TÉCNICO LISBOA

Healthcare Public-Private Partnerships in Portugal:

A strategic analysis to project and contract management

Nuno Lopes Heitor

Thesis to obtain the Master of Science Degree in

Biomedical Engineering

Supervisors: Prof. Diogo Filipe da Cunha Ferreira
Prof. Amílcar José Martins Arantes

Examination Committee

Chairperson: Prof. Mário Jorge Costa Gaspar da Silva
Supervisor: Prof. Diogo Filipe da Cunha Ferreira
Members of the Committee: Prof. Rui Domingos Ribeiro da Cunha Marques

December 2020

Declaration

I declare that this document is an original work of my authorship and that it fulfills all the requirements of the Code of Conduct and Good Practices of the Universidade de Lisboa.

Preface

The work presented in this dissertation was performed at CEG-IST Center of Management Studies of Instituto Superior Técnico and at CERIS, during the period from February to December of 2020, under the supervision of Professor Diogo Filipe da Cunha Ferreira and Professor Amilcar José Martins Arantes, and within the frame of the hSNS FCT - Research Project (PTDC/EGEOGE/30546/2017).

Acknowledgments

The completion of my dissertation was made possible not only through my efforts, but thanks to the assistance and support given by various people.

First of all, I am grateful for the help my family provided me, not only through this specific journey, but through all my life as a student and as an individual. Each in their own way, they are always available and supportive when I present my struggles. In particular, to my father, for all the life lessons and active help in the search for who I am; to my mother, for encouraging me to be great at what I do, and to my brother, for teaching me about his experience, to which I relate very closely.

Secondly, and obviously, I would also like to recognize the assistance of my supervisors, Professor Diogo da Cunha Ferreira and Professor Amílcar Arantes, for their guidance in moments of uncertainty and knowledge on the specific topic. Not forgetting my external supervisor, Alexandre Nunes, who provided excellent connections and expertise, without which this work would not be possible.

Last but not least, to all friends and colleagues I encountered along my path as a student, who helped me grow as a person through every good and bad moment of my life so far.

Thank you.

Abstract

Portugal has a complete and complex national public health system, affected by continuously growing expenses. In the beginning of the 21st century, New Public Management principles, associated to international experience, propelled the development of Public-Private Partnership (PPP) models to increase focus on performance and Value for Money (VfM) in the healthcare sector. The first wave of PPPs, introduced in 2001, used an innovative and integrated model, associating construction and management of hospital infrastructure with clinical service delivery. The rise of PPP investments to circumvent budgetary restrictions showcase a lack of strategic approach, with governmental short-term view of contracts which last up to 30 years. The public sector incapacity to adequately manage complex projects and contracts became evident with various process delays, underestimation of costs and external consultation for contract monitoring. After a heavily criticized first wave, resulting in some reversions of clinical service delivery to the public sphere, Portugal is currently working on implementing a second wave of hospital PPPs without this intricate component. In response, the study presents the first strategic management approach to public sector management of healthcare PPPs in Portugal. Focusing firstly on the Portuguese legal framework, this work develops an organic SWOT analysis, integrating knowledge from national PPP experts. The strategic formulation developed recommends filling existing knowledge gaps in public entities, promoting close cooperation and accountability with the private sector and reviewing approaches to contract management, renegotiations and VfM assessments.

Keywords

Public-Private Partnership; Contract Management; Value for Money; SWOT; Strategic Management.

Resumo

Portugal tem um sistema nacional de saúde completo e complexo, condicionado por um crescimento continuado de despesas. Princípios de New Public Management, associados à experiência internacional, impulsionaram o desenvolvimento de modelos de Parceria Público-Privada (PPP) com maior foco em performance e custo-benefício. A primeira vaga de PPPs, introduzida em 2001, utilizou um modelo inovador e integrado, associando a construção e gestão de infraestrutura hospitalar com a prestação de serviços clínicos. O aparecimento de investimentos em PPP para evitar restrições orçamentais demonstram uma falta de estratégia, com uma perspetiva governamental a curto prazo de contratos de duração até 30 anos. A incapacidade do setor público em gerir projetos e contratos complexos adequadamente tornou-se evidente com atrasos em processos, subestimação de custos e uso de consultoria externa para monitorização do contrato. Depois de uma fortemente criticada primeira vaga, que resultou em retornos da gestão clínica para a esfera pública, Portugal está atualmente a implementar a segunda vaga de PPPs hospitalares sem esta complexa componente. Em resposta, o estudo apresenta a primeira abordagem de gestão estratégica à gestão de PPPs hospitalares pelo setor público em Portugal. Concentrado primeiramente no enquadramento legal português, este trabalho desenvolve uma análise SWOT orgânica, integrando conhecimento de especialistas nacionais em PPPs. A formulação estratégica desenvolvida recomenda o preenchimento de lacunas de especialização em entidades públicas, a promoção de cooperação e responsabilização próximas do setor privado e revisão de abordagens à gestão de contratos, renegociações e análises de custo-benefício.

Palavras Chave

Palavras-chave: Parceria Público-Privada; Gestão de Contrato; Relação qualidade-preço; SWOT; Gestão Estratégica.

Contents

List of Figures

List of Tables

Acronyms

ACSS	*Administração Central do Sistema de Saúde*
ARS	*Administração Regional de Saúde*
ARSLVT	*Administração Regional de Saúde de Lisboa e Vale do Tejo*
ARSN	*Administração Regional de Saúde do Norte*
BAFO	Best and Final Offer
BOT	Build-Operate-Transfer
CPI	Consumer Price Index
DBFMO	Design-Build-Finance-Maintain-Operate
DBFOT	Design-Build-Finance-Operate-Transfer
EGED	*Entidade Gestora do Edifício*
EGEST	*Entidade Gestora do Estabelecimento*
EMPS	*Estrutura de Missão Parcerias.Saúde*
EPC	*Entidade Pública Contratante*
EPEC	European PPP Expertise Center
ERS	*Entidade Reguladora da Saúde*
EU	European Union
IT	Information Technology
NAO	National Audit Office
NHS	National Health Service
NPM	New Public Management
NPV	Net Present Value
OGC	Office of Government Commerce
PESTLE	Political, Economical, Social, Technological, Legal, and Environmental

PF2	Private Finance 2
PFI	Public Finance Initiative
PPP	Public-Private Partnerships
PSC	Public Sector Comparator
SNS	*Serviço Nacional de Saúde*
SWOT	Strengths, Weaknesses, Opportunities, Threats
UK	United Kingdom
UTAP	*Unidade Técnica de Acompanhamento de Projetos*
VDoH	Valencian Department of Health
VfM	Value for Money

1

Introduction

Contents

1.1 Context and motivation

In Portugal, public sector current healthcare expenses have been increasing since 2014, from 10.3 million euros to 12.2 million euros in 2018, with the largest nominal growth of 5.3% in that year.[1] The possibility of unafforadable expenses in the future demands new and efficient measures to control healthcare costs while not compromising the delivery of healthcare across the nation.

