

## Greens & Grains – Investment Project

Beatriz Figueirinha<sup>1</sup>, Mónica Mesquita<sup>2</sup>, Tomás Silva<sup>3</sup>, Vasco Vaz<sup>4</sup>, Adalmiro Pereira<sup>5</sup>, Tânia Teixeira<sup>6</sup>

<sup>1, 2, 3, 4</sup> ISCAP – P Porto

<sup>5</sup> ISCAP – P Porto teacher, CEOS member

<sup>6</sup> ISCAP – P Porto teacher

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**ABSTRACT:** The objective of this work is to examine an investment project of the company Greens & Grains, which operates in the catering sector. The purpose of this report is to evaluate the financial decisions taken and the results achieved, derived from these decisions. In this sense, the main financial evaluation indicators indicate that the project is viable.

To achieve this goal we used the main financial ratios, like the Net Present Value (NPV) and Internal Rate of Return (IRR), the most common and accepted one. All of them indicate that the project here in analysis is positive and contribute to the increase of the value to the shareholders of the company.

**KEYWORDS:** Investment Project; FCF; WACC; NPV

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### 1. INTRODUCTION

A new venture entails several challenges for a company, requiring a detailed analysis from a financial perspective in order to predict its viability.

It is an investment plan for the creation of a restaurant, in which the expected financial results are foreseen.

The main purpose of this investment plan is to help investors take more positive actions. Through the project, it will be possible to have a clearer understanding of the company's objectives, identify the best investments to be made and determine the available budget.

#### 1.1. Identification of the idea

This report represents the results obtained for the challenge of opening a new company in the field of restoration. We chose a restaurant with the ideology of healthy eating using organic ingredients with the highest possible quality. The choice of this project was based on the perception that the market currently has and with the aim of standing out and succeeding in it. Currently, it is possible to open a restaurant with less than 50,000.00€ and through this report, we manage to have an approximate perception of the entire financial process that involves: risks, uncertainties, but also opportunities. At the end of it, we will know whether it will be profitable to invest in this project.

#### 1.2. Characterization of the company/project

The company will stand out for providing healthy meals in the form of dishes of the day. It is located in the municipality of Porto, so the values entered are in accordance with the prices in force in this municipality.

### 2. MARKET, PRODUCTS/SERVICE

The market where the company operates is the catering market, where meals have a differentiating factor because they are balanced, healthy, meeting the quality of food.

#### 2.1. Customers / Suppliers / Market

Greens & Grains customers are people who care about their diet and are highly nutritionally aware. For this very reason, our suppliers are characterized by the quality of their products and the preference for organic products, such as Bio Frade and Makro.

The catering market serving healthier and more balanced meals has experienced significant growth in recent years, driven by increasing consumer demand for more nutritious meals.

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### 2.2. Competitors

Currently, there are some restaurants on the market with this concept and some with the name of weight as is the case of Vitaminas, DaTerra and Terrarea. In the Porto municipality market, we are aware of their weight and the need to be different in order to stand out.

### 2.3. products/services

The products sold are meals of the day. Using national products and products from local producers, we will prepare meals, soups, sandwiches and drinks. They are sold according to the available menu of the day and have a price of 22€.

In terms of sales, we expect to obtain the following values:

**Table 1. Sales**

headings	2023	2024	2025	2026	2027	2028
Meals	160600	331157	384101	391783	399619	407611

### 2.4. Operational activity

With regard to the Provision of Fixed External Services we have: electricity, water, rent, publicity, security, cleaning, communications and an accountant.

As for personnel expenses, the company anticipates that there will be no increase in employees, resulting in a stability of these expenses.

Due to the possibility of an imbalance between amounts payable and receivable, it is necessary to calculate the working capital needs.

working capital	
working capital	Days
Time to receive - Clients	30
Stock time - Inventory of Goods and Raw Material	45
Stock time - Finished Goods Inventory	60
Time to pay - Suppliers	30

<b>Investment in Working Capital</b>	<b>21 835</b>	<b>(4 125)</b>	<b>706</b>	<b>475</b>	<b>479</b>	<b>489</b>
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**Figure 1.** Assumptions used to calculate Investment in Working Capital

Through the NFM map, located on sheet “5. Working Fund”, we can conclude that the total needs over the 5 years is always lower than the total resources, despite a reduction in both.

