

A Work Project, presented as part of the requirements for the Award of a Master's degree in Management and Finance from the Nova School of Business and Economics

CONSULTING PROJECT FOR AN HEALTHCARE PROVIDER WITH THE TOPIC: "A successful roadmap for healthcare providers to renegotiate prices with health insurance companies"

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"The industries' promptness to change"

JOÃO ANDRÉ ALMEIDA FIRMINO PINHO | 44469

"Internal inquiry of the company's resources, capabilities and financial situation"

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"Foundations for a three-step strategy"

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"Short and long term mechanisms based on evidence and value"

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This consulting project focuses on the development of strategy for healthcare provider to renegotiate prices with health insurance companies. The initial objective of the project was, in a first phase, to highlight a general increase in exogenous costs in the healthcare sector, to support an intended renegotiation. From this starting point, the Team proposed the execution of a renegotiation strategy based, not only on how to leverage this evidence of the exogenous costs increase, but also on possible ways of joint value creation. To meet these objectives, internal and external analysis were conducted to identify opportunities and challenges in both the healthcare and insurance markets. This analysis allowed, not only to infer about exogenous costs increases and their impact on healthcare providers, but also to understand the possibility of creating value for both stakeholders, by matching the client's strengths with existing market opportunities. Furthermore, a financial model was developed with the intention of quantitatively helping the client from the argument preparation moment to the final renegotiation meetings. Moreover, a qualitative assessment of strategies to create value was performed, supported on in-depth interviews made to subject and industry experts. The final outcome of the project was materialized into a set of recommendations based on three different scopes: price and costs historical evidence, price revision mechanisms and shared-value initiatives. On a final note, the client has already begun to implement our recommendations, therefore signalling the true importance and success of this body of work.

Keywords: Strategy, Consulting, Healthcare, Insurance, Renegotiation, Value Based Healthcare, Pricing, Profitability, Financial Analysis, Financial Modelling, Cost Analysis

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| Word | Definition | Word | Definition |
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| ADSE | Assistência na Doença aos Servidores do Estado | FP | Final Presentation |
| AGM | Adjusted Growth Margin | HAI | Health Alliance International – Illustrative name for health facility accreditation body |
| APS | Associação Portuguesa de Seguros | Inbound stage | Before reaching the hospital |
| BATNAs | Best Alternative to a Negotiated Agreement | In-House stage | When the patient is at the hospital |
| BP | Best Practises | ICU | International Care Unit |
| C | Unit Measure for Clinical Analysis Complexity | Insurance Company A,B,C,D,E | Illustrative name for the five main insurance companies |
| CAGR | Compounded Average Growth Rate | K | Unit measure for surgeries complexity |
| Casualty Segments | Insurance broad category of coverage against loss of property, damage or other liabilities | Medical Act | Medical procedure |
| Contamination Effect | An action that occurs as an indirect consequence of other action | Medical Group Items | Groups of similar medical acts |
| CPI | Consumer Price Index | NHS | National Health Service |
| Effort | Includes all types of resources used to complete a given task, namely money, time, human capital and equipment | Outbound stage | When the patient is leaving the hospital |
| Endogenous Costs | Inherent and internal costs of healthcare providers | PPI | Price Inflation Index |
| ERSE | Entidade Reguladora dos Serviços Energéticos | PPP | Public-Private Partnership |
| Exogenous Costs | External Costs affecting the industries by external indicators | RA and VR | Augmented Reality and Virtual Reality |
| FHU | Family Health Units | Ransomware | Threat to the device |
| Fire Group | Illustrative name for main competitor | Sky Group | Illustrative name for main competitor |
| | | SMART | Specific, measurable, agreed, resourced and time-bound |

Table 1: Glossary

Glossary (II/II)

| Word | Definition |
|-------------------|--|
| Steering | Meeting with the client |
| Sun Group | Illustrative name for main competitor |
| Tree Group | Illustrative name for main competitor |
| UNV | Universo: Illustrative name for the client's holding |
| Vida Group | Illustrative name for the project's Client Group |
| Vida + | Illustrative old name for the Clients Group |
| VA | Vida Algarve: Illustrative name for the Algarve's Unit of Vida Group |
| VB | Vida Bragança: Illustrative name for the Bragança's Unit of Vida Group |
| VL | Vida Lisboa: Illustrative name for the Lisbon's Unit of Vida Group |
| VP | Vida Porto: Illustrative name for the Porto's Unit of Vida Group |
| RETEH | <i>Recomendações e Especificações Técnicas para Edifícios Hospitalares</i> |
| ZOPA | Zone of Possible Agreement |

Table 1: Glossary

Project Context



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| | 3 | Approach |
| | 4 | SCQA and Issue Tree Overview |
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| C | Diagnosis | |
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| | | | |
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| | | II | Healthcare Industry |
| | III | Insurance Industry | |
| | 2 | Internal | |
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| | | II | Resource-based View Model |
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| | V | SWOT and TOWS | |

| | | | |
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| E | Strategy Assessment | | |
| | 1 | Ideation Methods | |
| | 2 | Quantitative Assessment | |
| | | I | Price Evolution |
| | | II | Cost Evolution |
| III | Price Renegotiation | | |

| | | | |
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| E | 2 | IV | Impact on Results |
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A. Executive Summary

[METHODODOLOGY] This Master Thesis consisted of a Consulting Lab in collaboration with Vida Group. During the project, the overriding question “Can Vida Group renegotiate its current prices with insurance companies, in order to improve its profitability?” was addressed in four phases, as introduced in the *Pyramid Principle* – diagnosis, analysis, assessment of strategic options and recommendations.

[DIAGNOSIS] Vida Group is a national healthcare provider with a comprehensive portfolio of services and a strong market position. Alongside healthcare providers, health insurance companies are also crucial stakeholders, to ensure a balance in the health ecosystem and satisfy the various society needs.

[ANALYSIS] The external evolution of macro indicators, that highly impact the operations of healthcare providers, and the existing opportunities to explore within the health insurance market, allow to conclude the readiness of the industries to renegotiate prices. This allied with the Vida’s strong reputation, technological capabilities and outstanding medical track record constitute the evidence that permit to conclude why the Team answered positively to the deductive part of the overriding question.

[STRATEGY ASSESSMENT] About how Vida Group can do so, an inductive analysis based on a dual structure was performed. Quantitatively, resorting to a developed financial model, it was evidenced a decrease in the prices agreed with insurance companies and a historical increase in exogenous costs. Based on this, price revision mechanisms were created. Qualitatively, with a strong support on in-depth interviews with industry experts, it was identified a clear opportunity for shared-value initiatives that could leverage Vida’s position to renegotiate prices.

[RECOMMENDATIONS] To successfully renegotiate prices with insurance companies, Vida Group should follow a strategy based on three pillars – price and costs historical evidence, revision tools and shared-value initiatives. Vida should, first, present the historical decrease in prices alongside an increase in exogenous costs to showcase the urge to renegotiate prices. Then, Vida should propose and implement the Price Inflation Tools with the flexibility they offer to revise prices. Finally, Vida should propose shared-value initiatives to enhance its negotiation position. These initiatives include an app feature to promote healthier lifestyles, the availability of medical slots for insurance clients, the ideation of a private lobby for insurance clients, the possibility for these clients to access special payment conditions, the implementation of a success or penalization fee to high complication risk acts and the launch of a Value-based Healthcare pilot.

[CHALLENGES] The main challenges faced throughout the project were the scarcity of available and organized data.

Concerning the effectiveness and scientific rigor of this project, the Team followed a comprehensive methodology supported on meaningful and context-appropriate theories, frameworks and models

B.1 | Methodology | Literature Review (I/II)

When accepting a consulting project, there are two critical dimensions that must be considered throughout the project's timeline. Client-wise, every team should adopt a client-centric posture, fully aware of the time and effort required to manage all of the **Trusted Advisor equation variables** introduced by Maister, D., Green, C., and Galford, R. (2000). Structure-wise, and with the goal of communicating ideas logically to generate maximum impact, teams should apply **The Pyramid Principle** a prominent problem-solving technique popularized by Minto, B. (1985) and used for years by reputable strategic consulting companies like McKinsey. Following a top-down approach, the main project's idea – the answer to the project's overriding question and which results from the **SCQA framework** – should be followed by the logically arranged **MECE** arguments and the underling supporting facts, in a so-called **issue tree**. Consequently, in order to answer the two focal questions of any project: the "Why?" and the "How?", a **deductive analysis** was performed through the conjectures of an internal and external analysis, and an **inductive analysis** through the set of informed hypothesis that the Team thought capable of addressing the problem.

Regarding the external analysis, a **PESTLE overview**, a framework conceptualized by Aguilar, F.J. (1967), was used to comprehend the macroenvironment Political, Economic, Social, Technological, Legal, and Environmental factors and their possible impacts on the business. Additionally, two other major studies were conducted, this time, in order to better understand the microenvironment. First, the Team researched the client's **sector** in terms of supply, demand, expenditure profiling, development incentives, and disruptive trends. Second, in order to understand the relevance and veracity of the raised question, a **cost analysis** of the main financial pressure expenses groups was performed.

The procedure of comprehending the company's internal environment was divided into five major stages. To begin, an adaptation of the Porter, M. (1985) **Value Chain model** was created with the specificities associated with its respective sector, to evaluate the company's value creation process through its primary and support activities. Following this, the Team carried out a **Resource-based View model** which, according to Barney, J. (1992), should be used to identify the company's resources – assets, capabilities and competencies that meet the VRIO criteria and that can be leveraged to exploit competitive advantages. Afterwards, and given the importance of acknowledging the firm's ability to adapt to rapidly changing business environments, the Team followed Barreto, I. (2010) **Dynamic Capabilities** multidimensional to study the client's performance levels in this context.

Concerning the effectiveness and scientific rigor of this project, the Team followed a comprehensive methodology supported on meaningful and context-appropriate theories, frameworks and models

B.1 | Methodology | Literature Review (II/II)

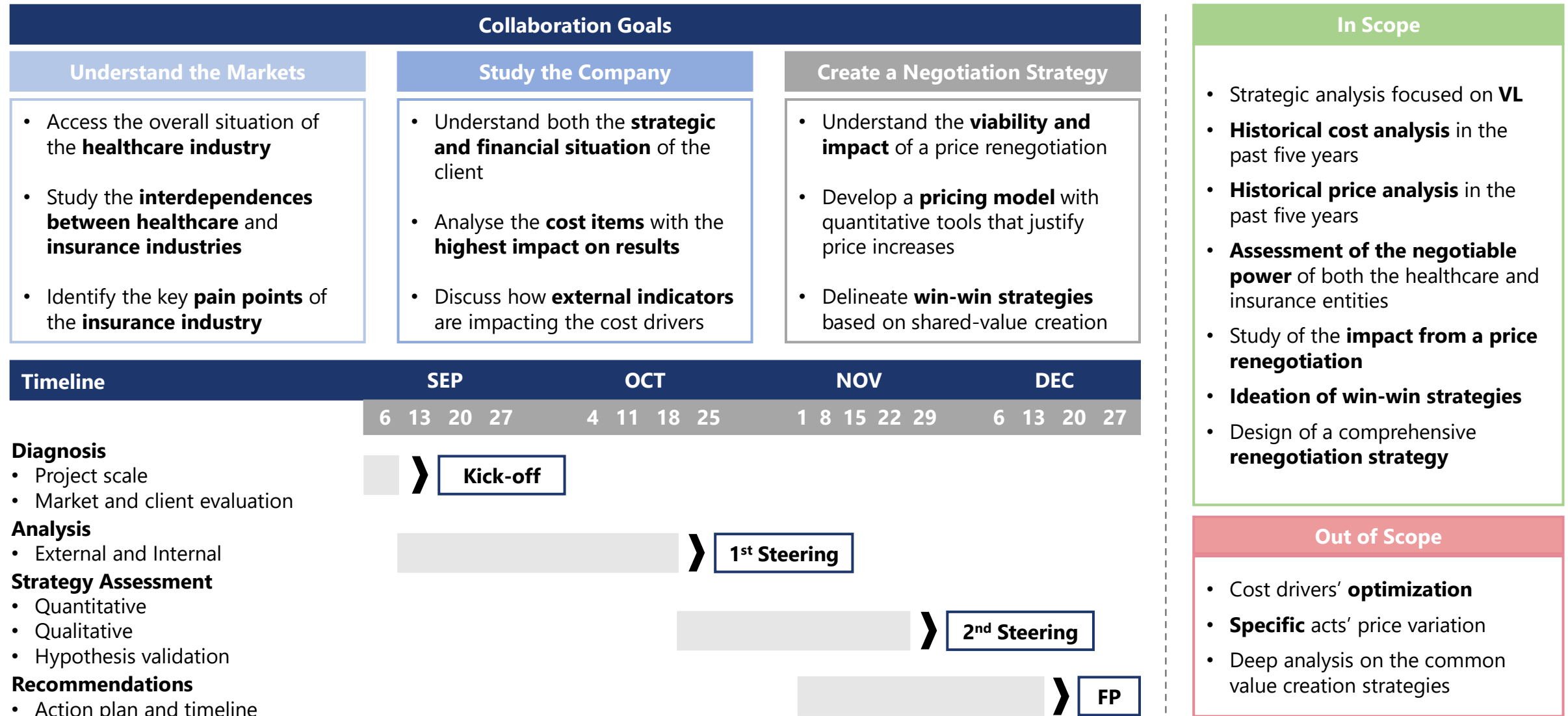
Later on, a profitability investigation was conducted in order to identify the main evolution of both price and cost drivers. At last, after all of the preceding stages were completed, the Team compiled all of these insights into a **SWOT analysis**, a tool developed by Humphrey, A. (1960) that highlights a firm's combination of strengths and weaknesses to identify potential opportunities and threats, and into a **TOWS analysis**, a tool developed by Weihrich, H. (1982) that provides actionable links between the various parts of a business and its surrounding environment.

Upon reaching the final proposed insight collection moment, the Team's next step consisted of formulating an overall strategy plan based on the previously discussed renegotiation points. For such, and according to the framework proposed by Fisher R. et al (2011), in the renowned negotiation book – **Getting to Yes**, the Team based the strategy assessment both on a **quantitative basis** and on a **qualitative basis**. To what the quantitative basis is concerned, a financial model was built to support the analysis of the evidence and structure the renegotiation moments. Regarding the qualitative assessment, a set of **in-depth interviews** was developed, comprising moments with the most relevant players in the industry and experts about the inherent topics, to gather important insights for the project and enhance the quality and relevance of possible recommendations to be given to the client.

As a final remark, the Team recognizes that the initial nature of this project was not so much recommendation focused and that the collaboration requested by the client was more intended to the development of evidence reports that would support the urgency of a renegotiation. Nonetheless, the Team decided to also suggest other alternative recommendation practices, supported by an action plan with an ideation of each involved tasks, their estimated completion period, impact and use of resources. For this workstream, it was applied an **Agile methodology**, addressed by Fowler, M. et al (2000), with the intent of ensuring the development of a set of recommendations that is relevant and aligned with the client's expectation.

The project was based on three goals and on a structured scope defined with the client. This, along with the weekly meetings with the client and the feedback received in the steerings allowed for a constant alignment of expectations

B.2 | Methodology | Collaboration Goals, Timeline & Scope



The success of this 4-month project was achieved through 4 key phases – the diagnosis, analysis, strategy assessment and recommendations

B.3 | Methodology | Approach





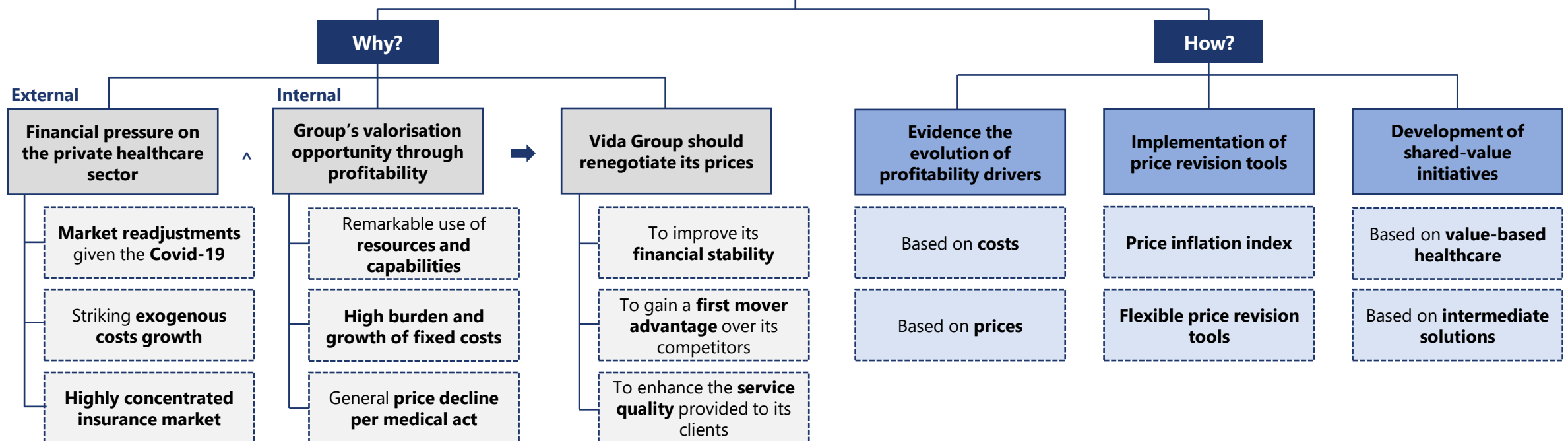
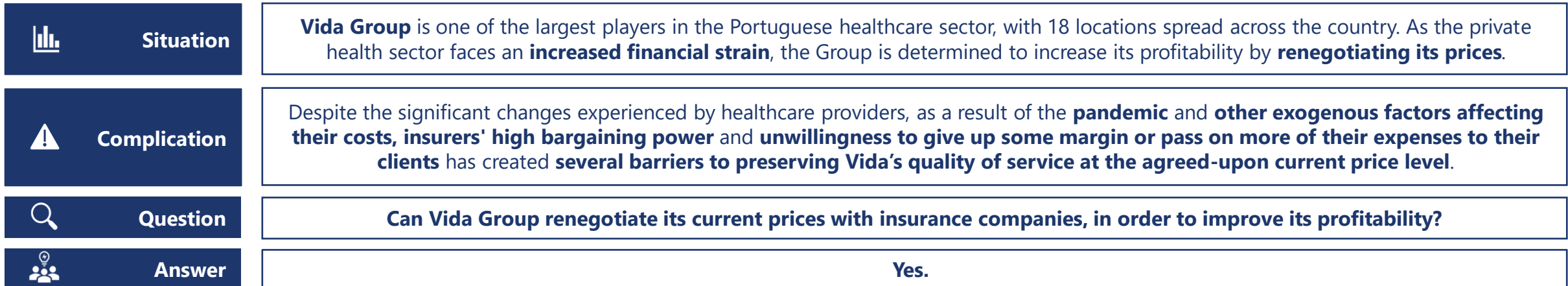
| |  Diagnosis |  Analysis |  Strategy Assessment |  Recommendations |
|------------------------|---|---|--|--|
| Deliverables | Kick-off Document | Report Analysis | Renegotiation Roadmap | Action Plan & Timeline |
| Project Actions | <p>Overview of the Healthcare Industry:</p> <ul style="list-style-type: none"> Analyse the healthcare and insurance markets Analyse sector's trends and dynamics Understand the client's current situation <p>Alignment of Expectations:</p> <ul style="list-style-type: none"> Understand the client's needs Define in detail the scope and objectives of the project Set the expected deliverables and meetings' timeline | <p>Issue Analysis:</p> <ul style="list-style-type: none"> Deductive Reasoning Inductive Reasoning <p>External Analysis:</p> <ul style="list-style-type: none"> Industry Analysis (PESTEL) Healthcare providers' cost structure Study of exogenous costs Understanding insurance companies' pain points <p>Internal Analysis</p> <ul style="list-style-type: none"> Adapted Porter's Value Chain analysis Resources and Capabilities analysis (VRIO) Dynamic Capabilities Group's costs evolution SWOT and TOWS analysis | <p>Strategy Assessment:</p> <p>Quantitative:</p> <ul style="list-style-type: none"> Price Evolution Costs Evolution Price Renegotiation Renegotiation Impact <p>Qualitative:</p> <ul style="list-style-type: none"> Negotiation Expert Interview In-Depth Interviews Value-Based Healthcare Expert Interview Best Practices | <p>Formulation of Different Recommendations:</p> <ul style="list-style-type: none"> Price and Costs Historical Evidence Price Review Mechanism Shared-Value Creation Initiatives <p>Prioritisation of Alternatives and Implementation Plan:</p> <ul style="list-style-type: none"> Synthesise the most promising alternatives Measure the effort involved <p>Results:</p> <ul style="list-style-type: none"> Showing the applicability and impact of the Teams' project |
| Duration | 3 days | 4 weeks | 4,5 weeks | 2 weeks |

Table 2: Methodology used for Project Approach and Execution

The recent changes in the global health landscape as a result of the pandemic, combined with the recent financial pressure felt by Vida Group, require a price renegotiation with its payers

B.4 | Methodology | SCQA and Issue Tree Overview



A deductive reasoning section was used to corroborate the overarching question through an external and internal analysis, whereas an inductive reasoning section was used to formulate the hypothesis on how to achieve project success

B.5 | Methodology | Issue Tree

Can Vida Group renegotiate its current prices with insurance companies, in order to improve its profitability?

Yes

Deductive Reasoning

Why?

External

Market readjustments given the Covid-19

Striking exogenous costs growth

Highly concentrated insurance market

Internal

Remarkable use of resources and capabilities

High burden and growth of structural costs

General price decline per medical act

Therefore, Vida should renegotiate its prices to improve its financial stability, gain a first mover advantage over its competitors and maintain or even enhance the service quality provided to its patients.

Inductive Reasoning

How?

Evidence the evolution of profitability drivers

Implementation of renegotiation tools

Development of shared-value initiatives

Hypotheses Analysis

Figure 4: Issue Tree – Deductive and Inductive Reasoning

Source: (Team Based 2021)

Given the current market conditions – Covid-19, costs increases and insurance sector concentration – and Vida Group *status quo* – its resources, cost structure and price table – one can conclude there are conditions to renegotiate

B.6 | Methodology | Deductive Reasoning

Can Vida Group renegotiate its current prices with insurance companies, in order to improve its profitability?

Yes

External

Market readjustments given the Covid-19



Given the sudden **increase in Covid-19 cases** and the **abrupt fall of other specialization treatments**, the recent pandemic has shown the vulnerability of the healthcare sector **to changes in the external environment**

Striking exogenous costs' growth



Given the **evolution of various highly representative cost drivers** required for the proper functioning of the healthcare sector, the private sector's **incurred expenditure has significantly increased**

Highly concentrated insurance market



Given the **high concentration of the health insurance sector**, the largest players have **significant bargaining power**, which has **hampered** many healthcare providers' **attempts to renegotiate fairer prices**

Internal

Remarkable use of resources and capabilities



Given the **superior application of resources and capabilities and its distinguished core competencies**, the Group has earned a **strong reputation and credibility** among patients and insurance companies

High burden and growth of structure costs



Given the **unique needs and dynamic challenges** that the healthcare sector faces, the Group has seen **consecutive increases in its expenses with support dimensions of its activity**

General price decline per medical act



Given the historical perception of **private hospitals overbilling**, and the belief that **ongoing optimisation efforts have lowered the cost of most medical acts**, the Group's **negotiated prices have been steadily decreasing**

Figure 4: Issue Tree – Deductive Reasoning

To understand how Vida should renegotiate with insurance companies, a strategy and recommendations were formulated based on 3 pillars: profitability evolution evidence, quantitative renegotiation tools and shared-value initiatives

B.7 | Methodology | Inductive Reasoning

Therefore, Vida Group should renegotiate its prices to improve its financial stability, gain a first mover advantage over its competitors and maintain, or even enhance, the service quality provided to its patients.

How?

Evidence the evolution of profitability drivers



Investigate the evolution of Vida's profit drivers, such as the evolution of the price per medical act and exogenous costs influencing the healthcare sector, and then materialise this analysis into concrete evidence to present to insurance companies to support the idea of contract renegotiation

Implementation of renegotiation tools



Create a financial model that incorporates several renegotiation tools to suggest not only a general price index capable of suppressing the evolution of exogenous costs, but also some specific increment rates capable of adjusting certain prices per medical group and per medical act

Development of shared-value initiatives



Develop pilot examples of shared-value initiatives, some closer to the fee-for-service model and others closer to the Value-based Healthcare model, that will allow the Group to propose win-win strategies while positioning themselves as national market pioneers in this realm

Figure 5: Issue Tree – Inductive Reasoning

The identified issues were categorized into sub-issues, which served as the foundation basis for the hypothesis's formulation and their consequent validation

B.8 | Methodology | Hypothesis Analysis




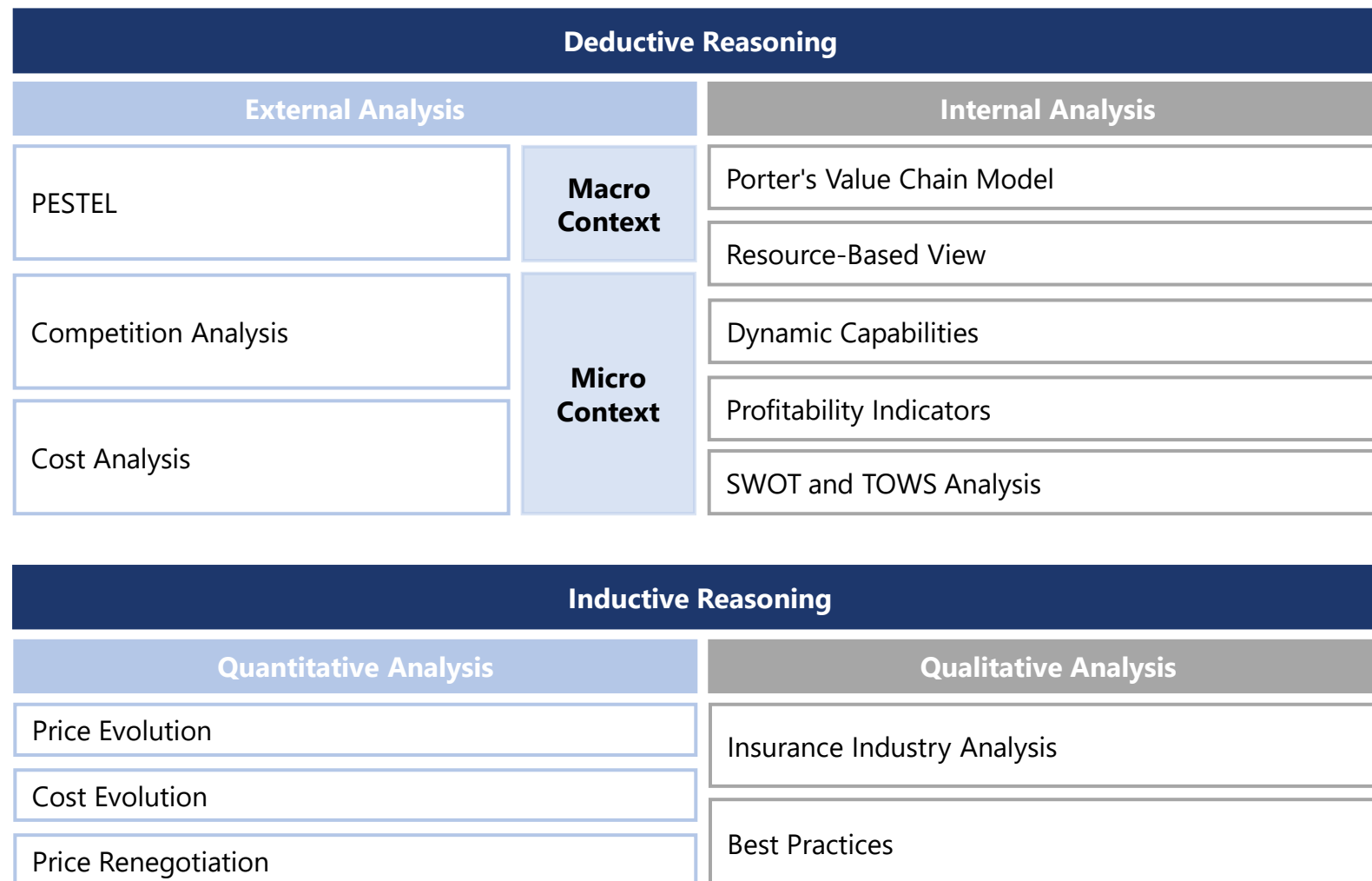
| Issue | Sub Issue | | Hypothesis | Analysis |
|--|---|----------------|--|--|
|  Evidence the evolution of profitability drivers | Can Vida make use of the historical decrease in prices as an evidence in renegotiation? | A1 Yes | By presenting the historical decrease in prices agreed with insurers, Vida can raise awareness to its current situation and justify the need for a renegotiation. | <ul style="list-style-type: none"> Contract evaluation Financial modelling Cost analysis In-depth interviews |
| | Can Vida make use of the historical increase in exogenous costs as an evidence in renegotiation? | A2 Yes | By exposing the recent increase in exogenous costs that impact healthcare providers, Vida can provide an impartial argument for the need to renegotiate prices . | |
|  Implementation of renegotiation tools | Can Vida renegotiate its prices based on a general price index that suppresses the exogenous costs growth? | A3 Yes | A price inflation index based on exogenous costs posts itself as a neutral tool that is perceived as fair by the insurers and allows Vida to suppress their impact on internal results. | <ul style="list-style-type: none"> Financial modelling In-depth interviews |
| | Can Vida integrate flexible tools to respond to more specific negotiation demands ? | A4 Yes | Once negotiations between both parties are characterized by having specific demands, it is crucial to have flexible tools that allow to respond efficiently to them . | |
|  Development of shared-value initiatives | Can Vida implement the Value-based Healthcare model in its current operations and strategy? | A5 Yes, but | Although capable of offering high value, due to the current environment in Portugal, the Value-based Healthcare model is still hard to implement in the short term . | <ul style="list-style-type: none"> Benchmarking Best Practices analysis Secondary Data In-depth interviews |
| | Can Vida develop other shared-value initiatives that improve its contract renegotiation conditions? | A6 Yes | There are several dimensions in which shared-value initiatives can be explored, and that will present themselves as levers to further renegotiate prices . | |

Table 3: Hypothesis Analysis
Source: (Team Based 2021)

To ensure the creation of an insightful strategy and recommendations, the Team based its work on both quantitative and qualitative investigation methods supported by various sources of information

