

## Semester Project Themes for the Course International Trade Operations

Students can choose from the following three situations (topics). Students must select one that they will work on as a team for the semester project:

- Situation No. 1: Entry of the company “ORGANICFOOD CZ” into the Japanese market with organic foods**
- Situation No. 2: Export of nanotechnology equipment to the USA**
- Situation No. 3: Entry into the Brazilian market through a joint venture and risk management**

Each team chooses a topic of their choice. If two or more teams choose the same topic, that's fine, it's possible. Due to the difficulty of processing, there is not much chance that the processing will be identical. The individual situations are described in more detail below, together with the specific task to be performed.

### SITUATION NO. 1: ENTRY OF THE COMPANY “ORGANICFOOD CZ” INTO THE JAPANESE MARKET WITH ORGANIC FOODS

The Czech company “OrganicFood CZ”, a manufacturer of organic foods, plans to expand into the Japanese market with its product – organic cereal bars. The company must address the following challenges:

1. **Pricing:** It must set the sales price of its products so that it remains competitive while covering all costs. This requires taking into account production costs, transportation, customs duties, marketing, and other expenses. It is also important to adjust the price to differences in purchasing power and price sensitivity among Japanese consumers.
2. **Transportation and Logistics:** Optimize the logistics chain for transporting goods from the Czech Republic to Japan. Choose an appropriate mode of transport (sea or air), secure insurance for the goods during transit, and ensure efficient warehousing in Japan so that delivery deadlines are met and product quality is maintained.
3. **Customs Procedures and Regulatory Requirements:** Manage customs procedures for importing food into Japan, including the proper classification of goods in the customs tariff and payment of duties. Comply with all Japanese hygiene and safety regulations for organic foods, obtain the necessary certifications, and ensure correct labeling of products in accordance with local legislation.
4. **Marketing and Distribution:** Adapt the marketing strategy to the specificities of the Japanese market, including cultural and linguistic differences. Propose effective marketing campaigns, choose suitable distribution channels (e.g., cooperation with local distributors or retail chains), and create a brand that appeals to Japanese consumers.
5. **Risks and Insurance:** Identify risks associated with international trade, such as currency risks (fluctuations in the CZK/JPY exchange rate), the risk of failure in a new market, logistics risks (damage or loss of goods during transit), and risks related to cultural differences. Secure appropriate insurance and implement risk management strategies.

## Task for Students

Analyze the situation of the company “OrganicFood CZ” and propose an export plan that includes a calculation of the sales price considering all estimated costs and market conditions, a logistics strategy for efficient transportation and warehousing, procedures for meeting customs and regulatory requirements, a marketing plan tailored to the Japanese market, and risk management strategies associated with entering a new market.

### PRODUCTION COSTS FOR ONE PRODUCT

- **Oat flakes (organic):** 5 CZK
  - **Dried fruits (organic):** 3 CZK
  - **Nuts and seeds (organic):** 4 CZK
  - **Natural sweetener (honey, syrup):** 2 CZK
- Total raw materials per bar: 14 CZK*

#### Packaging:

- **Individual packaging (eco-friendly material):** 1 CZK
  - **Outer packaging (box for 5 bars):** 2 CZK (allocated per bar: 0.4 CZK)
- Total packaging per bar: 1.4 CZK*

#### Labor:

- **Wage costs for producing one bar:** 2 CZK

#### Manufacturing Overhead:

- **Energy (electricity, gas):** 0.5 CZK
  - **Depreciation of machinery:** 0.3 CZK
  - **Maintenance and repairs:** 0.2 CZK
- Total manufacturing overhead per bar: 1 CZK*

**Total Production Cost per Bar: 18.4 CZK**

When setting the sales price, do not forget to include the margin and additional costs associated with logistics to Japan, customs duties, and possibly other costs such as additional import fees.

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## SITUATION NO. 2: EXPORT OF NANOTECHNOLOGY EQUIPMENT TO THE USA

The Czech company “NanoTech CZ”, specializing in the manufacture of nanotechnology equipment, has received a significant order from an American buyer. The order involves the manufacturing and delivery of 1 unit of a nanolithography system for semiconductor chip production. The company must address the following challenges:

1. **Delivery and Payment Terms:** Select an appropriate delivery clause according to INCOTERMS 2020 that suits both parties and minimizes risks. Agree on secure payment terms that ensure timely payment and protect against the risk of non-payment, including managing currency risk associated with the USD.
2. **Logistics and Customs Procedures:** Ensure the transportation of the sensitive high-tech equipment to the USA, optimize the logistics chain, and choose the appropriate mode of transportation and warehousing so that the required delivery deadlines are met. Handle customs procedures in the USA, including the proper classification of goods in the customs tariff and adherence to all regulatory requirements for importing technological equipment.
3. **Risks and Insurance:** Identify risks associated with transportation (damage, delays), the business partner (payment insolvency), and currency fluctuations. Secure appropriate transportation insurance, accounts receivable insurance, and protect against currency risks.
4. **Pricing:** Calculate the price including all costs (production, transportation, customs, insurance) and set a competitive sales price in the American market, taking into account purchasing power, prevailing price levels, and the competitive environment.