### 2.5. Investment activity and its financing

In order to demonstrate Green & Grains' investment and financing activity, we have prepared an investment map and a financing map.

#### • Investment Map

Regarding the investment map, we present the investments made by Green & Grains in terms of tangible and intangible fixed assets. Investment in Tangible Assets concerns the purchase or transfer of the building, the purchase of basic furniture (kitchen appliances, furniture for the bathroom and dining room), administrative equipment to register orders and receive payments and, finally, equipment related to space security, such as cameras and alarm. As regards the useful life, 20 years for the building and constructions, 10 years for basic equipment, 2 years for administrative equipment and for equipment related to space security.

#### • Financing Map

The share capital is 10,000 euros. The loan was for 40,000 euros at an annual interest rate of 8%, invested in the year 2023, and whose repayment period will end in the third year of the project.

## 3. FINANCIAL PROJECTIONS

### 3.1. Financial statements

The performance statement allows us to scrutinize the profits and expenses arising from the company's operations over a specific period.

Based on the positive values presented in the net result, we can conclude that the company is presenting a positive profitability. In the first year, the net result is positive, but considerably lower compared to subsequent years.

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**Table 2.** Net Income for the Income Statement Period

headings	2023	2024	2025	2026	2027	2028
Net income	2727	19568	25677	30296	33813	36909

### 3.2. Opportunity cost

The Weighted Average Cost of Capital (WACC) for this project is 3.71%. We can calculate it using this formula:

$$WACC = \left( \frac{E}{V} \times Re \right) + \left( \frac{D}{V} \times Rd \times (1 - Tc) \right)$$

**where:**

$E$  = Market value of the firm's equity

$D$  = Market value of the firm's debt

$V = E + D$

$Re$  = Cost of equity

$Rd$  = Cost of debt

$Tc$  = Corporate tax rate

We considered that Equity represented 65% of the financing and Debt Capital, the remaining 35%.

The Beta, in this case, is 82%, and using the values in force for the remaining parameters of the calculation of the cost of Equity, the value of 4.34% resulted.

Regarding the cost of debt with tax effect, at an interest rate of 3%, we obtain the result of 2.37%.

### 3.3. Cashflows

#### Investment Project Perspective

For an analysis of the investment project, we can analyze the Cash-flow, calculated in the "Financial Evaluation" tab of the Excel file. Here, 3 perspectives are represented, which is why we will address in this report, the Cash-Flows from the perspective of post-financing.

- Exploration Cash-Flow

The value is negative in year 0, but it keeps increasing, recovering in the first year of operation.

**Table 3. Exploration cash flow**

- Investment Cash-Flow

Year 0	Year 1	year 2	Year 3	Year 4	year 5
(222625)	39045	39462	43453	46106	49183

The cash-flows from investment in working capital in year 1 are negative, but this recovery was immediately achieved in the following year.

**Table 4. Investment Cash-Flow**

Year 0	Year 1	year 2	Year 3	Year 4	year 5
21 835	(4125)	706	475	479	489

- Free Cash-Flow to Firm

The Free Cash-Flow to Firm becomes positive in the last year, and there are prospects for continued growth.

### 3.4. Rating criteria

In this analysis, the investor's perspective is considered in the sheet of the Excel file "3. Financial evaluation".

- NPV

The calculation of the Net Present Value (NPV) with residual value is 53,093 euros. The calculation of this same parameter, taking into account perpetuity, is €2,137,485. Since NPV is greater than zero and, therefore, a positive value, the project is highly viable and will contribute to the company's wealth.

- IRR

The Internal Rate of Return is 10.19% (calculated with the residual value) or 73.72% (considering perpetuity). The closer to 100%, the greater the viability of the project, so this project is attractive to invest.

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### • PI

The Profitability Index value is 5.7. If a value is greater than 1, it is considered that the project is profitable and there is a strong probability of generating a profit.

Thus, for each euro invested, shareholders will receive €5.7.