B.9 | Methodology | Investigation Methods



Sources of Information

Internal Company Data

Client Syndication

In-depth Interviews

1 Negotiation Expert
6 Insurance Industry Experts
1 Value-based Healthcare Expert

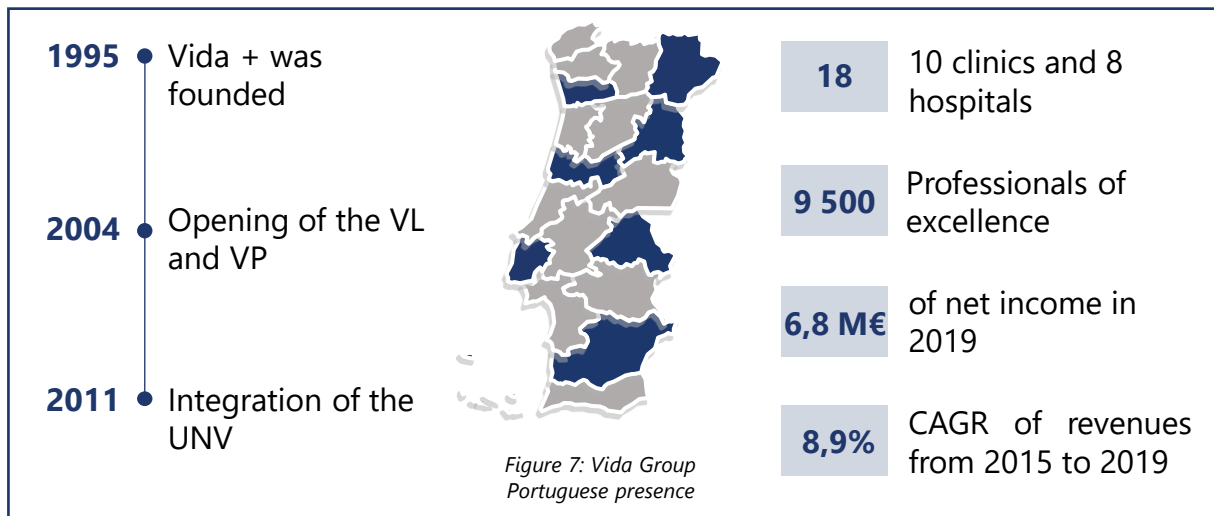
Academic and Consulting Papers

Benchmark Analysis

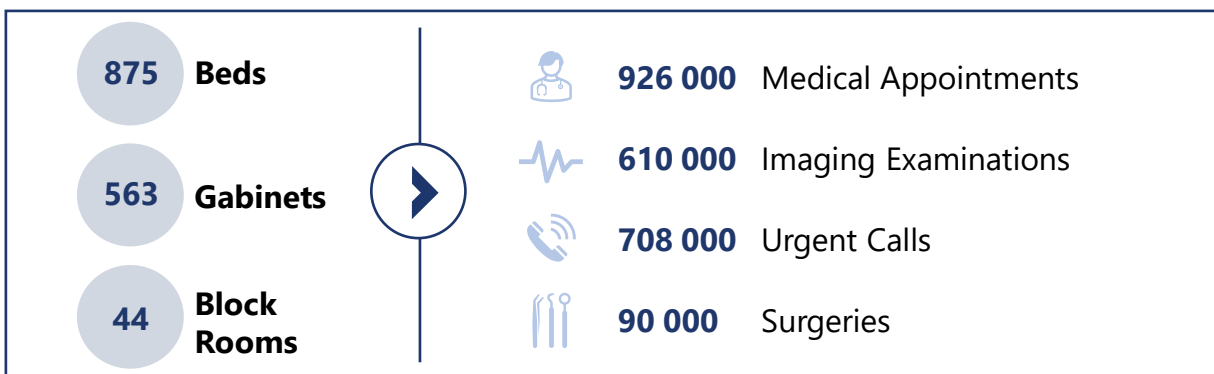
Vida is distributed throughout the Portuguese territory, offering a vast range of medical specialties and showing good efficiency levels when compared to competitors

C.1 | Diagnosis | Company Overview (I/II)

Company's ID



Some figures from 2019



Activity Figures

In terms of activity levels, in 2019 the group registered:

350 M€ Revenue, positioning as one of three largest the healthcare providers in the national market

24,1 M€ EBIT, showcasing a high capability to turn revenue into value

In terms of efficiency, the Group presented higher levels when compared to its direct competitors, namely:

6,9% EBIT margin, representing high levels of operating efficiency, with 2,7pp above the competition ^{1,2}


76,1% Asset Turnover, representing high ability to capitalize on assets, with 5,1pp above competition ^{1,2}

With Covid-19, **in line with all players in the industry**, the Group was highly affected by the pandemic:

- The topline was impacted due to a **decrease in volume of activity**
- The **results became negative**, as in all the other two largest players, due to a surge in costs incurred to ensure health safety

Vida Group's purpose is to improve the performance of the healthcare system, as well as the overall health and well-being of patients, through the best innovation techniques and processes

C.1 | Diagnosis | Company Overview (II/II)

| Company's strategy | | | | |
|---|---|---|--|---|
| Mission | "Create better conditions for people to live a healthier life and contribute to a better healthcare ecosystem. " | | | |
| Vision | "Become the reference partner in the private healthcare system , improving the health and general well-being of our clients and those close to them." | | | |
| Strategy | " We exist for our customers. " Our commitment for the future is based on the following strategic choices: (1) focus on excellence, innovation and accuracy; (2) focus on great customer experience; (3) focus on partnerships and innovation driven by technology; (4) to achieve sustainable growth; (5) to create social impact. | | | |
| Family | Innovation | Values Loyalty | Security | Humanity |
|  |  |  |  |  |

| Vida's Competitive Advantage |
|---|
| <p>Credibility and trust</p> <p>Vida was the first private hospital in Lisbon to be accredited by the most important European health entity: the Health Alliance International, complying with the rigorous International Patient Safety Goals.</p> |
| <p>Worldwide presence</p> <p>Vida Group is incorporated in one of the largest groups in the world, Universo, which leverages its competitiveness in its several locations across Portugal.</p> |
| <p>Focus on quality, innovation and transformation</p> <p>The hospital units are equipped with high-tech and effective medical appliances. In 2016, Vida Lisboa received a safety and technological innovation award.</p> |

The healthcare ecosystem is composed by three interdependent major players: patient, healthcare providers and insurance companies, whose current relationship is mainly based on price, which jeopardizes their good relationship

C.2 | Diagnosis | Ecosystem Overview (I/II)

Healthcare Ecosystem

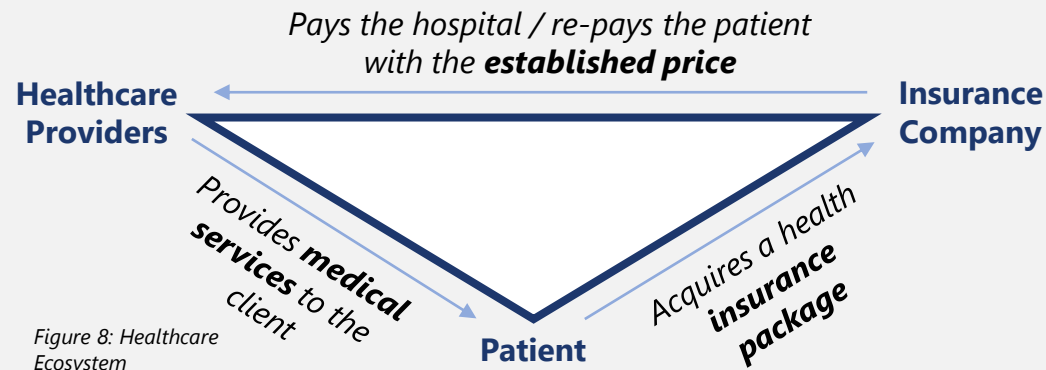


Figure 8: Healthcare Ecosystem

Any renegotiation strategy, either based on price or on other variable, should **ensure value creation for the 3 players**.¹ It is important that all participants work together to achieve a healthy ecosystem because when players are exclusively focused on maximizing their own returns, the ecosystem generates tension and enters a **Prisoner's Dilemma**, in which the optimal outcome is not achieved. In this situation, all players end-up **in a worse situation than they would have been if they had cooperated**.²

Players' Relationship

The **relationship between Insurers and Healthcare Providers** is characterized by:

- A strong **interdependence** between players:

78%

Of the clients consider **coverage by their Insurance as the main reason for choosing where they receive health care**.³



The Hospitals enable the Insurers to create a **network of partners that allows them to give their customers the possibility, convenience and freedom of choice of healthcare providers**.⁴

- A negotiating relationship very **focused on price**:



Insurers intend to reduce prices to attract customers and **Healthcare Providers intend to increase them** to sustain profitability.⁵



A system that rewards medical staff for each service they provide and **not for the value they create to the ecosystem**.⁶

By creating a win-win and collaborative relationship strategy amongst the involved entities, the ecosystem can exploit the full potential of value creation for healthcare providers, insurance companies and patients

C.2 | Diagnosis | Ecosystem Overview (II/II)

6 B€

A *McKinsey* study estimates that a **Healthcare Ecosystem**, where players from different industries cooperate, will reach a **volume of 6 B€** in 2025. ¹

Advantages of a cooperative Healthcare Ecosystem for Private Healthcare Providers and Insurers: ²



Increased **risk prevention** for clients



Reduction of friction along related services



Increased **touchpoints with customers**



Possible **greater access to data**



Growth of the customer base and improvement of the consumer experience, with a consequent **increase in portfolio retention**



Leverage **network effects**



Access to more talent, namely in technological or managerial capabilities



There is a need to re-think how the three entities involved in the ecosystem **interact with each other**, so that a **win-win situation that solves each one's pain points can be created**. An **enhancement of partnerships between Insurers and Healthcare Providers** can create value for patients and players in both sectors.

Both quantitative and qualitative assessments were performed, resulting in the conclusion that the best renegotiation strategy should include not only an analytic support but also initiatives to create value to the ecosystem

E.1 | Strategy Assessment | Ideation Methods (I/III)

Quantitative Assessment



Rationale – Main Hypothesis Tested

- Test the **historical price** and **cost evolution**
- Test the **relationship between endogenous** and **exogenous costs**
- Test the impact of **potential renegotiation scenarios**

Methods – Financial Model

- A model based on these hypothesis was proposed and developed to:
 - Support the **evidence** and proposals presented in the renegotiation
 - Study the **impact** that this will have on the internal results

Main Results

- Evidence that, historically, the **agreed prices have been decreasing**
- Validation of the impact that **exogenous costs have on the endogenous ones**
- Derivation of a **price inflation index** to support renegotiation



Qualitative Assessment



Rationale – Main Hypothesis Tested

- Test the accuracy of the **pain points identified** in the market
- Test the relevance of an **argument based on historical evidence**
- Test the interest of insurance companies to **co-create value**

Methods – In-depth and expert interviews

- In-depth interviews with key players in the healthcare insurance market were pursued to **properly assess the best strategy for renegotiation**
- Interviews with experts in negotiation and Value-based Care were pursued to **properly support and enhance the strategy**

Main Results

- Players are facing several pain points in which **healthcare providers have room to tackle**
- It is of main importance that a renegotiation of prices is also based on the **creation of value through innovative win-win initiatives**

By clearly defining its own problem and by avoiding typical negotiation mistakes, Vida will be able to understand and influence insurance companies to agree on what the Group is looking forward to

E.1 | Strategy Assessment | Ideation Methods (II/III)



What is a negotiation?

According to Daniele Vare (2001), negotiation is the “**art of letting them have your way**”. In other words, an effective negotiator – someone who can create **shared and sustainable value** for the two sides of a negotiation – understands the other part’s issues, position and interests, and shapes his behavior and decision so that **the counterpart agrees on the proposed deal for its own reasons**.¹

Common mistakes to avoid in a negotiation process¹

Neglecting the other side's problem

- A sustainable agreement demands one to address and **understanding the other side's problem** as a key way to solve his own
- It is more effective to create a **bridge between the counterpart and the desired end point** than making it change its position

Searching Too Hard for Common Ground

- An important source of value in negotiations is the **difference in perspectives and priorities**. These open the possibility for each party to get what they value the most, at the least cost to the other
- Negotiators who don't search for differences **rarely find them**

Letting Price Bulldoze Other Interests

While price is key in most deals, it is **rarely the only one**. In fact, there are other 4 important factors:

- **Relationship**: as valuable as tough tactics
- **Social contract**: reinforce economic contracts
- **Process**: personal, respectful and straightforward
- **Players' interests**: their combination is the basis for a shared-vision creation

*Neglecting BATNAs **

- BATNAs represent the **course of action** a party will take in case a proposed deal is not possible. In economic terms, it is the **opportunity cost** – the threshold any deal must exceed
- Neither the deal nor the BATNA should be evaluated alone – **they should work together**

Letting Positions Drive Out Interests

- Positions are **stands on issues**, while interests are the **underlying concerns** affected by the deal
- Assuming that opposite party's interests are incompatible implies a **zero-sum pie**. Successful deals happen when negotiators start looking for the **interests in which positions are based on**

Failing to Correct for Skewed Vision

- **Self-serving role bias**: when people have the tendency to get too committed to their own point of view
- **Partisan Perceptions**: research proved they are an unconscious mechanism that **enhances one's own side**, while damaging the opposition

Notes: BATNAs = Best Alternative to a Negotiated Agreement. For detailed information regarding the Negotiation Interview Guide refer to Appendix 8

Source:¹ (Harvard Business Review 2001)

For the success of the renegotiation process, Vida should consider qualitative and quantitative methods supported by various scientific advices

E.1 | Strategy Assessment | Ideation Methods (III/III)

A framework to negotiate ¹

Separate **people** from the problem

Negotiations should keep in mind that on the opposite side there are **human beings with emotions and points of view**, not abstract representatives. However, **to be successful in a renegotiation, it is important to comprehend the counterpart's** but it is not mandatory to agree with it.

Vida must individually understand each insurance company motivation and **shape its strategy accordingly**.

Focus on **interests**, not positions

Identifying the other side's interests – even **the not explicitly expressed ones** – is key. Negotiators must understand the opponent's mind, needs and fears, **possible choices and consequent impacts**, while making the counterpart feel that its interests are acknowledged.

Vida must look to the **insurance companies' pain points** and think how it can create value for both.

Invest **options** for mutual gain

A large pool of options raises the possibility of finding a win-win solution. There are factors that prevent that pool creation: (1) **premature judgment** of ideas, (2) looking for only **one solution**, (3) assuming there will only be **one deal winner**, (4) not thinking on the **other interest**.

Vida must provide insurance companies a lot of **different value creation options** for their business.

Insist on using **objective** criteria

Both parties must ensure they follow a set of standard and **pre-established rules** if they want to achieve a fair agreement. Each issue should be framed as a **collective search** for a win-win solution and negotiators must follow the principles established to **not yield too much pressure**.

Vida must establish the **standards to follow** in the negotiation and make sure both parties are following them.

A fair and effective negotiation must create an **agreement that meets both parties' interests** in the long-term, and it should **not damage the current and future relationship** between both sides.

By adapting certain successful international practices, Vida may pioneer the application of this type of solution in the Portuguese health sector

E.3.III | Strategy Assessment | Qualitative Assessment | Value-based Care (IV/V)

Hospital: Santeon

No. of locations: 7

Country:  Netherlands

No. of Health Professionals: 29 000

Specialty of the Initiative: Breast Cancer



Background:

In order to introduce the **Value-based Care** model, in 2016, **Santeon Hospital**, together with its 7 medical units, decided to create a **pilot in the oncology specialty**. Within the scope of the **treatment and prevention of breast cancer** and through the **measurement of costs and outcomes**, Santeon materialised what is today one of the most successful cases of the application of this model. ¹

Step by Step:

Step 1 - Understanding patients' medical needs



1/7 women suffer from breast cancer in life ²

Step 2 - Solution design for improved outcomes



Alignment between its 7 locations for **increased efficiency** and **effectiveness of treatments**

Step 3 - Integrating learning teams



Team composed by:

- Programme Manager
- Medical
- Data Analyst

Step 4 - Measuring medical costs and outcomes



- Selection of **19 KPIs** of value
- **Measuring** and **optimising costs** in the 7 units

Step 5 - Expanding partnerships with insurers



Success with insurers, through:

- Cost transparency
- Demonstration of positive outcomes

Results



- **Reductions in reoperations due to complications** by **27%**. ³
- **Patient increases in this specialty** by **18%**. ⁴

By adapting certain successful international practices, Vida may pioneer the application of this type of solution in the Portuguese health sector

E.3.III | Strategy Assessment | Qualitative Assessment | Value-based Care (V/V)

Hospital: Martini-Klinik

Country:  Germany

No. of Health Professionals: 250

Initiative Specialty: Prostate Cancer

Profit: 3.4 € million, in 2018



Background:

Martini Klinik treats **5,000** outpatients annually, and performed in 2019, **2,600 radical prostatectomies** (i.e. 11% of this type of surgeries performed in Germany) which makes this private clinic the **world leader** in prostate cancer treatment, both in terms of **volume and results**.

Its excellent performance made it possible to establish strategic partnerships with private insurers, bundled payment contracts and a **growing attractiveness for international patients**.¹

Step by Step:

Step 1 - Perception of patients' medical needs



1/8 men suffer from prostate cancer across the lifespan²

Step 2 - Solution design for improved outcomes



Send annual post-treatment surveys and from 2020 patients will be able to enter their data online¹

Step 3 - Integrating learning teams



Faculty members train in a specialty and each is considered a critical piece¹

Step 4 - Measurement of medical costs and outcomes



Biannual quality reviews and discussion of new and complex cases¹

Step 5 - Expanding partnerships with insurers



- Negotiated with the **5 largest German insurance companies**
- Signed a contract with the **largest Swiss insurance company**
- Number of **patients coming from abroad quadrupled**¹

Results (comparison with German average)



- Severe **incontinence rates** are **11x lower**¹
- One year after surgery, severe **erectile dysfunction** is **55% lower**¹

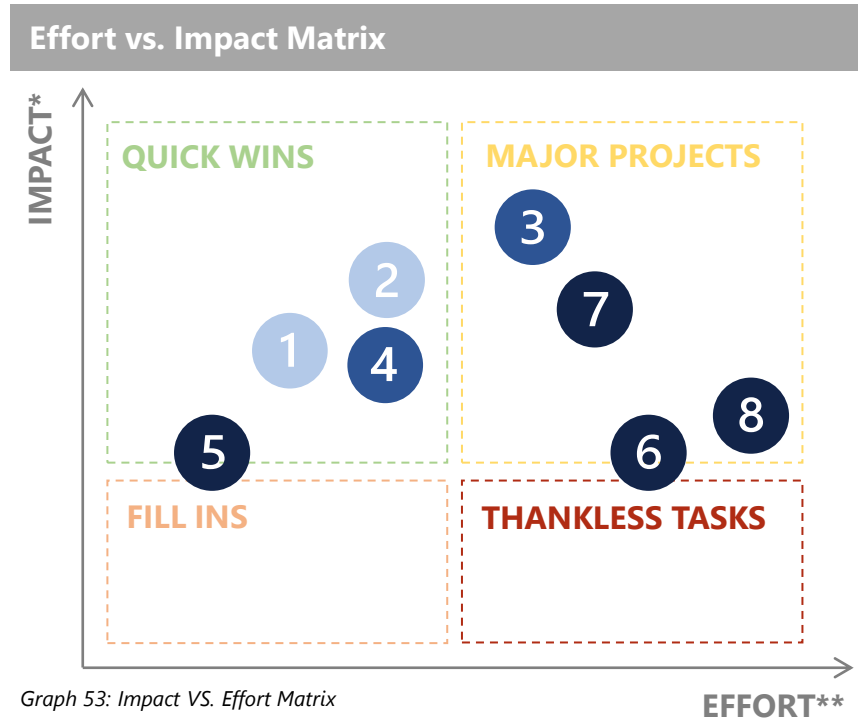
A pool of 8 recommendations was created with the ultimate goal of enhancing Vida's position to renegotiate prices with health insurance companies

F.1 | Recommendations | Overview and Action Priority Matrix

| Dimension | Recommendation | Explanation | H |
|------------------------------------|---------------------------------------|--|----|
| Evolution of Profitability Drivers | 1 Price Evolution | Vida should make use of the historical price decrease as evidence in renegotiation moments | A1 |
| | 2 Cost Evolution | Vida should make use of the historical increase of exogenous costs as evidence in renegotiation moments | A2 |
| Price Revision Tools | 3 Price Inflation Index | Vida should propose the Price Inflation Index as a first comprehensive mechanism to revise prices | A3 |
| | 4 Flexibility Tools | Vida should make use of the flexible tools to adjust price renegotiation until the following meeting | A4 |
| Value Creation | 5 Preventive Medicine | Vida should create a feature in its app to promote healthier lifestyles to its clients | A6 |
| | 6 Improve Customer Journey | Vida should improve the customer journey of customers who have health insurance from one of the top five insurance companies they work with | A6 |
| | 7 Success and Penalization Fee | Vida should receive a success fee or pay a penalization fee for high-risk medical acts outcomes | A6 |
| | 8 Value-based Care Pilot | Vida should implement a Value-based Healthcare Pilot for the diabetes disease | A5 |

Table 7: Hypothesis Overview

Note: H = Hypothesis; * Impact is measured in terms of profitability increases; ** Effort includes all types of resources used, namely money, time, human capital and equipment
Source: (Team Based 2021)



Graph 53: Impact VS. Effort Matrix

The recommendations provided include **4 quick wins** and **4 major projects**. The **Price Inflation Index** is the one with more impact in profitability, whereas the **Preventive Medicine** and **Customer Journey Improvement** are the ones with the least

Factual evidence on historical price decreases and consequent impact on Vida's results should be used as a lever to achieve a better negotiation position with insurance companies

F.2 | Recommendations | Evolution of Profitability Drivers: Price Evolution (I/II)

1

Recommendation

Vida should make use of the **historical price decrease** as evidence in renegotiation moments.



Description

Prices agreed with insurers show a historical fall over the last 10 years. This evidence should be used as a first contact with insurers for renegotiations in a personalized fashion. The story behind this evidence should first **showcase the average decrease in prices** agreed with the specific insurer and then present the **impact that such evolution had on both Vida and insurer**. Then, a breakdown of this evolution into smaller parts is a good illustrative mechanism, in order to gain more sensibility on what composes and had more impact on this evolution, namely by **group of items or specific medical items**.



Rationale - Value for Renegotiation



Starts renegotiation moments with **factual evidence**



Enlightens insurers about what has been happening with prices agreed



Establishes a **ground for empathy** with the story about what they have been gaining with this evolution



Measurement of Success

From this recommendation, Vida should expect to qualitatively register:

- **Higher levels of satisfaction** perceived by insurers for current agreed prices
- **Higher levels of empathy** for a possible price renegotiation

Vida should present a personalized price evolution map for each insurance company, including a breakdown of this evolution into smaller pieces, namely by group of items or specific medical items

F.2 | Recommendations | Evolution of Profitability Drivers: Price Evolution (II/II)

Proposal of Presentation Tool for Price Evolution - Insurance Company A

In order to be **concise, relevant and impactful** when presenting the evidences regarding price decreases individually to each insurance company, Vida should dedicate the needed amount of time on the meetings, with insurers, to present the following information:

Total Insurance Company A
Billing in VL in 2019

14 363 590€



Price Evolution 2011-2021*

- 5%



Insurance Company A
annual saving in 2019*

- 542 065€



Representative Items' Price Evolution

[2011 - 2021; €]

| | 2011 | 2021 | Δ |
|--------------------------------------|-------|-------|--------|
| Dystocia w/ Anaesthesia | 2 210 | 2 150 | -2,7% |
| Eutocic w/ Anaesthesia | 2 000 | 1 970 | -1,5% |
| Daily I.C.U Adults | 450 | 450 | 0,0% |
| MRI Joints | 200 | 195 | -2,5% |
| Surgery w/ Anaesthesia | 140 | 140 | 0,0% |
| Abdomen CT Scanning | 100 | 95 | -5,0% |
| Permanent Attendance | 85 | 85 | 0,0% |
| 1 st Internal Appointment | 90 | 30 | -66,7% |
| K | 3,50 | 3,50 | 0,0% |
| C | 0,46 | 0,40 | -13,0% |

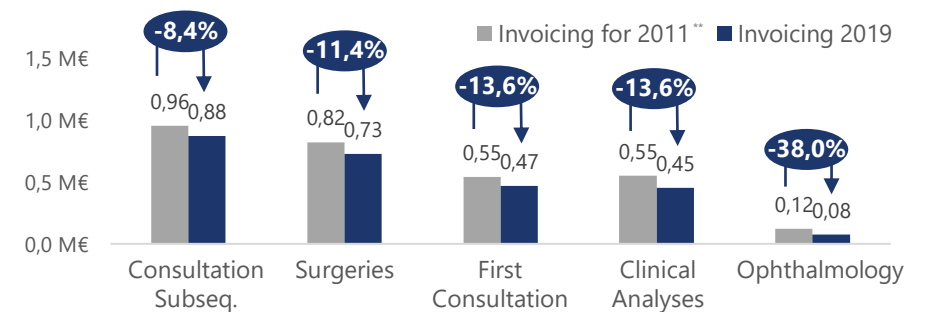
In terms of
overall number
of item groups...

9%
Increased
30%
Constants
61%
Decreased

Item Groups with the Largest Price Decrease

[2011 - 2019; M€]

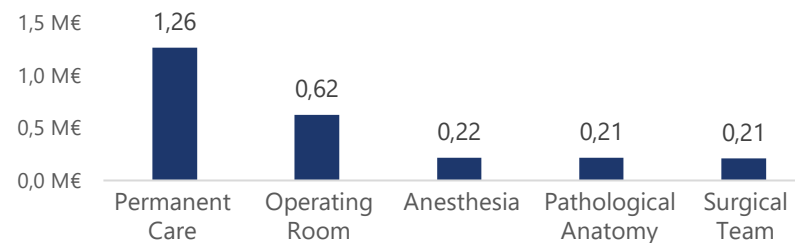
Graph 54



Most Relevant Invoicing and Constant Price Item Groups

[2011 - 2019; M€]

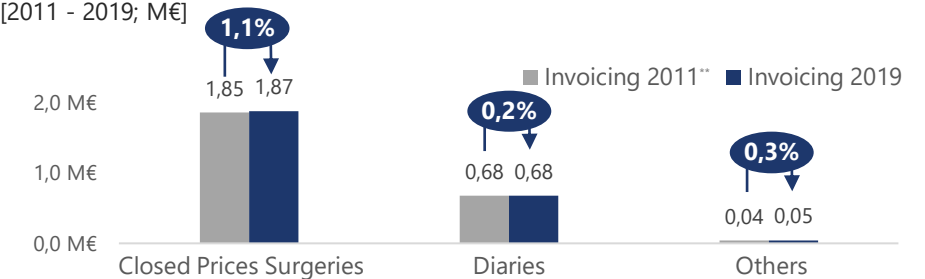
Graph 55



Item Groups with the Largest Price Increases

[2011 - 2019; M€]

Graph 56



* This analysis reflects only 74% of Insurance Company A' expenditure, as the group item Drugs and Consumables does not present a direct comparison between 2011 and 2019

** In calculating the 2011 invoicing, 2019 activity at 2011 prices was used

Factual and historical evidence on how exogenous indicators' crescent evolution has been negatively impacting the healthcare industry margins should be used as a lever to achieve a better negotiation position with insurance companies

F.2 | Recommendations | Evolution of Profitability Drivers: Exogenous Costs Evolution (I/II)

2

Recommendation

Vida should make use of the **historical increase of exogenous costs** as evidence in renegotiation moments.



Description

Exogenous costs growth has been impacting healthcare providers over the last periods, **inhibiting them to sustain margins through efficiency gain initiatives**. Therefore, a part of the renegotiation process should pass through the explanation of the main indicators that are impacting the surge in endogenous costs. Vida can ensure the relevance of the evidence shown by **structuring the presentation by dimension** and by clearly **explaining the relationship with the respective endogenous costs**.



Rationale - Value for Renegotiation



Evidences the need for a renegotiation based on **external forces**



Enlightens insurers about **what healthcare providers have been absorbing**



Calls for insurers responsibility to act in function of **sustaining equilibrium in partnership**



Measurement of Success

From this recommendation, Vida should expect to qualitatively register:

- Higher levels of understanding from insurers about **the impact caused by exogenous costs**
- Higher levels of empathy sensed by insurers due to **Vida absorption of exogenous costs**

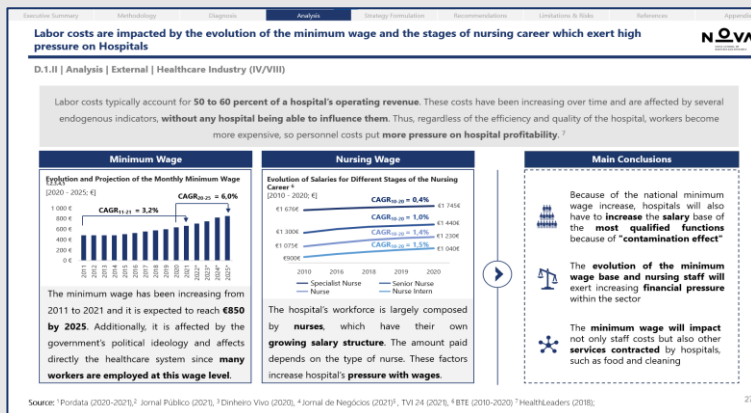
During the renegotiation moment, Vida should use a detailed and structured presentation regarding exogenous indicators evolution and their relationship with endogenous costs

F.2 | Recommendations | Evolution of Profitability Drivers: Exogenous Costs Evolution (II/II)

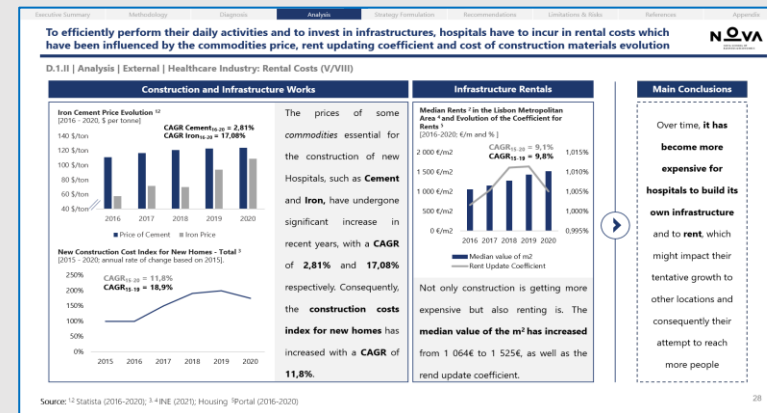
Proposal of Map for Exposure of the Cost Evolution

In order to be **concise and relevant** when presenting such evidence about **exogenous cost evolution**, Vida should dedicate the needed amount of time on insurers' meetings, to present the following map:

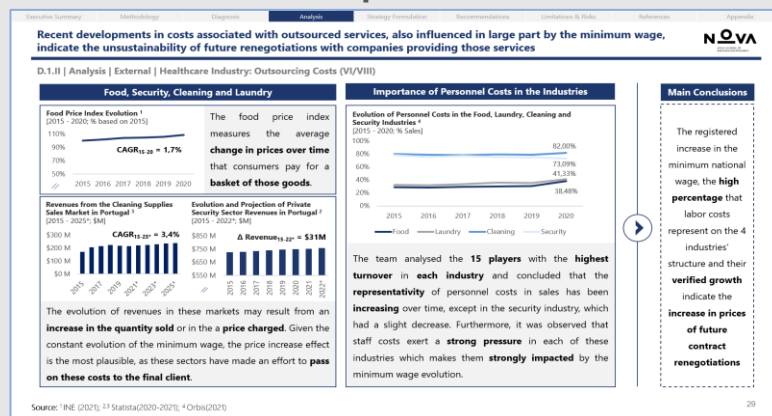
A. Labour Expenses



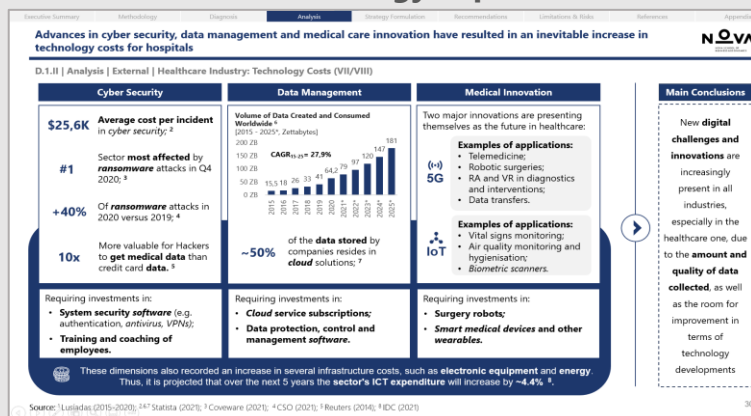
B. Rental Expenses



C. External Services Expenses



D. Information Technology Expenses



E. Utility Expenses

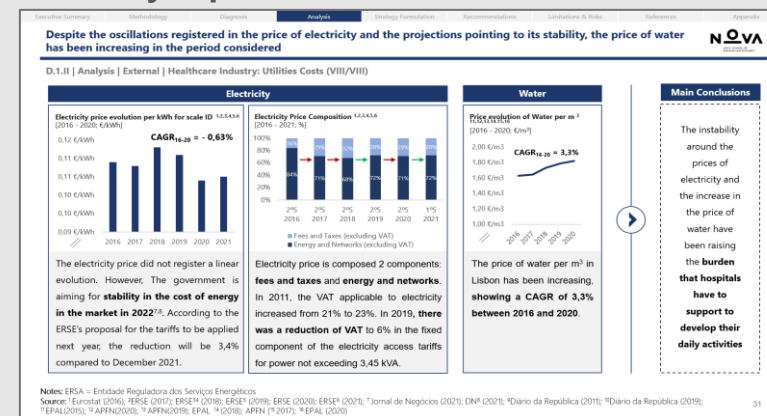








Figure 18: Map for Cost Evolution Exposure

Source: (Team Based 2021)

Due to the urgent need of creating a first renegotiation moment, Vida already implemented the proposed recommendations of basing its arguments on the historical evidence of prices decrease and costs increase

F.2 | Recommendations | Evolution of Profitability Drivers: Action Plan

| Recommendation and Associated Tasks | Costs | Implementation Period | | | | |
|---|--------|---|---|---------|---------|---------|
| | | Q4 2021 | Q1 2022 | Q2 2022 | Q3 2022 | Q4 2022 |
| 1 Vida should make use of the historical price decrease as evidence in renegotiation moments | 1 500€ | | | | | |
| 1.1. Comparison and match between 2011 and 2019 prices for each insurance company | 1 000€ |  | | | | |
| 1.2. Preparation of a personalized presentation for each insurance company showing its own price evolution | 500€ |  | | | | |
| 1.3. Meetings with insurance companies to present the evidences | NA | |  | | | |
| 2 Vida should make use of the historical increase of exogenous costs as evidence in renegotiation moments | 2 000€ | | | | | |
| 2.1. Identify exogenous indicators affecting healthcare providers | 1 000€ |  | | | | |
| 2.2. Study the last 5 years evolution of those indicators and consequent impact on healthcare providers | 1 000€ |  | | | | |
| 2.3. Meetings with insurance companies to present the evidences | NA | |  | | | |

Legend:  Task completed  Task in process  Task to be done

Table 8: Cost Allocation for Recommendations 1 and 2

Note: NA = Not Allocatable. For detailed information regarding the Cost Allocation for Recommendations refer to Appendix 15

Source: (Team Based 2021)

The Price Inflation Index should be used to kick off the renegotiation meetings and to generate a provisory pricing list that will allow a shared absorption of exogenous costs by both the hospitals and insurance companies

F.3 | Recommendations | Price Revision Tools: Price Inflation Index (I/II)

3

Recommendation

Vida should propose the **Price Inflation Index as a first comprehensive mechanism to revise prices.**



Description

With the prices historically decreasing and external costs rising, the situation posts as unsustainable. Therefore, to kick off renegotiations, Vida should propose the use of this **neutral and impartial tool to firstly revise prices**. A proper explanation should be given about from where and how this index was derived in order to **clarify its objective of sharing the exogenous costs growth message**. If agreed, this index should be implemented on top of every item on contract – **generating a provisory pricing list**.



