Public-Private Partnerships at the Portuguese National Health System: can the Second Wave create value to society?

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ABSTRACT

The present project aims to study Public-Private Partnerships (PPP) in Portuguese hospitals. Currently, four hospitals operate under the PPP system. The hospitals of Loures (Beatriz Ângelo), Vila Franca de Xira and Cascais have their infrastructure maintained by a third-party entity, and the management of the clinical services is undertaken directly by another partner, also private. Braga Hospital, on the other hand, differs from the others for being managed, since September 2019, by the State itself. Throughout this project, the context regarding PPPs in health will be deepened. Reflection on the topic led to the following question: is it the best alternative for a PPP to have its clinical management outsourced? Or could the results of a public management be capable of delivering a service that creates more public value? To answer these questions, an extensive literature review was conducted about PPPs in health, highlighting successful and unsuccessful cases. Then, criteria used to evaluate the operation of PPP hospitals were investigated, as well as evaluation techniques already developed and applied, not restricted to Portugal. To confront the two models of PPPs in health currently present in Portugal, strategic management techniques were applied to the data obtained from the literature review and the case study developed from the benchmarking study of Portuguese hospitals. The elaboration of the study was favorable to the application of a public-private partnership model in which only the maintenance of the infrastructure is subcontracted, based on costs and flexibility criteria, with the hospital administration being the State's responsibility.

Keywords: Public-Private Partnerships, Hospitals, Portugal, Value Creation, Strategic Management.

1. INTRODUCTION

The right to health care is guaranteed to Portuguese citizens by the National Health Service (SNS) - a universal and general system that, due to the social and economic condition of the population, tends to be free of charge or unaffordable, and is fundamentally managed in a decentralized and participatory manner (point 4 of article 64 of the Constitution of the Portuguese Republic, 1976). The health sector, led by the Minister of Health, is continuously reinventing itself to meet the needs of the population in the best way, striving for a balance between reducing the costs spent and improving the quality of the services provided.

Since the economic crisis that hit several countries at the beginning of the 21st century, particularly those belonging to the European Union (EU), it has been necessary to rethink the way resources were allocated and managed so that investment in health could continue to meet the population's needs. In Portugal, new public hospital management mechanisms were introduced, such as the Public Enterprise Entity (EPE) concept, which grants greater management autonomy to public hospitals, and
the Public-Private Partnerships (PPP), which will be described below.

PPPs materialize the solution found by the government for the budget commitment, in which the State transfers the risk of its non-compliance to two distinct private third-party institutions - one responsible for the construction and maintenance of the hospital building and the other for the management of clinical services in the hospitals.

This two-partner agreement model, named the First Vacancy, was officially approved in 2011, with António Guterres as Prime Minister of the Portuguese Republic and António Correia de Campos the Minister of Health. Essentially, the state pays the amounts previously established in a contract to the entities, and these guarantee compliance with the terms established, whether they cost more or less than expected.

The first contract with one of the companies responsible for hospital management ended in September 2019, at Braga Hospital. From the discontinuation of that agreement, resulting from an exhaustive attempt at renegotiation between the state and José de Mello Saúde (JMS), the management of the unit’s clinical services became the state's responsibility. Although the information in the media is that the Braga Hospital PPP was discontinued, this is not correct. Since the end of the contract with the managing entity, the hospital remains with the contract signed with the Building Management Entity. This change makes the operation of Braga Hospital precisely suited to the structure proposed in the Second Vacancy of PPPs, approved in 2008 and which restricts the contract to only one partner, who will be responsible for the construction and maintenance of the hospital facilities, while the Portuguese State will be in charge of hospital management.

Even with mixed empirical evidence regarding their success (Roehrich et al., 2014), public-private partnerships are increasingly present in a wide range of countries and economies. Critically analyzing the performance of public hospitals in relation to those operating under the PPP system has been a common practice since contracts were signed and the units in question came into operation. This paper aims to go further, being motivated by the following question: is the First Vacancy model, hitherto implemented in Portugal, the best alternative? Or can the Second Vacancy effectively generate more value for society?