The rise of new public management theories advocated for an increase in market incentives for production of goods and services in the public sector. Along with budgetary restrictions felt by the public sector, these propelled the use of Public-Private Partnerships (PPP)s in Portugal, as public management increasingly focused on performance and Value for Money (VfM) (Simões, *et al.*, 2009).

The first country to develop the concept of PPP for public services was the United Kingdom (UK) when the Public Finance Initiative (PFI) was introduced by the Conservative Government in 1992. Since then, it has been the "*favoured route for procuring the building and operation of many public services, including hospitals, schools, prisons, roads, other transport projects and defence.*" (Roe & Craig, 2004)

Variations of this initial model for contracting private entities to design, build and operate public services have been developed in Europe, and more specifically, in Spain, where the Alzira model was developed and implemented in 1999. The Portuguese health market was directly influenced by this experience, as "the Valencian savings banks have ceded part of their capital (...) to the Portuguese in exchange for being allowed to invest in the Portuguese hospitals which will follow the same model" (Acerete *et al.*, 2011).

Previous experiences, both nationally and internationally, in the health sector or in any other, have shown both positive and negative aspects of PPP models. These have been slowly amplified and mitigated, respectively, with new laws, development of guides with best practices, public debate, and studies concerning VfM. None of these progresses are straightforward, i.e. there is subjectivity involving the subjects, as it is impossible to establish an universal path to success.

In Portugal, from the first wave of five PPP hospitals, announced in 2001, using a PPP model which included both infrastructure and clinical services management, four of them were actually concretized. *Hospital de Cascais* was the first hospital PPP with contract signed in February 2008, then *Hospital de Braga* in February 2009, *Hospital de Loures* in December 2009, and finally *Hospital de Vila Franca de Xira* in October 2010. The second wave of five PPP hospitals was announced soon after the first, in 2002, using a different model which did not include clinical services management. No partnership with this model has been implemented yet.

PPPs in the healthcare sector have been discussed extensively, since the route has registered considerable delays and modifications (Simões, *et al.*, 2009). Progress was made without public adminis-

[1] *Ministério da Saúde* (2018). *Relatório Anual: Relatório e Contas do Ministério da Saúde e do Serviço Nacional de Saúde*. Retrieved from: http://www.acss.min-saude.pt/wp-content/uploads/2016/10/Relatorio_Contas_MS-SNS_2018.pdf, consulted on 25/02/2020.

tration guaranteeing proper technical and human resources needed to ensure appropriate conception, evaluation, negotiation, execution and monitoring (Sarmento, 2013).

The increase of healthcare expenditure is a serious problem with aggravating tendencies if no major changes are discussed and implemented, as shown, for example, by the new pandemic. Both national and international literature has focused on analysing contracts, contract execution and legal procedures, evaluating the delivery of VfM in PPP projects. However, the application of strategic management methodologies targeting public management of the healthcare sector is rare and recent, in comparison with the importance given by the private sector.

The traditional difference in approach between public and private sectors has become increasingly reduced, as management principles and methods are now used by public managers frequently (Wijngaarden *et al.*, 2012). The popularity of the Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis is an example of this development. In the healthcare sector, the performance of the SWOT analysis is not clear and different approaches can be used (Wijngaarden *et al.*, 2012). Lack of clarity is consequence of uncertainty regarding the future. There is no given direction that leads to success, and we do not possess every bit of information necessary for decision-making.

Portugal, and the world, is facing a period of strong budgetary restrictions. Now, more than ever, aspects of VfM and efficiency become imperative for the sustainability of the *Serviço Nacional de Saúde* (SNS), in which the PPP hospitals are integrated. Developing a strong alternative to traditional procurement which allows the protection of public interest is an exciting possibility. However, the evaluation of PPP models is currently limited by the information available regarding hospital performance.

A consistent strategic analysis is needed to establish specific goals for public healthcare management and a concrete path to achieve them, based on reliable quantitative and qualitative data. Understanding the internal and external environments to PPP healthcare delivery and reflecting upon how the public sector can harness them is crucial to develop a long term strategy which protects the economy and the population.

1.2 Objectives

This dissertation aims to develop a SWOT analysis on implementation and execution of PPPs in the healthcare sector in Portugal, followed by recommendations for strategic formulation. In order to use this strategic management tool, it is necessary to understand the environment surrounding the project and contract management framework of PPPs in Portugal.

This work aims to increase the quality of information available for public decision-making. It intends to makes use of the existing relevant literature regarding the implementation of PPPs internationally, and assess its impact on the Portuguese approach.

Studying legal procedures, relevant entities and its functions to understand the Portuguese approach

to PPPs in the healthcare sector is also inside the scope of this work. From the initial proposal to contract termination, there are a lot of particularities that have serious impact on the delivery of VfM for the State. This work also explores the way this framework is set up and how it aims to provide benefits for the public sector.

The contracts celebrated for the four hospitals created under the PPP model used in the first wave also require attention. Studying contract execution shows the extent to which the theoretical benefits and drawbacks of PPP procurement materialize.

Gathering all the aforementioned information is essential to perform solid and well-founded internal and external environment analyses, which precede and substantiate the SWOT analysis. The main objective of this work is to suggest a clear course of action for the public sector in dealing with PPPs in the healthcare sector based on a strategic management approach. The recommendations made based on literature are evaluated, validated and reformulated according to the inputs from several national experts on the topic.

This document should serve as a guide for future reference in healthcare PPP decision-making processes and framework revision, filling a gap in the public healthcare sector scene.

1.3 Methodology

Developing a strategic management approach is a multifaceted process. In this case, it is imperative first to understand concepts that form the basis for the development of PPPs and how these are implemented and accounted for in international and national experience.

The methodology consisted firstly in an extensive literature review. Despite the main focus of evaluating the implementation and execution of management contracts celebrated for the four PPP hospitals established in Portugal, this review included:

- Definition of relevant PPP concepts, with principles of project and contract management;
- International (Spain and UK) history of legislation and experience regarding the use of PPPs in general and in the healthcare sector, and
- National context (motivation for implementation, legislative progress, contract specifications and execution).

For a complete understanding of these questions, the literature review focused on published books, relevant journal articles, documentation from national and international public entities (contracts, audits, studies, reviews).

The following step is the development of the strategic analysis through using a SWOT matrix, using the information gathered from the literature review, and focusing on PPP management contract execu-

tion. The first stage is an analysis of the internal and external environments to PPP implementation and execution in the healthcare sector. The internal environment analysis consists on the application of the value chain method, both for the PPP process and for healthcare delivery using the first wave model. The external environment analysis is a Political, Economical, Social, Technological, Legal, and Environmental (PESTLE) analysis.

The second stage is the development of the SWOT matrix according to the analyses performed in the previous stage. Exploring the relations between the factors included in the matrix give rise to a comprehensive understanding of positive and negative points. The next stage is the theoretical formulation of a strategy to enhance the benefits and solve the problems of PPP use in the healthcare sector, with specific recommendations.