Rationale – Value for Renegotiation



Allows to **kick off effective renegotiations**



Is based on properly supported and **impartial inflation index**



Allows for a **shared-absorption of exogenous costs** across the partnership



Measurement of Success

From this recommendation, Vida should expect:

- An agreement with insurers, that this surge in exogenous costs should be **shared across the partnership** to sustain financial balance
- An agreement to generate a provisory pricing list based on a **general inflation of prices based on this index**

Vida should properly explain to insurance companies how the Price Inflation Index was derived, as well as how its application will guarantee that the hospital's margins do not further decrease

F.3 | Recommendations | Price Revision Tools: Price Inflation Index (II/II)

Price Inflation Index Explanation Proposal

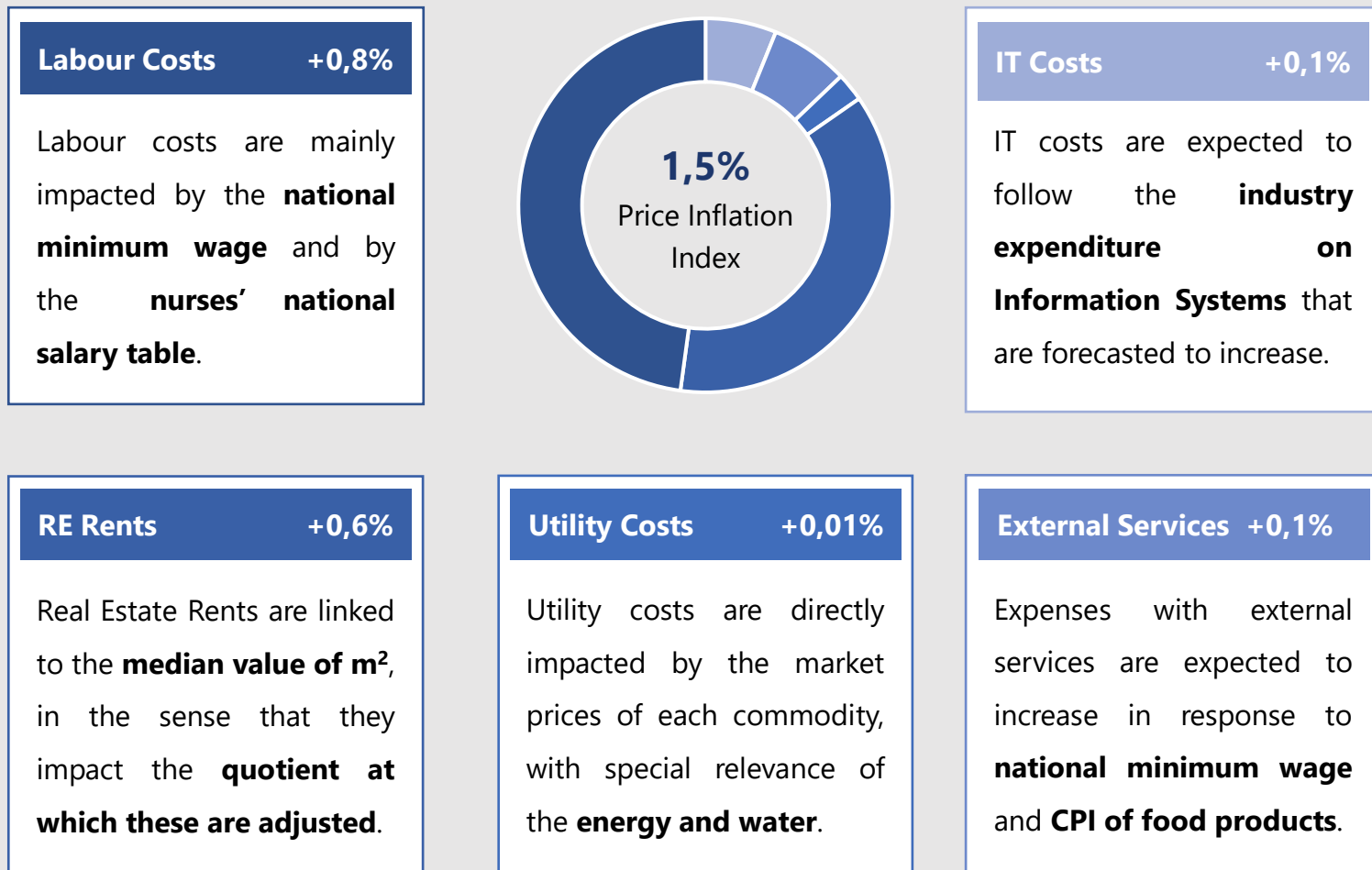


Figure 19: Map for Price Inflation Index Explanation

Source: (VL 2011-2021); (Team Based 2021)

PPI Application and Implications



Explanation of this mechanism and the **objective for its application**



After agreement, the Price Inflation Index will be implemented **on top of all items**



This application will generate a new and provisory pricing list to be **revised until the following meeting**



Although provisory, if well succeeded, this revision will allow the group to **hold its margins offsetting exogenous cost growth**

After the first renegotiation moment in which the Price Inflation Index is implemented, Vida should use the flexible modelling tools to propose a final pricing list to insurance companies

F.3 | Recommendations | Price Revision Tools: Flexibility Mechanisms (I/II)

4

Recommendation

Vida should make use of the **flexible tools to adjust price renegotiation until the following meeting.**



Description

Once the provisory pricing list had been agreed, Vida will need to make a proposal for the final pricing list. This proposal will allow both parties to ensure that the **required demands are satisfied and that its individual goals are attained.** For this, Vida should use the **modelling tools that permit price adjustments for item groups and specific items.** These adjustments will depend on the commercial relationship that Vida has with each insurer, on the specific value that each group of items has for each party and on the impact that each price variation has for each player.



Rationale - Value for Renegotiation



Allows for **maximum granularity of flexibility** for renegotiation



Allows to iterate through renegotiation moments and **respond to individual demands**



Allows to maximize **positive impact for Vida** and **minimize negative one for insurers**



Measurement of Success

From this recommendation, Vida should expect:

- An adaptation of the proposed pricing list, that entails the **desired impact but with minimized impact for insurers**
- A final pricing list proposal, that satisfies the targeted **impact for renegotiation**

Vida should make use of the Group and Specific Item Revision Tools to create personalized price adjustments to each insurance company, according to their sensitivity to price renegotiations and their current relationship with the hospital

F.3 | Recommendations | Price Revision Tools: Flexibility Mechanisms (II/II)

Tools Application Proposal

In sequence of the previous meetings, Vida will have agreed on a provisory pricing list. Then, Vida should proceed to an **in-house task of adjusting the final renegotiation proposal**. For this, the following tools offer flexibility and practicality:

Group Items Revision Tool

The players have **different sensitivity about revising the different groups of items**, for example:

- **Providers**, due to its strengths and forecasts, believe certain groups of items can have **more impact on revenues if renegotiated**
- **Payers**, due to clients' needs, are more defensive about certain groups of items and have **specific demands about holding their prices**

Specific Item Revision Tool

On top of the previous tool, Vida has the possibility to **adjust specific items if they are believed to have relevant value for negotiations**.

For this, Vida can **make use of a proposed ranking**, created to help on this task, that has the objective of minimizing the negative impact for the payer while achieving the maximum internal positive impact.

Tools Implications



These tools allow for a **practical and structured iteration** through the renegotiation period









While proposing a **pricing list that attains internal goals**, the impact for payers can be minimized



With the appliance of these tools, Vida will have prepared a **final proposal to present to insurers about pricing revisions**

After the first renegotiation moment with insurance companies, it is recommended that Vida makes use of the flexible pricing tools provided by the financial model to create a final and more accurate pricing table

F.3 | Recommendations | Price Revision Tools: Action Plan

| Recommendation and Associated Tasks | Costs | Implementation Period | | | | |
|--|--------|--|---|---------|---|---------|
| | | Q4 2021 | Q1 2022 | Q2 2022 | Q3 2022 | Q4 2022 |
| 3 Vida should propose the Price Inflation Index as a first comprehensive mechanism to revise prices | 4 000€ | | | | | |
| 3.1. Comparison of the historical trends between endogenous and respective exogenous indicators | 1 500€ |  | | | | |
| 3.2. Analytical derivation of the Price Inflation Index to support renegotiation | 2 500€ |  | | | | |
| 3.3. Presentation of the Index as a tool to create a provisory increase in the current pricing table | NA | |  | | | |
| 4 Vida should make use of the flexible tools to adjust price renegotiation until the following meeting | 2 500€ | | | | | |
| 4.1. Modelling of the flexible tools to allow a change in prices per medical act, group and insurance company | 2 500€ |  | | | | |
| 4.2. Use of the tool after an agreement with insurance companies on the renegotiation process and timings | NA | |  | | | |
| 4.3. Present a final and updated pricing table to insurance companies | NA | | | |  | |

Legend:  Task completed  Task in process  Task to be done

Table 9: Cost Allocation for Recommendations 3 and 4

Note: NA = Not Allocatable. For detailed information regarding the Cost Allocation for Recommendations refer to Appendix 15

Source: (Team Based 2021)

Through the creation of a feature in Vida app that promotes healthier lifestyles, the hospital will be able to increase interactions with patients while promoting preventive medicine practices that, in turn, create value for insurers

F.4 | Recommendations | Value Creation: Preventive Medicine (I/III)

5

Recommendation

Vida should create a feature in its app to **promote healthier lifestyles to its clients.**



Description

Vida should implement in its application a **new feature based on the concept of challenges, proposals and rewards**, through the **promotion of healthier lifestyles**. As such, this feature would propose to patients a set of physical and mental challenges, a pool of **important medical interventions** and **relevant check-ups** that, if performed correctly, would give access to **patient redeemable points**. As possible applications for these points, Vida could offer **discounts in specific medical appointments**. The value of this recommendation lies on the dimension of **preventive medicine**, creating value for the ecosystem as a whole.



Value Creation



To the hospital:

Increases the application inflow of users and allows for the **gathering of patient information**



To the insurance company:

Contributes to **preventive medicine for its clients and consequently reduces costs**



To the patient:

Improves life quality and provides the **opportunity to access certain discounts and advantages**



Measurement of Success

In order to measure the success of these actions, Vida should assess the:

- Number of app **downloads**;
- Number of app **visits per month**;
- Number of **challenges performed** and achieved;
- Number of **offers redeemed**.

Vida should constantly create new challenges and proposals according to patients characteristics, and consequently structure the rewards that will be offered

F.4 | Recommendations | Value Creation: Preventive Medicine (II/III)

Application Feature Proposal

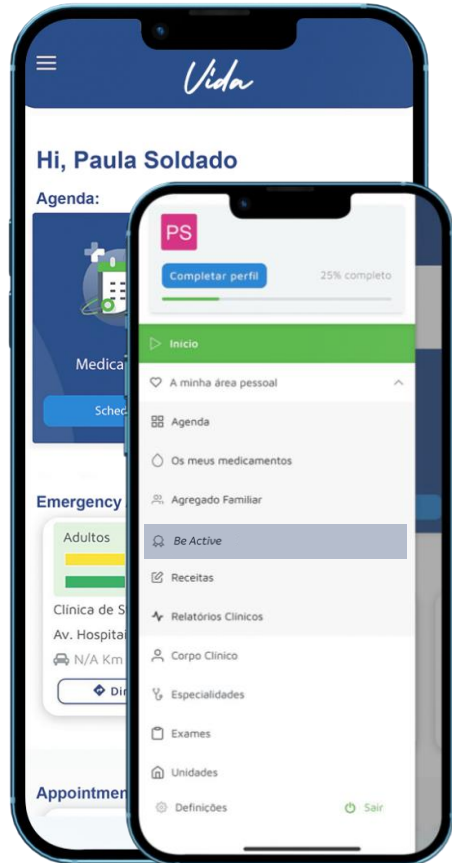


Figure 20: Vida App – Be Active Feature Mock-Up

A. Feature Context

Embedded in the Vida App, this feature would allow for the patients to create a **profile based on their characteristics**. The users could then have access to the different challenges and proposals, made by Vida, that if accepted and completed would allow them to **accumulate points, that could be later redeemed as special access to available offers**.

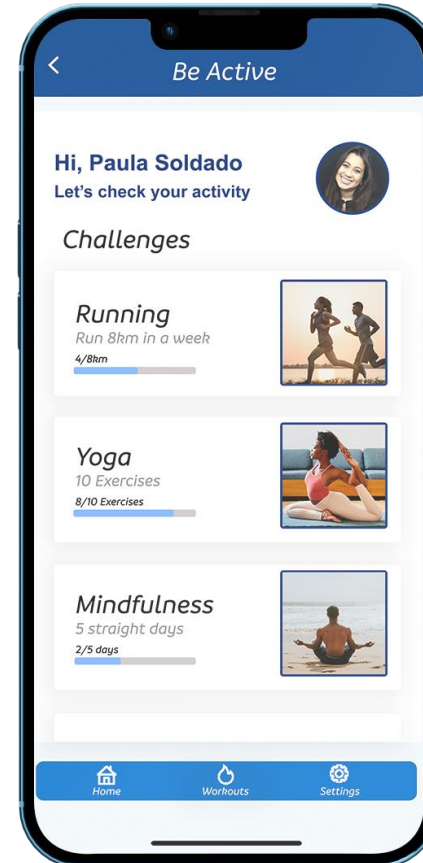


Figure 21: Vida App – Be Active Challenges Mock-Up

B. Challenges Area

In a **routine basis**, the app would make new challenges available, giving patients the opportunity to decide whether to accept them or not. These challenges could **relate to different dimensions of healthy lifestyles including exercise, nutrition or mental health activities**. This app would make use of the available phone tools, such as, **monitoring devices or app built-ins**. With these, medical prevention would be tackled.

This feature will promote healthier lifestyles by not only incentivizing patients to have more positive daily life habits, but also by recommending the patient personalized medical interventions or check-ups

F.4 | Recommendations | Value Creation: Preventive Medicine (III/III)

Application Feature Proposal

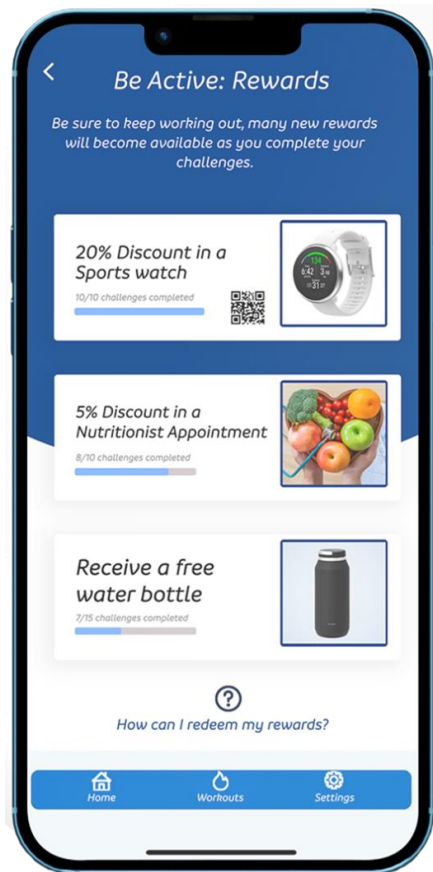


Figure 22: Vida App – Be Active Rewards Mock-Up

C. Redeemable Offers

With all the points accumulated within the app, by completing challenges and accepting medical interventions, the users could find a **set of offers to be redeemed**. Offers could include **discounts on future medical appointments, vouchers** to be used within the partners network, among others.

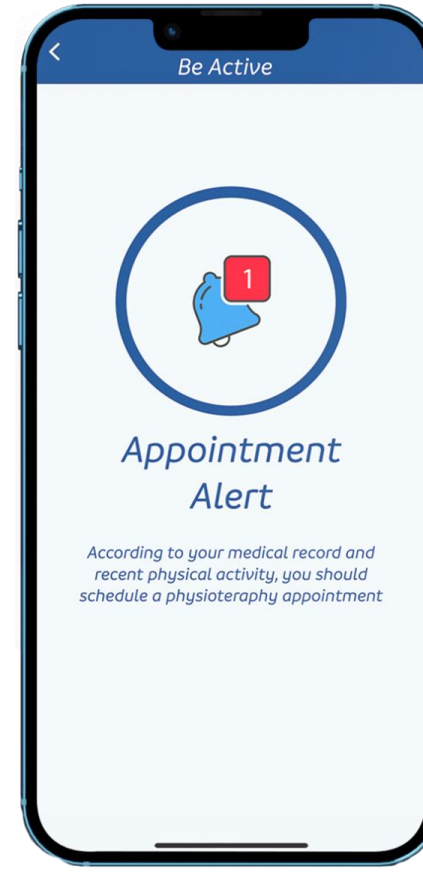


Figure 23: Vida App – Be Active Appointment Alerts Mock-Up

D. Medical Interventions Proposals

Alongside challenges, this feature would also recommend, **based on the characteristics and needs of the users**, medical interventions, such as appointments, check-ups or vaccination recommendations that could be **beneficial for their health**. These recommendations could be based on **demographics, historical medical activity or time of the year**. This would promote medical prevention and higher health literacy rates.

In order to improve the patients' customer journey and, consequently, their satisfaction, it is recommended that Vida create initiatives within all the journey stages: inbound, in-house and outbound

F.4 | Recommendations | Value Creation: Improve Customer Journey (I/II)

6

Recommendation

Vida should **improve the customer journey of clients** who have health insurance from one of the top five insurance companies the hospital works with.



Description

Vida should improve the customer experience at three different moments. In the **inbound stage**, the hospital should define a **certain number of appointment booking slots per day** for the most popular specialties. The number of available slots would be determined by an agreement with each insurer. Furthermore, in the **in-house stage**, the hospital would provide a **personalized lounge for this type of clients**. Lastly, in the **outbound stage**, Vida would offer customers the **ability to pay via the app**, avoiding queues and waiting times.



Value Creation



To the hospital:

Raises market share and the number of satisfied customers with the service provided



To the insurance company:

Offers **differentiated services to its customers**



To the patient:

Improves **customer journey and experience**



Measurement of Success

In order to measure the success of these actions, Vida should base the analysis on the:

- **Number of visits** per year;
- **Churn rate**;
- Number of payments made **through the app**;
- Overall **customer satisfaction** and **market share** evolution.

Vida should create special appointment booking slots, a personalized hospital lounge and special payment conditions for the top-5 insurance companies clients

F.4 | Recommendations | Value Creation: Improve Customer Journey (II/II)

Customer journey improving proposal

Special appointment booking slots

Vida will reserve a certain number of slots per day to insurance companies for its customers. The number of slots will **depend on the conditions agreed with each one of the insurers** and should depend on the price renegotiation stage, among others. Appointments must be made until **three days before the day of the appointment**. In this way, insurance companies' customers will not only **avoid long waiting lines** but also will see other complications or illnesses prevented.

Scheduling Platform

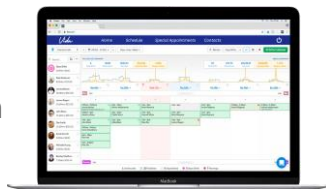


Figure 24: Vida Scheduling Platform Mock-Up

Personalized Lounge

Vida should have personalized waiting rooms for patients of the five main insurance companies. These rooms will consist of **premium and quieter places** where clients can rest, watch some TV or enjoy a free coffee, **while waiting for their appointment**.

Lounge Concept



Figure 25: Vida Lounge Concept

Payment through the app

Vida should add an **online payment functionality to its app** for every patient of the top five insurance companies. Phone payments will be viable by **MB Way, PayPal** or **Credit Card**. In this way, **confidence** and **comfort** are transmitted to the customer.

App Payment Solution

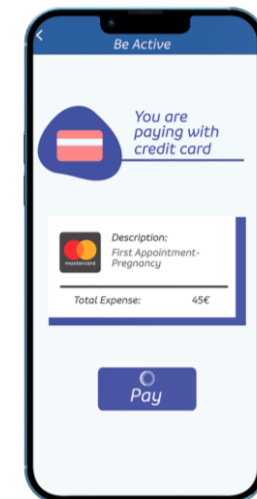


Figure 26: Vida App – Online Payment Solution Mock-Up

It is recommended that Vida creates a success and penalization fee, to be applied in high-risk medical acts' outcomes, as a first move towards the Value-based Healthcare operating model

F.4 | Recommendations | Value Creation: Success and Penalization Fee (I/II)

7

Recommendation

Vida should **receive a success fee** or **pay a penalization fee** for high risk medical acts' outcomes.



Description

Vida should negotiate with the insurers a **base value for high-risk medical acts where the success of the same would be evaluated afterwards**. In this way, if a service exceeds expectations according to certain defined criteria, an **additional amount for success should be paid by the insurer**. If the result is below certain guideline thresholds, **the hospital would proceed to a discount in case of recurrence**. Furthermore, according to the insights taken from the interviews and also from the research on the health industry, the Team concluded that the Value-based Healthcare model is seen as the next future step. However, it is something that will require an adaptation of the ecosystem. Thus, this fee is something that **can be seen as a feasible and an easy-to-apply solution**.



Value Creation



To the hospital:

Allows to be **gratified** and **rewarded** for **improvements in quality and innovation**



To the insurance company:

Allows to be **protected from operational inefficiencies** and permits better cost control



To the patient:

Enables access to a **more efficient and high-quality service**



Measurement of Success

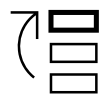
In order to measure the success of these actions, Vida should base this analysis on the:

- **Profitability gains** through success fees;
- **Success rate** of medical acts;
- **Reincidence rates**;
- **Clients satisfaction**.

Vida should compare its complication rate with the industry benchmark, define a specific threshold with each one of the insurance companies and apply a corresponding fee for success and failure scenarios

F.4 | Recommendations | Value Creation: Success and Penalization Fee (II/II)

Steps to Implement



Vida should **rank the type of surgeries with the highest rates of recurrence and mortality**



The hospital must choose these acts, taking into account the above criteria and the **interest shown by the insurer**



For each medical act, **success, failure and complication criteria** and respective description must be defined



The success rate or discount to be applied upon the outcome must be **agreed between Vida and the insurer**



Specific Item Performance Fee

Abdominal exploration or laparotomy Mortality Rate = 23,8%
Complication Rate = 40,2%

Description: Surgery to remove excess skin and fat from the lower abdomen. Mortality and complication rates stem from hypotheses where physicians were unable to identify the problem and the patient's serious condition at the time of surgery.

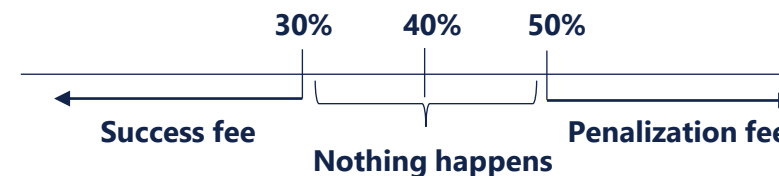


Figure 27: Success and Penalization Fee Example

Vida must analyse its complication rate for an abdominal exploration throughout the year. If **this one is lower than the benchmark and/or a defined threshold**, the **insurer pays the success fee**. If it is **higher it pays a penalization fee**. This threshold will depend on the agreement with each insurer and the amount of the fee.

Given the implementation complexity of the Value-based Care operating model within the Portuguese healthcare system, it is recommended that Vida implements a pilot for the diabetes disease to understand how the market will react

F.4 | Recommendations | Value Creation: Value-based Care Pilot (I/V)

8

Recommendation

Vida should implement a **Value-based Healthcare Pilot for the diabetes disease**.



Description

Due to its complexity and many variables involved, Vida should give the **first steps towards the Value-based Healthcare** through the **implementation of a pilot model for a given specialty**. **Diabetes** was chosen as the disease to implement this project due to its high incidence in Portugal and complementarity between the medical agents involved in the treatment. This pilot will not only create value for patients, who will be able **access to an innovative care model**, but also allow for providers and payers to understand the extent through which **this type of operating model can be applied to other specialties** within the Portuguese healthcare ecosystem.



Value Creation



To the hospital:

Allows for higher **satisfaction** rates, **efficiency gains** and a meritocrat **rewarding system**



To the insurance company:

Allows for a **risk reduction** given the **better cost and outcomes measurement**



To the patient:

Enables patients to have access to the right **place, time, quality** and **quantity of diabetes care**



Measurement of Success

In order to measure the success of these actions, Vida should base the analysis on the:

- Model's **applicability rate** to other specialities;
- **Financial impact**;
- **Medical Outcomes** of the patients treated;
- **Ecosystem equilibrium** evolution.

The first steps towards implementing a Value-based Healthcare pilot are the identification of a relevant medical condition and the outline of a possible solution for improving its standard outcomes

F.4 | Recommendations | Value Creation: Value-based Care Pilot (II/V)

Implementation Process

For an **effective execution** of a **Value-based Care Pilot**, the Group should follow the same structure as other best international practices:

1. Perception of patients' medical needs

2. Solution design for improved outcomes

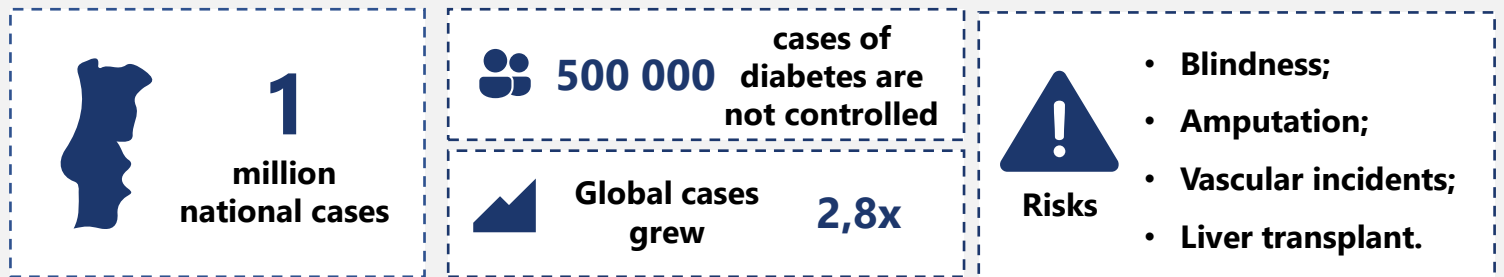
3. Integration of learning teams

4. Measurement of medical costs and outcomes

5. Expansion of partnerships with Insurance Companies

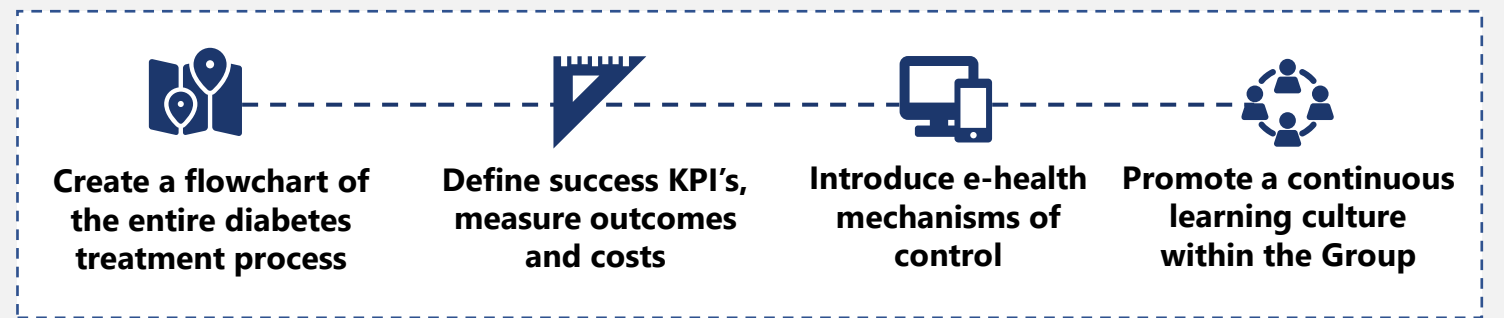
1. Perception of patients' medical needs

While accessing the main mortality causes in Portugal, and in which the existence of a Value-based Care Pilot would make sense, the **Diabetes** disease was considered given its **numerous health impacts** and recent **rise in cases**.¹



2. Solution design for improved outcomes

To achieve the goal of establishing a **Diabetes' Value-based Care Pilot**, the Group must **develop a plan** that **promotes the improvement of its outcomes**. This one should be based on the following:



The success of the implementation plan could be ensured by the formation of a multidisciplinary qualified team and the establishment of measurable KPIs for medical outcomes

F.4 | Recommendations | Value Creation: Value-based Care (III/V)

3. Integration of learning teams

To ensure the **success of each task involved** in the implementation of this plan, the Group should **form a multidisciplinary team** comprised of:



Project Manager:

Plan, organize, lead and monitor the pilot's development while setting **SMART goals to achieve**.



Diabetes Expert:

Assist the implementation of the process, explain the benefits to the patients and evaluate the **quality of the generated medical outcomes**.