1.1. Work objectives

The general objective of this thesis is to study the public-private partnerships established in the area of health in Portugal over the last few years, added to an international contextualization, to project future steps in the lights of the learning extracted from the investigated experiences.

The specific objective is to determine which is the best strategy to be followed by the government in establishing the next PPPs in health, i.e. whether there is evidence that justifies opting for the continuity of partnerships framed in the model provided for in the First Wave, or the adoption of the model provided for in the Second Wave. For this indication, the key issues for evaluating a PPP are: cost, quality, and flexibility (McKee et al., 2006). Both models are confronted within the pillars, and the indication of which one should be adopted is a consequence of this confrontation, i.e., the one with the best performance is the one that will generate more value to the Portuguese citizen and should therefore be implemented in the future.

1.2. Work structure

The project is divided into five chapters, as follows: Introduction, Problem Definition, Literature Review, Methodology, and Conclusion.

The first chapter, Introduction, aims to contextualize the reader in the theme that will be addressed throughout the project, clarifying both the initial hypothesis that motivates it and its objectives, the way it can contribute to the scientific community, the division in the documentation of the work, and the methodology adopted.

In the second chapter, Problem Definition, initially a historical background of the Portuguese National Health System is provided, followed by an exposition of the general concept of public-private partnerships, and their application in health care in Portugal, continuously evaluated by the Hospitals Benchmarking monitoring and control system. The framework of what it means to promote public value creation is examined, in order to reflect on whether a new wave of PPPs in Portuguese hospitals could lead
to value creation for society. The chapter ends with a conclusion section on the problem definition.

The third chapter, Literature Review, consolidates the search in the literature considered relevant in assessing public value creation resulting from the implementation of PPPs in health. To this end, first the models of health partnerships developed by UK and Spain were studied, followed by an investigation of the key issues raised by authors in evaluating the performance of PPPs in hospitals around the world. Finally, a compilation of the techniques used for PPP evaluations was conducted, looking for cases that prioritized the use of management methodologies, evaluating internal and external factors as a tool. The chapter closes with a conclusion section of the literature review.

The fourth chapter, Methodology, is dedicated to the application of management tools adapted for the qualitative analysis of the First and Second Wave models. Namely, a Political, Economical, Social, Technological, Legal and Enviromental (PESTLE) factors analysis is developed. From the outputs of the previous analysis, Strengths, Weakness, Opportunities and Threats (SWOT) matrices are built. Finally, cross SWOT analyses (TOWS) are elaborated, in order to define possible strategies to be adopted by the state from the results of the SWOT matrixes.

The fifth chapter, Conclusion, aims to recapitulate the project overall, verifying whether the hypotheses were validated, refuted, or inconclusive, and highlighting the learning points, as well as the opportunities for future developments identified.

1.3. Work limitations

The present project is focused on the study of public-private partnerships in health care in Portugal. The theme is of global relevance - which is evident from the literature review phase of the project - but for comparative purposes and seeking to align the research objective with the objectives of the P2020 program, its development is restricted to the Portuguese case.

Only PPPs in hospitals were studied, due to the fact that these are the only health units with established partnerships in the country in question. Countries such as the United Kingdom and Spain have carried out similar projects in primary, secondary and tertiary care, however, their analysis is not central to this project.

A robust hierarchical analytical process was not applied to the present study, since for its application, it would be necessary to develop a field study in which the feedback from both hospital managers and patients would be collected. For this reason, no weights were assigned to the criteria analyzed by the management tools, which enables the future development of studies in which the opinions of the main stakeholders involved in the ecosystem are considered.

2. PROBLEM DEFINITION

Regarding the Portuguese experience with PPPs in healthcare, it is possible to observe that:

1. The government and the Ministry of Health are responsible for proposing, approving, controlling and monitoring public-private partnerships in health. It is up to the Regional Health Administration in which the hospital is located, at that time, to manage the contract and represent the State in the demands presented. There is a separation on hierarchical level between the person who defines the scope of the project and the one who operates and monitors, which can be harmful from the moment when there is no synergy and no constant and concise communication between the state spheres.