Following a more organic approach to the SWOT analysis, the final stage is the comparison of the results obtained by this strategic management tool with the opinion of Portuguese PPP experts in the healthcare sector. The method chosen is a questionnaire with 20 questions answered in a 1-7 Likert scale. According to the answers, the theoretical analysis is evaluated and discussed.

1.4 Document structure

This dissertation is structured in six chapters. The first chapter is introductory, describing the work to be performed in the following chapters by giving context and motivation, objectives, methodology and document structure.

The second chapter explores the theoretical concepts which contextualize the use of PPPs, by exploring its definition, different types of models and relevant aspects for PPP choice and implementation.

The third chapter explores the international frameworks which influenced the Portuguese approach to hospital PPPs, focusing on experience form the UK and Spain.

The fourth chapter regards the overall Portuguese experience with hospital PPPs. It starts with the legal framework, and then focuses on the PPP process in terms of management contracts developed in the first wave, while contextualizing the second wave. Project and contract management in Portuguese hospital PPPs is here detailed.

The fifth chapter presents the strategic analysis of Portuguese hospital PPPs. It begins with details on PPP hospital contract execution. These serve as context for the internal and external environment analysis. This chapter presents also the SWOT matrix and the strategic formulation with recommendations, followed by the incorporation of experts' opinions gathered from the Likert scale questionnaire.

The sixth and final chapter concludes the dissertation by addressing the achievements of the work, its limitations and future work to be developed.

2

Theoretical concepts

Contents

2.1 PPP

Conceptually, there is a range of definitions for PPP. There is no internationally agreed criteria which define the collective needs of the community, for which public administration is responsible (António, 2004)[1]. Failing to agree on a standard set of terms leads to each country's jurisdiction deciding which ones best fit the purpose for which PPPs are used (Hayllar & Wettenhall, 2010).

Teisman & Klijn (2002) stated that PPPs can be seen as governance schemes to manage the interdependencies between societal actors, such as government and private-sector organizations. Furthermore, they argue that these "*partnerships are seen (...) as the best way to govern the complex relations and interactions in a modern network society*". On the other hand, Linder (1999) introduced a grammatical analysis of the meaning of PPP. From this view, this concept serves other purposes, such as privatization and encouragement of private providers to supply public services at the expense of public organizations (Hodge & Greve, 2007).

In order to achieve a general understanding of PPP concepts, Table 2.1 presents different perspectives and definitions of PPP.[2]

Table 2.1: PPP definitions

Author(s) (year)	Definition
Grimsey & Lewis (2002)	Public sector body enters into a long-term contractual agreement with private sector entities for the construction or management of public sector infrastructure facilities, or the provision of services (using infrastructure facilities) to the community.
Klijn & Teisman (2003)	Strong cooperation between public and private actors to develop complementary added-value products and services with shared risk, costs, and benefits.
Pombeiro (2003)	Any form of collaboration between the public and private sectors, destined to develop infrastructure, service, or activity allocated to the public domain for collective benefit.
Yescombe (2007)	Long-term contract between a public-sector party and a private-sector party for the design, construction, financing, and operation of public infrastructure with payments over the life of the contract made by the public-sector party or by general users.
OECD (2012)	"Long term contracts between the government and a private partner who delivers and funds public services using a capital asset, sharing associated risks".
Sarmento (2013)	Contract between the public sector and a private entity, in which the latter provides a service according to contract requirements which is paid by the public entity
WBG (2017)[2]	"Long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility and remuneration is linked to performance".

As presented, there is no agreed definition of what defines a PPP (Sarmento, 2013). Despite this, some consensual characteristics can be defined overall:

- Medium to long duration of a cooperation relationship between a public partner and a private partner;

[1] IMF - International Monetary Fund (2004). *Public-Private Partnerships Prepared by the Fiscal Affairs Department*. Retrieved from: https://www.imf.org/external/np/fad/2004/pifp/eng/031204.pdf, consulted on 12/03/2020

[2] WBG - World Bank Group (2017). *Public-private partnerships: Reference Guide*. Retrieved from: https://pppknowledgelab.org/guide, consulted on 12/03/2020.

- Method of funding, in part from the private sector, with complex arrangements between various players, despite public funding being added in some cases;

- Main purpose is the execution of a public infrastructure project (design, construction, financing, operation) by the private sector;

- Public partner is responsible for defining objectives of the partnership, in terms of public interest, quality of service, and pricing policy, and for monitoring compliance with objectives, and

- Risk sharing distribution between the public partner and the private partner determined, in each case, according to the respective ability of the parties concerned to assess, control and cope with each risk (António, 2014)[3]

2.2 Types of PPP

PPPs are a form of cooperation between the public sector and the private sector. Many different partnership models were developed to fit the intended purpose of specific market areas. The most common is the Design-Build-Finance-Maintain-Operate (DBFMO) model.[4] Under the DBFMO, the government details the services to be provided by the private sector, which then designs and builds an asset with that purpose, finances its construction, maintains and operates it.[1,4]

There are two basic manners in which the payment from the public entity to the private sector can be processed in a DBFMO partnership. The availability-based, requiring the built infrastructure to be available for use, and demand-based, depending on the specific extent to which the infrastructure is used.[4]

Risk management is directly related to the specific conditions of the project, including the payment method. For a demand-based mechanism, the demand risk is transferred to the private sector as payments depend on the volume of traffic.[4] For an availability-based mechanism, this risk is maintained by the public sector, the traffic volume does not have a direct impact on the remuneration of the concessionaire.[4] However, incentives based on it can exist (Acerete, Gasca & Stafford, 2019).

This model is one of many different partnership models, which have been developed to meet specific project needs across the world. Figure 2.1 presents the specific ways of providing public infrastructure as a spectrum between totally public sector projects and totally private sector projects.

[3]European Commission (2004). *Green Paper on public-private partnerships and community law on public contracts and concessions*. Retrieved from: https://eurlex.europa.eu/legal-content/PT/TXT/?uri=CELEX:52004DC0327, consulted on 20/04/2020.

[4]European Court of Auditors (2018). *Public Private Partnerships in the EU: Widespread Shortcomings and Limited Benefits*. Retrieved from:https://www.eurosai.org/en/databases/audits/Public-Private-Partnerships-in-the-EU-Widespread-shortcomings-and-limited-benefits/, consulted on 05/03/2020.

