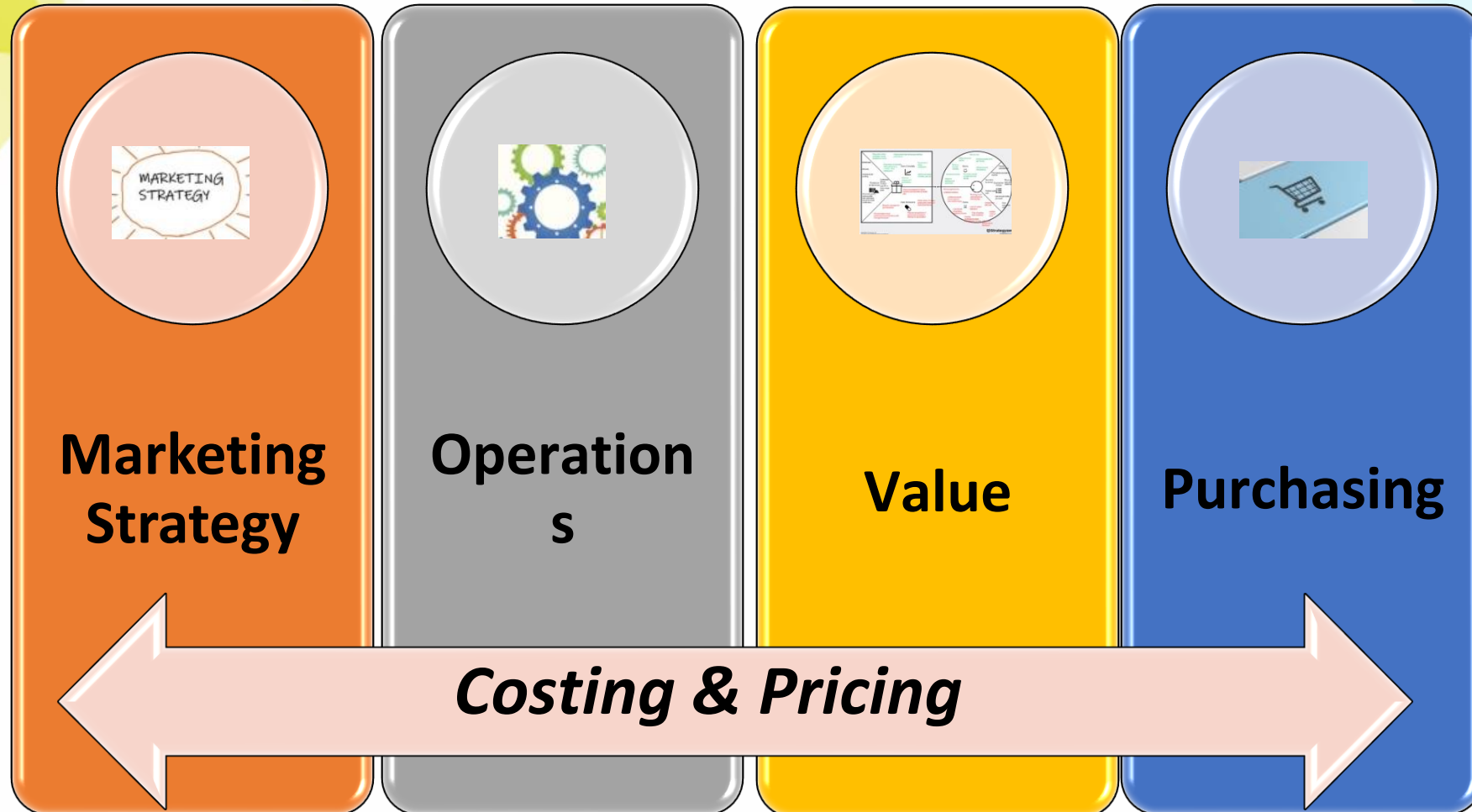
A typical Situation.....

- 1 We know our costs, more or less, and I want to add 10% profit margin. This is my export sales price
- 2 Our low prices are our competitive advantages in the export market
- 3 We have a rough idea on the most suitable export prices to the EU, but we don't have more details available from the markets
- 4 Maybe we find a customer in the EU who is willing to pay a good price for our exceptional food product with good quality
- 5 We have a target conflict on pricing and profit priorities between our marketing department and the sales persons, with the company administration and financial department

Basics about Costing



Costing and Pricing – a holistic Approach



Benchmarks and statistics

Costing and benchmarks?
Aim for standards!
Increase competitiveness!

OECD – SME and Entrepreneurship Outlook 2021

[Link: OECD SME&E Outlook 2021](https://www.oecd.org/industry/smes/SME-Outlook-2021-Country-profiles.pdf)

<https://www.oecd.org/industry/smes/SME-Outlook-2021-Country-profiles.pdf>

1. Covid–19 impact on the SME&E sectors

- Stringency of Government measures
- Firm creation and firm exits/bankruptcies
- Policy framework and policy spotlight

2. Factors of SME&E structural vulnerability

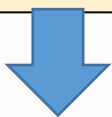
- Size of MSME sector
- Economic exposure to lockdowns and business disruptions
- Exposure to international trade and GVCs