Data Analyst:

Design a data collection system, **analyse the assembled datasets** and identify the registered trends and patterns.

4.1. Measurement of medical *outcomes*

To help **measure and compare the levels of quality improvement** generated by this pilot in the medical treatment of the diabetes, a **set of value KPIs** should be defined.

Success KPIs proposal:¹

| | | |
|---|------------------------|--|
| Tier 1 Health Status Achieved or Retained | Survival | <ul style="list-style-type: none"> Mortality rate |
| | Degree of Health | <ul style="list-style-type: none"> Quality of Life – MY-Q Test |
| Tier 2 Process of Recovery | Time to Recovery | <ul style="list-style-type: none"> Time to diagnosis Time to adequate care |
| | Disutility of Care | <ul style="list-style-type: none"> Number and length of stay of severe type-1 diabetes admissions |
| Tier 3 Sustainability of Health | Nature of Recurrences | <ul style="list-style-type: none"> Retinopathy Neuropathy Angiopathy |
| | Long-Term Consequences | <ul style="list-style-type: none"> NA |

Figure 28: Medical Outcomes Measures Hierarchy – Practical Application

Through the use of the time driven activity based cost method, the Group will be able to compute the total cost per full diabetes treatment cycle

F.4 | Recommendations | Value Creation: Value-based Care (IV/V)

4.2. Measurement of medical costs

To estimate the total cost incurred with an updated treatment cycle for a patient with diabetes, the Group should use the **Time Driven Activity Based Cost method**.

Simplified Process Map¹

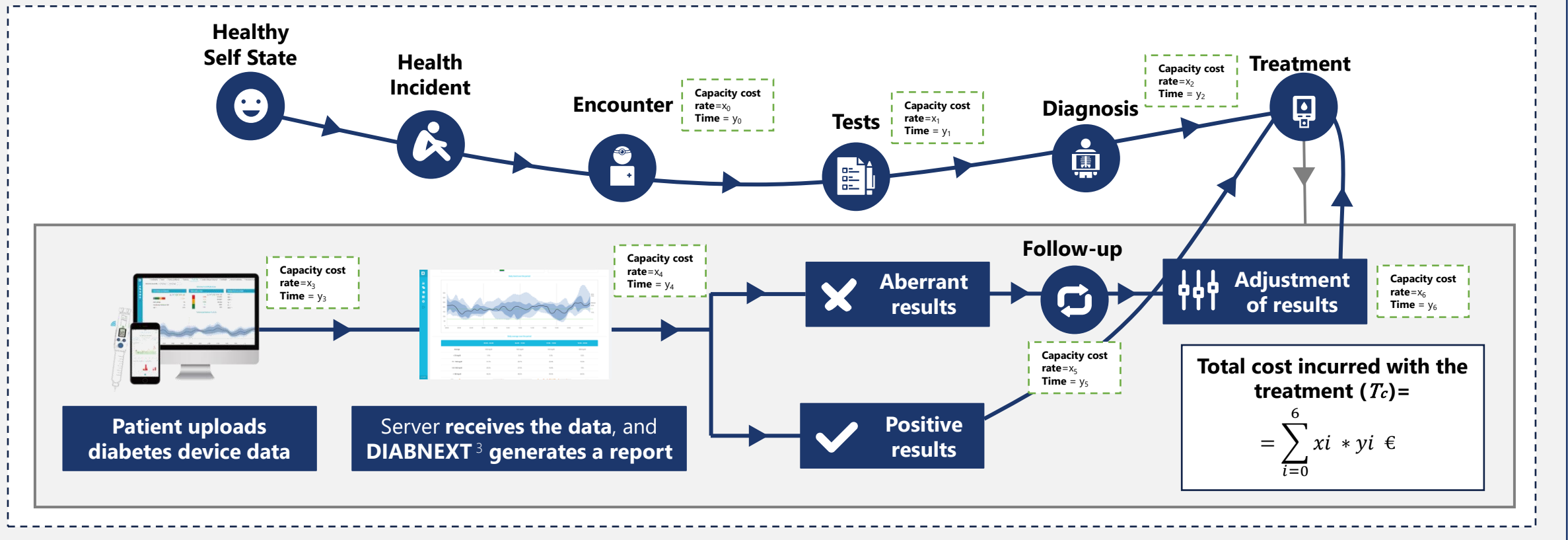


Figure 29: Measurement of Medical Costs within a Diabetes Treatment

If the estimated returns from implementing this model outweigh the opportunity cost of abandoning the fee-for-service model, there will be benefits for all ecosystem participants

F.4 | Recommendations | Value Creation: Value-based Care (V/V)

5. Expansion of partnerships with Insurance Companies

Finally, to determine what will be the **closed price** that each insurance company will pay for **each patient whole diabetes treatment**, it is critical that the Group negotiates a value within the **zone of possible agreement (ZOPA)**:

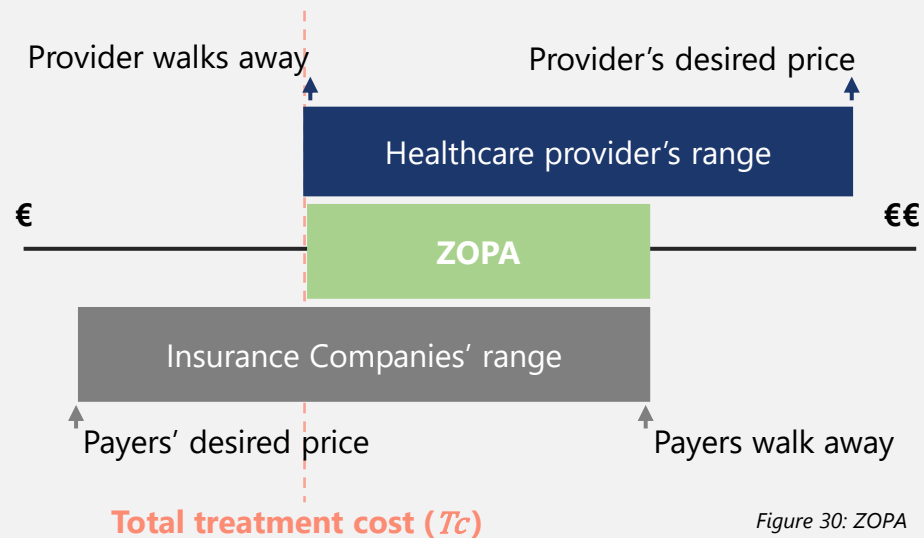


Figure 30: ZOPA

Note: Despite the zone of possible agreement starting at the total measured cost for the whole treatment, **the Value-based Healthcare model should only be pursued** if its **estimated returns per client outweigh the opportunity cost of abandoning the current fee-for-service model.**

Key takeaways

Overall, with the **implementation of this pilot** will **create value for all the stakeholders of the ecosystem.**



The Vida Group will **improve its diabetes' medical outcomes** and **absorb a higher margin** per diabetic patient treated.



Insurance Companies, will **refine their cost control** operations and **guarantee better medical care** to their clients.



Diabetic patients, will experience a **more personalized, continuous** and **effective medical treatment.**

Both the app and the customer journey improvement recommendations are of easy and fast implementation, being fully operational in the 2nd quarter of 2022

F.4 | Recommendations | Value Creation: Action Plan (I/II)

| Recommendation and Associated Tasks | Costs | Implementation Period | | | | |
|---|----------------|-----------------------|---------|---------|---------|---------|
| | | Q4 2021 | Q1 2022 | Q2 2022 | Q3 2022 | Q4 2022 |
| 5 Vida should create a feature in its app to promote healthier lifestyles to its clients | 13 500€ | | | | | |
| 5.1. Define <i>personas</i> with key and similar characteristics | 4 100€ | | | | | |
| 5.2. Structure the challenges and medical interventions | 2 100€ | | | | | |
| 5.3. Establish a partners' network to supply the offers | 800€ | | | | | |
| 5.4. Develop the application feature | 2 100€ | | | | | |
| 5.5. Market the initiative in the social media and website | 800€ | | | | | |
| 5.6. Challenges and suggestions routine basis update | 2 900€ | | | | | |
| 5.7. Guarantee patients receive the discounts and vouchers | 700€ | | | | | |
| 6 Vida should improve the customer journey of customers who have health insurance from one of the top five insurance companies they work with | 19 250€ | | | | | |
| Inbound 6.1. Define acts, slots per day and doctors | 0€ | | | | | |
| 6.2. Adjust platforms in which appointments can be scheduled | 0€ | | | | | |
| In-house 6.3. Create a reserved space in the hospital | 0€ | | | | | |
| 6.4. Acquire the required physical resources | 12 650€ | | | | | |
| Outbound 6.5. Develop the application feature | 6 600€ | | | | | |

Note: NA = Not Allocatable. For detailed information regarding the Cost Allocation for Recommendations refer to [Appendix 15](#)

Source: (Team Based 2021)

Table 10: Cost Allocation for Recommendations 5 and 6

| | | | |
|---------|----------------|-----------------|-----------------|
| Legend: | Task completed | Task in process | Task to be done |
|---------|----------------|-----------------|-----------------|

The success and penalization fee recommendation can be developed in the medium term due to its ease of implementation, whereas the Value-based Healthcare pilot, due to its complexity, should only be implemented in the long

run

F.4 | Recommendations | Value Creation: Action Plan (II/II)

| Recommendation and Associated Tasks | Costs | Implementation Period | | | | |
|---|----------|-----------------------|---------|---------|---------|---------|
| | | Q4 2021 | Q1 2022 | Q2 2022 | Q3 2022 | Q4 2022 |
| 7 Vida should receive a success fee or pay a penalization fee for high-risk medical acts | 59 251 € | | | | | |
| 7.1. Select high-risk medical acts | 12 191 € | | ■ | | | |
| 7.2. Industry benchmarks on complication rates | 26 000 € | | ■ | | | |
| 7.3. Define the success and failure threshold | 21 060 € | | | ■ | | |
| 7.4. Define the success and failure fee | NA | | | | | ▶ |
| 8 Vida should implement a Value-based Care Pilot for the diabetes disease | 73 180 € | | | | | |
| 8.1. Perception of patients' medical needs | 2000 € | | ■ | | | |
| 8.2. Solution design for improved outcomes | 28 648 € | | ■ | | | |
| 8.3. Integration of learning teams | 1 217 € | | | ■ | | |
| 8.4. Measurement of medical costs and outcomes | 41 315 € | | | | ■ | |
| 8.5. Expansion of partnerships with Insurance Companies | NA | | | | | ▶ |

Legend: Task completed Task in process Task to be done

Table 11: Cost Allocation for Recommendations 7 and 8

Note: NA = Not Allocatable. For detailed information regarding the Cost Allocation for Recommendations refer to Appendix 15

Source: (Team Based 2021)

Vida Group successfully achieved part of its objective of renegotiating prices with insurers, by following the Team's proposed project structure and sustaining it with fact-based reports and financial models

G | Results

Qualitative Impact



Project Importance:

The **CEO, CFO** and **COO** were present at the three different Steerings. Additionally, the project was also presented to Vida's **international investors**.



Strategy creation:

The Consulting Team's proposed renegotiation strategy was accepted by Vida, which has **already started its implementation**.



Support for presentation:

At the midst of renegotiating with each one of the insurers, the Vida team **presented a document fully prepared by the Consulting Team**.



Creating efficiency:

The Team's developed model will be **used by the pricing department** for time efficiency gains.

Quantitative Impact

The strategy designed by the team is being successfully accepted by the Insurance Companies. **Vida already had meetings with the three largest players in the market.** It was agreed and established with the different Insurers:

- a provisional price table based on the **1,52% index increase in all acts**
- a **period of six months** to establish the **price reviews for specific medical acts**

Impact already created

Insurance Company A

• Impact = 140 472€

Insurance Company B

• Impact = 105 295€

Insurance Company C

• Impact = 177 419€

Future Impact

Insurance Company D

• Impact = 30 121€

Insurance Company E

• Impact = 14 934€

Total impact = 468 241€

Thus, in 2022 an impact of at least **468 241€** on the VL is predicted.

The lack of internal organized data was the main challenge faced by the team, generating a potential impact on the price and cost study workstreams

H | Risks, Limitations & Further Research

Risks and Limitations

Price Dimension

It was not possible to complete a perfect match between pricing and billing tables.

- Only 67% of the revenues was possible to be analysed during this task
- Thus, the **price evolution is representative but may not be exact**

Cost Dimension

Due to the lack of internal data and to client's interest, it was assumed a direct impact of exogenous indicators on internal costs.

- Therefore, **there can be a small overestimation of the Price Inflation Index**

Value Recommendations

Due to the focus of the client on the quantitative assessment and support for renegotiations, **the team could not perform a deeper analysis on the recommendations based on value.**

Further Research



Although the **definition of final pricing table proposal** was out of scope, Vida skilled team will address to a greater extent this topic



The Vida team can now scale the renegotiation strategy and apply the structure to succeed in further renegotiations of other units



Further studies and case studies can be performed in order to **support the implementation plan for the recommended shared-value initiatives**

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Note: All the references that identified our client were removed from the references' list.

Appendix Agenda

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|-----------|---|
| 1 | Project Team |
| 2 | Additional Information Regarding Vida Group |
| 3 | Additional Indicators Impacting the Healthcare Industry |
| 4 | P&L Analysis of Outsourcing Companies: Food Services |
| 5 | P&L Analysis of Outsourcing Companies: Laundry Services |
| 6 | P&L Analysis of Outsourcing Companies: Cleaning Services |
| 7 | P&L Analysis of Outsourcing Companies: Security Services |
| 8 | Negotiation Interview Guide |
| 9 | Additional International Best Practices Renegotiation |
| 10 | User Guide for the Financial Model |
| 11 | Insurance Companies Interview Guide |
| 12 | Take-aways of Insurance Companies Interviews |
| 13 | Value-based Care Interview Guide |
| 14 | Proposal of Presentation Tool for Price Evolution for each Insurance Company |
| 15 | Cost Allocation for Recommendations |

Appendix 1 – Project Team

Carolina Lopes Pereira



in

BSc in Management at Nova School of Business and Economics

Msc in Management at Nova School of Business and Economics – Specialization in Strategy

Industry experience in Consulting, Banking and Retail

Inês Barreiros



in

BSc in Management at Nova School of Business and Economics

Msc in Finance at Nova School of Business and Economics – Specialization in Corporate Finance

Industry experience in Investment Banking, Real Estate and Auditing

João André Pinho



in

BSc in Management at Universidade Católica portuguesa

Msc in Management at Nova School of Business and Economics – Specialization in Strategy

Industry experience in Banking and Digital

Miguel Silva Marques



in

BSc in Management at Nova School of Business and Economics

Msc in Finance at Nova School of Business and Economics – Specialization in Corporate Finance

Industry experience in Consulting and TMT

Appendix 1 – Project Team

Belbin Analysis

| Team Member | PRE President | STR Strategist | INT Intellectual | MON Monitor | OPE Operational | TW Team Worker | PRO Prospector | FIN Finisher |
|------------------------|---------------|----------------|------------------|-------------|-----------------|----------------|----------------|--------------|
| Carolina Lopes Pereira | | | | | ✓ | | | |
| Inês Barreiros | | | | ✓ | | | ✓ | |
| João André Pinho | | ✓ | | | | | | ✓ |
| Miguel Silva Marques | ✓ | | | | | | | |

Implications for the team

In the beginning of the project, the team performed a Belbin Analysis, which aims at **understanding each member's role within the team**. This analysis is considered a best practice to start any group project, as it facilitates team progress, communication and roles' definition which, in turn, **impacts positively the final outcome delivered to the client**. Through this analysis, the team noticed the **absence of both an Intellectual** – delivers scarce and detailed information on request – and a **Team Worker** – leverages on its cooperation and diplomatic skills to effectively listening and building – member. To fight the lack of these roles, the group performed **deep internal and external discussions** and brainstorming and developed a lot of **team building activities outside the working environment**.

Appendix 1 – Project Team

Individual Reflections

Carolina Lopes Pereira



Operational: implements the teams' work with an efficient organizational frame.

Finisher: able to conscientiously find error and omissions to achieve a flawless delivery.

President: focuses on efficiently delegating tasks, clarifying goals and promoting decision-making.

Intellectual: delivers scarce and detailed information on request.

Tetramap Elements



Air: *"Like the wind, is clear"*

"These orderly and focused individuals rely on their ability to think things out. They excel in finding logical solutions and making sense of situations. Air Elements listen and plan to ensure accuracy and quality."



Earth: *"Like a mountain, is firm"*

"Bold and sturdy, Earth Elements are confident in the way they walk and talk. Goals, control, achievement and winning are important. Quick, possibly risky decisions come easily."

Key Learnings

Being part of the Consulting Labs was a journey **full learnings, challenges and growth opportunities.**

Through this real-life and hands-on project, I was able to experience what it takes to be a consultant, to **put my theoretical knowledge into practice**, and to learn new methodologies from my colleagues, client and professors.

Furthermore, by working directly with **excellent professionals and C-level executives** from the healthcare industry, I not only got out of my comfort zone everyday, but also acquired a deep knowledge on **inners operations and management of such a dynamic and impactful sector.**

Finally, this experience provided me a **tremendous personal and professional growth** and helped me in the process of developing my team-working, critical thinking, communication and problem-solving skills.

Appendix 1 – Project Team

Individual Reflections

Inês Barreiros



Monitor: Provides a critical eye and weighs up the team's options in a dispassionate way.

Prospector: Takes initiative to contact people outside the team when needed

Finisher: able to conscientiously find error and omissions to achieve a flawless deliver.

Intellectual: delivers scarce and detailed information on request.

Tetramap Elements



Water: *"Like a lake, is calm"*

"Caring and consistent, Water Elements are important in holding families and teams together. They are loyal and deeply feeling people who show steadfast effort, great patience, and a desire for harmony."



Fire: *"Like the sun, is bright"*

"Looking at the positive side of life, they love to explore possibilities and inspire others to see bright futures. Fire Elements are colourful, love variety, and have a great sense of fun!"

Key Learnings

The first-hand experience with a major player of the Portuguese private health care market enabled me to **gain an unparalleled expertise in the industry, not only technically**, but also **communicatively** and conceptually regarding the needs and wants of all stakeholders involved.

This immense exposure triggered a new-found love for public well-being and the tremendous importance that healthcare enterprises uphold. Conversely, projects that enable these companies to thrive and **extend the longevity of their success**, become empirical to generate potential **competitive advantages**.

The Consulting Lab quickly became a way to make the best out of the **syndication with the client** and how to **best manage expectations**. Consulting is a **viable career option for me**, and this project came to incentivize me to consider it for my professional future.

Appendix 1 – Project Team

Individual Reflections

João André Pinho



Finisher: able to conscientiously find error and omissions to achieve a flawless delivery.

Strategist: Analyses patterns and trends to map the future.

Prospector: Takes initiative to contact people outside the team when needed

Monitor: Provides a critical eye and weighs up the team's options in a dispassionate way.

Tetramap Elements



Air: *"Like the wind, is clear"*

"These orderly and focused individuals rely on their ability to think things out. They excel in finding logical solutions and making sense of situations. Air Elements listen and plan to ensure accuracy and quality."



Fire: *"Like the sun, is bright"*

"Looking at the positive side of life, they love to explore possibilities and inspire others to see bright futures. Fire Elements are colourful, love variety, and have a great sense of fun!"

Key Learnings

For a student that searches for **responsibility** in his professional life and who is passionate about **consulting**, this field lab was truly an exceptional ride. While the **role of helping clients defining and driving high-level business decisions** within their organizations has the right fit for what I hope to achieve in the future, having a hands-on experience on how to **conduct a project** from start to finish was definitely a valuable experience.

This thesis provided me not only the opportunity of enhancing my **problem-solving skills**, by getting in touch with the issues of a sector in which I had never previously worked, but thought me the **value of syndication** and the **significance of developing a trusted advisor relationship** with the **client**.

Overall, the last few months of work will always represent a **major mark on my academic journey**, and I couldn't be happier with the **group of friends** with whom I **collaborated on this project**.

Appendix 1 – Project Team

Individual Reflections

Miguel Silva Marques



President: Focuses on **promoting decision-making**, delegating tasks and **clarifying goals**
Operational: Efficiently **implements the team's work**

Prospector: Takes initiative to contact people outside the team when needed

Strategist: Analyses patterns and trends to map the future

Tetramap Elements



Air: *"Like the wind, is clear"*

"These orderly and focused individuals rely on their ability to think things out. They excel in finding logical solutions and making sense of situations. Air Elements listen and plan to ensure accuracy and quality."



Water: *"Like a lake, is calm"*

"Caring and consistent, Water Elements are important in holding families and teams together. They are loyal and deeply feeling people who show steadfast effort, great patience, and a desire for harmony."

Key Learnings

The Consulting Lab was an enriching experience from beginning to end. As a senior student, it was the **optimal path for us to put into practice what we have been learning** throughout our academic years and the main learnings I take from this lie on the following dimensions of the project.

Firstly, we were exposed to an **empirical challenge faced by our client** so, as a team it was **critical to start by structuring the project and a proper approach to tackle it**.

Then, **gaining knowledge and comfort on this interesting industry** in a proactive way was of main importance to be relevant for the client.

Lastly, **working closely as a team, of colleagues and friends**, was the main element that allowed us to formulate value-adding recommendations for the client.

Appendix 2 – Additional Information Regarding Vida Group (I/III)

Tangible Fixed Assets

Between 2019 and 2020, the Group recorded an increase of over **11 M€** in the caption **Tangible Fixed Assets**, essentially due to expenses with constructions carried out in the various hospital units and headquarters building, expenses with medical equipment for VL, VP, VA and VB, as well as expenses for the construction of the new VB. This increase, represents a growth of about 15%. ¹

| Tangible Fixed Assets | |
|-----------------------|--------------|
| 2019 | 2020 |
| 76 454 318 € | 87 580 058 € |

Inventories

In order to meet the hygiene and safety needs imposed by the pandemic, the Vida Group invested heavily in the **purchase of PPE** (Personal Protective Equipment), which, due to increased demand, suffered price increases. As a result, **the value of inventories increased by approximately 189%** between 2019 and 2020. ¹

| Inventories | |
|-------------|--------------|
| 2019 | 2020 |
| 6 075 561 € | 17 559 541 € |

This is quite a high figure when compared to **direct competition, which registered an increase of 53%**. ²

Appendix 2 – Additional Information Regarding Vida Group (II/III)

Intangible Assets

In quantitative terms, it is important to highlight the **increase of about 23% in the caption Intangible Assets** between 2019 and 2020. This increase was essentially due to the acquisition of new computer programs, as well as *software* for the various units of the Group. Additionally, while the item **Goodwill remained unchanged** in the period considered, the item **Assets under the right of use decreased by about 2%**.²

| | 2019 | 2020 |
|----------------------------------|---------------|---------------|
| Intangible assets | 7 772 301 € | 9 537 879 € |
| Goodwill | 3 767 346 € | 3 767 346 € |
| Assets under right of use | 196 166 001 € | 192 921 210 € |

Average Collection Period

In terms of liquidity, the Group once again presents a comfortable position in comparison with the competition. Allied to the fact of having a **more restricted Average Collection Period (ACP)** than the competition, there may be the possibility to negotiate payment conditions where both the Group and partners can benefit.

88,9 days

ACP: 6 days below competitive contracts^{1,2}

1,40x

Current Ratio: half a point above competition^{1,2}

Appendix 2 – Additional Information Regarding Vida Group (III/III)

Vida's Professionals



The Vida Group has over **6 000 professionals of excellence** to offer all kinds of specialties and services to customers.

The quality of the Vida's services is also the result of the Group's investment in training its employees, including health and administrative professionals:

71% Of the Group's professionals have higher education ¹

The average age of the Group's employees also reveals the investment made in new employees to complement ideas and experience: ¹

- **43,6** Average years of average among service providers
- **38,7** Average years among all professionals of the Group
- **36,0** Years of average between Nurses and Receptionists

Vida's Personnel Costs



To this strong human resources component, a necessary and complex cost item is associated.

The different items within this dimension, including salary, insurance, training and bonuses, demonstrate the strong commitment to the Group's most valuable asset - its **human capital**.

35% Proportion of personnel costs within operating costs, in 2019 ¹

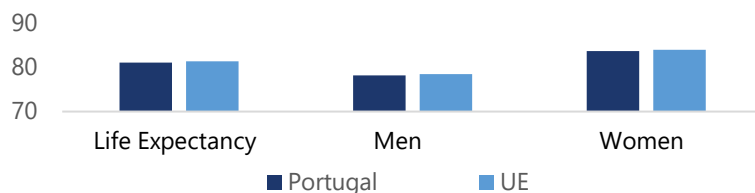
The proportion of personnel costs, within the Group's operating costs, is **8 percentage points above direct competition**. ^{1,2}

In relation to average compensation per employee, the group presents levels above direct competitors in the order of 10%, representing the intention to attract and retain necessary talent.

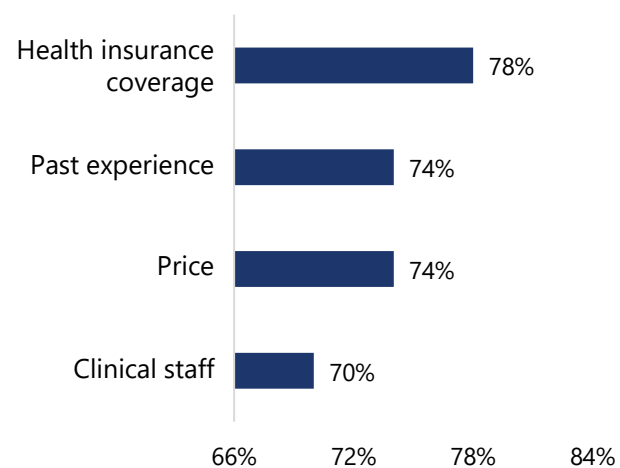
25 K€ Average remuneration for Vida Group employees ^{1,2}

Appendix 3 – Additional Indicators Impacting the Healthcare Industry

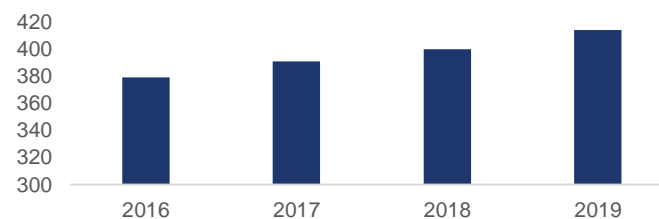
Average Life Expectancy in Portugal and EU and Sub-Division by Sex ^{1,2}
[2019, Years]



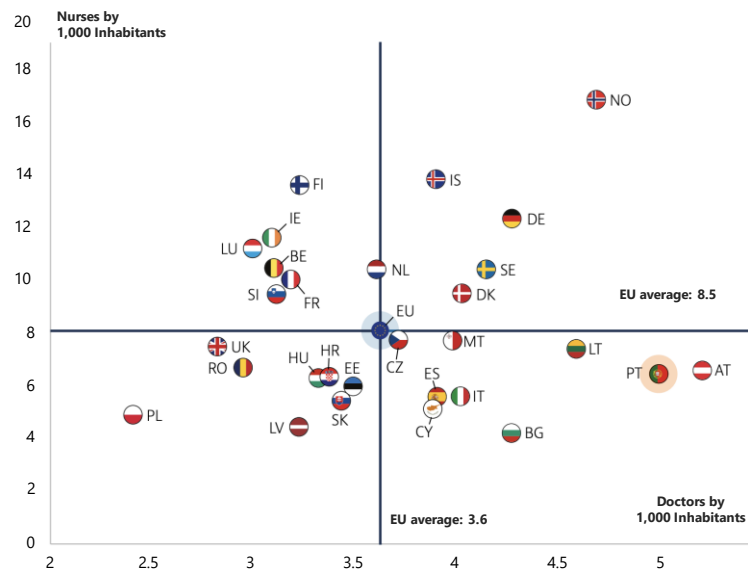
Importance of Information when deciding where to receive Health Care ³
[%]



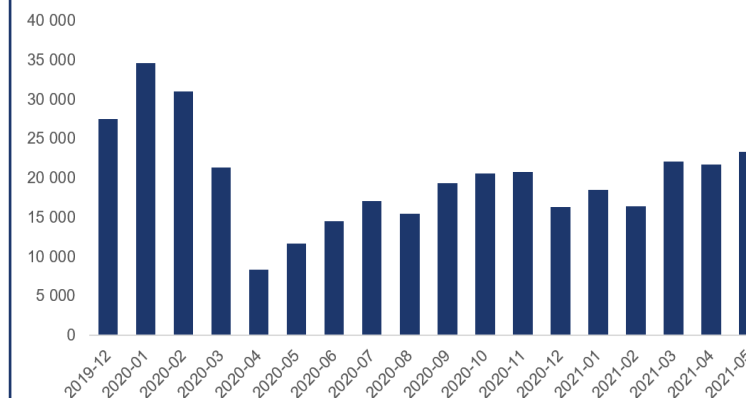
Evolution of the Number of Workers in the Health and Social Assistance Sector in Portugal ⁴
[2016 – 2019, Thousands of Workers]



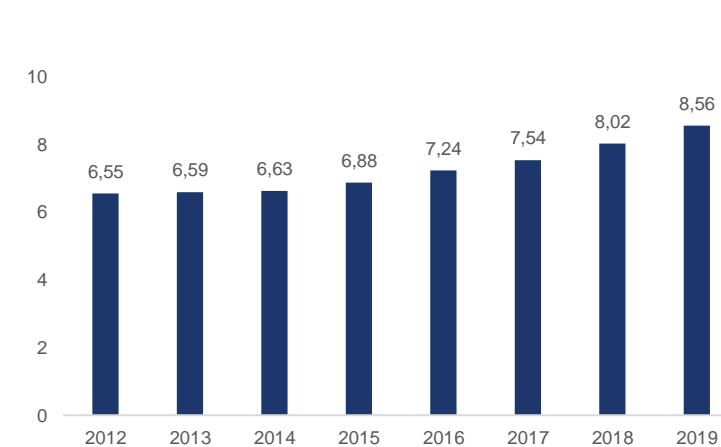
Number of Doctors and Nurses ⁵
[2017, Workers per 1,000 Inhabitants]



Average Number of Presential Medical Consultations in the NHS in Portugal [31/12/2019 - 31/05/2021] ⁶



Current Expenditure by Hospitals in Portugal [2012 - 2019, Billions of Euros] ⁷



Appendix 4 – P&L Analysis of Outsourcing Companies: Food Services (I/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Food Services Industry [2020]

| Company | 2020 | | | | |
|---|-------------------|---------|---------|--------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Ibersol Sgps Sa | 106 529 | 288 872 | 48,6% | 36,9% | -23,9% |
| Itau - Instituto Tecnico De Alimentacao Humana, S.A. | 35 419 | 98 917 | 16,7% | 35,8% | 2,4% |
| Uniself - Sociedade De Restaurantes Publicos E Privados, S.A. | 36 514 | 73 499 | 12,4% | 49,7% | 3,7% |
| Ica - Industria E Comercio Alimentar, S.A. | 12 561 | 29 434 | 5,0% | 42,7% | 0,5% |
| Bb Food Service, S.A. | 8 160 | 28 414 | 4,8% | 28,7% | -23,5% |
| Cateringpor - Catering De Portugal, S.A. | 12 153 | 24 595 | 4,1% | 49,4% | -9,7% |
| Nordigal - Industria De Transformacao Alimentar, S.A. | 2 868 | 14 971 | 2,5% | 19,2% | 1,2% |
| Serunion - Restaurantes De Portugal, S.A. | 3 941 | 12 157 | 2,0% | 32,4% | -1,0% |
| C.L.A.- Catering Linhas Aereas, S.A. | 2 469 | 4 170 | 0,7% | 59,2% | -31,3% |
| Restflight - Servicos De Catering, Unipessoal, Lda | 1 817 | 4 547 | 0,8% | 40,0% | -20,7% |
| Euroessen - Restauracao E Servicos, Lda | 2 016 | 3 041 | 0,5% | 66,3% | -17,4% |
| Jose Silva Carvalho - Catering, S.A. | 1 261 | 2 838 | 0,5% | 44,4% | -43,4% |
| Procaterring, Lda | 1 127 | 2 437 | 0,4% | 46,2% | 4,7% |
| Impacto - Ideias E Eventos, Lda | 1 265 | 2 187 | 0,4% | 57,8% | -28,8% |
| A Super 2000 E 1 - Sandwich'S E Catering, Lda | 420 | 2 055 | 0,3% | 20,4% | 1,2% |
| Petrolival - Petroleos Do Olival, Lda | 71 | 1 928 | 0,3% | 3,7% | 0,3% |
| Total | | 594 063 | 1 | | |