2. The initial experiences (for example, the abandonment of the first hospital bidding in Amadora-Sintra) resulted in changes in the process to improve the effectiveness and efficiency of PPP projects, such as more rigorous justification and evaluation of the proposed projects and their budgetary implications, improving the bidding process and contract management (Nikolic & Maikisch, 2006).

3. The importance of a well-developed strategy and an implementation plan is highlighted, with enough time to make critical adjustments to ensure success. Without these requirements, the model implemented may appear doomed to failure, similar to what was observed with the first experience, as well as the discontinuation of the contract with the management unit of Hospital de Braga in September 2019, as the term of this contract characterized legally the discontinuity of the PPP, which is untrue from the
practical operational point of view. The end of the partnership established alongside the management unit did not result in the breaking of the partnership with the unit responsible for maintaining the unit's infrastructure, and it is essential to adapt to common sense understanding, as well as to national legislation, the fact that there is still a PPP in force.

4. It is essential that the strategy to be developed is focused on creating public value, and for this it is necessary to establish a method of quantifying it. The literature review should, for this purpose, be centered on the search for criteria through which it is possible to confer value, qualitative or quantitative, of the delivery in the form of creating value for society.

5. The use of the database presented by the Central Administration of Health System in the benchmarking of hospital units is essential, since the indicators presented allow the comparison of data regarding hospital units managed, administered and maintained in their entirety by the SNS, with the hospital units managed under the PPP regime. In addition, the Case Study allows, above all, a comparison between the performance of the hospitals managed under the First Wave of PPP regime and the Hospital de Braga, which since September 2019 operates fundamentally in what would become the partnership model outlined by the Second Wave, object of study of this project.

3. LITERATURE REVIEW

As conclusions on the literature review conducted, the following is highlighted:

1. Understanding the model developed by Spain and United Kingdom in health PPPs is important, since they are significantly similar to the Portuguese First and Second Waves, respectively. More than that, understanding the points of failure and success in each of the countries is essential in elucidating their strengths and weaknesses.

2. The study conducted by McKee et. al. (2006) highlights the four main pillars on which the analysis of a hospital PPP is based, namely: cost, quality, flexibility, and complexity. For the development of this master’s thesis, only cost, quality and flexibility will be considered for the level of comparison.

3. The restriction to the three criteria mentioned above is due to the fact that there are no available indicators that make it possible to compare the complexity of a First Wave PPP with another of Second Wave, since there is not, in fact, a Second Wave contract established or drawn. It should be noted, however, that in terms of contract, the Second Wave is less complex since it represents a less established contract with a private entity.

4. There are many quantitative health assessment techniques, based on statistical methods or data enveloping, with regard to PPPs in health, highlighting the study developed to compare the quality of health services provided by public and private health care units in Turkey, in addition to studies carried out in Portugal to assess PPPs in health (Ferreira & Marques, 2020; Nunes & Matos, 2017). There is space, however, for the development of a study based on the use of strategic management techniques in the assessment of partnerships, as in the case of the study carried out in Italy (Visconti, 2016).

4. METHODOLOGY

In this chapter, it is detailed the methodology proposed to compare the performance of the four hospitals operating under a public-private partnership within the scope of the Portuguese National Health System.

4.1. Approach Justification

While performing the literature review of this project, many quantitative health assessment techniques were evidenced.

The period that is going to be analyzed is between the moment when the Hospital de Braga no longer had its clinical management performed by a third party (September 2021) to the most recent data available for analysis and seeks to accept or refute the central hypothesis of this study. On the other hand, the database available for access - Benchmarking Hospitals - presents performance indicators of hospitals belonging to the SNS on a monthly basis, from its launch year (2017) to the most recent data, which differ in their last update depending on the indicator analyzed (ACCS, 2017).
Data collected monthly over a period of approximately one year - from October 2019, the first month of Hospital de Braga operation’s under the clinical management of the State, to the most recent data, which ranges from August 2020 to February 2021, depending on the indicator analyzed – do not comprehend a significant sample that justifies a quantitative analysis of the data, at least for now. There is space, however, for a study development based on the use of strategic management techniques in the assessment of partnerships, such as the study carried out in Italy (Visconti, 2016).