3. Sources of SME&E resilience

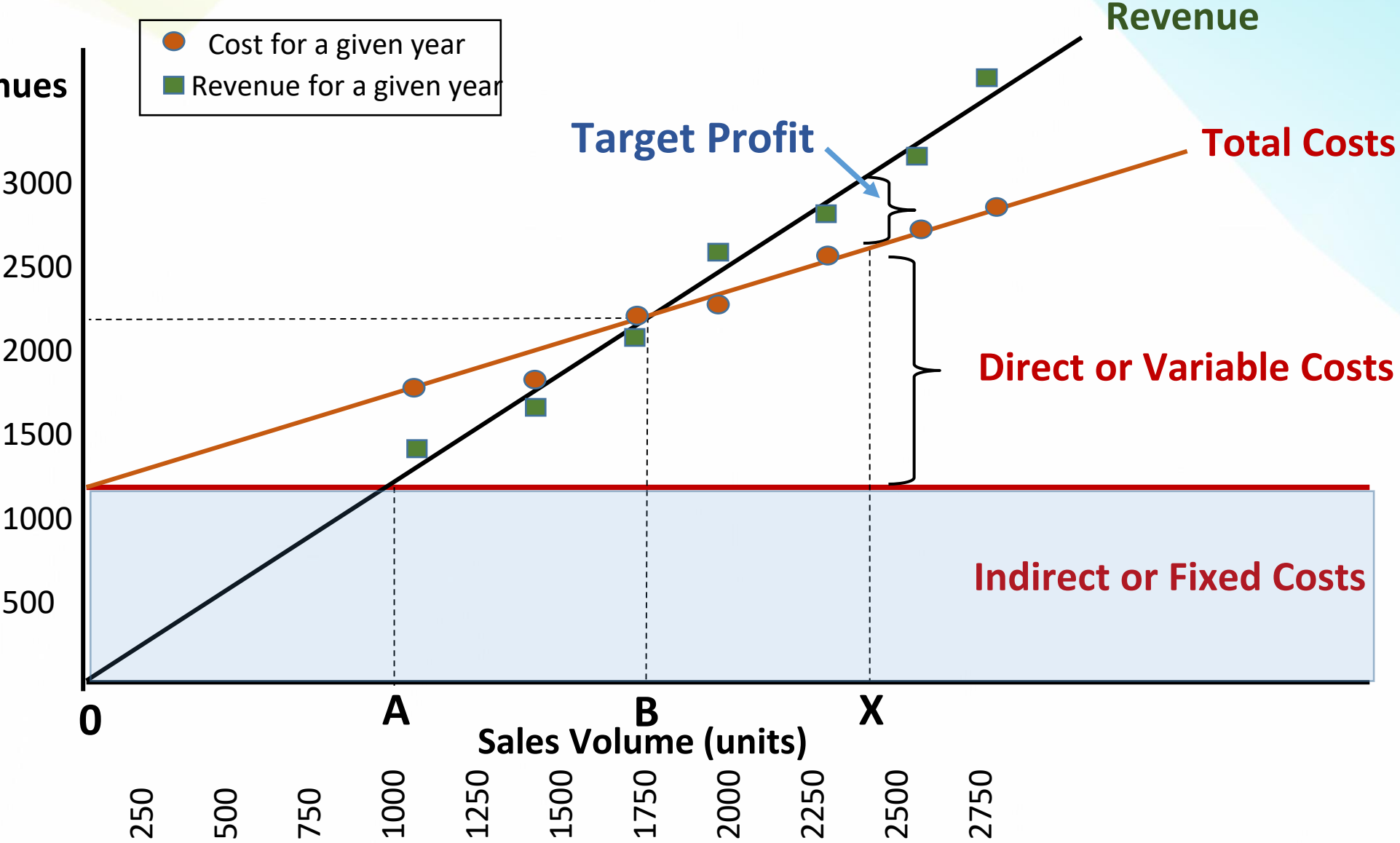
- Digital readiness
- Cash reserves and Governments' liquidity support
- Entrepreneurship regulatory framework
- Innovation skills

Cost oriented export pricing – targeting a specific profitability level

Break Even and Cost-Volume-Profit Analysis



Graphics useful for a quick overview and what-if analysis for target profit



The Fixed-Cost Burdon

Finding, calculating, analysing, reducing the fixed costs in your company



How to find solutions?

- **Depreciation and amortization** – the gradual writing off of the cost of tangible and intangible assets over their useful lives
- **Advertising** – including the cost of website hosting, media campaigns
- **Salaries** - fixed compensation paid to employees regardless of hours worked, administrative personnel
- **Rent or mortgage payments, interest expense** – monthly payments to landlord, lender; cost of loans as long as agreements have fixed interest rate
- **Insurance and taxes** – periodic premiums paid to insurance companies, taxes charged by a local government
- **Utilities** – electricity, gas, phones, trash, sewer services, trucks, sometimes to be considered as mixed costs

The Cost and Price Ratio

Your sales price needs to at least cover direct costs of the export contract.

ALL IMPLIED COSTS ARE COVERED → Break-Even Point

EX FACTORY COST PRICE →	Variable costs + fixed costs + contribution to profit margin
+ transport, import, channel margins →	FOB, CIF, C&F; Factor 2.5 to 4.0
! Short-term price limit →	Covering at least variable or direct costs
! Which cost levels at which production level →	Cost-Volume-Profit analysis
! Avoiding losses	Avoid selling below the break-even point (not covering all variable, and none of the fixed costs)
All implied costs are recovered →	Break-Even point

How to calculate your own Break-even Cost Analysis

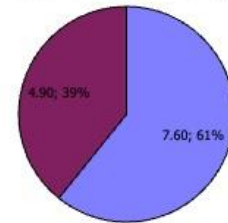
Breakeven Analysis

[Name]

Amounts shown in U.S. dollars

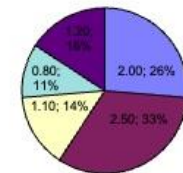
Sales		
Sales price per unit	12.50	
Sales volume per period (units)	1,000	
Total Sales		12,500.00
Variable Costs		
Commission per unit	2.00	
Direct material per unit	2.50	
Shipping per unit	1.10	
Supplies per unit	0.80	
Other variable costs per unit	1.20	
Variable costs per unit	7.60	
Total Variable Costs		7,600.00
Unit contribution margin	4.90	
Gross Margin		4,900.00
Fixed Costs Per Period		
Administrative costs	1,200.00	
Insurance	500.00	
Property tax	150.00	
Rent	800.00	
Other fixed costs	750.00	
Total Fixed Costs per period		3,400.00
Net Profit (Loss)		1,500.00