Appendix 4 – P&L Analysis of Outsourcing Companies: Food Services (II/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Food Services Industry [2019]

| Company | 2019 | | | | |
|---|-------------------|---------|---------|--------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Ibersol Sgps Sa | 151 967 | 485 387 | 52,4% | 31,3% | 2,5% |
| Itau - Instituto Tecnico De Alimentacao Humana, S.A. | 32 884 | 101 210 | 10,9% | 32,5% | 1,3% |
| Uniself - Sociedade De Restaurantes Publicos E Privados, S.A. | 40 044 | 95 956 | 10,4% | 41,7% | 2,8% |
| Ica - Industria E Comercio Alimentar, S.A. | 16 683 | 42 835 | 4,6% | 38,9% | 0,4% |
| Bb Food Service, S.A. | 8 835 | 42 838 | 4,6% | 20,6% | -5,1% |
| Cateringpor - Catering De Portugal, S.A. | 12 805 | 69 755 | 7,5% | 18,4% | 5,1% |
| Nordigal - Industria De Transformacao Alimentar, S.A. | 3 388 | 20 680 | 2,2% | 16,4% | 0,5% |
| Serunion - Restaurantes De Portugal, S.A. | 3 815 | 12 653 | 1,4% | 30,2% | 1,7% |
| C.L.A.- Catering Linhas Aereas, S.A. | 3 747 | 13 736 | 1,5% | 27,3% | 1,6% |
| Restflight - Servicos De Catering, Unipessoal, Lda | 2 055 | 8 789 | 0,9% | 23,4% | 7,6% |
| Euroessen - Restauracao E Servicos, Lda | 2 232 | 4 700 | 0,5% | 47,5% | 2,5% |
| Jose Silva Carvalho - Catering, S.A. | 1 744 | 13 358 | 1,4% | 13,1% | 17,9% |
| Procaterring, Lda | 1 055 | 3 251 | 0,4% | 32,5% | 0,2% |
| Impacto - Ideias E Eventos, Lda | 1 604 | 5 949 | 0,6% | 27,0% | 3,2% |
| A Super 2000 E 1 - Sandwich'S E Catering, Lda | 391 | 2 430 | 0,3% | 16,1% | 1,0% |
| Petrolival - Petroleos Do Olival, Lda | 69 | 2 170 | 0,2% | 3,2% | 1,7% |
| Total | | 925 696 | 1 | | |

Appendix 4 – P&L Analysis of Outsourcing Companies: Food Services (III/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Food Services Industry [2018]

| Company | 2018 | | | | |
|---|-------------------|---------|---------|--------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Ibersol Sgps Sa | 137 120 | 450 110 | 54,2% | 30,5% | 6,4% |
| Itau - Instituto Tecnico De Alimentacao Humana, S.A. | 26 807 | 82 031 | 9,9% | 32,7% | 0,4% |
| Uniself - Sociedade De Restaurantes Publicos E Privados, S.A. | 32 318 | 83 809 | 10,1% | 38,6% | 0,3% |
| Ica - Industria E Comercio Alimentar, S.A. | 15 397 | 41 047 | 4,9% | 37,5% | 0,4% |
| Bb Food Service, S.A. | 8 709 | 41 635 | 5,0% | 20,9% | -5,6% |
| Cateringpor - Catering De Portugal, S.A. | 11 224 | 55 806 | 6,7% | 20,1% | 5,3% |
| Nordigal - Industria De Transformacao Alimentar, S.A. | 2 477 | 17 290 | 2,1% | 14,3% | 0,6% |
| Serunion - Restaurantes De Portugal, S.A. | 4 000 | 12 233 | 1,5% | 32,7% | 0,1% |
| C.L.A.- Catering Linhas Aereas, S.A. | 2 860 | 10 275 | 1,2% | 27,8% | 18,0% |
| Restflight - Servicos De Catering, Unipessoal, Lda | 2 165 | 8 787 | 1,1% | 24,6% | 10,9% |
| Euroessen - Restauracao E Servicos, Lda | 2 118 | 4 230 | 0,5% | 50,1% | 1,1% |
| Jose Silva Carvalho - Catering, S.A. | 1 422 | 10 163 | 1,2% | 14,0% | 17,1% |
| Procaterring, Lda | 1 072 | 3 623 | 0,4% | 29,6% | 4,2% |
| Impacto - Ideias E Eventos, Lda | 1 243 | 4 901 | 0,6% | 25,4% | 2,5% |
| A Super 2000 E 1 - Sandwich'S E Catering, Lda | 369 | 2 193 | 0,3% | 16,8% | 0,6% |
| Petrolival - Petroleos Do Olival, Lda | 63 | 2 088 | 0,3% | 3,0% | 1,4% |
| Total | | 830 221 | 1 | | |

Appendix 4 – P&L Analysis of Outsourcing Companies: Food Services (IV/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Food Services Industry [2017]

| Company | 2017 | | | | |
|---|-------------------|---------|---------|--------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Ibersol Sgps Sa | 135 319 | 448 329 | 57,0% | 30,2% | 7,4% |
| Itau - Instituto Tecnico De Alimentacao Humana, S.A. | 29 126 | 92 715 | 11,8% | 31,4% | 0,5% |
| Uniself - Sociedade De Restaurantes Publicos E Privados, S.A. | 22 794 | 66 252 | 8,4% | 34,4% | 2,7% |
| Ica - Industria E Comercio Alimentar, S.A. | 10 600 | 28 269 | 3,6% | 37,5% | 0,6% |
| Bb Food Service, S.A. | 8 596 | 40 997 | 5,2% | 21,0% | -0,2% |
| Cateringpor - Catering De Portugal, S.A. | 10 175 | 49 239 | 6,3% | 20,7% | 4,3% |
| Nordigal - Industria De Transformacao Alimentar, S.A. | 2 030 | 14 094 | 1,8% | 14,4% | 0,9% |
| Serunion - Restaurantes De Portugal, S.A. | 3 428 | 11 149 | 1,4% | 30,7% | 1,6% |
| C.L.A.- Catering Linhas Aereas, S.A. | 2 365 | 9 560 | 1,2% | 24,7% | 18,7% |
| Restflight - Servicos De Catering, Unipessoal, Lda | 1 922 | 7 560 | 1,0% | 25,4% | 8,9% |
| Euroessen - Restauracao E Servicos, Lda | 735 | 1 424 | 0,2% | 51,6% | -4,3% |
| Jose Silva Carvalho - Catering, S.A. | 957 | 6 343 | 0,8% | 15,1% | 16,9% |
| Procatering, Lda | 973 | 3 329 | 0,4% | 29,2% | 4,2% |
| Impacto - Ideias E Eventos, Lda | 673 | 3 461 | 0,4% | 19,4% | 0,5% |
| A Super 2000 E 1 - Sandwich'S E Catering, Lda | 300 | 1 963 | 0,2% | 15,3% | 1,7% |
| Petrolival - Petroleos Do Olival, Lda | 55 | 2 165 | 0,3% | 2,6% | 1,7% |
| Total | | 786 849 | 1 | | |

Appendix 4 – P&L Analysis of Outsourcing Companies: Food Services (V/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Food Services Industry [2016]

| Company | 2016 | | | | |
|---|-------------------|---------|---------|--------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Ibersol Sgps Sa | 79 967 | 269 833 | 47,5% | 29,6% | 10,5% |
| Itau - Instituto Tecnico De Alimentacao Humana, S.A. | 28 562 | 87 780 | 15,4% | 32,5% | 2,3% |
| Uniself - Sociedade De Restaurantes Publicos E Privados, S.A. | 15 757 | 53 180 | 9,4% | 29,6% | 3,4% |
| Ica - Industria E Comercio Alimentar, S.A. | 6 593 | 19 033 | 3,3% | 34,6% | 1,0% |
| Bb Food Service, S.A. | 7 822 | 37 396 | 6,6% | 20,9% | 1,8% |
| Cateringpor - Catering De Portugal, S.A. | 10 467 | 48 911 | 8,6% | 21,4% | 4,5% |
| Nordigal - Industria De Transformacao Alimentar, S.A. | 2 236 | 11 700 | 2,1% | 19,1% | 0,9% |
| Serunion - Restaurantes De Portugal, S.A. | 3 196 | 10 820 | 1,9% | 29,5% | 1,8% |
| C.L.A.- Catering Linhas Aereas, S.A. | 2 393 | 9 047 | 1,6% | 26,5% | 16,2% |
| Restflight - Servicos De Catering, Unipessoal, Lda | 1 946 | 6 855 | 1,2% | 28,4% | 3,6% |
| Euroessen - Restauracao E Servicos, Lda | 26 | 135 | 0,0% | 19,4% | 20,4% |
| Jose Silva Carvalho - Catering, S.A. | 734 | 4 385 | 0,8% | 16,7% | 8,2% |
| Procatering, Lda | 941 | 3 014 | 0,5% | 31,2% | 6,1% |
| Impacto - Ideias E Eventos, Lda | 541 | 2 808 | 0,5% | 19,3% | 1,3% |
| A Super 2000 E 1 - Sandwich'S E Catering, Lda | 321 | 1 883 | 0,3% | 17,1% | 1,4% |
| Petrolival - Petroleos Do Olival, Lda | 51 | 1 849 | 0,3% | 2,7% | 1,9% |
| Total | | 568 628 | 1 | | |

Appendix 4 – P&L Analysis of Outsourcing Companies: Food Services (VI/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Food Services Industry
 [2015]

| Company | 2015 | | | | |
|---|-------------------|----------------|----------|--------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Ibersol Sgps Sa | 64 478 | 213 707 | 43,2% | 30,2% | 6,5% |
| Itau - Instituto Tecnico De Alimentacao Humana, S.A. | 27 714 | 83 239 | 16,8% | 33,3% | 1,1% |
| Uniself - Sociedade De Restaurantes Publicos E Privados, S.A. | 15 445 | 52 424 | 10,6% | 29,5% | 5,1% |
| Ica - Industria E Comercio Alimentar, S.A. | 6 658 | 16 233 | 3,3% | 41,0% | 0,7% |
| Bb Food Service, S.A. | 6 785 | 34 122 | 6,9% | 19,9% | -2,0% |
| Cateringpor - Catering De Portugal, S.A. | 10 484 | 46 568 | 9,4% | 22,5% | 4,2% |
| Nordigal - Industria De Transformacao Alimentar, S.A. | 2 112 | 9 334 | 1,9% | 22,6% | 1,4% |
| Serunion - Restaurantes De Portugal, S.A. | 2 910 | 10 066 | 2,0% | 28,9% | 6,0% |
| C.L.A.- Catering Linhas Aereas, S.A. | 2 725 | 10 162 | 2,1% | 26,8% | 17,8% |
| Restflight - Servicos De Catering, Unipessoal, Lda | 1 667 | 5 555 | 1,1% | 30,0% | -6,5% |
| Euroessen - Restauracao E Servicos, Lda | 55 | 144 | 0,0% | 38,2% | -6,0% |
| Jose Silva Carvalho - Catering, S.A. | 389 | 4 395 | 0,9% | 8,8% | 17,5% |
| Procatring, Lda | 850 | 3 184 | 0,6% | 26,7% | 9,3% |
| Impacto - Ideias E Eventos, Lda | 410 | 2 064 | 0,4% | 19,9% | -2,6% |
| A Super 2000 E 1 - Sandwich'S E Catering, Lda | 272 | 1 816 | 0,4% | 15,0% | 5,8% |
| Petrolival - Petroleos Do Olival, Lda | 54 | 1 579 | 0,3% | 3,4% | 0,3% |
| Total | | 494 592 | 1 | | |

Appendix 4 – P&L Analysis of Outsourcing Companies: Food Services (VII/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Food Services Industry [2015-2020]

| Company | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | Cost of Employees/ Sales | Cost of Employees/ Sales | Cost of Employees/ Sales | Cost of Employees/ Sales | Cost of Employees/ Sales | Cost of Employees/ Sales |
| Ibersol Sgps Sa | 36,9% | 31,3% | 30,5% | 30,2% | 29,6% | 30,2% |
| Itau - Instituto Tecnico De Alimentacao Humana, S.A. | 35,8% | 32,5% | 32,7% | 31,4% | 32,5% | 33,3% |
| Uniself - Sociedade De Restaurantes Publicos E Privados, S.A. | 49,7% | 41,7% | 38,6% | 34,4% | 29,6% | 29,5% |
| Ica - Industria E Comercio Alimentar, S.A. | 42,7% | 38,9% | 37,5% | 37,5% | 34,6% | 41,0% |
| Bb Food Service, S.A. | 28,7% | 20,6% | 20,9% | 21,0% | 20,9% | 19,9% |
| Cateringpor - Catering De Portugal, S.A. | 49,4% | 18,4% | 20,1% | 20,7% | 21,4% | 22,5% |
| Nordigal - Industria De Transformacao Alimentar, S.A. | 19,2% | 16,4% | 14,3% | 14,4% | 19,1% | 22,6% |
| Serunion - Restaurantes De Portugal, S.A. | 32,4% | 30,2% | 32,7% | 30,7% | 29,5% | 28,9% |
| C.L.A.- Catering Linhas Aereas, S.A. | 59,2% | 27,3% | 27,8% | 24,7% | 26,5% | 26,8% |
| Restflight - Servicos De Catering, Unipessoal, Lda | 40,0% | 23,4% | 24,6% | 25,4% | 28,4% | 30,0% |
| Euroessen - Restauracao E Servicos, Lda | 66,3% | 47,5% | 50,1% | 51,6% | 19,4% | 38,2% |
| Jose Silva Carvalho - Catering, S.A. | 44,4% | 13,1% | 14,0% | 15,1% | 16,7% | 8,8% |
| Procatring, Lda | 46,2% | 32,5% | 29,6% | 29,2% | 31,2% | 26,7% |
| Impacto - Ideias E Eventos, Lda | 57,8% | 27,0% | 25,4% | 19,4% | 19,3% | 19,9% |
| A Super 2000 E 1 - Sandwich'S E Catering, Lda | 20,4% | 16,1% | 16,8% | 15,3% | 17,1% | 15,0% |
| Petrolival - Petroleos Do Olival, Lda | 3,7% | 3,2% | 3,0% | 2,6% | 2,7% | 3,4% |
| Total | | | | | | |

Appendix 5 – P&L Analysis of Outsourcing Companies: Laundry Services (I/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Laundry Services Industry [2020]

| Company | 2020 | | | | |
|---|-------------------|-------|------------|--------------------------|-------------------|
| | Cost of Employees | Sales | % of Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Spast - Sociedade Portuguesa De Aluguer E Servico De Texteis, S.A. | 17,1 | 41,6 | 62,6% | 41,2% | -8,7% |
| SnI Iberica - Sociedade De Lavandarias, Lda | 3,2 | 7,1 | 10,7% | 44,4% | 22,0% |
| 5 A Seco Portugal - Industria De Lavandaria, S.A. | 1,1 | 2,1 | 3,2% | 53,5% | -86,0% |
| Serlimawash - Lavandaria Industrial S.A. (Zona Franca Da Madeira) | 1,0 | 2,5 | 3,8% | 37,9% | n.a. |
| Viva Washing, Lda | 0,9 | 1,4 | 2,1% | 66,5% | 1,0% |
| Tapipel - Centro De Limpeza Especializado Tapetes E Peles, S.A. | 0,7 | 1,7 | 2,5% | 40,8% | 1,6% |
| Absolut Fresh, Lda | 0,3 | 1,7 | 2,6% | 17,7% | 4,8% |
| Francisco Angelo Ribeiro Teixeira, S.A. | 0,7 | 1,7 | 2,5% | 39,3% | 20,7% |
| Ultraseco - Sociedade De Investimentos Imobiliarios, Comerciais E Hoteleiros, Lda | 0,4 | 1,5 | 2,2% | 30,3% | 0,9% |
| Renopel - Renovacao E Limpeza De Peles, S.A. | 0,6 | 1,4 | 2,2% | 40,5% | 1,6% |
| Kicomegui, Lda | 0,1 | 1,1 | 1,7% | 9,7% | 4,0% |
| Lavandaria Galaxia, S.A. | 0,4 | 0,9 | 1,4% | 41,7% | -11,1% |
| Lavandaria Quinta Das Palmeiras, Lda | 0,5 | 0,8 | 1,3% | 64,2% | -7,0% |
| Om Wash, Unipessoal, Lda | 0,4 | 0,8 | 1,2% | 54,0% | -7,1% |
| Total | | 66,5 | 100,0% | | |

Appendix 5 – P&L Analysis of Outsourcing Companies: Laundry Services (II/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Laundry Services Industry [2019]

| Company | 2019 | | | | |
|---|-------------------|-------------|---------------|-----------------------------|-------------------|
| | Cost of Employees | Sales | % of Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Spast - Sociedade Portuguesa De Aluguer E Servico De Texteis, S.A. | 20,9 | 59,2 | 64,8% | 35,4% | 5,7% |
| SnI Iberica - Sociedade De Lavandarias, Lda | 2,9 | 6,6 | 7,2% | 44,7% | 19,3% |
| 5 A Seco Portugal - Industria De Lavandaria, S.A. | 1,4 | 3,6 | 4,0% | 39,1% | 4,9% |
| Serlimawash - Lavandaria Industrial S.A. (Zona Franca Da Madeira) | 1,2 | 3,6 | 3,9% | 32,6% | 17,5% |
| Viva Washing, Lda | 1,3 | 2,9 | 3,2% | 44,3% | 4,4% |
| Tapipel - Centro De Limpeza Especializado Tapetes E Peles, S.A. | 0,7 | 2,1 | 2,3% | 34,5% | 2,2% |
| Absolut Fresh, Lda | 0,4 | 1,6 | 1,7% | 24,8% | -4,4% |
| Francisco Angelo Ribeiro Teixeira, S.A. | 0,7 | 1,6 | 1,8% | 40,9% | 13,2% |
| Ultraseco - Sociedade De Investimentos Imobiliarios, Comerciais E Hoteleiros, Lda | 0,4 | 3,1 | 3,4% | 12,3% | 21,6% |
| Renopel - Renovacao E Limpeza De Peles, S.A. | 0,6 | 1,6 | 1,8% | 37,1% | 0,4% |
| Kicomegui, Lda | 0,0 | 0,3 | 0,3% | 14,3% | 2,0% |
| Lavandaria Galaxia, S.A. | 0,5 | 2,5 | 2,7% | 19,8% | 27,4% |
| Lavandaria Quinta Das Palmeiras, Lda | 0,7 | 1,5 | 1,7% | 44,5% | 9,6% |
| Om Wash, Unipessoal, Lda | 0,5 | 1,3 | 1,4% | 42,4% | 0,5% |
| Total | | 91,3 | 100,0% | | |

Appendix 5 – P&L Analysis of Outsourcing Companies: Laundry Services (III/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Laundry Services Industry [2018]

| Company | 2018 | | | | |
|---|-------------------|-------|------------|-----------------------------|-------------------|
| | Cost of Employees | Sales | % of Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Spast - Sociedade Portuguesa De Aluguer E Servico De Texteis, S.A. | 18,7 | 51,5 | 63,8% | 36,3% | 1,4% |
| Snl Iberica - Sociedade De Lavandarias, Lda | 2,6 | 5,3 | 6,6% | 48,3% | 4,7% |
| 5 A Seco Portugal - Industria De Lavandaria, S.A. | 1,4 | 3,6 | 4,5% | 38,0% | 2,5% |
| Serlimawash - Lavandaria Industrial S.A. (Zona Franca Da Madeira) | 1,1 | 3,4 | 4,2% | 32,2% | 24,3% |
| Viva Washing, Lda | 1,2 | 2,8 | 3,4% | 43,2% | 4,5% |
| Tapipel - Centro De Limpeza Especializado Tapetes E Peles, S.A. | 0,7 | 2,0 | 2,5% | 33,4% | 1,8% |
| Absolut Fresh, Lda | 0,4 | 1,5 | 1,8% | 24,6% | -15,3% |
| Francisco Angelo Ribeiro Teixeira, S.A. | 0,5 | 1,3 | 1,6% | 41,8% | 6,6% |
| Ultraseco - Sociedade De Investimentos Imobiliarios, Comerciais E Hoteleiros, Lda | 0,4 | 2,8 | 3,4% | 15,0% | 18,9% |
| Renopel - Renovacao E Limpeza De Peles, S.A. | 0,5 | 1,5 | 1,9% | 34,7% | 1,1% |
| Kicomegui, Lda | 0,0 | 0,3 | 0,3% | 8,5% | 3,7% |
| Lavandaria Galaxia, S.A. | 0,5 | 2,3 | 2,9% | 20,4% | 23,4% |
| Lavandaria Quinta Das Palmeiras, Lda | 0,6 | 1,5 | 1,8% | 43,5% | 7,6% |
| Om Wash, Unipessoal, Lda | 0,4 | 0,9 | 1,2% | 37,7% | 0,7% |
| Total | | 80,7 | 100,0% | | |

Appendix 5 – P&L Analysis of Outsourcing Companies: Laundry Services (IV/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Laundry Services Industry [2017]

| Company | 2017 | | | | |
|---|-------------------|-------|------------|-----------------------------|-------------------|
| | Cost of Employees | Sales | % of Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Spast - Sociedade Portuguesa De Aluguer E Servico De Texteis, S.A. | 16,3 | 48,0 | 64,2% | 34,0% | 6,7% |
| Snl Iberica - Sociedade De Lavandarias, Lda | 2,2 | 5,1 | 6,8% | 44,0% | 12,4% |
| 5 A Seco Portugal - Industria De Lavandaria, S.A. | 1,3 | 3,3 | 4,4% | 39,7% | 6,6% |
| Serlimawash - Lavandaria Industrial S.A. (Zona Franca Da Madeira) | 1,0 | 3,5 | 4,6% | 30,2% | 26,6% |
| Viva Washing, Lda | 1,0 | 2,4 | 3,2% | 42,6% | 6,0% |
| Tapipel - Centro De Limpeza Especializado Tapetes E Peles, S.A. | 0,7 | 1,9 | 2,5% | 36,0% | -2,5% |
| Absolut Fresh, Lda | 0,3 | 1,4 | 1,8% | 23,6% | -8,9% |
| Francisco Angelo Ribeiro Teixeira, S.A. | 0,5 | 1,3 | 1,7% | 39,9% | 2,9% |
| Ultraseco - Sociedade De Investimentos Imobiliarios, Comerciais E Hoteleiros, Lda | 0,3 | 2,1 | 2,8% | 13,5% | 1,3% |
| Renopel - Renovacao E Limpeza De Peles, S.A. | 0,5 | 1,4 | 1,9% | 33,6% | 1,2% |
| Kicomegui, Lda | 0,0 | 0,1 | 0,2% | 7,4% | 12,7% |
| Lavandaria Galaxia, S.A. | 0,5 | 2,3 | 3,1% | 19,9% | 21,5% |
| Lavandaria Quinta Das Palmeiras, Lda | 0,5 | 1,4 | 1,8% | 39,5% | 2,4% |
| Om Wash, Unipessoal, Lda | 0,1 | 0,7 | 1,0% | 17,4% | 1,9% |
| Total | | 74,8 | 100,0% | | |

Appendix 5 – P&L Analysis of Outsourcing Companies: Laundry Services (V/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Laundry Services Industry [2016]

| Company | 2016 | | | | |
|---|-------------------|-------|------------|-----------------------------|-------------------|
| | Cost of Employees | Sales | % of Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Spast - Sociedade Portuguesa De Aluguer E Servico De Texteis, S.A. | 14,2 | 44,2 | 63,9% | 32,1% | 7,5% |
| Snl Iberica - Sociedade De Lavandarias, Lda | 1,6 | 4,4 | 6,3% | 37,0% | 22,8% |
| 5 A Seco Portugal - Industria De Lavandaria, S.A. | 1,3 | 3,4 | 4,9% | 38,4% | 6,2% |
| Serlimawash - Lavandaria Industrial S.A. (Zona Franca Da Madeira) | 1,0 | 3,2 | 4,7% | 29,9% | 26,1% |
| Viva Washing, Lda | 0,7 | 1,8 | 2,6% | 36,8% | 5,8% |
| Tapipel - Centro De Limpeza Especializado Tapetes E Peles, S.A. | 0,6 | 1,9 | 2,8% | 29,1% | -0,9% |
| Absolut Fresh, Lda | 0,3 | 1,1 | 1,6% | 26,5% | -13,9% |
| Francisco Angelo Ribeiro Teixeira, S.A. | 0,4 | 0,9 | 1,3% | 45,4% | -5,2% |
| Ultraseco - Sociedade De Investimentos Imobiliarios, Comerciais E Hoteleiros, Lda | 0,4 | 2,4 | 3,5% | 17,6% | 6,4% |
| Renopel - Renovacao E Limpeza De Peles, S.A. | 0,5 | 1,5 | 2,1% | 33,4% | 2,4% |
| Kicomegui, Lda | 0,0 | 0,1 | 0,1% | 13,8% | 0,9% |
| Lavandaria Galaxia, S.A. | 0,4 | 2,3 | 3,3% | 18,4% | 30,6% |
| Lavandaria Quinta Das Palmeiras, Lda | 0,5 | 1,3 | 1,9% | 40,8% | 4,3% |
| Om Wash, Unipessoal, Lda | 0,0 | 0,6 | 0,8% | 4,4% | 9,5% |
| Total | | 69,2 | 100,0% | | |

Appendix 5 – P&L Analysis of Outsourcing Companies: Laundry Services (VI/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Laundry Services Industry [2015]

| Company | 2015 | | | | |
|---|-------------------|-------|------------|-----------------------------|-------------------|
| | Cost of Employees | Sales | % of Sales | Cost of Employees/ Sales | Profit Margin (%) |
| Spast - Sociedade Portuguesa De Aluguer E Servico De Texteis, S.A. | 13,4 | 40,9 | 66,0% | 32,7% | 4,0% |
| SnI Iberica - Sociedade De Lavandarias, Lda | 1,3 | 3,5 | 5,7% | 36,7% | 15,6% |
| 5 A Seco Portugal - Industria De Lavandaria, S.A. | 1,3 | 3,2 | 5,1% | 40,2% | 10,5% |
| Serlimawash - Lavandaria Industrial S.A. (Zona Franca Da Madeira) | 0,9 | 2,9 | 4,7% | 31,6% | 14,6% |
| Viva Washing, Lda | 0,4 | 1,4 | 2,2% | 32,0% | 3,1% |
| Tapipel - Centro De Limpeza Especializado Tapetes E Peles, S.A. | 0,6 | 1,6 | 2,6% | 38,3% | -0,7% |
| Absolut Fresh, Lda | 0,3 | 0,9 | 1,4% | 32,3% | -21,2% |
| Francisco Angelo Ribeiro Teixeira, S.A. | 0,3 | 0,7 | 1,2% | 45,1% | -8,6% |
| Ultraseco - Sociedade De Investimentos Imobiliarios, Comerciais E Hoteleiros, Lda | 0,2 | 1,6 | 2,5% | 13,7% | 5,2% |
| Renopel - Renovacao E Limpeza De Peles, S.A. | 0,5 | 1,5 | 2,4% | 31,1% | 1,4% |
| Kicomegui, Lda | 0,0 | 0,1 | 0,2% | 18,7% | 0,8% |
| Lavandaria Galaxia, S.A. | 0,4 | 2,1 | 3,4% | 19,7% | 19,2% |
| Lavandaria Quinta Das Palmeiras, Lda | 0,5 | 1,3 | 2,1% | 38,3% | 7,0% |
| Om Wash, Unipessoal, Lda | 0,0 | 0,4 | 0,6% | 3,0% | 4,7% |
| Total | | 62,0 | 100,0% | | |

Appendix 5 – P&L Analysis of Outsourcing Companies: Laundry Services (VII/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Laundry Services Industry [2015-2020]

| Company | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | Cost of Employees/ Sales | Cost of Employees/ Sales | Cost of Employees/ Sales | Cost of Employees/ Sales | Cost of Employees/ Sales | Cost of Employees/ Sales |
| Spast - Sociedade Portuguesa De Aluguer E Servico De Texteis, S.A. | 41,2% | 35,4% | 36,3% | 34,0% | 32,1% | 32,7% |
| SnI Iberica - Sociedade De Lavandarias, Lda | 44,4% | 44,7% | 48,3% | 44,0% | 37,0% | 36,7% |
| 5 A Seco Portugal - Industria De Lavandaria, S.A. | 53,5% | 39,1% | 38,0% | 39,7% | 38,4% | 40,2% |
| Serlimawash - Lavandaria Industrial S.A. (Zona Franca Da Madeira) | 37,9% | 32,6% | 32,2% | 30,2% | 29,9% | 31,6% |
| Viva Washing, Lda | 66,5% | 44,3% | 43,2% | 42,6% | 36,8% | 32,0% |
| Tapipel - Centro De Limpeza Especializado Tapetes E Peles, S.A. | 40,8% | 34,5% | 33,4% | 36,0% | 29,1% | 38,3% |
| Absolut Fresh, Lda | 17,7% | 24,8% | 24,6% | 23,6% | 26,5% | 32,3% |
| Francisco Angelo Ribeiro Teixeira, S.A. | 39,3% | 40,9% | 41,8% | 39,9% | 45,4% | 45,1% |
| Ultraseco - Sociedade De Investimentos Imobiliarios, Comerciais E Hoteleiros, Lda | | | | | 17,6% | 13,7% |
| Renopel - Renovacao E Limpeza De Peles, S.A. | 40,5% | 37,1% | 34,7% | 33,6% | 33,4% | 31,1% |
| Kicomegui, Lda | 9,7% | 14,3% | 8,5% | 7,4% | 13,8% | 18,7% |
| Lavandaria Galaxia, S.A. | 41,7% | 19,8% | 20,4% | 19,9% | 18,4% | 19,7% |
| Lavandaria Quinta Das Palmeiras, Lda | 64,2% | 44,5% | 43,5% | 39,5% | 40,8% | 38,3% |
| Om Wash, Unipessoal, Lda | 54,0% | 42,4% | 37,7% | 17,4% | 4,4% | 3,0% |
| Total | | | | | | |

Appendix 6 – P&L Analysis of Outsourcing Companies: Cleaning Services (I/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Cleaning Services Industry [2020]

| Company | 2020 | | | | |
|--|-------------------|---------|---------|------------------------------|-------------------|
| | Cost of employees | Sales | % Sales | Cost of employees / Revenues | Profit Margin (%) |
| Iberlim - Higiene E Sustentabilidade Ambiental, S.A. | 460 736 | 556 437 | 16,3% | 82,8% | 2,9% |
| Derichebourg Facility Services, S.A. | 411 413 | 487 680 | 14,3% | 84,4% | 0,2% |
| Interlimpe - Facility Services, S.A. | 369 303 | 466 443 | 13,7% | 79,2% | 17,3% |
| Samsic Portugal - Facility Services, S.A. | 229 292 | 301 943 | 8,9% | 75,9% | 4,7% |
| Euromex - Facility Services, Lda | 234 461 | 252 453 | 7,4% | 92,9% | 2,3% |
| Sgl - Corporate Facility Services, S.A. | 204 939 | 243 040 | 7,1% | 84,3% | 0,1% |
| Fine Facility Services, Lda | 11 190 | 238 612 | 7,0% | 4,7% | 0,7% |
| Climex - Controlo De Ambiente, S.A. | 175 685 | 228 778 | 6,7% | 76,8% | 2,8% |
| Vadeca - Facility Services, S.A. | 161 219 | 220 525 | 6,5% | 73,1% | 0,8% |
| Clece, S.A. | 143 802 | 177 875 | 5,2% | 80,8% | 4,9% |
| Ambiente & Jardim li - Multiservices, S.A. | 927 | 132 146 | 3,9% | 0,7% | 2,5% |
| Operandus - Limpeza Profissional, Lda | 86 411 | 100 088 | 2,9% | 86,3% | 4,2% |