Figure 2.1: Public and Private provision of infrastructure
Adapted from: (Yescombe, 2007, p.12)

	Public Project ◄					► Private Project
			◄ Public-Private Partnership ►			
Contract Type	**Public-sector procurement**	**Franchise**	**DBFO***	**BTO****	**BOT*****	**BOO******
Construction	Public sector[1]	Public sector[1]	Private sector	Private sector	Private sector	Private sector
Operation	Public sector[2]	Private sector	Private sector	Private sector	Private sector	Private sector
Ownership	Public sector[3]	Public sector	Public sector	Private sector during construction, then public sector	Private sector during contract, then public sector	Private sector
Who pays?	Public sector	Users	Public sector or users	Public sector or users	Public sector or users	Private sector, or users
Who is paid?	n/a	Private sector	Private sector	Private sector	Private sector	Private sector

* Design-Build-Finance-Operate also known as Design-Construct-Manage-Finance (DCMF) or Design-Build-Finance-Maintain
** Build-Transfer-Operate also known as Build-Transfer-Lease (BTL), Build-Lease-Opeate-Transfer (BLOT) or Build-Lease-Transfer (BLT)
*** Build-Operate-Transfer also known as Build-Own-Operate-Transfer (BOOT)
**** Build-Own-Operate
[1] Public sector normally designs and private sector carries out construction
[2] Public sector may outsource to private sector
[3] Ownership may be through an independent publicly-owned company

2.3 Relevant aspects for PPP choice and implementation

The choice of a PPP model is related to essential aspects such as VfM, the Public Sector Comparator (PSC), risk transfer, accountability, overall advantages and disadvantages, and contract and project management.

2.3.1 Value for money

A case by case evaluation conditions the celebration of a collaboration contract between the public and private sectors. The benefits of this type of contract for the State must be recognized against traditional options, if these are not able to provide efficient response to the population's needs (António, 2014).

Given this, the concept of VfM is important to effectively evaluate the global perspective of a PPP in terms of efficiency, quality, economic factors and public interest (António, 2014; Grimsey & Lewis, 2005). Although there is no exact definition to translate the concept of VfM, it can be used to determine the maximum benefit provided by the acquisition of goods or services, with the available resources.[5]

Grimsey & Lewis (2002) defined VfM as the effective use of public funds on a capital project. Further, literature shows that it is determined by:

[5] Pereira, C. (2014). *Fatores determinantes nas parcerias público-privadas: a aplicação prática em investimentos de âmbito municipal*. PhD Thesis presented to ISCTE – Instituto Universitário de Lisboa.

- Private sector innovation and management skills (*e.g.* asset design, construction techniques, operational practices);
- Risk transfer (*e.g.* construction delays, cost overruns, finance) to private sector entities;
- Long term contract nature;
- Competition, and
- Performance measurements (Grimsey & Lewis, 2002; Torchia, Calabrò, & Morner, 2015).

VfM does not take into account only the costs of service provision, but its quality and the benefits associated for the community, resulting in long term resource savings.[6] So, in the case of PPPs, VfM is directly related with State savings, which are also amplified by promoting efficiency gains and innovation (usually associated to the private sector). Regarding this, Hodge & Greeve (2010) argued that VfM is a concept designed to shift the discussion from public interest towards a discussion of whole-life project costs, risk transfer and risk-adjusted discount rates, which is much more subjective.

According to Azevedo (2009), if the PPP does not present VfM potential after evaluation of financial impact, there can be no place for public decision of approval of the partnership. In this context, the PSC is a fundamental tool for demonstration of PPP VfM. The PSC compares the cost of the partnership with costs for a traditionally procured public sector project.[7]

However, the choice between models has potential to be made according to different criteria than those of VfM. There are factors that can influence this choice, such as:

- Legal and institutional framework of the public entities;
- Quality and complexity of criteria/tests which can be used to assess VfM;
- Role of responsible State entities in the procurement process;
- Accounting norms regarding PPPs;
- Political preference;
- Inefficient quantification of project risks, and
- Project complexity (Silva, 2016, p.92).

[6] Nunes, A. (2020). *Eficiência e produtividade nas unidades hospitalares em Portugal: análise comparada dos regimes PPP e E.P.E.* PhD thesis presented to ISCSP – Instituto Universitário de Lisboa.

[7] Firmino, S. (2014). *Parcerias público-privadas em Portugal: accountability, modelos e motivações subjacentes*. PhD thesis presented to Escola de Economia e Gestão da Universidade do Minho.

2.3.2 Public Sector Comparator

The PSC consists of a cost analysis of service provision or infrastructure construction using traditional public procurement, based on the Net Present Value (NPV)[8]. (Sarmento, 2013). Most countries using PPPs use the PSC to compare the VfM of potential projects to the value that traditional procurement could offer. The hypothesis tested regards the traditional procurement capability to deliver more VfM than the PPP option (Burger & Hawkesworth, 2011).

The PSC should estimate costs, including operational and capital costs, associated with State service provision through public funding, adjusted by the level of risks held for established quality standards (Sarmento, 2013, p.33; Torchia et al., 2015).

The use of the PSC serves to determine which is the public procurement option which leads to a greater VfM in a public interest perspective, making it a crucial tool for public decision-making (António, 2014). Thus, the PSC is a benchmark in the private bid evaluation process, and the choice for PPP is only justifiable if the partnership cost is inferior to the PSC, otherwise the project should be promoted directly by the public entity.[9]

There is a possibility of inaccurate calculations of the PSC. If the PSC is too high, there is a possibility for excessive private sector profits. If the PSC is too low, there can be no way for the private sector to generate profits and this leads to re-financing of contracts under new, more favorable conditions (Sarmento, 2013, p.33). Both scenarios decrease the VfM for the State.

In reality, as literature shows, there is a possibility for failure of VfM assessment and use of PSC, particularly in the healthcare sector which regards complex projects, due to questionable political and economical rationale (Hayllar & Wettenhall, 2010; Hellowell & Pollock, 2009; Torchia *et al.*, 2015).

2.3.3 Risk transfer

Based on the concept of PPP presented above, the long term relation established between public and private entities for construction and public service provision inherently leads to risk transfer from the public sector to the private sector.

The ability of the public and private sectors to identify, analyse and allocate risks effectively has a major contribute to achieving VfM (OECD, 2008). Moreover, appropriate allocation of risks is necessary condition for successful PPP contracts (Marques & Berg, 2011). Regarding this, Leiringer (2006) stated that the "*nature of PPP projects makes risk a key factor in the procurement and delivery of the project*". As financing costs are superior for private sector, the only way VfM is achieved is if the private sector

[8] In cash flow and investment analysis, the NPV is given by discounted cash flow calculations, at a given discount rate. It represents "*the value today of the sum of money due in the future, discounted at (...) a relevant interest rate*", which depends also on a premium for the particular risks involved in the investment (Yescombe, 2007, p.49).

[9] *Tribunal de Contas* (2019). *Auditoria de resultados à execução do contrato de gestão do Hospital de Vila Franca de Xira em PPP*. Report 24/2019 - 2nd Section. Retrieved from: https://www.tcontas.pt/pt-pt/ProdutosTC/Relatorios/RelatoriosAuditoria/Documents/2019/rel024-2019-2s.pdf, consulted on 03/10/2020.

is more efficient than the public sector. Efficiency can be obtained through risk transfer, since there are risks assumed to be better managed by the private sector (Sarmento, 2013).

Although risk identification is very common and transparent, appropriate risk allocation is a relatively more complicated process (Leiringer, 2006). In some cases, as VfM requires equitable risk allocation, the need for the public sector to demonstrate VfM can generate conflicts with private sector ambitions for considerable revenue streams (Grimsey & Graham, 1997).