Unit Contribution Margin



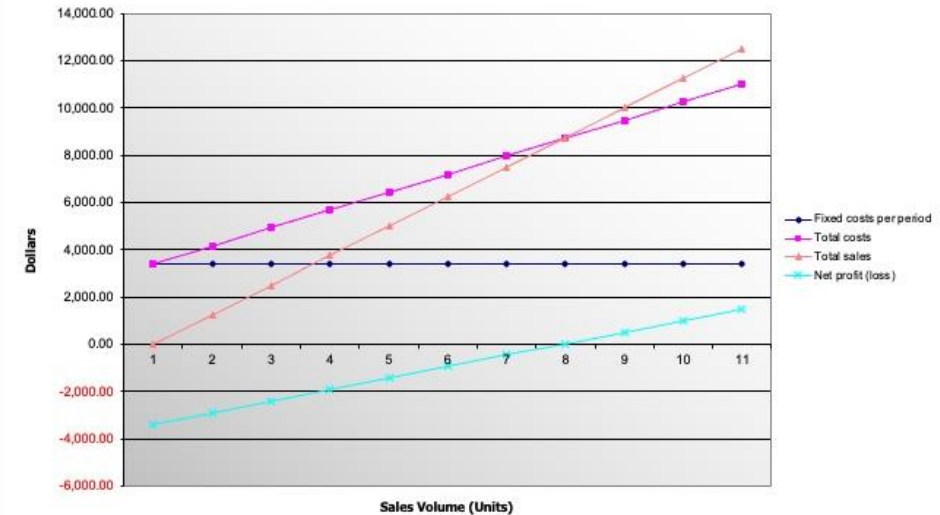
■ Variable costs per unit
■ Unit contribution margin

Variable Costs Per Unit



■ Commission per unit
■ Direct material per unit
■ Shipping per unit
■ Supplies per unit
■ Other variable costs per unit

Breakeven Analysis Chart



Results:

Breakeven Point (units):

694

Sales volume analysis:

Sales volume per period (units)	0	100	200	300	400	500	600	700	800	900	1,000
Sales price per unit	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
Fixed costs per period	3,400.00	3,400.00	3,400.00	3,400.00	3,400.00	3,400.00	3,400.00	3,400.00	3,400.00	3,400.00	3,400.00
Variable costs	0.00	760.00	1,520.00	2,280.00	3,040.00	3,800.00	4,560.00	5,320.00	6,080.00	6,840.00	7,600.00
Total costs	3,400.00	4,160.00	4,920.00	5,680.00	6,440.00	7,200.00	7,960.00	8,720.00	9,480.00	10,240.00	11,000.00
Total sales	0.00	1,250.00	2,500.00	3,750.00	5,000.00	6,250.00	7,500.00	8,750.00	10,000.00	11,250.00	12,500.00
Net profit (loss)	-3,400.00	-2,910.00	-2,420.00	-1,930.00	-1,440.00	-950.00	-460.00	30.00	520.00	1,010.00	1,500.00

Link Break-Even cost analysis:

<https://templates.office.com/en-us/breakeven-cost-analysis-tm01116512>

Your individual Break-Even Analysis in your Company



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Templates / Business / Breakeven analysis

Breakeven analysis

This accessible breakeven analysis template helps you calculate how much you need to sell before you begin to make a profit. This free breakeven analysis template also shows you how fixed costs, price, volume, and other factors affect your net profit.

Excel

[Download](#)

	A	B	C	D
1	BREAKEVEN ANALYSIS			
2	VARIABLE COSTS		OST PERCENTAGE	
3	Cost of Goods Sold		25.0%	
4	Inventory		12.0%	
5	Raw Materials		5.0%	
6	Direct Labor (Includes Payroll Taxes)		30.0%	
7	Total		72.0%	

	A	B	C	D
1	BREAKEVEN ANALYSIS			
2	FIXED COSTS		COSTS	
3	Salaries (Includes Payroll Taxes)			\$100,000
4	Supplies			\$10,000
5	Repairs & Maintenance			\$1,000
6	Advertising			\$15,000
7	Car, Delivery And Travel			
8	Accounting And Legal			
9	Rent			\$20,000
10	Telephone			
11	Utilities			\$5,000
12	Insurance			\$2,000
13	Taxes (Real Estate, Etc.)			
14	Interest			
15	Depreciation			
16	Other (Specify)			
17	Miscellaneous Expenses			\$5,000
18	Principal Portion Of Debt Payment			
19	Owner's Draw			\$50,000
20	Total			\$208,000
21				
22	BREAKEVEN SALES LEVEL			\$742,857

Link Break-Even analysis:

<https://templates.office.com/en-us/breakeven-analysis-tm03987170>

INCOTERMS – Allocation of Costs

Allocations of costs to buyer/seller according to Incoterms 2020 [\[edit \]](#)

Incoterm 2020	Loading at origin	Export customs declaration	Carriage to port of export	Unloading of truck in port of export	Loading on vessel/airplane in port of export	Carriage (sea/air) to port of import	Insurance	Unloading in port of import	Loading on truck in port of import	Carriage to place of destination	Import customs clearance	Import duties and taxes	Unloading at destination
<u>EXW</u>	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
<u>FCA</u>	Seller	Seller	Buyer/Seller	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
<u>FAS</u>	Seller	Seller	Seller	Seller	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
<u>FOB</u>	Seller	Seller	Seller	Seller	Seller	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
<u>CPT</u>	Seller	Seller	Seller	Seller	Seller	Seller	Buyer	Buyer/Seller	Buyer/Seller	Seller	Buyer	Buyer	Buyer
<u>CFR</u>	Seller	Seller	Seller	Seller	Seller	Seller	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
<u>CIF</u>	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
<u>CIP</u>	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Buyer/Seller	Buyer/Seller	Seller	Buyer	Buyer	Buyer
<u>DPU</u>	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Buyer	Buyer	Seller
<u>DAP</u>	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Buyer	Buyer	Buyer
<u>DDP</u>	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Seller	Buyer

With all Incoterms beginning with D there is no obligation to provide insurance, however the insurable risk is for the seller's account.