Appendix 6 – P&L Analysis of Outsourcing Companies: Cleaning Services (II/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Cleaning Services Industry [2019]

| Company | 2019 | | | | |
|--|-------------------|---------|---------|------------------------------|-------------------|
| | Cost of employees | Sales | % Sales | Cost of employees / Revenues | Profit Margin (%) |
| Iberlim - Higiene E Sustentabilidade Ambiental, S.A. | 479 223 | 575 825 | 17,0% | 83,2% | -4,9% |
| Derichebourg Facility Services, S.A. | 367 586 | 435 742 | 12,9% | 84,4% | 0,1% |
| Interlimpe - Facility Services, S.A. | 337 080 | 380 764 | 11,2% | 88,5% | 5,0% |
| Samsic Portugal - Facility Services, S.A. | 181 828 | 228 719 | 6,8% | 79,5% | 3,2% |
| Euromex - Facility Services, Lda | 202 727 | 223 307 | 6,6% | 90,8% | 1,8% |
| Sgl - Corporate Facility Services, S.A. | 180 877 | 213 494 | 6,3% | 84,7% | -1,2% |
| Fine Facility Services, Lda | 13 206 | 237 571 | 7,0% | 5,6% | 0,6% |
| Climex - Controlo De Ambiente, S.A. | 172 300 | 213 872 | 6,3% | 80,6% | 0,9% |
| Vadeca - Facility Services, S.A. | 123 512 | 171 970 | 5,1% | 71,8% | 0,9% |
| Clece, S.A. | 179 099 | 213 000 | 6,3% | 84,1% | 0,7% |
| Ambiente & Jardim li - Multiservices, S.A. | 863 | 113 414 | 3,3% | 0,8% | -0,1% |
| Operandus - Limpeza Profissional, Lda | 88 567 | 102 493 | 3,0% | 86,4% | 3,2% |

Appendix 6 – P&L Analysis of Outsourcing Companies: Cleaning Services (III/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Cleaning Services Industry [2018]

| Company | 2018 | | | | |
|--|-------------------|---------|---------|------------------------------|-------------------|
| | Cost of employees | Sales | % Sales | Cost of employees / Revenues | Profit Margin (%) |
| Iberlim - Higiene E Sustentabilidade Ambiental, S.A. | 315 553 | 349 184 | 12,3% | 90,4% | -2,1% |
| Derichebourg Facility Services, S.A. | 349 460 | 414 831 | 14,7% | 84,2% | 0,1% |
| Interlimpe - Facility Services, S.A. | 267 383 | 297 668 | 10,5% | 89,8% | ,4% |
| Samsic Portugal - Facility Services, S.A. | 190 529 | 232 800 | 8,2% | 81,8% | 2,9% |
| Euromex - Facility Services, Lda | 174 361 | 194 736 | 6,9% | 89,5% | 2,3% |
| Sgl - Corporate Facility Services, S.A. | 162 146 | 192 892 | 6,8% | 84,1% | 1,4% |
| Fine Facility Services, Lda | 11 757 | 193 409 | 6,8% | 6,1% | 0,9% |
| Climex - Controlo De Ambiente, S.A. | 156 657 | 195 918 | 6,9% | 80,0% | 0,6% |
| Vadeca - Facility Services, S.A. | 70 163 | 111 599 | 3,9% | 62,9% | 1,4% |
| Clece, S.A. | 180 441 | 214 079 | 7,6% | 84,3% | 3,3% |
| Ambiente & Jardim li - Multiservices, S.A. | 914 | 100 465 | 3,6% | 0,9% | 0,0% |
| Operandus - Limpeza Profissional, Lda | 53 883 | 61 696 | 2,2% | 87,3% | 1,0% |

Appendix 6 – P&L Analysis of Outsourcing Companies: Cleaning Services (IV/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Cleaning Services Industry [2017]

| Company | 2017 | | | | |
|--|-------------------|---------|---------|------------------------------|-------------------|
| | Cost of employees | Sales | % Sales | Cost of employees / Revenues | Profit Margin (%) |
| Iberlim - Higiene E Sustentabilidade Ambiental, S.A. | 121 849 | 133 923 | 5,7% | 91,0% | -4,5% |
| Derichebourg Facility Services, S.A. | 333 625 | 381 092 | 16,2% | 87,5% | -1,8% |
| Interlimpe - Facility Services, S.A. | 219 852 | 248 436 | 10,6% | 88,5% | 2,7% |
| Samsic Portugal - Facility Services, S.A. | 186 848 | 221 120 | 9,4% | 84,5% | 3,2% |
| Euromex - Facility Services, Lda | 134 562 | 151 412 | 6,4% | 88,9% | 1,4% |
| Sgl - Corporate Facility Services, S.A. | 163 906 | 192 440 | 8,2% | 85,2% | 1,2% |
| Fine Facility Services, Lda | 12 102 | 118 593 | 5,0% | 10,2% | 1,0% |
| Climex - Controlo De Ambiente, S.A. | 135 991 | 173 856 | 7,4% | 78,2% | 1,1% |
| Vadeca - Facility Services, S.A. | 47 309 | 87 136 | 3,7% | 54,3% | 0,9% |
| Clece, S.A. | 153 778 | 187 247 | 8,0% | 82,1% | 4,5% |
| Ambiente & Jardim li - Multiservices, S.A. | 876 | 70 226 | 3,0% | 1,2% | 0,4% |
| Operandus - Limpeza Profissional, Lda | 31 224 | 40 117 | 1,7% | 77,8% | 9,2% |

Appendix 6 – P&L Analysis of Outsourcing Companies: Cleaning Services (V/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Cleaning Services Industry [2016]

| Company | 2016 | | | | |
|--|-------------------|---------|---------|------------------------------|-------------------|
| | Cost of employees | Sales | % Sales | Cost of employees / Revenues | Profit Margin (%) |
| Iberlim - Higiene E Sustentabilidade Ambiental, S.A. | 113 484 | 126 029 | 6,1% | 90,0% | -6,6% |
| Derichebourg Facility Services, S.A. | 333 625 | 381 092 | 18,5% | 87,5% | -1,8% |
| Interlimpe - Facility Services, S.A. | 195 336 | 221 878 | 10,8% | 88,0% | 2,1% |
| Samsic Portugal - Facility Services, S.A. | 157 386 | 184 250 | 9,0% | 85,4% | 3,0% |
| Euromex - Facility Services, Lda | 143 111 | 158 693 | 7,7% | 90,2% | 1,6% |
| Sgl - Corporate Facility Services, S.A. | 151 647 | 180 790 | 8,8% | 83,9% | 2,7% |
| Fine Facility Services, Lda | 12 401 | 74 601 | 3,6% | 16,6% | 0,4% |
| Climex - Controlo De Ambiente, S.A. | 106 973 | 136 786 | 6,7% | 78,2% | 1,2% |
| Vadeca - Facility Services, S.A. | 16 295 | 56 383 | 2,7% | 28,9% | 0,8% |
| Clece, S.A. | 153 822 | 184 808 | 9,0% | 83,2% | 1,8% |
| Ambiente & Jardim li - Multiservices, S.A. | 2 895 | 57 168 | 2,8% | 5,1% | 0,4% |
| Operandus - Limpeza Profissional, Lda | 60 259 | 71 565 | 3,5% | 84,2% | 6,2% |

Appendix 6 – P&L Analysis of Outsourcing Companies: Cleaning Services (VI/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Cleaning Services Industry [2015]

| Company | 2015 | | | | |
|--|-------------------|---------|---------|------------------------------|-------------------|
| | Cost of employees | Sales | % Sales | Cost of employees / Revenues | Profit Margin (%) |
| Iberlim - Higiene E Sustentabilidade Ambiental, S.A. | 75 986 | 92 146 | 5,4% | 82,5% | -0,3% |
| Derichebourg Facility Services, S.A. | 309 599 | 347 363 | 20,3% | 89,1% | -8,3% |
| Interlimpe - Facility Services, S.A. | 167 293 | 190 512 | 11,1% | 87,8% | 0,9% |
| Samsic Portugal - Facility Services, S.A. | 129 129 | 152 069 | 8,9% | 84,9% | 3,7% |
| Euromex - Facility Services, Lda | 118 296 | 133 341 | 7,8% | 88,7% | 1,6% |
| Sgl - Corporate Facility Services, S.A. | 150 979 | 179 494 | 10,5% | 84,1% | 1,0% |
| Fine Facility Services, Lda | 6 801 | 100 270 | 5,8% | 6,8% | 0,4% |
| Climex - Controlo De Ambiente, S.A. | 98 842 | 125 681 | 7,3% | 78,6% | -1,4% |
| Vadeca - Facility Services, S.A. | 406 | 9 507 | 0,6% | 4,3% | 1,5% |
| Clece, S.A. | n.a | n.a | n.a | n.a | n.a |
| Ambiente & Jardim li - Multiservices, S.A. | 370 | 36 065 | 2,1% | 1,0% | 1,1% |
| Operandus - Limpeza Profissional, Lda | 50 762 | 57 937 | 3,4% | 87,6% | 1,0% |

Appendix 6 – P&L Analysis of Outsourcing Companies: Cleaning Services (VII/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Cleaning Services Industry [2015-2020]

| Company | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|--|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| | Cost of employees / Revenues | Cost of employees / Revenues | Cost of employees / Revenues | Cost of employees / Revenues | Cost of employees / Revenues | Cost of employees / Revenues |
| Iberlim - Higiene E Sustentabilidade Ambiental, S.A. | 82,8% | 83,2% | 90,4% | 91,0% | 90,0% | 82,5% |
| Derichebourg Facility Services, S.A. | 84,4% | 84,4% | 84,2% | 87,5% | 87,5% | 89,1% |
| Interlimpe - Facility Services, S.A. | 79,2% | 88,5% | 89,8% | 88,5% | 88,0% | 87,8% |
| Samsic Portugal - Facility Services, S.A. | 75,9% | 79,5% | 81,8% | 84,5% | 85,4% | 84,9% |
| Euromex - Facility Services, Lda | 92,9% | 90,8% | 89,5% | 88,9% | 90,2% | 88,7% |
| Sgl - Corporate Facility Services, S.A. | 84,3% | 84,7% | 84,1% | 85,2% | 83,9% | 84,1% |
| Fine Facility Services, Lda | 4,7% | 5,6% | 6,1% | 10,2% | 16,6% | 6,8% |
| Climex - Controlo De Ambiente, S.A. | 76,8% | 80,6% | 80,0% | 78,2% | 78,2% | 78,6% |
| Vadeca - Facility Services, S.A. | 73,1% | 71,8% | 62,9% | 54,3% | 28,9% | 4,3% |
| Clece, S.A. | 80,8% | 84,1% | 84,3% | 82,1% | 83,2% | n.a |
| Ambiente & Jardim li - Multiservices, S.A. | 0,7% | 0,8% | 0,9% | 1,2% | 5,1% | 1,0% |
| Operandus - Limpeza Profissional, Lda | 86,3% | 86,4% | 87,3% | 77,8% | 84,2% | 87,6% |

Appendix 7 – P&L Analysis of Outsourcing Companies: Security Services (I/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Security Services Industry [2020]

| Company | 2020 | | | | |
|---|-------------------|-----------|---------|------------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees / Revenues | Profit Margin (%) |
| Securitas - Servicos E Tecnologia De Seguranca, S.A. | 840 270 | 1 021 146 | 14,9% | 82,3% | 6,4% |
| Strong Charon - Solucoes De Seguranca, S.A. | 782 237 | 905 656 | 13,2% | 86,4% | 0,7% |
| Prosegur - Companhia De Seguranca, Lda | 707 465 | 890 518 | 13,0% | 79,4% | 1,6% |
| Prestibel - Empresa De Seguranca, S.A. | 545 320 | 586 428 | 8,6% | 93,0% | 4,9% |
| 2045 - Empresa De Seguranca, S.A. | 486 016 | 528 634 | 7,7% | 91,9% | 1,6% |
| Esegur - Empresa De Seguranca, S.A. | 311 349 | 437 988 | 6,4% | 71,1% | 16,5% |
| Prosegur - Alarmes Dissuasao Portugal, Unipessoal, Lda | 88 532 | 416 469 | 6,1% | 21,3% | 1,2% |
| Grupo 8 - Vigilancia E Prevencao Electronica, S.A. | 364 966 | 409 289 | 6,0% | 89,2% | 0,8% |
| Powershield - Seguranca Privada, S.A. | 321 157 | 352 652 | 5,2% | 91,1% | 1,5% |
| Psg - Seguranca Privada, S.A. | 293 778 | 323 694 | 4,7% | 90,8% | 1,0% |
| Ronsegur - Rondas E Seguranca, S.A. | 232 088 | 261 548 | 3,8% | 88,7% | 9,7% |
| Cops - Companhia Operacional De Seguranca, Unipessoal, Lda | 233 156 | 240 636 | 3,5% | 96,9% | -0,3% |
| Prosegur - Logistica E Tratamento De Valores Portugal, S.A. | 138 613 | 211 091 | 3,1% | 65,7% | -5,2% |
| Securitas Transport Aviation Security, Lda | 150 137 | 129 507 | 1,9% | 115,9% | -10,4% |
| Comansegur - Seguranca Privada, S.A. | 116 836 | 128 595 | 1,9% | 90,9% | 0,4% |

Appendix 7 – P&L Analysis of Outsourcing Companies: Security Services (II/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Security Services Industry [2019]

| Company | 2019 | | | | |
|---|-------------------|-----------|---------|------------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees / Revenues | Profit Margin (%) |
| Securitas - Servicos E Tecnologia De Seguranca, S.A. | 882 016 | 1 062 611 | 16,1% | 83,0% | 3,1% |
| Strong Charon - Solucoes De Seguranca, S.A. | 954 288 | 1 099 937 | 16,6% | 86,8% | 0,2% |
| Prosegur - Companhia De Seguranca, Lda | 859 375 | 1 119 972 | 16,9% | 76,7% | 2,4% |
| Prestibel - Empresa De Seguranca, S.A. | 468 738 | 514 165 | 7,8% | 91,2% | 5,8% |
| 2045 - Empresa De Seguranca, S.A. | 427 473 | 469 886 | 7,1% | 91,0% | 2,5% |
| Esegur - Empresa De Seguranca, S.A. | 303 408 | 449 887 | 6,8% | 67,4% | 5,9% |
| Prosegur - Alarmes Dissuasao Portugal, Unipessoal, Lda | 85 300 | 422 860 | 6,4% | 20,2% | 4,2% |
| Grupo 8 - Vigilancia E Prevencao Electronica, S.A. | 311 733 | 351 247 | 5,3% | 88,8% | 0,5% |
| Powershield - Seguranca Privada, S.A. | 171 762 | 191 522 | 2,9% | 89,7% | 1,6% |
| Psg - Seguranca Privada, S.A. | 153 511 | 179 922 | 2,7% | 85,3% | 1,2% |
| Ronsegur - Rondas E Seguranca, S.A. | 210 527 | 244 256 | 3,7% | 86,2% | 9,4% |
| Cops - Companhia Operacional De Seguranca, Unipessoal, Lda | 74 400 | 92 579 | 1,4% | 80,4% | 3,9% |
| Prosegur - Logistica E Tratamento De Valores Portugal, S.A. | 144 851 | 235 875 | 3,6% | 61,4% | 3,7% |
| Securitas Transport Aviation Security, Lda | 48 462 | 60 048 | 0,9% | 80,7% | 14,1% |
| Comansegur - Seguranca Privada, S.A. | 102 516 | 116 615 | 1,8% | 87,9% | 1,6% |

Appendix 7 – P&L Analysis of Outsourcing Companies: Security Services (III/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Security Services Industry [2018]

| Company | 2018 | | | | |
|---|-------------------|-----------|---------|------------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees / Revenues | Profit Margin (%) |
| Securitas - Servicos E Tecnologia De Seguranca, S.A. | 881 468 | 1 057 476 | 18,0% | 83,4% | 4,9% |
| Strong Charon - Solucoes De Seguranca, S.A. | 761 378 | 815 728 | 13,9% | 93,3% | -6,9% |
| Prosegur - Companhia De Seguranca, Lda | 867 703 | 1 105 372 | 18,9% | 78,5% | 0,7% |
| Prestibel - Empresa De Seguranca, S.A. | 437 315 | 472 332 | 8,1% | 92,6% | 4,2% |
| 2045 - Empresa De Seguranca, S.A. | 372 067 | 404 160 | 6,9% | 92,1% | 2,2% |
| Esegur - Empresa De Seguranca, S.A. | 318 360 | 461 598 | 7,9% | 69,0% | -3,6% |
| Prosegur - Alarmes Dissuasao Portugal, Unipessoal, Lda | 77 002 | 392 725 | 6,7% | 19,6% | 2,6% |
| Grupo 8 - Vigilancia E Prevencao Electronica, S.A. | 287 699 | 323 030 | 5,5% | 89,1% | 0,4% |
| Powershield - Seguranca Privada, S.A. | 123 194 | 136 767 | 2,3% | 90,1% | 1,3% |
| Psg - Seguranca Privada, S.A. | 93 338 | 114 080 | 1,9% | 81,8% | 3,0% |
| Ronsegur - Rondas E Seguranca, S.A. | 184 271 | 210 293 | 3,6% | 87,6% | 7,0% |
| Cops - Companhia Operacional De Seguranca, Unipessoal, Lda | 22 907 | 29 404 | 0,5% | 77,9% | 0,9% |
| Prosegur - Logistica E Tratamento De Valores Portugal, S.A. | 132 003 | 223 816 | 3,8% | 59,0% | 5,8% |
| Securitas Transport Aviation Security, Lda | 5 968 | 6 397 | 0,1% | 93,3% | 2,2% |
| Comansegur - Seguranca Privada, S.A. | 87 967 | 107 786 | 1,8% | 81,6% | 1,2% |

Appendix 7 – P&L Analysis of Outsourcing Companies: Security Services (IV/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Security Services Industry [2017]

| Company | 2017 | | | | |
|---|-------------------|-----------|---------|------------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees / Revenues | Profit Margin (%) |
| Securitas - Servicos E Tecnologia De Seguranca, S.A. | 836 683 | 1 023 132 | 19,8% | 81,8% | 4,5% |
| Strong Charon - Solucoes De Seguranca, S.A. | 417 526 | 427 087 | 8,3% | 97,8% | -7,0% |
| Prosegur - Companhia De Seguranca, Lda | 852 291 | 1 055 340 | 20,4% | 80,8% | -1,7% |
| Prestibel - Empresa De Seguranca, S.A. | 396 811 | 442 082 | 8,5% | 89,8% | 5,3% |
| 2045 - Empresa De Seguranca, S.A. | 343 220 | 384 540 | 7,4% | 89,3% | 2,5% |
| Esegur - Empresa De Seguranca, S.A. | 317 143 | 463 214 | 8,9% | 68,5% | -8,0% |
| Prosegur - Alarmes Dissuasao Portugal, Unipessoal, Lda | 70 044 | 346 734 | 6,7% | 20,2% | 2,0% |
| Grupo 8 - Vigilancia E Prevencao Electronica, S.A. | 258 964 | 286 586 | 5,5% | 90,4% | 0,6% |
| Powershield - Seguranca Privada, S.A. | 86 841 | 98 033 | 1,9% | 88,6% | 1,9% |
| Psg - Seguranca Privada, S.A. | 80 811 | 102 639 | 2,0% | 78,7% | 3,0% |
| Ronsegur - Rondas E Seguranca, S.A. | 157 476 | 177 570 | 3,4% | 88,7% | 3,9% |
| Cops - Companhia Operacional De Seguranca, Unipessoal, Lda | 20 162 | 25 738 | 0,5% | 78,3% | -1,7% |
| Prosegur - Logistica E Tratamento De Valores Portugal, S.A. | 126 522 | 211 905 | 4,1% | 59,7% | 6,1% |
| Securitas Transport Aviation Security, Lda | 5 655 | 5 183 | 0,1% | 109,1% | 0,1% |
| Comansegur - Seguranca Privada, S.A. | 82 977 | 126 541 | 2,4% | 65,6% | 2,7% |

Appendix 7 – P&L Analysis of Outsourcing Companies: Security Services (V/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Security Services Industry [2016]

| Company | 2016 | | | | |
|---|-------------------|-----------|---------|------------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees / Revenues | Profit Margin (%) |
| Securitas - Servicos E Tecnologia De Seguranca, S.A. | 761 235 | 933 383 | 19,2% | 81,6% | 4,4% |
| Strong Charon - Solucoes De Seguranca, S.A. | 387 730 | 430 187 | 8,8% | 90,1% | 0,8% |
| Prosegur - Companhia De Seguranca, Lda | 864 239 | 1 078 335 | 22,2% | 80,1% | -1,0% |
| Prestibel - Empresa De Seguranca, S.A. | 383 693 | 428 142 | 8,8% | 89,6% | 4,4% |
| 2045 - Empresa De Seguranca, S.A. | 349 400 | 386 621 | 8,0% | 90,4% | 2,1% |
| Esegur - Empresa De Seguranca, S.A. | 321 557 | 477 068 | 9,8% | 67,4% | -7,6% |
| Prosegur - Alarmes Dissuasao Portugal, Unipessoal, Lda | 54 177 | 245 008 | 5,0% | 22,1% | 5,0% |
| Grupo 8 - Vigilancia E Prevencao Electronica, S.A. | 246 765 | 281 557 | 5,8% | 87,6% | 0,7% |
| Powershield - Seguranca Privada, S.A. | 71 467 | 78 270 | 1,6% | 91,3% | 1,3% |
| Psg - Seguranca Privada, S.A. | 73 341 | 90 031 | 1,9% | 81,5% | 3,3% |
| Ronsegur - Rondas E Seguranca, S.A. | 125 728 | 134 599 | 2,8% | 93,4% | 4,1% |
| Cops - Companhia Operacional De Seguranca, Unipessoal, Lda | 17 303 | 23 344 | 0,5% | 74,1% | 1,2% |
| Prosegur - Logistica E Tratamento De Valores Portugal, S.A. | 98 462 | 171 547 | 3,5% | 57,4% | 18,8% |
| Securitas Transport Aviation Security, Lda | 3 448 | 8 006 | 0,2% | 43,1% | 4,8% |
| Comansegur - Seguranca Privada, S.A. | 79 562 | 95 482 | 2,0% | 83,3% | 5,4% |

Appendix 7 – P&L Analysis of Outsourcing Companies: Security Services (VI/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Security Services Industry [2015]

| Company | 2015 | | | | |
|---|-------------------|-----------|---------|------------------------------|-------------------|
| | Cost of Employees | Sales | % Sales | Cost of Employees / Revenues | Profit Margin (%) |
| Securitas - Servicos E Tecnologia De Seguranca, S.A. | 709 850 | 863 460 | 18,3% | 82,2% | 3,8% |
| Strong Charon - Solucoes De Seguranca, S.A. | 361 801 | 384 750 | 8,1% | 94,0% | 0,6% |
| Prosegur - Companhia De Seguranca, Lda | 1 028 783 | 1 445 386 | 30,6% | 71,2% | 0,6% |
| Prestibel - Empresa De Seguranca, S.A. | 379 971 | 429 481 | 9,1% | 88,5% | 5,9% |
| 2045 - Empresa De Seguranca, S.A. | 317 381 | 338 494 | 7,2% | 93,8% | 1,1% |
| Esegur - Empresa De Seguranca, S.A. | 345 028 | 524 654 | 11,1% | 65,8% | n.a |
| Prosegur - Alarmes Dissuasao Portugal, Unipessoal, Lda | n.a | n.a | n.a | n.a | 3,8% |
| Grupo 8 - Vigilancia E Prevencao Electronica, S.A. | 307 427 | 343 413 | 7,3% | 89,5% | 0,8% |
| Powershield - Seguranca Privada, S.A. | 60 279 | 65 688 | 1,4% | 91,8% | 1,5% |
| Psg - Seguranca Privada, S.A. | 48 951 | 62 761 | 1,3% | 78,0% | 4,0% |
| Ronsegur - Rondas E Seguranca, S.A. | 92 228 | 109 172 | 2,3% | 84,5% | 8,1% |
| Cops - Companhia Operacional De Seguranca, Unipessoal, Lda | 14 288 | 20 391 | 0,4% | 70,1% | 1,4% |
| Prosegur - Logistica E Tratamento De Valores Portugal, S.A. | n.a | n.a | n.a | n.a | n.a |
| Securitas Transport Aviation Security, Lda | 29 364 | 39 657 | 0,8% | 74,0% | 9,9% |
| Comansegur - Seguranca Privada, S.A. | 77 630 | 94 174 | 2,0% | 82,4% | 1,6% |

Appendix 7 – P&L Analysis of Outsourcing Companies: Security Services (VII/VII)

P&L Analysis for the 15 Companies with the highest Turnover within the Security Services Industry

[2015-2020]

| Company | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| | Cost of Employees / Revenues | Cost of Employees / Revenues | Cost of Employees / Revenues | Cost of Employees / Revenues | Cost of Employees / Revenues | Cost of Employees / Revenues |
| Securitas - Servicos E Tecnologia De Seguranca, S.A. | 82,3% | 83,0% | 83,4% | 81,8% | 81,6% | 82,2% |
| Strong Charon - Solucoes De Seguranca, S.A. | 86,4% | 86,8% | 93,3% | 97,8% | 90,1% | 94,0% |
| Prosegur - Companhia De Seguranca, Lda | 79,4% | 76,7% | 78,5% | 80,8% | 80,1% | 71,2% |
| Prestibel - Empresa De Seguranca, S.A. | 93,0% | 91,2% | 92,6% | 89,8% | 89,6% | 88,5% |
| 2045 - Empresa De Seguranca, S.A. | 91,9% | 91,0% | 92,1% | 89,3% | 90,4% | 93,8% |
| Esegur - Empresa De Seguranca, S.A. | 71,1% | 67,4% | 69,0% | 68,5% | 67,4% | 65,8% |
| Prosegur - Alarmes Dissuasao Portugal, Unipessoal, Lda | 21,3% | 20,2% | 19,6% | 20,2% | 22,1% | n.a |
| Grupo 8 - Vigilancia E Prevencao Electronica, S.A. | 89,2% | 88,8% | 89,1% | 90,4% | 87,6% | 89,5% |
| Powershield - Seguranca Privada, S.A. | 91,1% | 89,7% | 90,1% | 88,6% | 91,3% | 91,8% |
| Psg - Seguranca Privada, S.A. | 90,8% | 85,3% | 81,8% | 78,7% | 81,5% | 78,0% |
| Ronsegur - Rondas E Seguranca, S.A. | 88,7% | 86,2% | 87,6% | 88,7% | 93,4% | 84,5% |
| Cops - Companhia Operacional De Seguranca, Unipessoal, Lda | 96,9% | 80,4% | 77,9% | 78,3% | 74,1% | 70,1% |
| Prosegur - Logistica E Tratamento De Valores Portugal, S.A. | 65,7% | 61,4% | 59,0% | 59,7% | 57,4% | n.a |
| Securitas Transport Aviation Security, Lda | 115,9% | 80,7% | 93,3% | 109,1% | 43,1% | 74,0% |
| Comansegur - Seguranca Privada, S.A. | 90,9% | 87,9% | 81,6% | 65,6% | 83,3% | 82,4% |

Appendix 8 – Negotiation Interview Guide



Introduction:

We are Master's students in Management and Finance at Nova SBE and we are developing a project that aims to streamline the negotiation relationship between our client from the private hospital sector and its partners from the insurance sector in Portugal. With this interview we intend to learn a little more about theoretical perspectives, strategies and best practices at the moment of renegotiation, and finally some effective communication techniques and methods.

Theoretical Perspectives:

- What frameworks can be used by our client in order to organise and structure a better method of renegotiation with insurers?
- What statistics on renegotiation might be relevant for our client in order to maximise their meetings with the insurers?

Strategy and Best Practises:

- What strategy would you recommend to a hospital that wishes to raise its prices based on market pressure?
- What suggestions would you give us to increase the relevance and impact of the arguments presented by our client?
- What best practices could we use to suggest a renegotiation structure to our client?

Communication Techniques and Methods:

- What communication techniques and methods have the most impact at times of renegotiation?

Conclusion

We would like to thank you for your willingness to meet with our team and for the information you shared with us, which will certainly help us develop our Project.

Appendix 9 – Additional International Best Practices Renegotiation



Point of Sale Expansion

In an attempt to reduce costs, improve efficiency and **increase current exposure to clients**, several Health Insurers are entering into **partnerships** with companies from other sectors, **expanding the number of points of sale of their insurance**.¹

| Health Insurance: | Partnership: | Gain in Exposure: |
|---|---|---|
|  Your global health partner |  | <ul style="list-style-type: none"> ~ 4,5 M. clients/day;² ~ 9940 outlets in the US.² |
|  |  | <ul style="list-style-type: none"> ~ 240 M. customers/week; ³ ~ 4740 outlets in the US. ⁴ |

Through partnerships such as this one, Vida Group can renegotiate the prices practiced with the Insurance Companies, in exchange for the **promotion of Insurance in its points of sale***.

* This practice may be subject to the laws of the Portuguese Competition Authority



Implementation of a Tool of Price Transparency

By implementing a price estimation tool to **provide information on the costs of medical services not covered by different insurances**, *Jackson Memorial Hospital* was able to secure reimbursements above the competition even for medical acts where the cost is lower.

Comparison of 2 hospitals in Miami: ⁶

Medical Service: Permanent Pacemaker Implantation

| |  University of Miami Hospital |  Jackson Memorial Hospital |
|----------------------|---|--|
| Average cost | 166 174\$ | 89 027\$ |
| Reimbursement medium | 23 397\$ | 33 129\$ |

By **promoting a transparent pricing policy**, Vida Group can exert pressure on Insurers to renegotiate better conditions*.

* This practice may be subject to the laws of the Portuguese Competition Authority and to commercial confidentiality

Appendix 10 – User Guide for the Financial Model (I/XIII)

Financial Model | Introduction

The main objective for this financial model is to be a practical and supportive tool for the internal pricing team, for the renegotiations with health insurance companies.

- First, it allows for the derivation and structuring of the supporting material to implement the renegotiations strategy
- Then, it allows for the iteration of the different meeting, permitting a continuous update of the agreements made with insurers

For proper use of the model, there are three steps for the user:

1 **Data:** User must ensure that the data inserted is updated

2 **Inputs:** User must insert the requested information asked by the model as inputs

3 **Ouptus:** User must interpret the output given by the model

Appendix 10 – User Guide for the Financial Model (II/XIII)

Financial Model | Data Insertion (I/II)

The first sheets of the model comprise data insertion. These sheets have specific format and structure so that the model can be automated, based on the information provided here. Therefore, it is crucial that the guidelines to update the data are followed accordingly.

For “DATA – PRICE TABLE N” and “DATA – PRICE TABLE N+1” these are the guidelines:

1. Choose the first and last year to study the evolution of prices
2. Clear information from the second row onwards
3. Insert the internal price table for one entity, with the current structure, from second row onwards
4. Insert the internal price tables for the other entities below the previous one

For “DATA – BILLING” these are the guidelines:

1. Choose the billing year intended to be used for analysis
2. Clear information from the second row onwards
3. Insert the internal billing information for one entity, with the current structure, from second row onwards
4. Insert the internal billing information for the other entities below the previous one

For “DATA – BILLING” these are the guidelines:

1. Complete the P&L structure presented with the information for the available years
2. Complete the “Costs Detailed” table presented below the P&L

Appendix 10 – User Guide for the Financial Model (III/XIII)

Financial Model | Data Insertion (II/II)

For “DATA – CLINICAL FEES” these are the guidelines:

1. Build a list of norms for the clinical fees, by medical item
2. Adapt the structure to match the one presented by the model
3. Clear information in the sheet
4. Update with the new list

For “DATA – FORECASTS VL”, “DATA – FORECASTS GROUP” and “DATA- FORECASTS VC these are the guidelines:

1. Clear information inserted in each sheet
2. Insert internal forecasts for these units and for the group

Every time the user updates information inserted in these sheets, the “Refresh Data” button available on the “INPUTS” Sheet should be pressed, so that the model makes use of this new information.