The objective of the methodological approach of this project is, therefore, to conduct it through a qualitative bias, without neglecting the quantitative data presented in the Benchmarking Hospitals database. Thereby, the quantitative data will be selected and categorized in the next section according to the key criteria for evaluating PPPs in health. While performing the literature review of this project, many quantitative health assessment techniques were evidenced. Such techniques are based on statistical methods or data enveloping, with regard to PPPs in health, highlighting the study developed to compare the quality of health services provided by public and private units in Turkey, in addition to the studies developed in Portugal to evaluate PPPs in health.

4.2. Data collection and classification

The Benchmarking Hospitals database consists of 35 indicators, which are monitored monthly and made publicly available periodically. The indicators are divided into six dimensions: Access, Assistance Performance, Security, Volume and Use, Productivity and Economic-Financial. Each dimension is made up of a set of indicators, which translate into numbers what is to be analyzed.

The observation of the performance indicators of the database will be restricted to the period that suits the reflection of the objective to be carried out, and thus, since the month of October 2019 - first month of the PPP of Hospital de Braga restricted to the infrastructure, the unit's clinical management being the responsibility of the State, until the most recent month of measurement of the indicators.

The classification of hospitals into groups provided by the website – Groups B, C, D, E and F – is not properly aligned with the project's analysis objectives, which is why the hospitals will be reclassified into three new groups, which are: Non-PPP, 1st Vacancy and 2nd Vacancy. From the new analysis’ groups, the values to be compared correspond to the groups’ averages, because each one of the groups is composed of a different number of hospitals, making a direct comparison of values unfounded. It is noteworthy that the classification of hospitals in the “Non-PPP” group is not the central object of the study, since the objective is to compare the performance of 1st Wave hospitals with 2nd Wave hospitals. However, it proved to be relevant to carry out the same in order to enrich the analysis of comparison between performances.

In total, 27 indicators will be analyzed in the classification of hospitals internal factors as strengths or weaknesses, throughout section 4.2.2 of the project. Therefore, all indicators flagged as significant are classified according to the key criteria they explain. From the total of 35 indicators, these 27 will be the ones analyzed throughout the study.

4.3. PESTLE Analysis

PESTLE analysis is an acronym for Political, Economical, Social, Technological, Legal and Environmental analysis and corresponds to the framing of factors external to the business within the scope of strategic business management (Weeks, 2009). Seeking to perform an analysis of the context of Portuguese society and State in the implementation of public-private partnerships in healthcare, it will be highlighted in the following sections external points to the health units, within each factor, which behave as threats, opportunities or indifferent to the 2nd Wave (Hospital de Braga) when confronted with the 1st Wave model (Vila Franca de Xira, Loures and Cascais Hospitals).

It is considered that the Political-Legal and Economical factors constitute an advantage for the 2nd Wave when compared to the 1st Wave. Social factors do not present an advantage or disadvantage for any, and the Technological and Environmental impacts of a public-private partnership, whether of 1st or 2nd Wave, do not fall within the scope of the study developed.
4.4. SWOT Analysis

SWOT analysis is an analytical tool for strategic planning widely used and applied by many organizations with the objective of directing their strategic decision-making process. SWOT is an acronym for Strengths, Weaknesses, Opportunities and Threats, the first two being internal factors, and the last two external to the organization (Harvard Business School, 2006; Helms & Nixon, 2010).

The internal and external factors to hospitals belonging to the Portuguese National Health System are defined, according to the evaluation criteria they explain – cost, quality or flexibility. Their classification between positive (strengths and opportunities) and negative (weaknesses and threats) is based on comparing the performance of Hospital de Braga (2nd Wave) with the average performance of Cascais, Vila Franca de Xira and Loures Hospitals (1st Wave). Thus, the factors that are advantageous for the 2nd Wave, when compared to the set of 1st Wave hospitals, are strengths when internal and opportunities when external. Similarly, factors that represent a competitive disadvantage for the 2nd Wave when compared to the 1st Wave are weaknesses when internal and threats when external.

For internal factors, the indicators chosen from the Benchmarking Hospitals database are evaluated, according to the classification and selection carried out in section 4.1.2. When interpreting them, the simple arithmetic mean (Equation 1) is taken into account, since the objective of the study is not based on complex statistical analyses, but on the use of data for inferences based on the concepts of strategic management.