Most favorable for the Buyer/Importer: FOB, CFR (control over most part of shipment cost)

Most favorable for you as Seller/Exporter: EXW, CFR, CIF

INCOTERMS – Allocation of Risks

Allocations of risks to buyer/seller according to Incoterms 2020 [\[edit \]](#)

The risk and the cost is not always the same for Incoterms. In many cases, the risk and cost usually goes together but it is not always the case.

Rules for sea and inland waterway transport

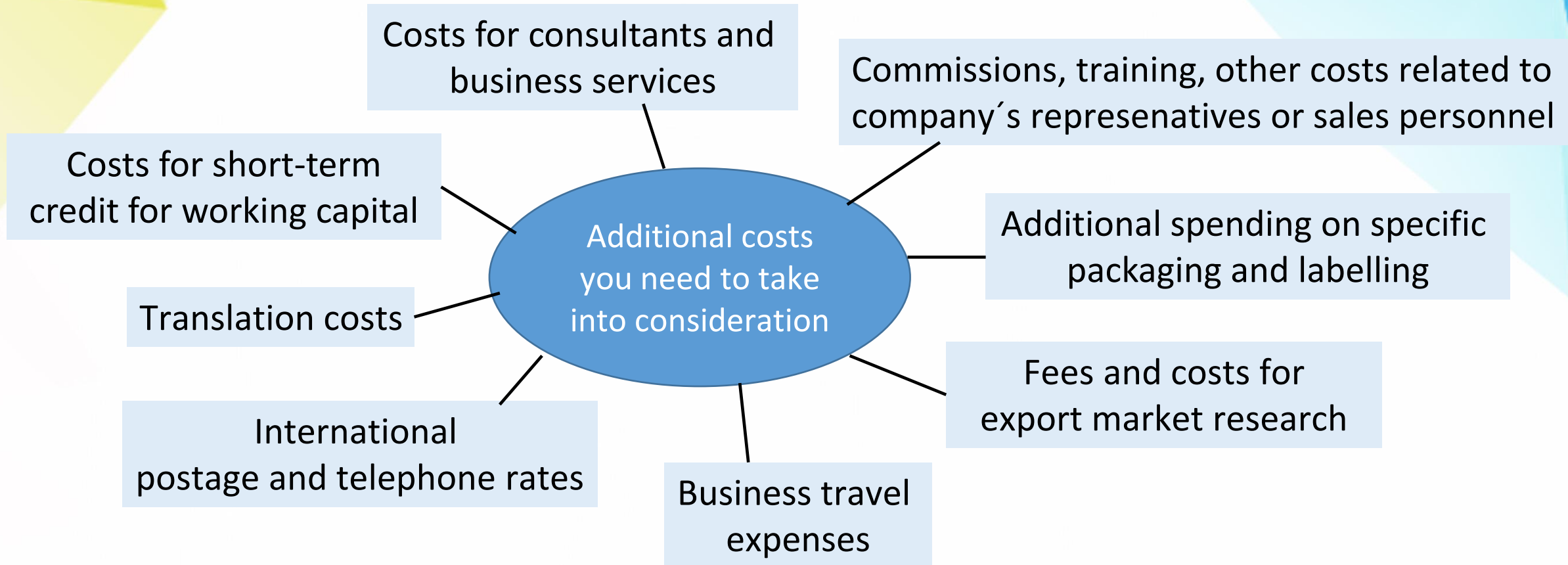
Incoterm 2020	Seller	Carrier	Port	Loading at Port	Onboard	Unloading at Port	Port
<u>FOB</u>	Seller	Seller	Seller	Seller	Buyer	Buyer	Buyer
<u>FAS</u>	Seller	Seller	Seller	Buyer	Buyer	Buyer	Buyer
<u>CFR</u>	Seller	Seller	Seller	Seller	Buyer	Buyer	Buyer
<u>CIF</u>	Seller	Seller	Seller	Seller	Buyer	Buyer	Buyer

Incoterm 2020	Seller	Carrier	Port	Ship	Port	Terminal	Named place	Unloading at destination
<u>EXW</u>	Seller	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer

Importers in the EU do normally NOT accept EXW conditions !

Other Costs related to Export

Your direct and indirect costs of production and shipping to markets is the basis to determine if the planned export is financially viable