Silva (2016) defined risk as the probability of an event to occur, causing a divergence between present contractual conditions and costs and benefits initially predicted. Table 2.2 shows and details the categories of risks associated with PPPs.

Table 2.2: Types of risk associated with PPPs
Source: (Silva, 2016, p.50-52)

Type of Risk	Description	Examples
Political	Any political change that affects expected results of an action or decision, leading to changes in probability of meeting business objectives.	Expropriation, public authority credibility and coherence, legislative changes.
Financial	Covers multiple risks associated to finance, including the possibility of default.	Unfavorable economic conditions, limited project return rates.
Technical	Probability of losses in the development of project activities, such as construction.	Excessive construction costs and delays.
Operational	Issues related to infrastructure operation and maintenance.	Low productivity and incompetence, unbudgeted charges.
Market	Uncertainty regarding the future value of the market, and intrinsic market uncertainties.	Insufficient revenues, government restrictions on profit, price and demand faulty estimation, loss of demand, competition.
Legal	Cost or loss of revenue due to legal uncertainties, aggravated by unpredictable new legal environments.	Low transparency, public intervention on the choice of subcontractors, State control, changes of scope and fiscal rules, unstable legal framework.

The primary purpose of risk transfer for the public sector is creating incentives for private entities to fulfill their contract obligations efficiently (Sarmento, 2013). VfM is preserved with risk transfer according to the party that is best able to control the specific risk at a lower cost (António, 2014; Yescombe, 2007).

Given this, the public sector has interest to retain some of the risks. Namely, those which the private sector cannot control cost-effectively, due to the substantial risk premium associated, or those the private sector cannot be given the freedom to handle (Yescombe, 2007). However, Sarmento (2013) stated that the public sector has a tendency for excessive optimism in overestimating benefits and underestimating adverse events, since public sector losses, ultimately, are supported by the taxpayers and not by the decision-makers.

Literature suggests that the private sector should assume construction, maintenance, and financial risks, with a possibility for assuming demand risks, which is a topic under which there is no consensus (António, 2014; OECD, 2008; Sarmento, 2013). This allocation regards private sector more significant

experience and know-how, more efficient work with better technical and human resources, and a whole life cycle perspective.

The public sector, on the other hand, has the aim of controlling the project over the contractual period. Also, it focuses on improving quality of social services while reducing costs, which makes them better suited to manage political, legal and *force majeure* risks (António, 2014; OECD, 2008; Sarmento, 2013).

2.3.4 Accountability

The accountability concept regards the obligation of a party to acknowledge and take responsibility for its adopted conduct with respect to another party. Accountability is, therefore, associated with public administration values such as transparency, responsibility, integrity and responsiveness.[7]

Eurostat (2004) established that PPP assets should be classified as off-balance sheet items for the State if the private partner bears construction risks and one between availability and demand risks. If the private sector holds these risks, then the asset is on the private partner's balance sheet. In this case, charges for the State are classified as service acquisition; otherwise, every financial flow is accounted as a national capital expense.[10]

In this regard, Sarmento (2010) affirmed that the literature focused on discussing PPPs balance sheet accountability, instead of direct representation of good VfM for the State. Avoiding both accountability for capital funding and availability of off-balance-sheet financing are not VfM valid criteria to evaluate PPPs (Hodge & Greeve, 2010).

In reality, accountability can get lost in the definition of public and private boundaries. The involvement of private partners in government decision-making and program delivery suggests an additional and necessary blurring of already complex governance settings (Willems & Van Dooren, 2011). Besides, the importance of accountability for successful public management, including PPPs, is well recognized (Cruz & Marques, 2011). It requires the creation of safeguarding mechanisms, where the public manager plays a major role, so that private profits do not compromise public services (Forrer *et al.*, 2010). Thus, and because private partners enter these partnerships for different reasons than governments, the conditions of private sector involvement should be scrutinized by public officials before establishing PPPs (Posner, 2002).

In this context, Forrer (2010) proposed a six dimension framework to assess PPP accountability before advancing with the development of any PPP arrangement and throughout the partnership:

- Risk, already discussed above;
- Costs and benefits, also discussed above in regards to VfM;

[10] UTAO – Unidade Técnica de Apoio Orçamental (2007), *Parcerias público-privadas: Encargos dos Estado com as concessões rodoviárias (com portagem real e SCUT) e ferroviárias - Análise das Questões Técnicas Suscitadas pela Auditoria do Tribunal de Contas*, Ref. 30/COF/2007. Retrieved from: https://www.tcontas.pt/pt-pt/ProdutosTC/Relatorios/RelatoriosAuditoria/Pages/detalhe.aspx?dset=2007, consulted on 19/05/2020.

- Social and political impact, since the distribution of social impacts can have implications on political electoral outcomes system by affecting citizen's opinions;
- Expertise, involving both people from the public and private partners, according to the insights and skills needed, to accomplish partnership tasks;
- Partnership collaboration, regarding project management concepts of effective leadership and stakeholder communication, vital for strengthening human connections within a PPP, and
- Performance measurement, since the use of balanced performance measures of intended outcomes helps to establish trust between workers and ensures partnership performance.

2.3.5 Advantages and disadvantages

As already discussed, the debate around pros and cons of developing PPPs is very complicated. It lacks consensus, as questions raised can be looked from both public and private sectors differently. The introduction of private management and capital provided governments with ease on budgetary constraints on infrastructure investment. It increased efficiency on public services, which allowed many countries to establish PPP programs, even before possible discussions regarding drawbacks.[1]

According to the literature reviewed, Table 2.3 presents the main advantages and disadvantages identified for both sectors which play different role in a PPP.

Table 2.3: Advantages and disadvantages associated with PPPs for public and private sectors
Source: (Hayllar & Wettenhall, 2010; Sarmento, 2013, p.28-32; Silva, 2016, p.22-23; Torchia *et al.*, 2013; Yescombe, 2007, p.15-28)[4]

	Public sector	**Private sector**
Advantages	- Increase VfM (efficient service at lower cost) - Bring private skills and experience into a public project - Avoid capital costs and reduce administration costs - Facilitate innovation on infrastructure development - Risk transfer (finance, construction and operation) - Building public infrastructures, not possible otherwise due to budgetary restrictions - Additional funding to complement traditional budgets, for earlier programme delivery - Better maintenance and service levels - Affordability - Budgetary certainty - Speed up of health, poverty alleviation and development programmes	- Managing whole-life cycle costs - Economic growth - Increased job opportunities - Development of specialist skills - Profitability - Economies of scale
Disadvantages	- Private financing more expensive than public financing - Temptation to invest by avoiding budgetary restrictions - Reduction of quality due to poor contract monitoring - Possibility of contract renegotiation - Limited competition due to high initial investment costs - Lack of transparency in tendering and monitoring - Loss of management control to the private sector	- Lack of contract flexibility - Costly political delays - Costly negotiation processes

From Table 2.3 it is clear that there many variables can generate benefits to the public sector, but can be equally harmful if not handled carefully. There is a possibility for better public value, accelerated development, and more cost-effective service provision. Thus, many issues should be analyzed and discussed, from political to financial and economic challenges presented (Hayllar & Wettenhall, 2010). Hodge & Greve (2010) alerted for the importance of discerning who gets the most benefits out of PPP schemes. Establishing larger gains for the public sector is critical to ensure governments act in the public interest, maintaining their policies capable.