**Equation 1:** Calculation of Average Indicators

\[ \bar{x} = \frac{\sum_{i=0}^{n} X_i}{n} \]

Source: The Author

Where:

- \( i \) = month with the indicator’s valid observation;
- \( X_i \) = indicator value in month \( i \);
- \( n \) = number of valid observations.

The average of the 1st Wave group will be calculated, therefore, from the values obtained by the Hospital de Braga, and the average of the 2nd Wave group from the values obtained by the Hospital de Cascais, Hospital de Vila Franca de Xira and Hospital de Loures (Beatriz Ângelo). For compliance and better graphical representation purposes, the values from the Non-PPP group are also considered and its means, calculated.

The SWOT Costs, Quality and Flexibility Matrixes is illustrated in Figures 1-3.
4.5. TOWS Analysis

The TOWS matrix is a strategic management tool variant of the SWOT matrix. According to Weihrich (1982), the TOWS matrix combines the threats and opportunities of the environment with the organization’s strengths and weaknesses. These factors for themselves are not new – they were persisted in the preparation of the SWOT Analysis; its differential is to systematically identify how the factors are related, seeking to draw business strategies based on the relationships found. Thus, any organization - whether military, product-oriented, service-oriented or even government - benefits from using a logical approach to anticipate, respond to, and even alter the future environment.

According to the specific TOWS matrix, strategies can be developed, based on identified strengths, weaknesses, opportunities and threats. Such strategies are created from the maximization of strengths and opportunities, and the minimization of weaknesses and threats of the entities involved (GÜREL & TAT, 2017; Weihrich, 1982).

4.6. Scenarios

4.6.1. Scenario 1: Cost

From the perspective of the costs involved in the operation of Hospital de Braga (Second Wave), and Hospital de Cascais, Hospital de Vila Franca de Xira, Hospital de Loures – Beatriz Ângelo (First Wave), among the eleven indicators evaluated, in only three the performance of the unit regulated by the 2nd Wave model was lower than that of the 1st Wave hospitals, according to the information presented in Table 1.

Table 1 - Consolidation of Cost Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1st Wave</th>
<th>2nd Wave</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Patient per Doctor ETC</td>
<td>4.81</td>
<td>6.52</td>
<td>Strength</td>
</tr>
<tr>
<td>Standard Patient per Nurse ETC</td>
<td>3.68</td>
<td>5.54</td>
<td>Strength</td>
</tr>
<tr>
<td>Annual Inpatient Occupancy Rate</td>
<td>92.32%</td>
<td>81.69%</td>
<td>Strength*</td>
</tr>
<tr>
<td>Average Time Before Surgery</td>
<td>0.36</td>
<td>0.64</td>
<td>Weakness</td>
</tr>
<tr>
<td>Operational Expenses per Standard Patient</td>
<td>€ 3,969.38</td>
<td>€ 3,224.82</td>
<td>Strength</td>
</tr>
<tr>
<td>Adjusted Staff Expenses per Standard Patient</td>
<td>€ 2,296.77</td>
<td>€ 1,593.18</td>
<td>Strength</td>
</tr>
<tr>
<td>Pharmaceutical Expenditures per Standard Patient</td>
<td>€ 842.50</td>
<td>€ 713.27</td>
<td>Strength</td>
</tr>
<tr>
<td>Drug Expenditures per Standard Patient</td>
<td>€ 425.58</td>
<td>€ 651.18</td>
<td>Weakness</td>
</tr>
<tr>
<td>Expenses with Clinical Consumable Material per Standard Patient</td>
<td>€ 408.00</td>
<td>€ 344.82</td>
<td>Strength</td>
</tr>
<tr>
<td>% of Expenses with HE and Supplements in the Total Expenses</td>
<td>6.43%</td>
<td>12.49%</td>
<td>Weakness</td>
</tr>
<tr>
<td>% Service Provision Expenses in Total Staff Expenses</td>
<td>29.95%</td>
<td>11.02%</td>
<td>Strength</td>
</tr>
</tbody>
</table>

* See 4.2.2.1

In addition, these Opportunities were identified:

- The possibility of not compromising the intergenerational public budget, enabling the indispensable public service;
- The State historically makes payments lower than expected under contract by the infrastructure PPP (Tribunal de Contas, 2016).