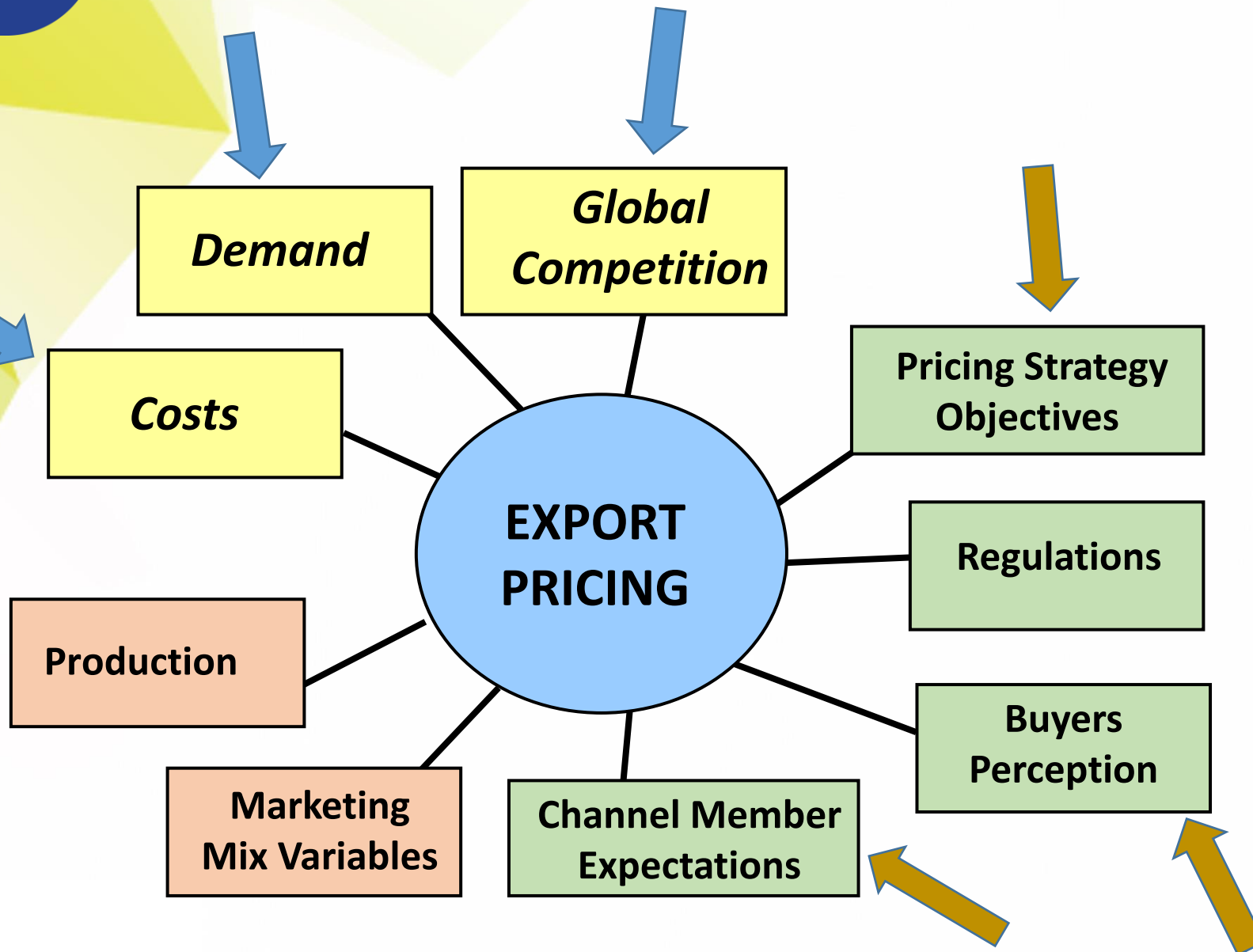
Basics about (Export) Pricing



Checklist for Export Pricing Decisions

- Does the price reflect the (perceived) quality of the export product or service?
- Is the elasticity of demand an issue in my target market and customer channel?
- Is the export price competitive?
- Should the exporting company decide for market penetration, market skimming or other related objective?
- What type of discount (trade, cash, quantity) or special offer or allowance (trade off, advertising) must the exporter grant to its customers?
- What price differentiation is needed for market segments in specific export markets?
- What pricing options are available if the exporter's costs increase or decrease? Is the demand at the specific export market elastic or inelastic?
- Do export country's dumping laws pose a problem?
- How does the competitive situation influence pricing on medium and long term?

What determines Pricing Decisions ?



There is **no fixed formula** for successful export pricing

Exporter: merchant?
manufacturer? canalizing
agency?

Important: **added advantage** with positive impact to prices !

Export Pricing Considerations

Typical questions you are likely asking all the time, considering that export pricing is one of the most critical considerations

Can I reach at least break-even prices to start with?

How does the competitive situation influence pricing on medium and long term?

At what price should I sell my product in the EU ?

Is the price competitive, which I have offered to the customer ?

Does the export price sufficiently reflect my specific competitive edge ?

What type of discount should I consider when discussing my export price ?

Should I consider either market penetration or market-skimming pricing objectives?

How should my price indication differ between EU-customer market segments ?

Does the price reflect the (perceived) product quality ?

Are the specific export market prices for my products elastic or inelastic ?

What are my options when costs increase or decrease ?

Some typical Pricing Methods

Cost-plus pricing

The easiest way!
Total Costs and a standard targetted profit margin.

Differences of possible profit margins in export countries.

„blind pricing“

Target-profit pricing

Similar to cost-plus and same disadvantage!

This method requires the break-even analysis first, then dividing the total targetted profit over the number of units planned to sell.

„Not known whether price is too high or too low“

Perceived-value pricing

Some products look more expensive or have added value to customers.

This pricing could work for more exotic products or upgraded processed products with additional value for clients.

“Difficult for standard agriculture products“

Going-rate pricing

The least risky method.

For exporters without much inside to demand and cost factors in export markets. Exporters often follow this method.