In summary, using PPPs to public sector benefit in terms of efficiency and efficacy is mostly dependant on contract and project management issues, in a case by case analysis, as overall consensus in procedures is lacking and projects are very complex (especially on the healthcare sector).

2.3.6 Contract and project management

Although PPP project preparation and procurement are important, the manner in which the contract is supervised, especially during implementation is a critical point for success or failure to achieve the intended VfM (Silva, 2016).

Ideally, once the PPP contract is signed, the focus should be on completing the work needed, which, in reality, is a too simplistic view of complex arrangements like PPPs. However, a cooperation relationship between parties is known to be the best way to achieve success in a long-term PPP (Yescombe, 2007).

The European PPP Expertise Center (EPEC) established guidelines for handling PPPs, referring to operational management as "*the management of a PPP by a public contracting authority (...) from signature until the end of the contract life*".[11] The process includes activities both relating to contract and project management. In addition, reasons for the importance of this type of management can be outlined, regarding PPP characteristics such as being:

- Long-term agreements, where deviations can have cumulative impact on project outcomes;
- Complex projects, where it is not possible to specify all scenarios in the initially signed contract, and so maintaining contractual flexibility is essential, and
- Designed around performance outputs, implying close monitoring to ensure achievement of those outputs.[2,11]

Given this, with contract management in PPPs, public authorities aim to ensure that:

- Project and contract management responsibilities are independent due to the amount of issues derived from contract signing;

[11] European PPP Expertise Center (EPEC) (2014). *Managing PPPs during their contract life: Guidance for sound management*. Retrieved from: https://www.eib.org/attachments/epec/epec_managing_ppps_en.pdf, consulted on 26/04/2020.

- Contract management team takes on well defined responsibilities and necessary resources;
- Contract management rules are defined to allow for an effective way of dealing with contract control, adjustments and disputes;
- Continuous service delivery at a high standard, accordingly met with payments or penalties;
- Responsibilities and risk allocations are maintained in practice, and managed efficiently by the government;
- External environmental changes (risks and opportunities) are identified as soon as possible and acted upon effectively, and
- Efficiency expectations are achieved (Silva, 2016)[2].

Furthermore, Silva (2016, p.228) defined a series of contract management phases necessary for achieving the intended outcomes in a PPP, namely: (1) attribute management responsibilities; (2) control, with management of contracted outputs and project management; (3) management of authorized changes; (4) management of unpredicted changes; (5) dispute resolution, and (6) contact close.

Regarding specifically project management, it relates to activities derived from contract management. These activities regard all work previous to contract signing (e.g., viability studies and assistance in bids), responsibilities retained by the public authority and scope changes during project lifetime (Yescombe, 2007)[11].

2.3.7 Summary

In summary, using PPPs to public sector benefit in terms of efficiency and efficacy is mostly dependant on contract and project management issues, in a case by case analysis, as overall consensus in procedures is lacking and projects are very complex (especially on the healthcare sector). In theory, the PPP concept is very attractive due to the various possibilities for success. However, success is not straightforward, since governments can promote PPPs for the wrong reasons. Inadequate intentions can lead to inefficient risk allocation, disregard for VfM assessments and bypass on accountability issues.

In the Portuguese case, *Tribunal de Contas* clarified in their PPP guidelines, the need for evidence of State budget benefits in comparison with traditional procurement, to prove VfM, instead of choosing the PPP model for budgetary reasons related to accounting public debt off-balance sheet.[12] In fact, Sarmento (2010) argued that the focus on PPPs only as off-budget operations is one of the main reasons PPPs have not succeeded in Portugal.

[12] *Tribunal de Contas* (2008). *Directrizes e Procedimentos: Linhas de Orientação (Guide Lines) e Procedimentos para o desenvolvimento de Auditorias Externas a PPP*. Retrieved from: https://www.tcontas.pt/pt-pt/NormasOrientacoes/ManuaisTC/Documents/LinhasOrientaPPP.pdf, consulted on 13/03/2020.

3

International framework of PPP management

Contents

As mentioned before, international experience greatly influenced the way Portugal decided to implement PPP management models. The two main countries that influenced the Portuguese approach are Spain, with the Alzira model, and the UK, since some legal advisory firms "*drew initially from the UK experience*".[1]

Portugal is known for using PPPs intensively with high investments, in a short time period without enough experience to have a consolidated model (Sarmento, 2013). This chapter presents a review of international experience, helping to understand the context under which the PPP model was introduced in the Portuguese healthcare sector.

3.1 United Kingdom

3.1.1 Remarks on legislation

The PPP formula first emerged in the UK as the best possible way to provide public services to the citizens, in the wake of the conservative revolution of Margaret Thatcher in the 1980's (Allard & Trabant, 2011).

"*The PFI was announced in the 1992 Autumn Statement with the aim of achieving closer partnerships between the public and private sectors*" (Allen, 2003, p.6). The initiative comes as a Western adaptation to the New Public Management (NPM). The NPM is a set of management tools constructed to aid the public sector in service provision based on the idea that the private sector offers better overall results than the public sector.

The PFI can be defined as a financing model, where, for a considerable contracted time period, the responsibility of providing a public service is transferred to the private sector (Alshawi, 2009). Under the PFI, there must be adequate risk sharing and the different options for provision of the service should be evaluated, to ensure the increase of VfM when spending public resources (Allen, 2003).

When the PFI was first introduced, the UK Government created the tools needed to achieve the maximum scope possible for the use of private finance. This impetuous policy raised questions regarding the capacity of the public sector to establish beneficial partnerships and the readiness of the private sector to participate in the initiative (Allen, 2003).

As an attempt to solve the lack of Government PPP expertise, the PFI Taskforce was introduced in 1997. The organization allowed different departments to have some help in negotiating contracts, promoting VfM through the creation of documented guidelines and technical knowledge. In 2000, after extensive PFI review, the Taskforce was replaced by Partnerships UK. Here, the idea was to extend the scope of the organization to the private sector, to "*improve the process of planning, negotiating and*

[1] European PPP Expertise Center (EPEC) (2014). *Managing PPPs during their contract life: Guidance for sound management* Retrieved from: https://www.eib.org/attachments/epec/epec_managing_ppps_en.pdf, consulted on 26/04/2020.

completing PPPs" (Allen, 2003, p.15).

The Office of Government Commerce (OGC) was also created in 2000, with the main objective of modernizing the procurement process in through the Government (Allen, 2003). The PFI resulted in 712 financially closed contracts by the end of 2011, including 118 projects in the Department of Health.