Threats to the model were not identified (which does not mean that they do not exist, but that none were identified throughout the study conducted), which allows the application of two strategies, which are: SO Strategy (maxi-maksi) and WO Strategy (mini-maksi).

When going through the SO Strategy, the State will be able to use the opportunity of not compromising the public budget of future generations by choosing partners to take the responsibility for the infrastructural maintenance of its hospital units, basing its decision on the satisfactory performance of the eight indicators in which the hospitals with PPP for the maintenance of buildings belonging to the Hospital de Braga.

Following the WO Strategy, the State has the possibility of using the budget for payments below the third infrastructure managing entity to invest in the public clinical management of the unit, adopting measures whose central objective is to improve the performance of the hospital unit in the three indicators.
in which it was inferior, when compared to 1st Wave hospitals.

It is important to emphasize that there is the option of following the two strategies in a parallel, orderly way, by only one of them, or even by none.

4.6.2. Scenario 2: Quality

Regarding the quality perceived by the patient in the evaluation of the service provided, between the fourteen indicators evaluated, half represent Strengths and the other half, Weaknesses of the Second Wave compared to the First Wave, as shown in Table 2.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1st Wave</th>
<th>2nd Wave</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of First Appointments Performed in Adequate Time</td>
<td>68.59%</td>
<td>57.13%</td>
<td>Weakness</td>
</tr>
<tr>
<td>% Enrolled in LIC within the TMRG</td>
<td>63.55%</td>
<td>50.58%</td>
<td>Weakness</td>
</tr>
<tr>
<td>% Surgeries Performed in the Outpatient Department as % of Total Surgeries Scheduled (DRG) for Outpatient Procedures</td>
<td>85.39%</td>
<td>85.59%</td>
<td>Strength</td>
</tr>
<tr>
<td>% of Readmissions within 30 Days (different calendar years)</td>
<td>6.43%</td>
<td>6.16%</td>
<td>Strength</td>
</tr>
<tr>
<td>% of Hospitalizations with Delay longer than 30 Days</td>
<td>3.85%</td>
<td>3.78%</td>
<td>Strength</td>
</tr>
<tr>
<td>% of Hip Fractures with Surgery Performed within the First 48 Hours</td>
<td>57.91%</td>
<td>44.12%</td>
<td>Strength</td>
</tr>
<tr>
<td>Pressure Ulcer Rate</td>
<td>0.28%</td>
<td>0.06%</td>
<td>Strength</td>
</tr>
<tr>
<td>Central Venous Catheter-Related Bloodstream Infections Rate</td>
<td>0.05%</td>
<td>0.00%</td>
<td>Strength</td>
</tr>
<tr>
<td>Postoperative Pulmonary Embolism or Deep Vein Thrombosis p/100,000</td>
<td>458.28</td>
<td>476.13</td>
<td>Weakness</td>
</tr>
<tr>
<td>Postoperative Sepsis p/100,000</td>
<td>977.15</td>
<td>829.26</td>
<td>Strength</td>
</tr>
<tr>
<td>Standard Patient per Doctor ETC</td>
<td>4.81</td>
<td>6.52</td>
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<table>
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<th>Indicator</th>
<th>1st Wave</th>
<th>2nd Wave</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume of Abdominal Aortic Aneurysm Repairs</td>
<td>0</td>
<td>3</td>
<td>Strength</td>
</tr>
<tr>
<td>Volume of Esophageal Resections</td>
<td>0</td>
<td>4</td>
<td>Strength</td>
</tr>
<tr>
<td>Volume of Pancreas Resections</td>
<td>1</td>
<td>1</td>
<td>Strength</td>
</tr>
<tr>
<td>Volume of Carotid Endarterectomies</td>
<td>0</td>
<td>3</td>
<td>Strength</td>
</tr>
<tr>
<td>Volume of By - Pass Coronary Artery Surgery (CABG)</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Volume of Percutaneous Transluminal Coronary Artery Angioplasty (PTCA)</td>
<td>0</td>
<td>58</td>
<td>Strength</td>
</tr>
</tbody>
</table>

The Opportunities identified were:

- Receptive government, despite not being fully favorable, to public-private partnerships in health;
- Attractive market for third parties with the core activity of managing hospital infrastructure;

The only Threat identified concerns the fact that the contracts currently in force have a minimum duration of 30 years, which may not be sustainable for the State, especially due to political resistance to PPPs.