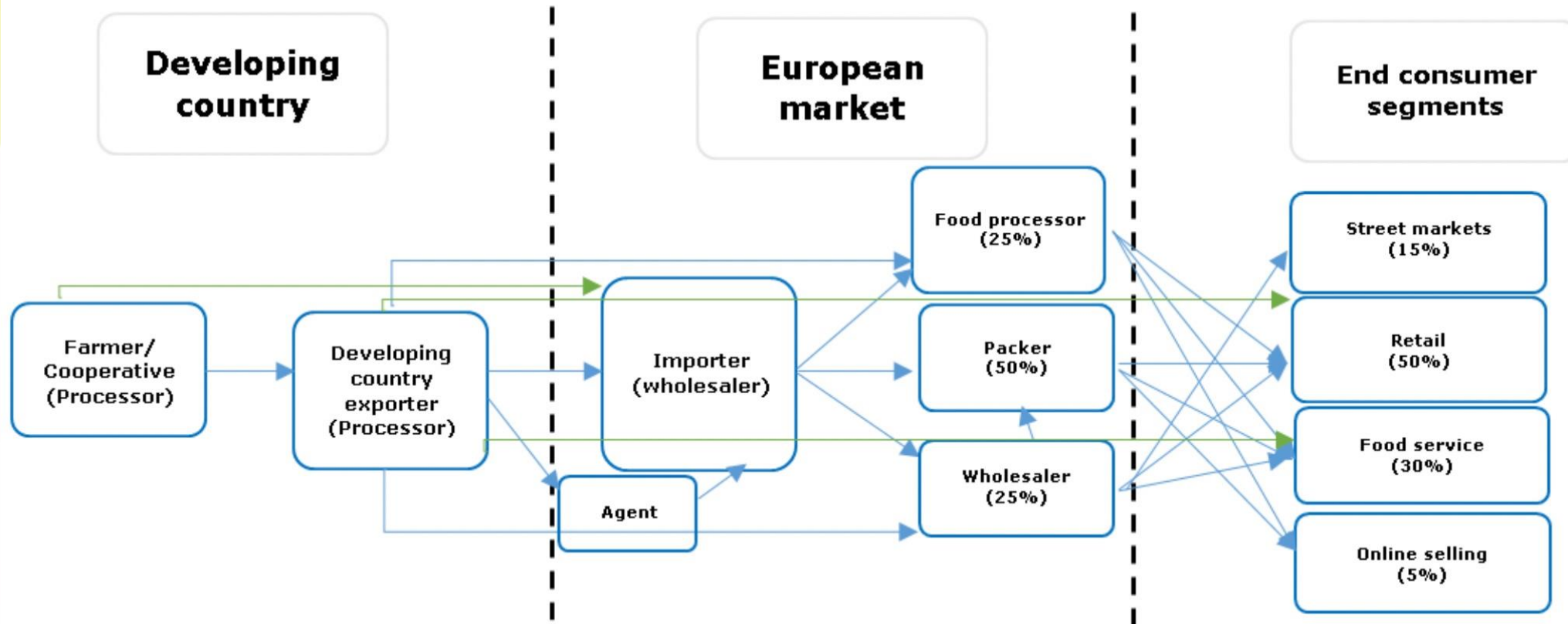
The “me-too image does not stand for innovative approach“

Combination of methods and dynamic pricing

Market Channel Pricing

Source: CBI.eu, 2018

European market channels for dried fruit and edible nuts



Link „how to find customers“:

<https://www.cbi.eu/market-information/processed-fruit-vegetables-edible-nuts/finding-buyers>

Link Market Data:

<https://www.cbi.eu/market-information/processed-fruit-vegetables-edible-nuts/edible-nuts-dried-fruits/europe>

Cost- und Market oriented Product Pricing

Average price margins and markup “From field to the final consumer” of dried fruit and vegetables (For EU market)

Steps in export process	Type of price	Margin and Markup
Production of fruit and vegetables	Farm gate price or Factory price (EXW price)	5% (fresh), 15-25% (processed)
Handling, packing, export documents, marketing	FOB or FCA price	30%
Price including shipment	CIF or CIP price	32-35%
Import, wholesale, processing	Wholesale price	60%
Retail handling, selling	Retail price including VAT	100%

Source: Adapted from different CBI publications

Cost-oriented Product Pricing

Production cost (or buying price)

- + storage and packaging cost
- + marketing expenses/financial cost
- + general administration/management cost
- + taxes
- + expected profit margin
- + other cost, e.g., certification

X % margin/markup

EXW price Nampula

- + transport to port
- + export customs clearance
- + truck unloading cost/container loading cost on ship

X % markup

FOB price to port

- + international transport
- + international transport insurance

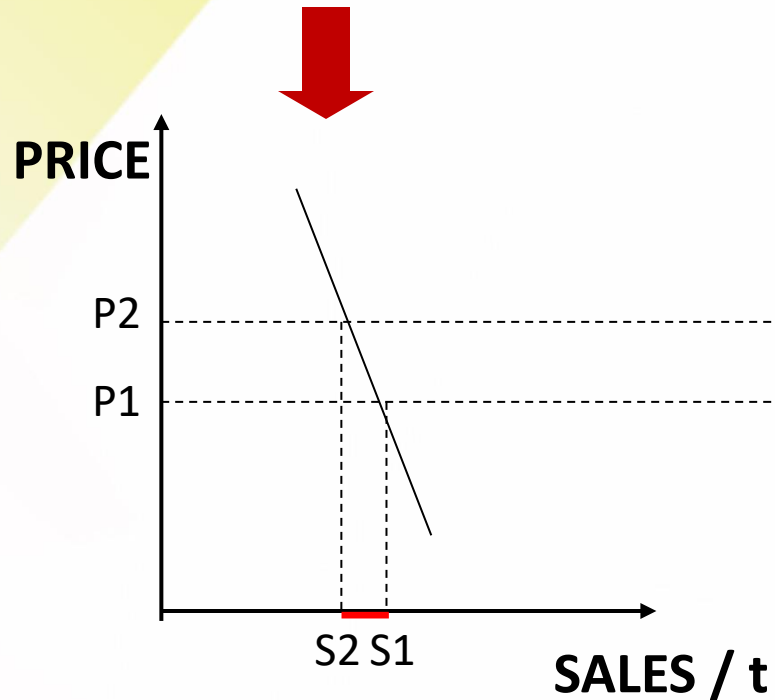
.. According to freight forwarders quotations