This approach was target of a wide range of discussion regarding:

a) Slow and expensive procurement for both parties;

b) Inflexibility of contracts, with operational problems in requirement modifications from the public sector;

c) Insufficient transparency, creating accountability issues;

d) Inefficient risk transfer, and

e) Increased profits for the private sector.[2]

"*On 15 November 2011 the Chancellor announced the Government's intention to undertake a fundamental reassessment of PFI*".[2] This process was consequence of a thorough evaluation of the history of privately financed projects under the PFI model. An important factor in the reassessment was the decrease in number of new signed PFI contracts since the 2008 financial crisis that raised the price of private finance.[3] New procurement processes would no longer occur under this model but a similar one (Private Finance 2 (PF2)). Table 3.1 presents the reforms concretized with the PF2.

Table 3.1: Reforms promoted by the introduction of the PF2
Source: HM Treasury (2012)[2]

Reform	Details
Equity	Government intended to become a minority equity co-investor in future projects.
Delivery	Accelerated by improving procurement and tendering process capabilities.
Service provision	Flexibility promoted by removing soft services from projects and allowing a space for modifications during contract operation.
Transparency	Control over off-balance sheet financing and requiring regular equity and financial information.
Risk allocation	Reverting more risks to the public sector.
Finance	Enabling access to long-term debt finance.
VfM	Developing documented guidelines to deliver overall VfM.

Since the introduction of the PF2 model, only six new projects reached financial close.[3] Despite the changes, much of the process remained identical.[3] As a consequence of some disastrous projects, with great financial damage for the public sector, the political force against this model increased. Aided by

[2]HM Treasury (2012). *A new approach to public private partnerships*. London: HM Treasury. Retrieved from: https://ppp.worldbank.org/public-private-partnership/library/new-approach-public-private-partnerships, consulted on 01/04/2020.

[3]National Audit Office (2018). *PFI and PF2*. London, UK: House of Commons. Retrieved from: https://www.nao.org.uk/report/pfi-and-pf2/, consulted on 01/04/2020.

the overall complexity and inflexibility of these projects, the Government announced that the PFI would no longer be used for capital projects.[4]

Throughout the years, the UK Government used the PFI as "*the main mechanism for extending the role of the private sector in the supply of public services*" (Spackman, 2002, p.298). Studies made by Government and independent entities continuously evaluated these partnerships and identified potential benefits of this model. Furthermore, they analyzed threats to VfM, assessment initially set up in favor of the PFI model.[3] It is relevant then to understand where this complex model failed, both in the general and specifically in the healthcare sector.

3.1.2 Lessons from general evidence

Although there was potential to increase service coverage and create VfM for the taxpayers, many possible limiting issues were encountered and discussed. The most relevant are explored ahead.

3.1.2.1 Accountability

The common practice was to exclude capital expenditure in these partnerships from public expenses (off-balance sheet financing). This was allowed generally in these partnership contracts as the ownership of the majority of assets belongs to the private company who holds more risks than the public authority. Accounting treatment is known to be dependent on risk transfer (Heald, 2003). Using off-balance sheet financing, the only budgetary hurdle becomes the long-term affordability of the project (Spackman, 2002).

The PFI could then be used politically, to disguise an unfavorable financial situation. This reality created investment temptation, as the timing of expenditure could be delayed, which justified transferring risks to the private sector over which they have no control (Allen, 2003).

3.1.2.2 Risk transfer

Differentiating between what risks should remain on the public sector, which are possible to transfer to the private sector and what can be shared is not a straightforward process. It depends on the specific type of project and can be influenced, among other variables, by the necessity of off-balance sheet financing.

There is no explicit straightforward risk management approach that creates valuable risk sharing for both parties, as there are a lot of other factors that should be evaluated, and preferences are never

[4]Keep, M., Booth, L., & Harari, D. (2018). Autumn Budget 2018: A summary. London: House of Commons Library. Retrieved from: https://commonslibrary.parliament.uk/research-briefings/cbp-8428/, consulted on 05/04/2020

unanimous. Guidelines imply the risk management approach should predict projects risks along the project life-cycle and their likely impact.[5]

The National Audit Office (NAO) performed a survey on public and private partners of 121 PFI projects regarding risk allocation. Although over 95% of both partners agreed that the allocation of risk was either "wholly or partially appropriate", there is a discrepancy between sectors regarding optimal allocation.[6] In fact, only 50% of the private sector partners agreed on "wholly" appropriate risk allocation, substantially different from the 80% of public sector entities.[6] Although official reports find savings in the use of PFI/PF2, long term VfM depends on how well companies manage risks and on how well the public sector is able to manage the contracts over their duration (Allen, 2003)[7]. Akbiyikli & Eaton (2004) referred that the construction industry manages risks poorly and this leads to delayed and more costly projects.

3.1.2.3 Procurement/Tendering costs

The private sector criticized the high costs required for realizing bids, when comparing with the contracting process of traditional projects (Allen, 2003). Initially, when the PFI was first introduced, there was no limited duration for the tendering phase. This was changed with PF2, which implemented a maximum duration of 18 months.[3]

Negotiating contracts financially is a lengthy process, as it requires detailed planning, and market dependent, since financial markets may not be stable. One clear example of this problem was the timetable delays on the plan and execution of the procurement of the M25 motorway widening project. The 18-month delay implied the necessity for raising finance during the financial crisis, which brought much higher costs. The delays, which were considered avoidable, raised the price by 660 million pounds.[8]

The procurement process lasted up to five years and was longer than expected in every case.[9] This implied severe risks to the success of these partnerships, when regarding the achievement of VfM. Accordingly, financial uncertainty and time delays are a proof of inefficient project management which mean spending extra resources to achieve the initial plan.

---

[5]HM Treasury (2003b). *The Green Book, Appraisal and Evaluation in Central Government*. London: HM Treasury. Retrieved from: https://webarchive.nationalarchives.gov.uk/20080305121602/http://www.hm-treasury.gov.uk/media/3/F/green_book_260907.pdf, consulted on 02/04/2020

[6]National Audit Office (2001). *Managing the relationship to secure a successful partnership in PFI projects.* London: House of Commons. Retrieved from: https://www.nao.org.uk/report/managing-the-relationship-to-secure-a-successful-partnership-in-pfi-projects/, consulted on 09/04/2020.

[7]National Audit Office (2013b). Savings from operational PFI contracts. London, UK: House of Commons. Retrieved from https://www.nao.org.uk/report/savings-from-operational-pfi-contracts/, consulted on 09/04/2020

[8]National Audit Office (2010a). *Procurement of the M25 private finance contract*. London: House of Commons. Retrieved from: https://www.nao.org.uk/report/procurement-of-the-m25-private-finance-contract/, consulted on 05/04/2020.