As a strategy, the suggestion is that the Portuguese government uses the hot market for third parties as an asset in the negotiation of contract term, thus obtaining more sustainable conditions in the long term, and therefore representing greater chances of approval by the governors.

5. CONCLUSION

The study presented here aimed to study the public-private partnerships established in the area of health in Portugal over the last few years, in addition to an international contextualization, and to project future steps in the light of the lessons learned from the experiences investigated.

To this end, a characterization of the Portuguese National Health System was initially carried out, situating the reader unfamiliar with the structure as to its characterization and organization, an explanation of the context in which health PPPs emerged in it, and the presentation of the monthly monitoring database of
Portuguese hospitals, Benchmarking Hospitals. Finally, an understanding of what public value creation is, central to the project, was elucidated.

Next, an in-depth literary research was conducted focused on understanding the PPP models in health practiced by the United Kingdom and Spain, reference countries in their application. Subsequently, a definition of key concepts to evaluate the performance of a health partnership was identified, these being: cost, quality, flexibility, and complexity. The first delimitation of the study was found in the study of the criteria, in which it was observed that, in the specific Portuguese case study, it would not be possible to confront the First and Second Wave models. The delimitation is a consequence of the fact that there are no cases of hospitals belonging to the SNS that operate under the Second Vacancy model and have been designed for this purpose, but the Braga Hospital operates as a Second Vacancy PPP as a result of the discontinuation of one of the previously established contracts.

Moreover, still in the literature review, an exhaustive search was made for authors who evaluated the performance of PPPs in health, in which we found - in Portugal and internationally - numerous practices based on qualitative methods, and many others focused on qualitative understanding.

This applied method differs from studies already carried out on PPPs in the SNS by benefiting from concrete and quantitative data to promote a qualitative reflection, based on the development of classic tools of strategic management. After an initial sorting and classification performed on the quantitative data present in the Hospitals Benchmarking database, the PESTLE, SWOT and TOWS analyses were developed, seeking an isolated understanding of the concepts of cost, quality and flexibility in the comparison of Braga Hospital with other Portuguese hospitals operated under a PPP regime (Cascais, Vila Franca de Xira and Loures - Beatriz Ângelo).

From the scenarios presented, the author verified that:

1. The hypotheses that a Second Wave public-private partnership presents better results were accepted, when the criteria of cost and flexibility were evaluated.

2. It was not possible to confirm the hypothesis that a Second Wave Public-Private Partnership is better according to the quality criterion, which makes it feasible to develop new studies based on the SWOT analysis of the criterion, in which the Analytic Hierarchy Process (AHP) method should be applied to assign weights to internal and environmental factors. For these studies, it is necessary that some of the main stakeholders involved in the public, operational and political management of PPPs in health are involved.

3. The central hypothesis that motivated the study that Second-Wave public-private partnerships generate more public value than First-Wave ones also cannot be confirmed, since the study was only able to conclude that they are better when their costs and flexibility are evaluated, but was not able to classify as an advantage or disadvantage the quality of the service provided. Again, the possibility of further research using the AHP method is highlighted, this time to assign weights to the criteria in the composition of the concept of Public Value Creation.

Still in the perspective of future developments, the project evidenced the geographic plurality of the study since the State of the Art, in which international cases were studied in order to better understand the Portuguese case. From the method that was applied to the Portuguese model, it is possible to replicate it to other countries.

Finally, the author would like to reinforce the privilege of having applied the knowledge acquired during the Industrial Engineering and Management course in a project that aims to generate value for society, especially developed in the area of International Public Health.

6. REFERENCES


