**FINAL PROJECT**

**Training program:**

(To be fulfilled by the student)

**Subject:**

(To be fulfilled by the student)

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**Final Project Guidelines**

Please use this format to submit your final work. The paper must follow all the guidelines as instructed in order to obtain full credit.

Remember that our team of tutors is available for any questions regarding your final work. You must present the final version of your work **as no previous corrections will be carried out**. To submit the final project, students must use the template below, with their answers written after each statement.

Please present your final paper according to these requirements:

* Arial 12 Font.
* Margin: 2,5.
* Line spacing: 1,5.
* All fields on the cover page must be completed.
* The document needs to be properly paged.

**Your final project must be authentic and individual.** Any work that has been plagiarized or papers written by others or with the help of others are likely to be failed. If this occurs for the second time, you will not be permitted to obtain your degree.

Be aware that you are permitted a maximum of two submissions per subject. If both projects do not meet the standards and fail, the student must pay the corresponding fee to be evaluated again.

When writing your final project please use Microsoft Office, Adobe or Apache's Open Office Writer tools (DOC, DOCX, ODT, PDF, etc.). Please consult your tutor when using a different format. Additional information about the software will be needed.

Please use the following format:

**ddmmyyyy\_Subject\_LastNameandName.pdf**

Example:

**11052019\_StrategicManagement\_ElsaMoore.pdf**

The project should not exceed more than 18 pages, excluding the cover page, bibliography and the appendix.

**Evaluation Guidelines**

The final work will be evaluated based on the following criteria:

* **Acquired knowledge (25%):** the knowledge acquired throughout the course of the subject will be evaluated through the analysis of the theoretical data shown in the project presented by the student.
* **Development of the Subject (25 %):** the interpretation of the thesis subject by the student and its development will be evaluated in a coherent and analytical manner.
* **Final result (25%):** the final evaluation is based on coherent solutions applied to solve objectives set out in the paper. The presentation must be conclusive and formatting must meet established parameters.
* **Additional information and bibliography (25%):** additional information regarding the research and subject matter will be evaluated and taken into consideration as a bonus. This consist of: bibliography, visual graphics, charts, independent studies carried out by the student, external academic sources, articles of opinion, etc. **All sources, both printed and online, must be referenced according to the APA regulations.**

**BACKGROUND**

The company ABC, L.C. manufactures some products with an average sales price of € 25/unit, with fixed annual costs of € 110,000. The average unit variable costs are € 5.

**DEVELOP**

a) At what volume of production will the threshold of profitability be reached?

b) Assuming that annual sales are estimated at 20,000 units, being the distribution evenly over a year, on what date will the break-even point be reached?

c) What would be the sales value or turnover corresponding to the threshold of profitability?

2. The company Derabel, S.A. is considering buying a new machine for its production process. This project means an initial cost of € 200,000 and the machine is estimated to have a useful life of 5 years. The maximum productive capacity of the machine is 200,000 units per year. However, the first year it is expected that the activity will be 70% of the maximum installed capacity, reaching 100% from the second year.

During the first year, the unit sales price will be € 2.50, the unit variable cost € 1.50 and the fixed annual cost € 60,000, resulting in cumulative yearly increases of 4% in the price of the product sale, 3% on variable costs and 2% on fixed costs.

Also, it is assumed that:

* The company uses a linear depreciation system, and the residual value of the machine is € 25,000. Besides, the sale value of the machine at the end of its physical life will be € 30,000 that will be charged in cash.
* The nominal discount rate (kN) used by the company is 8% per year and constant for the planned period.
* The tax rate that taxes the benefits is 25%. Taxes are paid in the period following their accrual.
* All production is sold in the reference period.
* All income and expenses are charged and paid in cash.

With the above data, determine the Net Cash Flows after taxes of the project described above. Calculate the net absolute return.

3. The person in charge of the finances of the company MGT, S.A. wants to know the company's situation concerning the industrial sector to which it belongs. For this, it has the following information regarding the industry:

1. General liquidity ratio is 1.55; the acid test is 1.20, and the ratio between the available and the current liabilities is 0.95.
2. The debt ratio stands at 1.25. The margin on sales is 21%. The investment rotation is 1.45 times.
3. Economic profitability is around 23%, and financial profitability is 29%

The data referred to the company (in thousands of €) are the following:

|  |  |  |  |
| --- | --- | --- | --- |
| Assets | | Liability and Net Equity | |
| Non-current asset (net) | 170 | Equity | 125 |
| Stocks of finished products | 45 | Reservations | 25 |
| Clients | 65 | External Resources | 105 |
| Banks | 70 | Loans | 65 |
|  |  | Supplier | 30 |
| Total Assets | 350 | Total Net Equity | 350 |

In addition, it is known that:

* Sales are € 250,000 and its direct cost of € 105,000.
* Amortization of € 70,000.
* Long-term debt generates interest at 5%, short-term bank loans at 7%, and the departure of suppliers does not accrue any interest.
* The Corporation Tax is 25%.

Calculate the liquidity, acid test and debt ratios, and compare them with the sector data. It also calculates the economic and financial returns, and the margin on sales and investment rotation, even making a comparison between the company and sector.

4. An investment requires an initial disbursement of € 2,500,000 and the duration of the project is 3 years, in the first of which it generates a cash flow of € 1,500,000, in the second € 3,700,000 and the third € 4,100,000.

1. Calculate the Net Present Value of the investment, knowing that inflation is 3% cumulative annually and that the required profitability in the absence of inflation is 8%.
2. Calculate the actual internal rate of return of the previous investment.

5. We know the following data of the company Perfilados, S.A:

1. It bought and consumed € 105,000 in raw materials for the manufacture of its product and, on average, maintained a stock level of them in the stock of € 9,250. Calculate the average storage period.

Calculate the average storage period.

1. The cost of its annual production is € 198,000, and the average value of the products under development is € 11,000. Calculate the average manufacturing period.
2. Taking into account that the company exclusively sold all its annual production and that the average value of its stock in finished goods warehouse was € 18,500, it calculates its average sales period.
3. Assuming that the company sold its products for an amount of € 290,000 and that the customers had on average a debt with the company of € 17,000, it calculates the average collection period.
4. With the data obtained in the previous points, it calculates the average period of economic maturity of Perfilados, S.A.

6. We know the following data of an investment that the company has made:

* An initial disbursement of € 2,000,000 and generates the collections and payments in the successive years of its duration that are shown in the following table:

|  |  |  |
| --- | --- | --- |
| Years | Collection (€) | Payments (€) |
| 1 Year  2 Year  3 Year  4 Year | 4.500.000  5.500.000  6.000.000  4.000.000 | 3.800.000  4.500.000  5.000.000  3.200.000 |

Calculate the IRR of the previous project. Justify for what type of discount this investment will be made**.**