However, it is only necessary to press this button if new information is inserted in these DATA Sheets

Appendix 10 – User Guide for the Financial Model (IV/XIII)

Financial Model | Inputs Update (I/II)

With the inserted data updated, the next step is to insert the requested information in the INPUTS Sheet. For this task, the user should fill or adjust every cell filled in blue. There are cells that are open ended and others that are drop-down lists, (the drop-down lists are presented when the cells are selected).

- The INPUTS Sheet is divided in four main categories: "Price Evolution", "Cost Evolution", "Renegotiation Basis" and "Final Price Table"

For "Price Evolution" these are the guidelines:

1. Press the "Refresh Data" button only if the DATA Sheets were updated
2. Insert the first and the last of the price tables inserted in the "DATA – PRICE TABLE N" and "DATA – PRICE TABLE N+1"

For "Cost Evolution" these are the guidelines:

1. Decide which external indicator is most suited for each internal cost dimension
2. Insert the historical data available about that indicator
3. Insert the projections available or compute them for each indicator
4. Insert the last year of available data for the P&L

Appendix 10 – User Guide for the Financial Model (V/XIII)

Financial Model | Inputs Update (II/II)

For “Renegotiation Basis” these are the guidelines:

1. Insert the year intended to renegotiate prices
2. Decide whether to include the Price Inflation Index as a revision tool or not
3. For each insurer, decide a percentual change to add or remove for each group of item
4. Record the output if intended to, register the impact of the renegotiation conditions decided, (for scenario analysis purpose)

For “Final Price Table” these are the guidelines:

1. Press the “Final Price Table” button to generate a new price table based on the renegotiation conditions decided

Decisions and updates on the information provided on this page are automatically considered for all the model.

The user might move from this page to the output ones, in order to see the results generated by the model.

Appendix 10 – User Guide for the Financial Model (VI/XIII)

Financial Model | Model Functioning (I/III)

Data & Inputs

Data:

- Price Table N – Price tables for the 5 largest insurers and private clients, in VL
- Billing – Billing document for the 5 largest insurers and private clients, in VL
- Clinical fees – Clinical fees regulation for insurance companies, in VL

Inputs:

- Year N – First year of study
- Year N+1 – Last year of study

Assumptions

- When an item only has Price for the patient, it is assumed to correspond to private price table
- Consumables and pharma products are not analysed because they are not present in insurers price tables
- Only the items with Perfect match between both years of study are analysed

Engine

Engine - Consolidated Prices:

- Gathers in a consolidated table, the information of price tables and billing documents, based on the "E.F.R. Code".
- Computes the delta of prices agreed between both years
- Based on the delta, computes what would the revenue in the last year if the prices agreed in the first year were still applied
- Computes theoretically the impact that the variation in prices had on revenues for the VL

Engine - Price Evolution:

- Allows for the study of the prices evolution and their impact on different layers

Outputs

Infographic depicting the evolution of prices agreed with the different insurers, its impact on VL revenue and which were the most representative variations between the two years of study.

Appendix 10 – User Guide for the Financial Model (VII/XIII)

Financial Model | Model Functioning (II/III)

Data & Inputs

Inputs :

- Relational table between internal group costs and exogenous indicators that impact them
- Historical evolution and forecasts for the exogenous indicators between 2015 and 2025

Assumptions

- For the projection of costs, it was assumed a constant volume of activity, and related resources consumed, (including, number of workers or energy consumed)
- It was assumed a direct impact from exogenous indicators over the endogenous costs

Engine

Engine – Price Inflation Index:

- Forecasts what would be the endogenous costs for VL, based on the growth of the exogenous indicators
- Computes the Price Inflation Index, which depicts by how much do the prices need to grow to annul the impact caused by the growth in the exogenous costs

Outputs

Price Inflation Index map for the different years.

Appendix 10 – User Guide for the Financial Model (VIII/XIII)

Financial Model | Model Functioning (III/III)

Data & Inputs

Inputs :

- Renegotiation Year
- Decision table about the different renegotiation conditions for each insurers by group of items

Assumptions

- Renegotiations are made only with the largest 5 insurers
- Only items that have full information about billing, prices and clinical fees are subject to price revision
- The impact of price renegotiation assumes the volume of activity from the last year

Engine

Engine – Renegotiation:

- Computes the necessary amount of revenue increase to hold margin
- Suggests a ranking of items according to the representativeness that those items have on the net AGM of VL, to revise prices
- Gathers the PII with the price variation defined for each group of items and specific items to compute total price variation

Outputs

Renegotiation map for each entity and item, based on the PII and on the special conditions defined for each insurer.

Appendix 10 – User Guide for the Financial Model (IX/XIII)

Financial Model | Outputs (I/V)

In result of the data provided to the model, the decisions about the inputs given by the user and the functioning of the engine, the model generates a set of outputs. These outputs will serve as support for the renegotiation moments with insurers and as a tool to iterate through the different moments and incorporate the consequent agreements.

The model presents four different outputs:

1

Price Evolution: User is able to analyse the evolution of prices agreed with the different insurers

2

P&L: User is able to analyse the impact that the renegotiations will have on its results

3

Scenario Analysis: User is able to prepare and study the impact of different scenarios of renegotiation

4

Final Price Table: User is able to extract the new price table that results from the renegotiations with insurers

Appendix 10 – User Guide for the Financial Model (X/XIII)

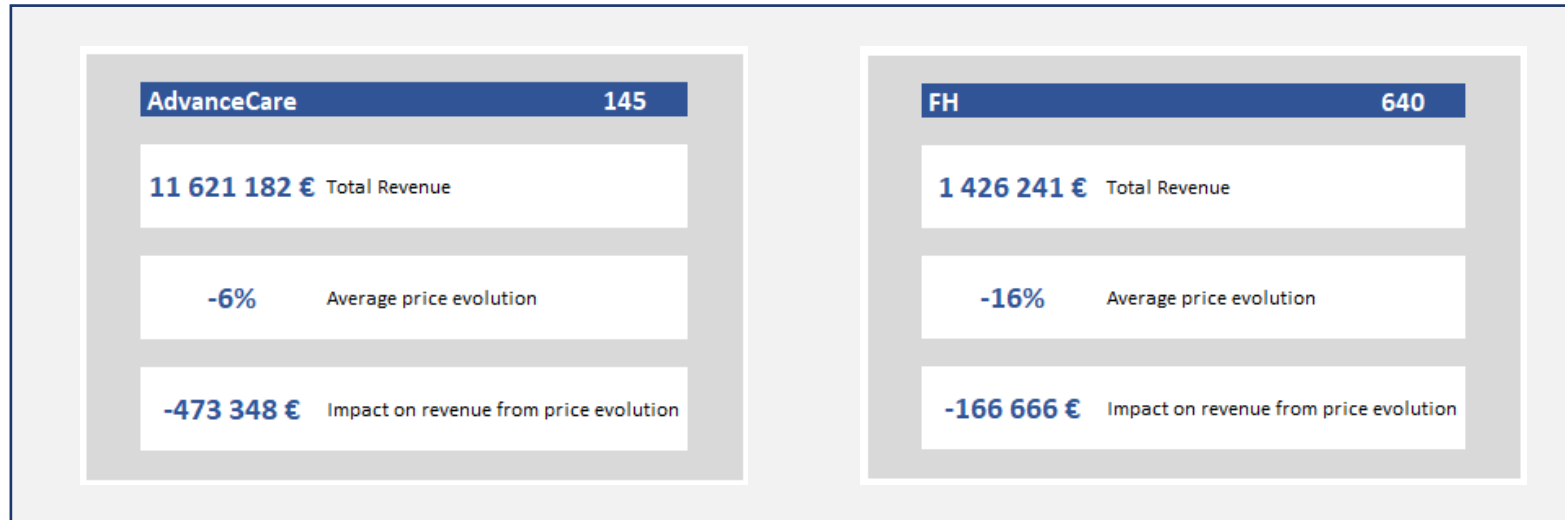
Financial Model | Outputs (II/V)

1. Price Evolution

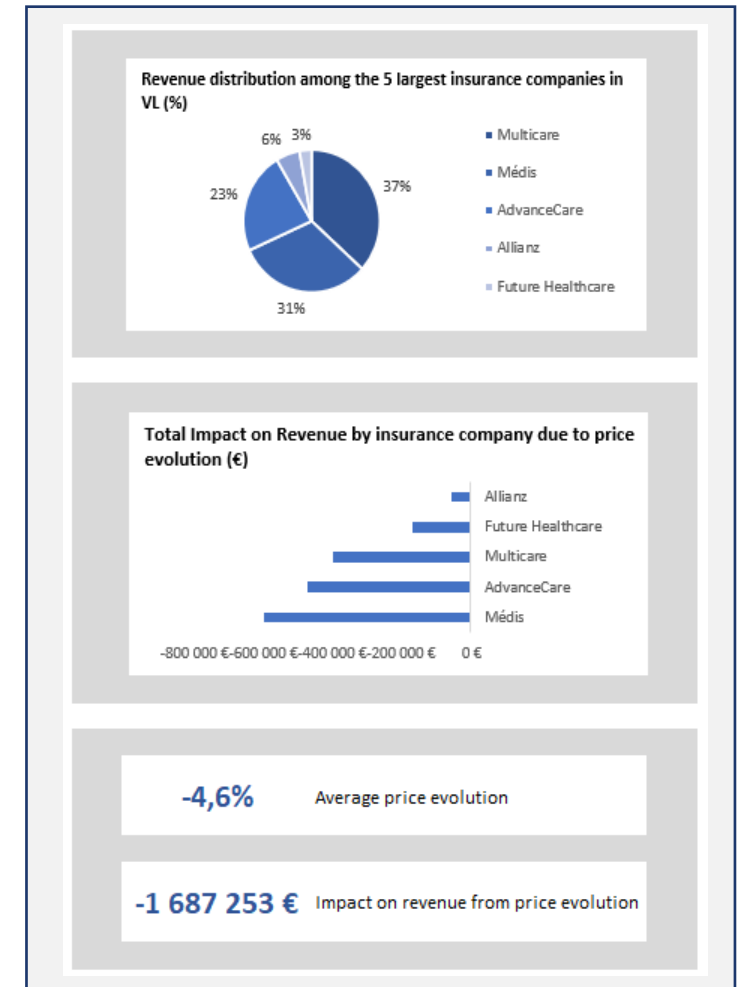
In the first output of the model, the user is able to analyse the historical evolution of prices in a structured fashion. This analysis can be done for:

- The VL unit as a whole (1A)
- Each insurer at a time (1B). Here the user might vary the insurer under study by using the drop down list, available on the name of the insurer.

1B. Price Evolution and Impact on Revenues per Insurance Company:



1A. Price Evolution and Impact on Revenues:



Appendix 10 – User Guide for the Financial Model (XI/XIII)

Financial Model | Outputs (III/V)

2. P&L

In the presentation of the P&L the user can measure the impact that a renegotiation based on the conditions decided by the user and/or agreed with the insurer will have on the internal results. For this study, the model applies the renegotiation terms in the forecasts of activity for the group. The impact is divided in two:

- The impact based on renegotiations that consider only items with full information (2A) – pricing, billing and clinical fees – to study impact on AGM
- The impact based on renegotiations that consider all items with available information of pricing and billing (2B) – to study impact on Topline

2A. Study about impact on AGM:

| Forecasted P&L - VL | 2022 | 2022 * | Δ (%) | Δ (€) |
|---|---------------|----------------|-------|-----------|
| Total dos rendimentos operacionais | 144 525 703 € | 144 784 365,34 | | |
| Vendas e serviços prestados | 144 018 869 € | 144 277 530,88 | 0,18% | 258 662 € |
| 145 | 12 358 271 € | 12 407 462 € | 0,40% | 49 191 € |
| % Revenue | 8,6% | | | |
| 1500 | 19 565 409 € | 19 661 272 € | 0,49% | 95 863 € |
| % Revenue | 13,6% | | | |
| 197 | 16 802 082 € | 16 893 865 € | 0,55% | 91 783 € |
| % Revenue | 11,7% | | | |
| 563 | 3 017 504 € | 3 032 739 € | 0,50% | 15 235 € |
| % Revenue | 2,1% | | | |
| 640 | 1 516 702 € | 1 523 292 € | 0,43% | 6 591 € |
| % Revenue | 1,1% | | | |
| Subsídios à exploração | - € | - € | 0,00% | - € |
| Outros rendimentos e ganhos | 506 834 € | 506 834 € | 0,00% | - € |
| Consumos | 22 632 068 € | 22 632 068 € | 0,00% | - € |
| Gross Margin | 121 893 635 € | 122 152 297 € | 0,21% | 258 662 € |
| Subcontratos / Honorários Clínicos (RH) | 41 767 723 € | 41 793 151 € | 0,06% | 25 428 € |
| Adjusted Gross Margin | 80 125 913 € | 80 359 147 € | 0,29% | 233 234 € |

2B. Study about impact on Topline:

| Forecasted P&L - VL | 2022 | 2022 * | Δ (%) | Δ (€) |
|-----------------------------|---------------|----------------|-------|-----------|
| Vendas e serviços prestados | 144 018 869 € | 144 487 109,31 | 0,33% | 468 240 € |
| 145 | 12 358 271 € | 12 463 566 € | 0,85% | 105 295 € |
| % Revenue | 8,6% | | | |
| 1500 | 19 565 409 € | 19 742 828 € | 0,91% | 177 419 € |
| % Revenue | 13,6% | | | |
| 197 | 16 802 082 € | 16 942 555 € | 0,84% | 140 472 € |
| % Revenue | 11,7% | | | |
| 563 | 3 017 504 € | 3 047 625 € | 1,00% | 30 121 € |
| % Revenue | 2,1% | | | |
| 640 | 1 516 702 € | 1 531 636 € | 0,98% | 14 934 € |
| % Revenue | 1,1% | | | |

Appendix 10 – User Guide for the Financial Model (XII/XIII)

Financial Model | Outputs (IV/V)

3. Scenario Analysis

The scenario analysis allows for the user to prepare different scenarios and evaluate the impact that each one would have on the results of the group. This is an interactive output, in the sense that the user needs to record the different outputs as the inputs are varied.

Scenario 1

| Forecasted P&L - VL | 2022 | 2022 * | Δ (%) | Δ (€) |
|---|---------------|----------------|-------|-----------|
| Total dos rendimentos operacionais | 144 525 703 € | 144 784 365,34 | | |
| Vendas e serviços prestados | 144 018 869 € | 144 277 530,88 | 0,18% | 258 662 € |
| 145 | 12 358 271 € | 12 407 462 € | 0,40% | 49 191 € |
| % Revenue | 8,6% | | | |
| 1500 | 19 565 409 € | 19 661 272 € | 0,49% | 95 863 € |
| % Revenue | 13,6% | | | |
| 197 | 16 802 082 € | 16 893 865 € | 0,55% | 91 783 € |
| % Revenue | 11,7% | | | |
| 563 | 3 017 504 € | 3 032 739 € | 0,50% | 15 235 € |
| % Revenue | 2,1% | | | |
| 640 | 1 516 702 € | 1 523 292 € | 0,43% | 6 591 € |
| % Revenue | 1,1% | | | |
| Subsídios à exploração | - € | - € | 0,00% | - € |
| Outros rendimentos e ganhos | 506 834 € | 506 834 € | 0,00% | - € |
| Consumos | 22 632 068 € | 22 632 068 € | 0,00% | - € |
| Gross Margin | 121 893 635 € | 122 152 297 € | 0,21% | 258 662 € |
| Subcontratos / Honorários Clínicos (RH) | 41 767 723 € | 41 793 151 € | 0,06% | 25 428 € |
| Adjusted Gross Margin | 80 125 913 € | 80 359 147 € | 0,29% | 233 234 € |

| Forecasted P&L - VL | 2022 | 2022 * | Δ (%) | Δ (€) |
|-----------------------------|---------------|----------------|-------|-----------|
| Vendas e serviços prestados | 144 018 869 € | 144 487 109,31 | 0,33% | 468 240 € |
| 145 | 12 358 271 € | 12 463 566 € | 0,85% | 105 295 € |
| % Revenue | 8,6% | | | |
| 1500 | 19 565 409 € | 19 742 828 € | 0,91% | 177 419 € |
| % Revenue | 13,6% | | | |
| 197 | 16 802 082 € | 16 942 555 € | 0,84% | 140 472 € |
| % Revenue | 11,7% | | | |
| 563 | 3 017 504 € | 3 047 625 € | 1,00% | 30 121 € |
| % Revenue | 2,1% | | | |
| 640 | 1 516 702 € | 1 531 636 € | 0,98% | 14 934 € |
| % Revenue | 1,1% | | | |

Scenario 2

| Forecasted P&L - VL | 2022 | 2022 * | Δ (%) | Δ (€) |
|---|---------------|----------------|-------|-----------|
| Total dos rendimentos operacionais | 144 525 703 € | 145 056 995,00 | | |
| Vendas e serviços prestados | 144 018 869 € | 144 550 160,54 | 0,37% | 531 292 € |
| 145 | 12 358 271 € | 12 439 727 € | 0,66% | 81 456 € |
| % Revenue | 8,6% | | | |
| 1500 | 19 565 409 € | 19 787 027 € | 1,13% | 221 618 € |
| % Revenue | 13,6% | | | |
| 197 | 16 802 082 € | 16 984 166 € | 1,08% | 182 084 € |
| % Revenue | 11,7% | | | |
| 563 | 3 017 504 € | 3 052 724 € | 1,17% | 35 219 € |
| % Revenue | 2,1% | | | |
| 640 | 1 516 702 € | 1 527 615 € | 0,72% | 10 914 € |
| % Revenue | 1,1% | | | |
| Subsídios à exploração | - € | - € | 0,00% | - € |
| Outros rendimentos e ganhos | 506 834 € | 506 834 € | 0,00% | - € |
| Consumos | 22 632 068 € | 22 632 068 € | 0,00% | - € |
| Gross Margin | 121 893 635 € | 122 424 927 € | 0,44% | 531 292 € |
| Subcontratos / Honorários Clínicos (RH) | 41 767 723 € | 41 819 601 € | 0,12% | 51 878 € |
| Adjusted Gross Margin | 80 125 913 € | 80 605 326 € | 0,60% | 479 413 € |

| Forecasted P&L - VL | 2022 | 2022 * | Δ (%) | Δ (€) |
|-----------------------------|---------------|----------------|-------|-----------|
| Vendas e serviços prestados | 144 018 869 € | 144 976 429,06 | 0,66% | 957 560 € |
| 145 | 12 358 271 € | 12 532 630 € | 1,41% | 174 359 € |
| % Revenue | 8,6% | | | |
| 1500 | 19 565 409 € | 19 975 569 € | 2,10% | 410 160 € |
| % Revenue | 13,6% | | | |
| 197 | 16 802 082 € | 17 080 760 € | 1,66% | 278 678 € |
| % Revenue | 11,7% | | | |
| 563 | 3 017 504 € | 3 087 139 € | 2,31% | 69 634 € |
| % Revenue | 2,1% | | | |
| 640 | 1 516 702 € | 1 541 431 € | 1,63% | 24 729 € |
| % Revenue | 1,1% | | | |

* These pictures represent an example of a scenario analysis performed with illustrative renegotiation conditions

Appendix 10 – User Guide for the Financial Model (XIII/XIII)

Financial Model | Outputs (V/V)

4. Final Price Table

As final output, the user can retrieve the final price table resulting from the final decisions about inputs from the user and/or agreed with the health insurance companies, on renegotiations.

| E.F. | I | Código | Preç | Tipo de Rub | Descrição do tipo de | Grupo de Rub | Descrição do grupo de rubric | Rubrica | Descrição de rubrica | Rubrica | Data | Valor Entid: | % Desco | Valor Doe | Valor Ta | Nr. | K | Nr. | C's |
|------|-------|--------|------|-------------|----------------------|--------------|------------------------------|--|----------------------|------------|----------|--------------|---------|-----------|----------|-----|---|-----|-----|
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35020001 | Simpaticectomia lombar | 35020001 | 16/12/2021 | 418,79 | 0 | 0,00 | 0 | 100 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35020002 | Simpaticectomia cervicodorsal | 35020002 | 16/12/2021 | 502,55 | 0 | 0,00 | 0 | 120 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35020003 | Simpaticectomia toracica superior (via axilar ou transp | 35020003 | 16/12/2021 | 628,18 | 0 | 0,00 | 0 | 150 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35020005 | Ressecação de costela cervical, unilateral | 35020005 | 16/12/2021 | 502,55 | 0 | 0,00 | 0 | 120 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35020006 | Ressecação da 1.ª costela, unilateral | 35020006 | 16/12/2021 | 502,55 | 0 | 0,00 | 0 | 120 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35030001 | Veias cava inferior, ilíacas, femorais e popliteas, via ab | 35030001 | 16/12/2021 | 628,18 | 0 | 0,00 | 0 | 150 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010406 | Ramos viscerais da aorta | 35010406 | 16/12/2021 | 753,82 | 0 | 0,00 | 0 | 180 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010302 | Aorta descendente toracica e/ou abdominal; incluindo | 35010302 | 16/12/2021 | 2.093,94 | 0 | 0,00 | 0 | 500 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010303 | Aorta descendente, toracica e abdominal, incluindo r | 35010303 | 16/12/2021 | 2.512,73 | 0 | 0,00 | 0 | 600 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010304 | Carotidas via cervical | 35010304 | 16/12/2021 | 1046,97 | 0 | 0,00 | 0 | 250 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010305 | Carotidas via toracocervical | 35010305 | 16/12/2021 | 1465,76 | 0 | 0,00 | 0 | 350 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010306 | CAROTIDAS VIA TORACOCERVICAL C/ C.E.C. OU PO | 35010306 | 16/12/2021 | 3.350,31 | 0 | 0,00 | 0 | 800 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010307 | Tronco braquiocéfálico | 35010307 | 16/12/2021 | 1800,79 | 0 | 0,00 | 0 | 430 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010308 | Arterias subclavias, via cervical ou axilar | 35010308 | 16/12/2021 | 837,58 | 0 | 0,00 | 0 | 200 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010309 | Arterias subclavias, via toracocervical | 35010309 | 16/12/2021 | 1256,37 | 0 | 0,00 | 0 | 300 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010310 | Arterias axilar e restantes do membro superior | 35010310 | 16/12/2021 | 753,82 | 0 | 0,00 | 0 | 180 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010311 | Aorta abdominal infra-renal | 35010311 | 16/12/2021 | 1465,76 | 0 | 0,00 | 0 | 350 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010312 | Ramos viscerais da aorta | 35010312 | 16/12/2021 | 1465,76 | 0 | 0,00 | 0 | 350 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010313 | Arterias ilíacas | 35010313 | 16/12/2021 | 1046,97 | 0 | 0,00 | 0 | 250 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010314 | Arterias femorais ou popliteas | 35010314 | 16/12/2021 | 837,58 | 0 | 0,00 | 0 | 200 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010315 | Outras arterias dos membros | 35010315 | 16/12/2021 | 753,82 | 0 | 0,00 | 0 | 180 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010316 | REP. DAS LESÕES DISSECCÃO AORTA, TIPO DISTAL | 35010316 | 16/12/2021 | 2.093,94 | 0 | 0,00 | 0 | 500 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010317 | REP. DAS LESÕES DISSECCÃO AORTA, TIPO DISTAL | 35010317 | 16/12/2021 | 1675,16 | 0 | 0,00 | 0 | 400 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010318 | REP. DAS LESÕES DISSECCÃO AORTA, TIPO DISTAL | 35010318 | 16/12/2021 | 1256,37 | 0 | 0,00 | 0 | 300 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010401 | No pescoço | 35010401 | 16/12/2021 | 628,18 | 0 | 0,00 | 0 | 150 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010402 | No torax com C.E.C. ou ponte | 35010402 | 16/12/2021 | 1675,16 | 0 | 0,00 | 0 | 400 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010403 | No torax sem C.E.C. ou ponte | 35010403 | 16/12/2021 | 1046,97 | 0 | 0,00 | 0 | 250 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010404 | No abdomen, aorta acima de renais | 35010404 | 16/12/2021 | 1046,97 | 0 | 0,00 | 0 | 250 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010405 | No abdomen, aorta abaixo de renais ou ilíacas | 35010405 | 16/12/2021 | 753,82 | 0 | 0,00 | 0 | 180 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010301 | Arco aortico, com protecção por C.E.C. ou pontes (inc | 35010301 | 16/12/2021 | 3.350,31 | 0 | 0,00 | 0 | 800 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010117 | Arterias femoral superficial ou poplitea ou tronco tibiop | 35010117 | 16/12/2021 | 753,82 | 0 | 0,00 | 0 | 180 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010201 | Revascularização de arteria cerebral extra-craniana (l | 35010201 | 16/12/2021 | 963,21 | 0 | 0,00 | 0 | 230 | 0 | | | |
| 640 | 64018 | 1 | | INTERNA | 130 | CIRURGIAS | 35010202 | REVASCULARIZAÇÃO DE ARTERIA CEREBRAL EXTR | 35010202 | 16/12/2021 | 1046,97 | 0 | 0,00 | 0 | 250 | 0 | | | |

* This picture represents an example of a part of the final price table, with illustrative renegotiation terms

Appendix 11 – Insurance Companies Interview Guide (I/IV)



Introduction:

We are Master's students in Management and Finance at Nova SBE and we are developing a project that aims to understand the relationship between the private hospital sector and the insurance sector in Portugal. With this interview we intend to understand your Insurance Company' vision on the negotiation relationship between these two sectors.

Insurance Sector:

- In an attempt to understand the drivers of competitiveness of the insurance industry, what do you think are the major advantages of the insurer where you work compared to competing insurers?
- What difficulties and concerns do you see in the insurance market for the future? Any particular factor affecting future profitability? Any cost item with a growing trend? Or any disruptive technology or new players that will change the current business model, such as price transparency tools?

Relationship with Hospital Sector:

- What role can a Hospital Group play in the resolution of pain points felt by the insurers?
- To describe your Insurer's relationship with private hospitals, would "partnership" be an appropriate word? Or, in your view, is it based more on a client/supplier or supplier/intermediary relationship?
- Define one "Insurer - Private Hospital" relationship that is a success and another that is a failure?

Appendix 11 – Insurance Companies Interview Guide (II/IV)



Relationship with Hospital Sector:

- Is it essential for your company to have conventions and agreements with the main groups in the private hospital sector? Do you consider it possible for one of the main groups in the private hospital sector to subsist without a convention/agreement with one of the main insurers?
- How do you choose your hospital partners? How are providers evaluated? Do you use data in this evaluation? If yes, how?
- Which medical specialties/patients' practices do you consider most important in the conventions/agreements (e.g. oncology)? Are there any specialties/patients that are not covered and that you would like to include?
- What is the relative level of **(1) inconsistencies/overbilling**, **(2) prices** and **(3) satisfaction level** you associate with the major private hospitals in Portugal? Why? (1 = many inconsistencies, bad prices, low satisfaction; 5 = few inconsistencies, good prices, high satisfaction)
- Looking at the investments made by hospitals, which ones can be seen as avoidable? Are there any inherent advantages for the Insurers other than the increase in patient volume?

Prices and Costs:

- What is your opinion about the prices currently charged by hospitals?
- What are the predominant factors in negotiating prices between different hospitals? (e.g.: volume of clients, quality of service, clinical staff)
- How are each provider's clinical outcomes evaluated? How are they valued and reflected in the price?

Appendix 11 – Insurance Companies Interview Guide (III/IV)



Prices and Costs:

- Is there annual updating of prices (e.g. for inflation) established in the conventions/agreements?

If so:

- How often is the price list of the conventions/agreements reviewed? (< 1 year, 2 years, 3-5 years, > 5 years)
- Will you consider reducing the frequency of the review, taking into account the constant increase in hospital costs (e.g. the extra costs incurred during the pandemic)? (Yes, No)

If not:

- What factors would be sensitive (e.g., wage increases, increased cost of clinical supplies) to this price update?
- Among the different pricing models (unit, surgeries and bundles) is there one that benefits the insurance industry the most?
- What are the most representative costs in the relationship that you establish with the Hospital Groups (acquisition of clients/partnerships, monitoring and logistics, costly medical acts...)?

Value-based Care:

- How do you see the Value-Based Healthcare model?
- Do you consider that the sector in Portugal is already adapting? If yes, please give examples. (Do you consider that the Value-Based Healthcare model is already part of the health sector in Portugal?)
- How would it be advantageous for insurers to operate Value-Based? Any ideas or practices you would like to implement?

Appendix 11 – Insurance Companies Interview Guide (IV/IV)



Dynamics of the Sector:

- What added value can a Hospital bring at a time of renegotiation of agreements?
- How do you see a possible verticalization in the private health sector, between a private hospital and an insurance company?
- Do you think that insurers will play an active role in managing the operation of hospital groups, i.e., go from being partners to shareholders in the hospital business?

Extras:

- How do you see the ADSE? Do you consider it to be a direct competitor? How do you assess the price difference between your insurer and ADSE? What impact does this difference have on your pricing negotiation strategy with the Hospital Groups?
- Are the health plans developed by various groups in the private hospital sector seen as competitors to your services? (Yes, No)

Conclusion

We would like to thank you for your willingness to meet with our team and for the information you shared with us, which will certainly help us develop our Project.