CIF price EU harbour (e.g., Rotterdam, Hamburg)

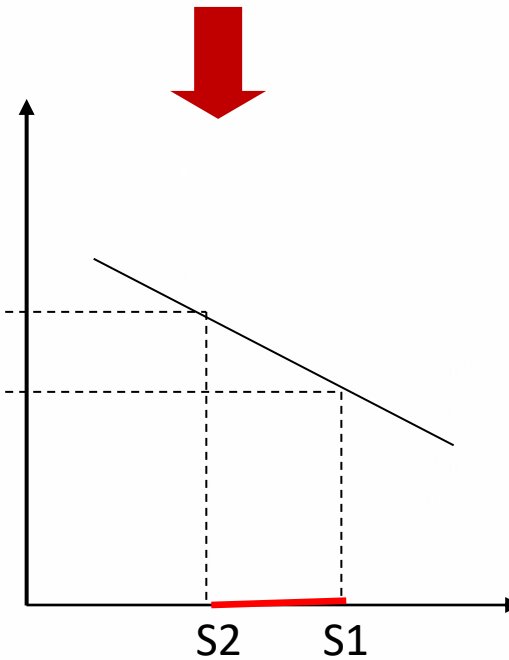
Elasticity of Demand (Price)

Inelastic and elastic demand (consumer and trade level)

Low price elasticity ($E < 1$)



High price elasticity ($E > 1$)



The price elasticity indicates to which extent changed pricing has impact to the sales volume

Link: European Economy "Trade Elasticities":

https://ec.europa.eu/economy_finance/publications/economic_paper/2010/pdf/ecp432_en.pdf

Demand-driven Price Elasticity

The price elasticity indicates to which extent changed pricing has impact to the sales volume

$$\text{Price elasticity coefficient } (\epsilon) = \frac{\% \text{ Change in Quantity demanded}}{\% \text{ Change of price}}$$



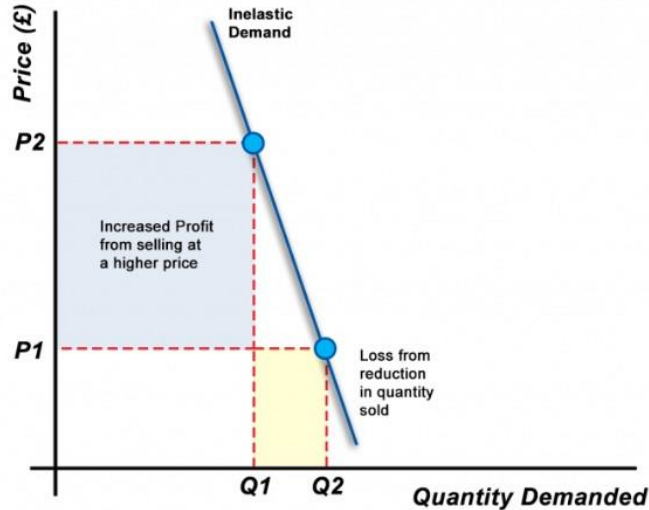
$$\% \text{ change in Quantity Demanded} = \frac{\text{New quantity demanded} - \text{Old quantity demanded} * 100}{\text{Old quantity demanded}}$$



$$\% \text{ change in Price} = \frac{\text{New Price} - \text{Old Price} * 100}{\text{Old Price}}$$

Demand-driven Price Elasticity

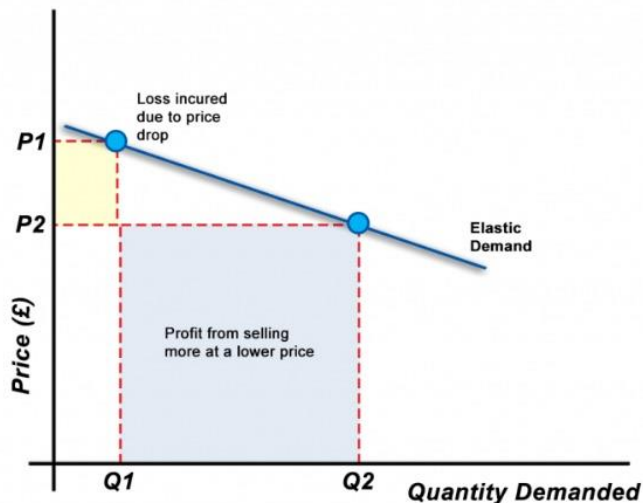
INELASTIC DEMAND



Inelastic Demand

Low price elasticity is result of a price elasticity smaller than one (1). Big changes in sales price result in small changes of sales volume.
(Possible room for skimming)

ELASTICITIC DEMAND



Elastic Demand

High price elasticity is result of a price elasticity bigger than one (1). Small changes in pricing lead to big changes in sales volume.
(Incentive for price reduction)

Calculating the effect of price-demand changes in the market

Price elasticity of demand indicates the responsiveness of buyers when the price of a product changes.

Price Elasticity of Demand Calculator

Initial Price	<input type="text" value="100"/>	\$
Initial Quantity	<input type="text" value="5000"/>	
Final Price	<input type="text" value="95"/>	\$
Final Quantity	<input type="text" value="5600"/>	

Results

Price Elasticity of Demand	-2.208
Elasticity	Elastic
Initial Revenue	\$500,000.00
Final Revenue	\$532,000.00
Revenue Increase	6.4 %

Link price elasticity calculator:

<https://calculators.io/price-elasticity-of-demand/>

General conclusions to Price Elasticity of Demand

- As less elastic the demand, as better the chance for a high sales price
- The response to price changes has to be recognized
- The competitors` reaction influences price elasticity
- 90% of consumer goods range between 0 and -5 (average -2 to $-2,5$)
- Price elasticity of investment goods range between 0 to -30
- Price elasticity surpasses advertising elasticity by factor 10 to 20

Your Take-aways?