### • IRT

The Investment Recovery Time (IRT) considers the time it takes to recover the amount invested through the cash flows generated by the investment. In other words, the PRI indicates the time required for the earnings from the investment to offset the amount initially invested.

Thus, the PRI in this project is 5 years and 1 month.

### • AEB

The Annual Equivalent Benefit helps us understand the value of a given income, equivalent to an increase in wealth.

In the auxiliary spreadsheet, the result is displayed which indicates that it is 11829.135559.

## 4. CONCLUSIONS

After a thorough analysis, using the various assessment criteria mentioned above, the investment project is complete.

We therefore conclude that shareholders will see an increase in wealth and that the project is viable.

Although at the beginning the company did not generate much profit, over the years of the project, it manages to minimize the loss and obtain the intended profit.

Based on this, we can say that carrying out an investment project is highly advantageous for a company, bringing only benefits.

### 1. P&L (Income Statement)

Greens&Grains	1 2023	two 2024	3 2025	4 2026	5 2027	6 2028
	two	3	4	5	6	7
Sales and services	13 200	163 310	168 373	171 740	175 175	178 679
Operating Subsidies	550	7000	10,000	12,000	12,000	12,000
Variation in production inventories	9 113	283	291	194	198	202
Cos of the sales	(5 280)	(65 324)	(67 349)	(68 696)	(70 070)	(71 472)
ESF	(985)	(12 517)	(12 905)	(13,164)	(13 427)	(13 695)
Personnel Expenses	(7 281)	(87 378)	(87 378)	(87 378)	(87 378)	(87 378)
Impairment of Inventories (Losses/Reversals)	(3 906)	(4,027)	(4 152)	(4 235)	(4 319)	(4,406)
Impairment of Debts Receivable (Losses/Reversals)	(801)	(826)	(851)	(868)	(885)	(903)
Other Income	4 620	57 159	58 931	60 553	62 626	65 228
Other Expenses	(1 320)	(16,331)	(16 837)	(17 174)	(17 518)	(17 868)
<b>EBITDA (Earnings before Depreciation, Financing Expenses and Taxes)</b>	7 911	41 349	48 123	52 973	56 402	60 387
Expenses/Reversals of Depreciation and Amortization	(1,064)	(12,772)	(12,772)	(12,772)	(12,772)	(12,763)
<b>EBIT (Operating Result)</b>	6 846	28 577	35 351	40 201	43 630	47 625
Interest and Similar Expenses Supported	(3 328)	(3 328)	(2 219)	(1 109)	-	-
<b>EBT (Earnings Before Taxes)</b>	3 518	25 249	33 132	39 092	43 630	47 625
Tax	(792)	(5 681)	(7 455)	(8,796)	(9 817)	(10 716)
<i>Company tax</i>	(739)	(5 302)	(6 958)	(8 209)	(9 162)	(10,001)
<i>municipal spill</i>	(53)	(379)	(497)	(586)	(654)	(714)
<b>Net income</b>	2727	19 568	25 677	30 296	33 813	36 909

## 6. SOURCES OF ASSUMPTIONS

<https://www.aguasdoporto.pt/tarifario/tarifario>

<https://www.idealista.pt/media/relatorios-price-housing/lease/port/> <https://www.biofrade.com/>

[https://www.makro.pt/?itm\\_pm=cookie\\_consent\\_accept\\_button](https://www.makro.pt/?itm_pm=cookie_consent_accept_button)

<https://www.bancomontepio.pt/particulares/credito/pessoal/credito-pessoal-online>

## REFERENCES

- 1) Balanço: O que é? (sem data). Economias. De <https://www.economias.pt/balanco-o-que-e/>
- 2) Guia Explicativo para a Criação do Plano de Negócios e do seu Modelo Financeiro, IAPMEI – Agência para a Competitividade e Inovação, I.P., Abril 2016

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- 3) Projeções económicas | Banco de Portugal. (sem data). De <https://www.bportugal.pt/page/projecoes-economicas>
- 4) Reis, T. (2018, dezembro 21). WACC: Saiba como funciona o custo médio ponderado de capital. Suno. <https://www.suno.com.br/artigos/wacc/>
- 5) Silva, Eduardo (2007) Gestão Financeira # Análise de Fluxos Financeiros Vida Económica