Appendix 12 – Take-aways of Insurance Companies Interviews (I/VI)

Insurance Company A

Main insights of the Interview:

| Main Challenges | Renegotiation and establishment of partnerships | Relationship with the hospital sector | Value-based Care |
|--|--|--|--|
| <ul style="list-style-type: none"> • Ageing population and consequent increase in costs • Migration of care and health professionals - health insurance used to only solve outpatient treatment and now people use it to treat illnesses • Diminution of the negotiating power of insurers | <ul style="list-style-type: none"> • Buddle forces to have efficiency, however there is a loss of detail of updating individual prices • It is based on transparency between players - sharing the cost structure of medical acts and clinical outcomes | <ul style="list-style-type: none"> • Transparency between payer and providers would allow comparison of hospital efficiency with benchmark • States that there should be a uniform table of codification and definition of acts | <ul style="list-style-type: none"> • Effects in 5 years • They have already started to experiment with sending satisfaction and treatment outcome surveys |

Appendix 12 – Take-aways of Insurance Companies Interviews (II/VI)

Insurance Company B

Main insights of the Interview:

| Main Challenges | Renegotiation and establishment of partnerships | Relationship <i>with the hospital sector</i> | Value-based Care |
|--|--|---|---|
| <ul style="list-style-type: none"> • Health financing and dominant political ideology • Customer retention due to renewable contracts • Relationships between the insured person, the insurer and the healthcare provider | <ul style="list-style-type: none"> • Cost efficiency and redefinition of operations • The increase in costs was not only recorded in hospitals, but also in insurance companies | <ul style="list-style-type: none"> • Reduction of inefficiencies in the insurer-hospital relationship would result in a consequent decrease in costs and sharing of gains • Conceptually it makes sense to reward those who perform medical acts with quality and a lower recidivism rate, however there are transparency problems | <ul style="list-style-type: none"> • Execution of a pilot in a particular specialty |

Appendix 12 – Take-aways of Insurance Companies Interviews (III/VI)

Insurance Company C

Main insights of the Interview:

| Main Challenges | Renegotiation and establishment of partnerships | Relationship with the hospital sector | Value-Based Care |
|---|---|--|--|
| <ul style="list-style-type: none"> • Ageing of the population • General reduction in the purchasing power of the Portuguese and consequent demand for more affordable products • Predictability of the occurrence of the claim • Competition from the insurance market | <ul style="list-style-type: none"> • Advocates win-win models, such as closed packages in which there is risk sharing between players • Possibility of success fee and penalty fee. • The focus on clinical reports and demonstration of outcomes would be fundamental for a renegotiation | <ul style="list-style-type: none"> • Considers transparency between players to be essential • Consumption and drugs with high margins and some acts with crushed margins | <ul style="list-style-type: none"> • Advocates that we should act to create the model with consequent risk-sharing between entities • Fundamental to customer choice • Betting on remuneration for quality of outcome • It is currently running a pilot model at the level of home hospitalisation |

Appendix 12 – Take-aways of Insurance Companies Interviews (IV/VI)

Insurance Company D

Main insights of the Interview:

| Main Challenges | Renegotiation and establishment of partnerships | Relationship with the hospital sector | Value-based Care |
|--|--|---|---|
| <ul style="list-style-type: none"> • Ageing population demographics: very high and prolonged level of costs • High health cost due to new technologies, techniques, drugs and a more demanding customer • Lack of experience with certain products (i.e. home care) assists in service design | <ul style="list-style-type: none"> • Quality of service, low infection and recidivism indicators are preponderant • Flexibility and assertiveness at the time of renegotiation • Values the possibility of placing administrative staff on the premises and exclusive rooms for its customers | <ul style="list-style-type: none"> • Control and audit of invoices - considers that failures are not intentional and invests in training • Considers medical fees low/fair and drugs and consumables high • Expresses interest in the inclusion of acts in the area of fertility and neurological diseases in its contracts | <ul style="list-style-type: none"> • Sees difficulty in implementing the model in Portugal given the renewable dimension of health insurance • Points to loyalty contracts as a possible solution but there may be limitations on consumer policies |

Appendix 12 – Take-aways of Insurance Companies Interviews (V/VI)

Insurance Company E

Main insights of the Interview:

| Main Challenges | Renegotiation and establishment of partnerships | Relationship with the hospital sector | Value-Based Care |
|---|---|--|---|
| <ul style="list-style-type: none"> • Vertical Integration: both hospitals and insurers are starting to enter markets vertically • Example: Insurance Company E set up a virtual clinic during the pandemic | <ul style="list-style-type: none"> • Hospitals have most of the bargaining power • The insurance company has a specialized department for analysis of invoices issued by the Hospital • Renegotiation only when there is a surplus of co-payments and risk - always requested by the insurer | <ul style="list-style-type: none"> • The focus and driver of the negotiations will always be the price but also the quality of hospital care • Obtaining certificates and accreditations becomes increasingly relevant • The insurance company would like to include robotic operations in its contracts | <ul style="list-style-type: none"> • Considers it necessary for Portugal to evolve in the model |

Appendix 12 – Take-aways of Insurance Companies Interviews (VI/VI)

APS

Main insights of the Interview:

| Main Challenges | Renegotiation and establishment of partnerships | Relationship <i>with the hospital sector</i> | Value-based Care |
|--|---|--|---|
| <ul style="list-style-type: none"> • Ageing population and the need to attract younger customers • Developments in new treatments • Does not envisage vertical integration | <ul style="list-style-type: none"> • Insurers would like to have the opportunity to audit hospitals and to see the billing for medical acts fully itemized | <ul style="list-style-type: none"> • It is necessary to update the table of prices of medical acts - some prices are higher and others lower than they should be • Price update mechanisms that take account of inflation should be put in place | <ul style="list-style-type: none"> • Believes the model is the future |

Appendix 13 – Value-based Care Interview Guide



Introduction:

We are Master's students in Management and Finance at Nova SBE and we are developing a project that aims to streamline the negotiation relationship between our client from the private hospital sector and its partners from the insurance sector in Portugal. With this interview we intend to learn a little more about theoretical perspectives, strategies and best practices at the moment of renegotiation, and finally some effective communication techniques and methods.

Questions:

- What does the Value-based Healthcare model consist of?
- What are the main advantages and challenges of the model?
- Do you think that the sector in Portugal is already adapting? If yes, please give examples? If not, why not?
- How can the health sector in Portugal be modernised in order to get the best out of the model?
- What role will private hospitals and insurance companies play in promoting this model?
- In your opinion, what are the biggest national and international success stories?
- Is there any best practice *on* which a private hospital in Portugal could base itself in order to implement a pilot of the model?
- From our research we concluded that the IPO of Porto, Sky Group and Sun Group already apply this concept today. Do you know if these projects are having good results? What are the main success and failure factors that have been registered?

Conclusion

We would like to thank you for your willingness to meet with our team and for the information you shared with us, which will certainly help us develop our Project.

Appendix 14 – Proposal of Presentation Tool for Price Evolution for each Insurance Company (I/IV)

Insurance Company B

Total Insurance Company B
Billing
at VL in 2019
10 564 711 €



Price Evolution 2011-2021*
- 5%



Insurance Company B
Annual saving 2019*
- 430 116€



Price Evolution

[2011 - 2021; €]

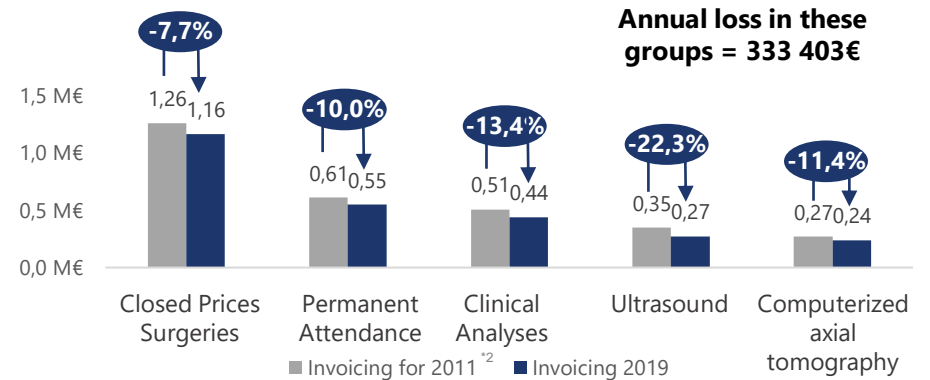
| | 2011 | 2021 | Δ |
|--------------------------------------|-------|-------|------|
| Dystocia w/ Anaesthesia | 2 260 | 2 260 | 0% |
| Eutocic w/ Anaesthesia | 2 050 | 2 050 | 0% |
| Daily I.C.U Adults | 565 | 565 | 0% |
| MRI Joints | 224 | 200 | -12% |
| Double Room | 165 | 165 | 0% |
| Abdomen CT Scanning | 112 | 100 | -12% |
| Permanent Attendance | 95 | 100 | 5% |
| 1 st Internal Appointment | 35 | 35 | 0% |
| K | 3,50 | 3,50 | 0% |
| C | 0,47 | 0,40 | -15% |

In terms of
overall number
of item groups...

8%
Increased
48%
Constants
44%
Decreased

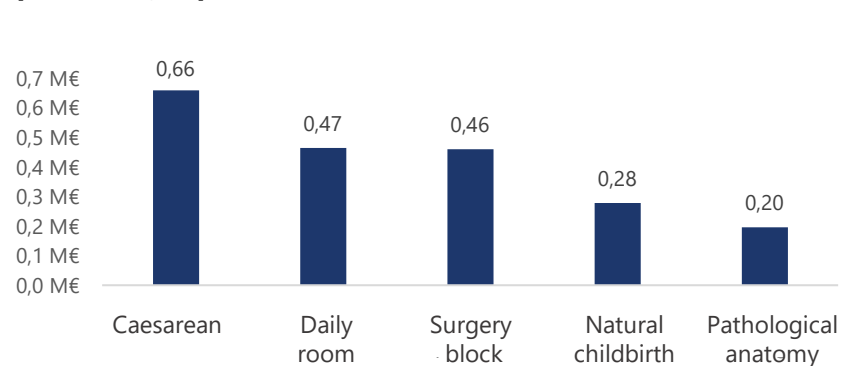
Item Groups with the Largest Price Decrease

[2011 - 2019; M€]



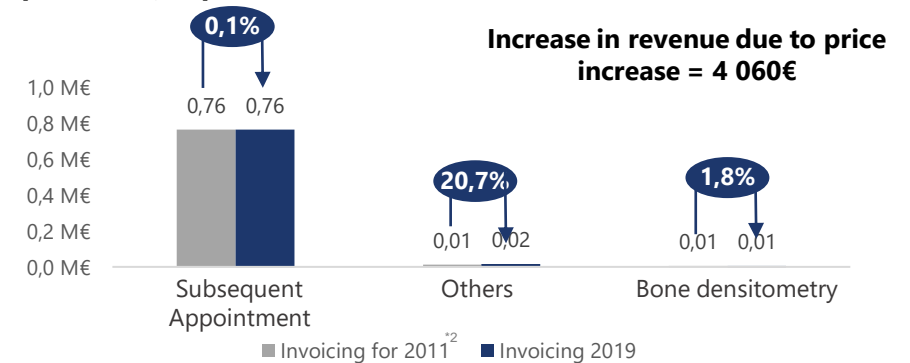
Most Relevant Invoicing and Constant Price Item Groups

[2011 - 2019; M€]



Item Groups with the Largest Price Increases

[2011 - 2019; M€]



*This analysis reflects only 74% of Insurance Company B' expenditure, as the Drugs and Consumables group does not present a direct comparison between 2011 and 2019

**In calculating the 2011 invoicing, 2019 activity at 2011 prices was used

Source: (VL 2011-2021)

Appendix 14 – Proposal of Presentation Tool for Price Evolution for each Insurance Company (II/IV)

Insurance Company C

Total Insurance Company C
Billing
at VL in 2019
16 725 874 €



Price Evolution 2011-2021*

- 3%



Insurance Company C
Annual saving 2019*

- 354 878€



Price Evolution

[2011 - 2021; €]

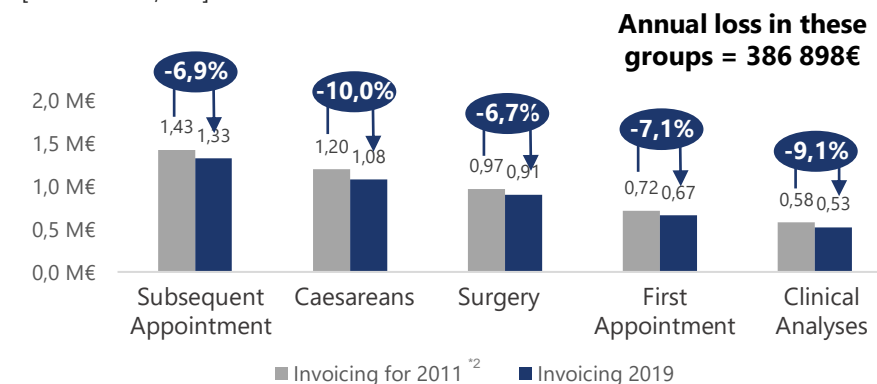
| | 2011 | 2021 | Δ |
|--------------------------------------|-------|-------|-----|
| Dystocia w/ Anaesthesia | 2 245 | 2 740 | 22% |
| Eutocic w/ Anaesthesia | 2 045 | 2 740 | 34% |
| Daily I.C.U Adults | 550 | 550 | 0% |
| MRI Joints | 200 | 195 | -3% |
| Double Room | 165 | 170 | 3% |
| Abdomen CT Scanning | 100 | 95 | -5% |
| Permanent Attendance | 85 | 85 | 0% |
| 1 st Internal Appointment | 35 | 32,5 | -7% |
| K | 3,75 | 3,50 | -7% |
| C | 0,44 | 0,40 | -9% |

In terms of
overall number
of item groups...

27%
Increased
23%
Constants
50%
Decreased

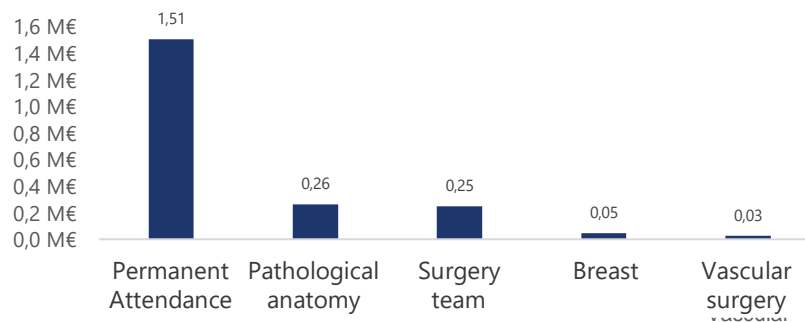
Item Groups with the Largest Price Decrease

[2011 - 2019; M€]



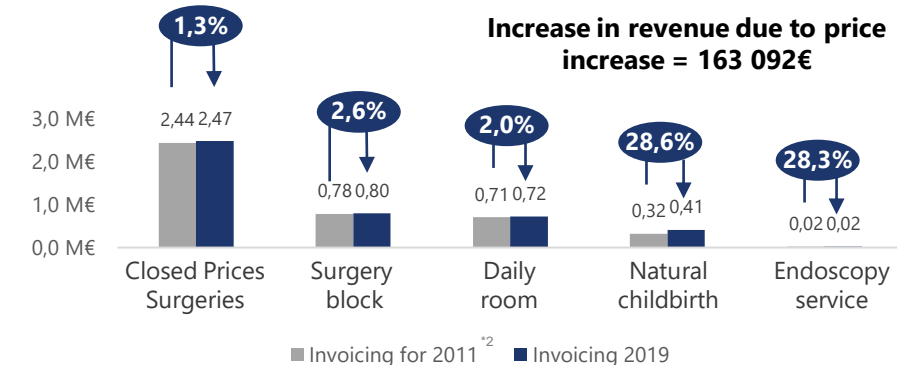
Most Relevant Invoicing and Constant Price Item Groups

[2011 - 2019; M€]



Item Groups with the Largest Price Increases

[2011 - 2019; M€]



* This analysis reflects only 81% of Insurance Company C' expenditure, as the Drugs and Consumables group does not present a direct comparison between 2011 and 2019

** In calculating the 2011 invoicing, 2019 activity at 2011 prices was used

Source: (VL 2011-2021)

Appendix 14 – Proposal of Presentation Tool for Price Evolution for each Insurance Company (III/IV)

Insurance Company D

Total Insurance Company D
Billing
at VL in 2019
2 579 573 €



Price Evolution 2011-2021*

- 3%



Insurance Company D
Annual saving 2019*

- 48 739€



Price Evolution

[2011 - 2021; €]

| | 2011 | 2021 | Δ |
|--------------------------------------|-------|-------|------|
| Dystocia w/ Anaesthesia | 2 300 | 2 300 | 0% |
| Eutocic w/ Anaesthesia | 2 130 | 2 130 | 0% |
| Daily I.C.U Adults | 475 | 475 | 0% |
| MRI Joints | 245 | 210 | -14% |
| Double Room | 170 | 170 | 0% |
| Abdomen CT Scanning | 110 | 105 | -5% |
| Permanent Attendance | 90 | 90 | 0% |
| 1 st Internal Appointment | 35 | 35 | 0% |
| K | 3,75 | 3,75 | 0% |
| C | 0,46 | 0,44 | -4% |

In terms of
overall number
of item groups...

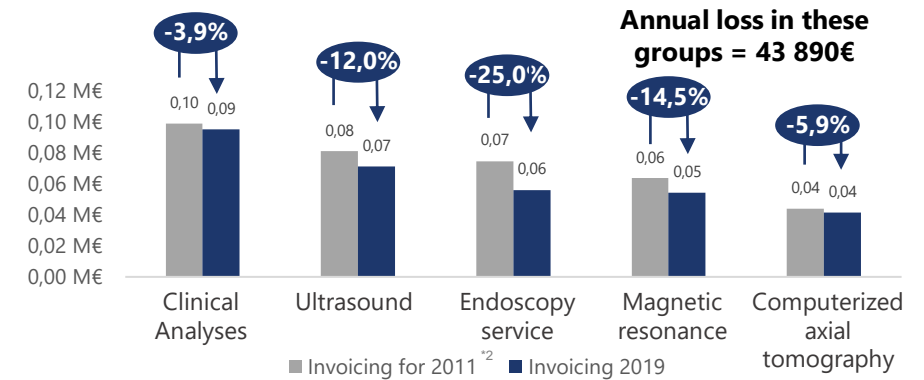
17%
Increased

37%
Constants

46%
Downloaded

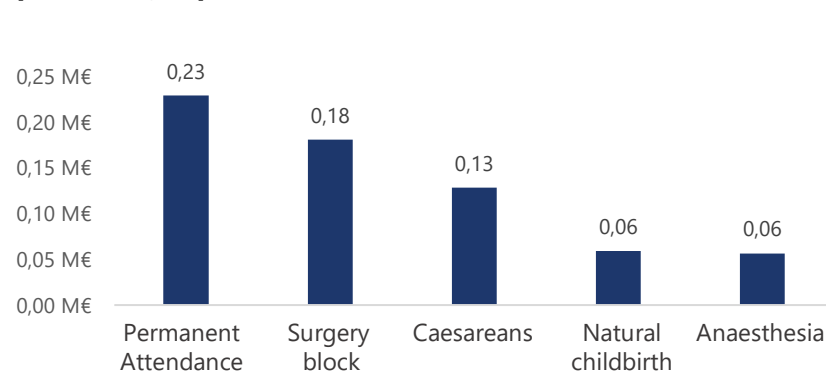
Item Groups with the Largest Price Decrease

[2011 - 2019; M€]



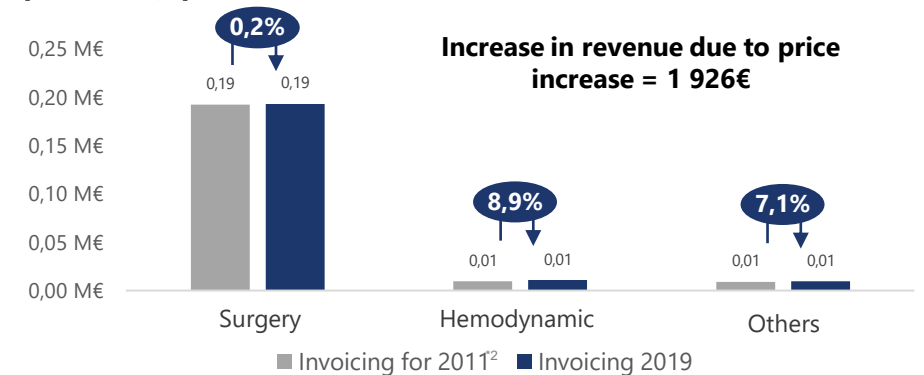
Most Relevant Invoicing and Constant Price Item Groups

[2011 - 2019; M€]



Item Groups with the Largest Price Increases

[2011 - 2019; €]



*1 This analysis reflects only 73% of Insurance Company D' expenditure, as the Drugs and Consumables group does not present a direct comparison between 2011 and 2019

*2 In calculating the 2011 invoicing, 2019 activity at 2011 prices was used

Source: (VL 2011-2021)

Appendix 14 – Proposal of Presentation Tool for Price Evolution for each Insurance Company (IV/IV)

Insurance Company E

Total Insurance Company E
Billing
at VL in 2019

1 296 582 €



Price Evolution 2011-2021*

- 13%



Insurance Company E
Annual saving 2019*

- 151 515€



Price Evolution

[2011 - 2021; €]

| | 2011 | 2021 | Δ |
|--------------------------------------|-------|-------|------|
| Dystocia w/ Anaesthesia | 4 500 | 2 350 | -48% |
| Eutocic w/ Anaesthesia | 4 500 | 2 150 | -52% |
| Daily I.C.U Adults | 475 | 550 | 16% |
| MRI Joints | 245 | 220 | -10% |
| Double Room | 170 | 170 | 0% |
| Abdomen CT Scanning | 110 | 110 | 0% |
| Permanent Attendance | 95 | 60 | -37% |
| 1 st Internal Appointment | 35 | 35 | 0% |
| K | 3,75 | 3,75 | 0% |
| C | 0,46 | 0,45 | -2% |

In terms of
overall number
of item groups...

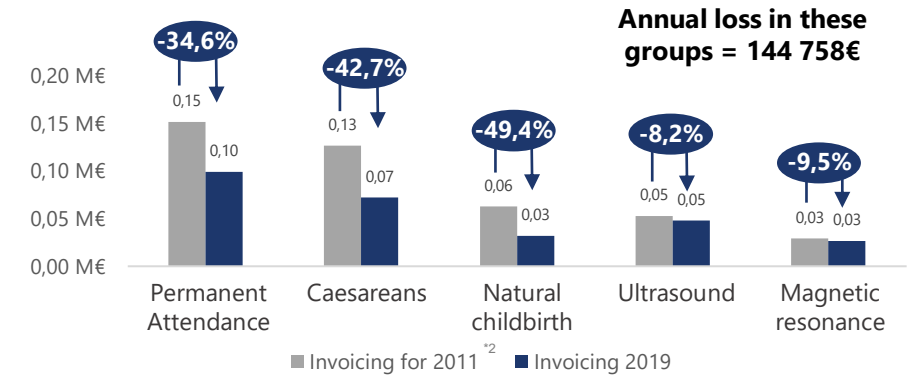
7%
Increased

52%
Constants

41%
Decreased

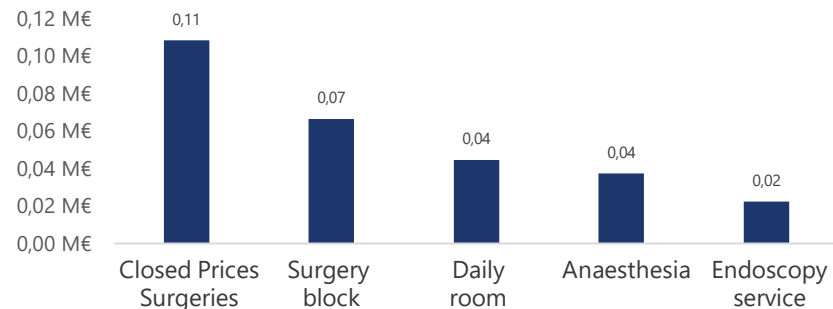
Item Groups with the Largest Price Decrease

[2011 - 2019; M€]



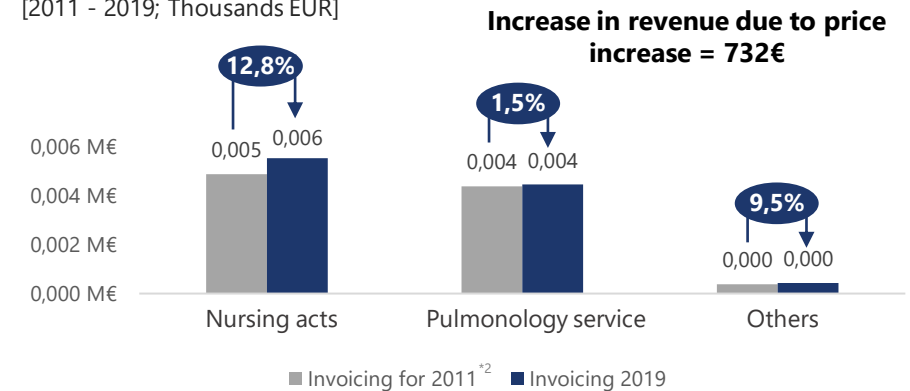
Most Relevant Invoicing and Constant Price Item Groups

[2011 - 2019; M€]



Item Groups with the Largest Price Increases

[2011 - 2019; Thousands EUR]



*This analysis reflects only 81% of Insurance Company E' expenditure as the Drugs and Consumables group does not present a direct comparison between 2011 and 2019

**In calculating the 2011 invoicing, 2019 activity at 2011 prices was used

Source: (VL 2011-2021)

Appendix 15 – Cost Allocation for Recommendations (I/V)

Recommendation 1, 2, 3 and 4

| Action Plan Step | Item | No | Unit Cost | No of Days | Total (€) |
|------------------|--|----|-----------|------------|-----------------|
| 1.1 | Comparison and match between price tables for each insurance company | 4 | 12,5€ | 20 | 1 000€ |
| 1.2 | Preparation of a personalized presentation for each insurance company | 4 | 12,5€ | 10 | 500€ |
| 2.1 | Identify exogenous indicators affecting healthcare providers | 4 | 12,5€ | 20 | 1 000€ |
| 2.2 | Study the last 5 years evolution of those indicators and consequent impact on healthcare providers | 4 | 12,5€ | 20 | 1 000€ |
| 3.1 | Comparison of the historical trends between endogenous and respective exogenous indicators | 4 | 12,5€ | 30 | 1 500€ |
| 3.2 | Analytical derivation of the Price Inflation Index to support renegotiation | 4 | 12,5€ | 50 | 2 500€ |
| 4.1 | Modelling of the flexible tools to allow a change in prices per medical act, group and insurer | 4 | 12,5€ | 50 | 2 500€ |
| Σ Total | - | - | - | - | 10 000 € |

| Rationale |
|---|
| Proxy cost according to the time allocated by the consulting team, while performing each task |

* Cost allocation method: Time Driven Activity Based Costing

Appendix 15 – Cost Allocation for Recommendations (II/V)

Recommendation 5

| Action Plan Step | Item | No | Unit Cost | No of Days | Total (€) |
|------------------|---|----|-----------|------------|-----------------|
| 5.1 | | | 68 € | 60 | 4 100 € |
| 5.2 | Non Development Stage- Business Plan Elaboration ¹ | 1 | 35 € | 60 | 2100 € |
| | | | 13 € | 60 | 800 € |
| 5.3 | | | | | |
| 5.4 | Software Developer Fees ¹ | 1 | 18 € | 120 | 2 100 € |
| 5.5 | Advertising Agency Fees ¹ | 1 | 3 € | 300 | 800 € |
| 5.6 | Software Developer Fees ¹ | 1 | 2 900 € | - | 2 900 € |
| 5.7 | Marketing Fees ¹ | 1 | 700 € | - | 700 € |
| Σ Total | - | - | - | - | 13 500 € |

| Rationale | Link |
|--|--|
| <p>Proxy cost according to an online budget estimation for app developers</p> | <p>https://www.cleveroad.com/mobile-app-development-cost-calculator/</p> |

Appendix 15 – Cost Allocation for Recommendations (III/V)

Recommendation 6

| Action Plan Step | Item | No | Unit Cost | No of Days | Total (€) |
|------------------|---------------------------------|----|-----------|------------|-----------------|
| 6.4 | Sofa ¹ | 1 | 1 399 € | - | 1 399 € |
| 6.4 | Chair ² | 1 | 149 € | - | 149 € |
| 6.4 | Rug ³ | 1 | 189 € | - | 189 € |
| 6.4 | Flat Screen TV ⁴ | 1 | 950 € | - | 950 € |
| 6.4 | Acrylic Walls ⁵ | 3 | 3 667 € | - | 11 000 € |
| 6.4 | Coffee Machine ⁶ | 1 | 99 € | - | 99 € |
| 6.5 | Software Developer ⁷ | 1 | 55 € | 120 | 6 600 € |
| Σ Total | - | - | - | - | 20 386 € |

| Rationale | Link |
|---|---|
| 1 Ikea sofa | https://www.ikea.com/pt/pt/p/land-skrona-sofa-5-lugares-c-chaise-longues-djuparp-azul-escuro-metal-s39415838/ |
| 1 Ikea chair | https://www.ikea.com/pt/pt/p/sakarias-cadeira-c-bracos-preto-kvillsfors-s39417719/ |
| 1 Rug | https://www.rugvista.pt/tapete/vintage-vega?artno=RVD19086&gclsrc=aw.ds&&googleShopping=1&gclid=Cj0KCCQIA5OuNBhCRARisACgaiqXaiwjFD-y5CVuudywLeBsR3IkV-M3hwda_0xbWHiFNhmKmqRfgeg aAkctEALw_wcB |
| 1 TV | https://www.worten.pt/tv-video-e-som/tvs/tv-grande-polegada/tv-lg-70nano756-nano-cell-70-179-cm-4k-ultra-hd-smart-tv-7463903 |
| 3 Walls from Inovacril | https://inovacril.pt/ |
| 1 Coffee machine | https://www.worten.pt/pequenos-eletrodomesticos/maquinas-de-cafe/maquinas-de-cafe-manuais/maquina-de-cafe-manual-create-thera-stylance-pro-20-bar-cafe-moido-torradeira-toast-advance-MRKEAN-8435572606381 |
| Proxy cost according to an online budget estimation for app developers | https://www.cleveroad.com/mobile-app-development-cost-calculator/ |

Appendix 15 – Cost Allocation for Recommendations (IV/V)

Recommendation 7

| Action Plan Step | Item | No | Unit Cost | No of Days | Total (€) | Rationale | Source |
|------------------|---|----|-----------|------------|-----------------|---|---|
| 7.1 | Data Analyst Fees ¹ | 1 | 37 € | 45 | 1 661 € | Based on internal medical data, the data analyst will be able to identify the higher-risk medical acts | https://www.glassdoor.com.br/Sal%C3%A1rios/lisboa-data-analista-rio-SRCH_IL.0,6_IM1121_KO7,19.htm |
| 7.1 | Doctor Fees ² | 2 | 117 € | 45 | 10 530 € | Average Doctor's Salary | https://www.jobted.pt/sal%C3%A1rio/m%C3%A9dico |
| 7.2 | Medical Group Items ¹ Complications Benchmark Reports ³ | 13 | 2 000 € | - | 26 000 € | # Reports per Medical Group Type * Proxy for the Price of a Medical Benchmark Report | https://imvinfo.com/product/2020-radiation-therapy-benchmark-report/ |
| 7.3 | Doctor Fees ⁴ | 2 | 117 € | 90 | 21 060 € | Average Doctor's Salary in Portugal | https://www.jobted.pt/sal%C3%A1rio/m%C3%A9dico |
| Σ Total | - | - | - | - | 59 251 € | | |

Appendix 15 – Cost Allocation for Recommendations (V/V)

Recommendation 8

| Action Plan Step | Item | No | Unit Cost | No of Days | Total (€) |
|------------------|---|----|-----------|------------|-----------------|
| 8.1 | Portuguese Medical Needs Report ¹ | 1 | 2 000 € | - | 2 000 € |
| 8.2 | Project Manager Fees ² | 1 | 122 € | 120 | 14 608 € |
| 8.2 | Doctor Fees ³ | 1 | 117 € | 120 | 14 040 € |
| 8.3 | HR Fees ⁴ | 1 | 41 € | 30 | 1 217 € |
| 8.4 | Project Manager Fees ⁵ | 1 | 122 € | 120 | 14 608 € |
| 8.4 | Doctor Fees ⁶ | 1 | 117 € | 120 | 14 040 € |
| 8.4 | Data Analyst Fees ⁷ | 1 | 106 € | 120 | 12 667 € |
| 8.4 | DIABNEXT Platform PRO Subscription Fee ⁸ | 1 | - € | - | 0 € |
| Σ Total | - | - | - | - | 73 180 € |

| Rationale | Link |
|--|---|
| Proxy for the Price of a Medical Market Report) | https://imvinfo.com/product/2020-radiation-therapy-benchmark-report/ |
| Project Manager's Salary in Portugal Proxy | https://pt.talent.com/salary?job=gestor+de+projeto |
| Average Doctor's Salary in Portugal | https://www.jobted.pt/sal%C3%A1rio/m%C3%A9dico |
| HR fees for hiring the multidisciplinary team | https://pt.indeed.com/career/auxiliar-de-recursos-humanos/salaries#:~:text=A%20m%C3%A9dia%20salarial%20de%20a,%E2%82%AC%20por%20m%C3%AAs%20em%20Portugal. |
| # Reports per Medical Group Proxy for the Price of a Medical Benchmark Report | https://imvinfo.com/product/2020-radiation-therapy-benchmark-report/ |
| Average Doctor's Salary in Portugal | https://www.jobted.pt/sal%C3%A1rio/m%C3%A9dico |
| Data Analyst Salary Proxy in Portugal | https://www.payscale.com/research/PT/Job=Data_Analyst/Salary/30541afe/Lisbon |
| Diabetes Control Platform | https://www.diabnext.com/ |