Agricultural Commodity Prices' Monitoring



FAO plays a key role in monitoring, analysing and disseminating food price data along the food supply chain, from producer to consumer through both domestic as well as international markets.

Link FAO:

<https://www.fao.org/prices/en/>

The European Commission closely monitors the price situation, markets developments for agricultural commodities and food, and publishes various reports throughout the year.

Link EUROPEAN COMMISSION-Agriculture markets and prices:

https://ec.europa.eu/info/food-farming-fisheries/trade/agriculture-markets-and-prices_en#pricemonitoring

Margin vs. Markup



- To arrive at a 10% margin, the markup percentage is 11.1%
- To arrive at a 20% margin, the markup percentage is 25.0%
- To arrive at a 30% margin, the markup percentage is 42.9%
- To arrive at a 40% margin, the markup percentage is 66.7%
- To arrive at a 50% margin, the markup percentage is 100.0%

Technically a profit margin, measuring firm profitability

Numerically, a percentage of the **sales** price. From perspective of the **SELLER**

$$\frac{\text{Price} - \text{Cost}}{\text{Price}}$$



Referring to value-added by a seller to a cost price

Numerically, a **cost** multiplier. From perspective of the **BUYER**

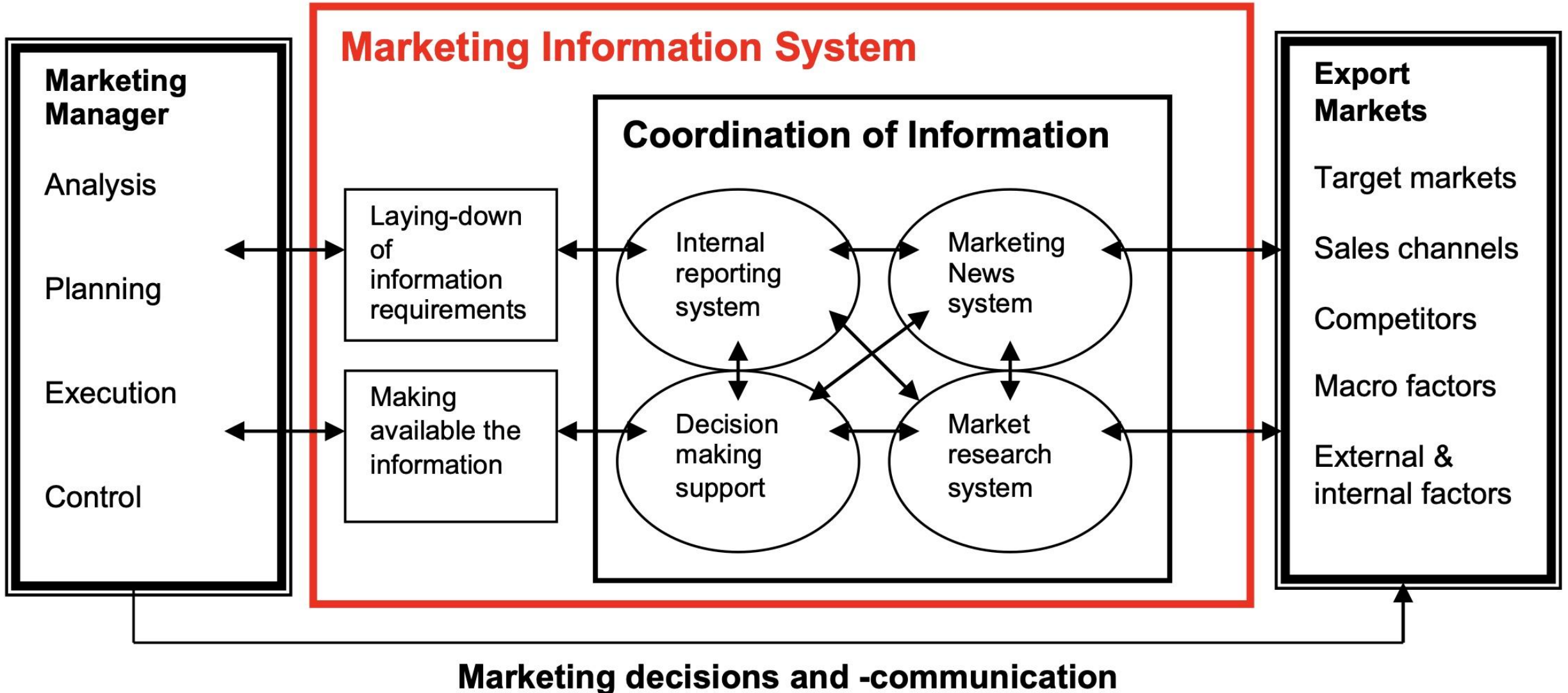
$$\frac{\text{Price} - \text{Cost}}{\text{Cost}}$$

Links for more theory on Margin and Markup:

<https://www.wallstreetmojo.com/margin-vs-markup/>

<https://www.tradegecko.com/blog/small-business-growth/markups-and-margins>

MIS – A tool for price and customer channel information



Proforma Invoices and Quotations

Checklist for required items on a quotation to interested export customers

- Buyer's name and address and reference number
- Date and reference of inquiry by the buyer
- Listing of requested products with description
- Price of each item and indication of terms of sale, payment and shipping
- Gross and net shipping weight and cubic volume
- Packing details
- Price discount, if applicable
- Point of delivery
- Validity period for quotation
- Any charges to be paid by importer
- Estimated possible shipping date ex port
- Estimated date of shipment arrival at destination

Coffee Break

We meet again in 5 minutes





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pro**M**ove
COMÉRCIO

THANK YOU

OBRIGADO