### Task for Students

Analyze the situation of the company “NanoTech CZ” and propose an export plan that includes the selection of delivery and payment terms, a logistics strategy, risk management and insurance, and a pricing calculation for the American market.

### PRODUCTION COSTS FOR MANUFACTURING 1 UNIT OF THE NANOLITHOGRAPHY SYSTEM

#### a) Direct Material Costs:

- **Optical components (laser systems, lenses):** 5,000,000 CZK
- **Mechanical components (precision drives, structural elements):** 3,000,000 CZK
- **Electronic components (control units, sensors):** 2,500,000 CZK
- **Special materials (nanoparticles, chemicals for testing):** 1,000,000 CZK
- **Cleanroom and equipment (filtration systems, anti-static materials):** 500,000 CZK
- **Packaging material for transportation (special containers, protective packaging):** 200,000 CZK

*Total direct material costs:* 12,200,000 CZK

#### b) Direct Labor Costs:

- **Engineers and developers (design and development):** 2,000 hours \* 800 CZK/hour = 1,600,000 CZK

- **Technicians and specialists (assembly and calibration):**  
3,000 hours \* 600 CZK/hour = 1,800,000 CZK
  - **Laboratory workers (testing and quality control):**  
1,000 hours \* 500 CZK/hour = 500,000 CZK
- Total direct labor costs: 3,900,000 CZK*

**c) Manufacturing Overhead:**

- **Energy (electricity for operating equipment in cleanrooms):** 400,000 CZK
  - **Depreciation of manufacturing equipment (precision machinery, laboratory equipment):** 300,000 CZK
  - **Maintenance and calibration of manufacturing equipment:** 200,000 CZK
  - **Operating costs of cleanrooms (filtration, air conditioning):** 500,000 CZK
- Total manufacturing overhead: 1,400,000 CZK*

**d) Administrative and Indirect Costs:**

- **Project management:** 300,000 CZK
  - **Quality and certification (ISO standards, CE marking):** 250,000 CZK
  - **Legal and patent services:** 200,000 CZK
  - **Administration and support (accounting, HR):** 150,000 CZK
- Total administrative and indirect costs: 900,000 CZK*

**Total Production Cost for Manufacturing the Nanolithography System: 18,400,000 CZK**

When setting the sales price, do not forget to include the margin and additional costs associated with logistics to the USA, customs duties, and possibly other costs such as additional import fees.

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### SITUATION NO. 3: ENTRY INTO THE BRAZILIAN MARKET THROUGH A JOINT VENTURE AND RISK MANAGEMENT

The Czech company “GreenEnergy CZ”, which develops renewable energy technologies, has decided to enter the Brazilian market through a joint venture with a local partner. The company intends to sell photovoltaic panels “SolarPanel X”. The company must address the following challenges:

1. **Choice of Market Entry Form and Contractual Relationships:** Analyze internal and external factors that influence the choice of market entry form, select an appropriate partner for a joint venture in the given market, prepare contracts in accordance with international commercial law, and ensure legal protection of its interests within the joint venture with the Brazilian partner. (In this case, you will not prepare a specific contract but will outline the essentials that differ in this area and must be considered by the company when drafting the contract.)
2. **Pricing and Marketing Strategy:** Set the prices of products and services taking into account local economic conditions, purchasing power, and the competitive environment. Adapt the marketing strategy to the specifics of the Brazilian market, including cultural and language aspects.
3. **Payment Terms and Financing:** Establish payment terms that minimize currency risks associated with the Brazilian real and ensure the company’s liquidity. Consider financing options for the project, including the use of local financial institutions or international financial instruments.
4. **Risks and Insurance:** Identify political and economic risks associated with doing business in Brazil, such as currency fluctuations, legal uncertainties, and cultural differences. Secure appropriate investment insurance, political risk insurance, and implement risk management strategies.

#### Task for Students

Analyze the situation of the company “GreenEnergy CZ” and propose an export plan for entering the Brazilian market through a joint venture, including solutions for contractual relationships, pricing, financing, and risk management.

### PRODUCTION COSTS AND PRODUCT DESCRIPTION

#### Product Description:

- High-efficiency photovoltaic panels using thin-film silicon technology.
- Suitable for installation on the roofs of residential as well as commercial buildings.

#### Production Costs:

##### a) Direct Material Costs (per 1 panel):

- **Silicon wafers:** 1,500 CZK
  - **Glass cover and frame:** 500 CZK
  - **Electrical components (connections, wires):** 200 CZK
  - **Packaging material:** 50 CZK
- Total material costs: 2,250 CZK*

**b) Direct Labor Costs:**

- **Production and assembly:** 1 hour of work \* 300 CZK/hour = 300 CZK

**c) Manufacturing Overhead:**

- **Energy, depreciation of machinery, maintenance:** 150 CZK per panel

**d) Administrative and Indirect Costs:**

- **Costs for research and development (allocated per unit):** 100 CZK
- **Certification and testing (TÜV, IEC):** 50 CZK

**Total Production Costs:** 2,850 CZK

When setting the sales price, do not forget to include the margin and additional costs associated with logistics to Brazil, customs duties, and possibly other costs such as additional import fees

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