[9]HM Treasury (2003a). *PFI: Meeting the investment challenge*. London: HM Treasury. Retrieved from: https://webarchive.nationalarchives.gov.uk/20100407200336/http://www.hm-treasury.gov.uk/pfi.htm, consulted on 02/04/2020

3.1.2.4 Contract refinancing

Contract refinancing procedures are directly related to risk, as contracts are designed for long term perspectives and initial risks are high. In most cases, construction and political risks were progressively reduced, as construction draws to a close and the Government showed political willingness to continue investing (Allen, 2003). This reduction creates the possibility for contractors to reduce their costs, as funding companies become available to offer better conditions.

Lack of public manager capacity to negotiate contracts appropriately for possible refinancing gains was revealed in the refinancing of the Fazakerley PFI prison contract.[10] Refinancing was performed due to construction success, but also due to increasing confidence in financial markets regarding PFI projects. The Prison Service (public entity) did not possess contractual rights to benefit from refinancing. Despite this, they awarded consent for financial rearrangements and termination liabilities (payments for premature contract termination) increased from the negotiation.[10]

The public sector accepted a far greater risk than reward.[11] Refinancing allowed shareholders to receive most of the benefits and created an opportunity for lower company performance at a time of higher costs for the public sector to terminate the contract. The NAO discovered only 39% of PFI projects signed before May 2002 had planned refinancing mechanisms.[12] The results to date are a total of 12 projects that have reported savings to the Treasury as a result of refinancing.[3]

3.1.2.5 Overall VfM assessment

The VfM assessment has both qualitative and quantitative components. The qualitative part serves to evaluate the viability and interest around the PFI programme, project and procurement. The quantitative evaluation is used to ensure a simple and consistent approach, while costs are reduced, and refer to underlying assumptions of the PFI model.[13,14]

VfM assessments should provide evidence for a robust case, data from previous experiences and early planning.[15] It is also important the public authority has enough resources so that can apply itself to procurement, otherwise there is no real choice between the two options.

[10] National Audit Office (2000). *The refinancing of the Fazakerley PFI prison contract*. London: House of Commons. Retrieved from: https://www.nao.org.uk/report/the-refinancing-of-the-fazakerley-pfi-prison-contract/, consulted on 05/04/2020.

[11] Public Accounts Committee (2001). *Thirteenth Report: The Refinancing of the Fazakerley PFI Prison Contract*. London: House of Commons. Retrieved from: https://publications.parliament.uk/, consulted on 05/04/2020.

[12] National Audit Office (2002). *PFI Refinancing Update*. London: House of Commons. Retrieved from: https://www.nao.org.uk/report/pfi-refinancing-update/, consulted on 10/04/2020.

[13] HM Treasury (2011). *Quantitative assessment: User guide*. London: HM Treasury. Retrieved from: https://ppp.worldbank.org/public-private-partnership/library/united-kingdom-value-money-assessment-using-private-finance, consulted on 02/04/2020

[14] National Audit Office (2013a). *Review of the VFM assessment process for PFI*. London: House of Commons. Retrieved from: https://www.nao.org.uk/report/review-vfm-assessment-process-pfi/, consulted on 05/04/2020.

[15] HM Treasury (2006). *Value for Money Assessment Guidance*. London: HM Treasury. Retrieved from: https://ppp.worldbank.org/public-private-partnership/library/united-kingdom-value-money-assessment-using-private-finance, consulted on 02/04/2020

Heald (2003, p.345) stated that VfM "*is related to concepts of efficiency and effectiveness*", but these are not made precise, depending often on political context used by public auditors when analyzing PFI projects. Gaffney *et al.* (1999b) pointed out flaws in the use of PFI in the healthcare sector and implied a bias for private finance.

The errors initially made were assumed by the Government regarding optimism bias, approval of inappropriate projects and lack of market competition. Guidance documentation was updated in response, aiming to solve these problems with accurate and robust assessments, reinforcing transparency in the process and demanding budgetary flexibility. The PSC was target of reforms including reducing the discount rate from 6% to 3.5% to assess present time value of any proposition, since public sector borrowing is less costly than the borrowing from financial markets.[5,9]

In particular, Khadaroo (2008) stated that the substantial reduction makes clear that PFI projects with marginal gains before the change would never have been accepted at a 3.5% discount rate. These reforms were not effective in solving the existing problems. When the PF2 was introduced in 2012, the Treasury proceeded to remove the VfM quantitative tool. The Green Book, initially introduced in 2003 as guidance on appraising policies, programmes and projects, was then updated and published in 2013 to consider a wider range of investment options.

From this evidence, it is possible to conclude that the VfM assessment always favored the PFI model. No guidance developed was able to deny the political necessity and inevitability of using PFI/PF2 for providing public services as a financial instrument.

3.1.3 PFI in the healthcare sector

The PFI contracts in the healthcare sector were awarded by and responsibility of the local National Health Service (NHS) trusts, public sector bodies which provide and are accountable for acute and primary care services in a specific area. The Department of Health set out guidance for trusts undertaking a PFI scheme. The process required NHS trusts to demonstrate social need, alignment with local and global healthcare provision strategy, and affordability of the project. Once the PFI scheme had been agreed by the trust and strategic health authority, the project could proceed, with a set of procedures and conditions very similar to the Portuguese case.

The Department of Health's approach to private finance revealed itself to be harmful for the NHS. Pollock *et al.* (2002) argued that the PFI provided a more expensive way to construct hospitals. Higher financial costs and achievement of VfM through unjustified risk transfer led to a limitation of future investment options. The PFI model increased budget flexibility in the short term but brought extra expenses in the long term.[3]

Gaffney *et al.* (1999a) also argued that the PFI is a financing mechanism that greatly increases the cost to the taxpayer of NHS capital development. In reality, the PFI policy lived on the claim that

the private sector structures projects more efficiently, being less averse to risk (Gaffney *et al.*, 1999c). Moreover, in terms of risk management, the penalties predicted did not ensure efficiency of the public services, as there were no alternative services provided to the public in the event of failure by the private sector.

Overall, the Department of Health has responsibility in providing guidance and policy, establishing funding and organizational landscape, and supporting trusts in contract management. NHS trusts are paid according to performance and fund PFI capital investment, which means they have incentives to make efficiency savings. In reality, the Department's approach to trust management is limited mostly due to lack of oversight, resulting in limited information to assess VfM and to compare performance between PFI and non-PFI hospitals.[16]

3.1.3.1 Performance and contract management

The NAO reviewed the performance and contract management of hospitals built using the PFI. Table 3.2 provides details on the two major topics.

Table 3.2: Performance, costs and contract management reports on hospital PFI projects
Source: [16]

Performance and costs	Contract management
- In 2010, PFI hospitals amounted to 890 million pounds in annual expenses. - Capital value was around 6 billion pounds. - Overall performance was satisfactory, which means most of the contractors met contract specifications. In spite of this, 33% reported at least one service performance as less than satisfactory. - There were cost variations between the same services in different hospitals, but variations were normally not statistically significant.	- 36% of trusts had less than one full time person managing their contract; 16% reported no expenditure in contract management. - Performance improvement was directly related to increased contract monitoring by trusts. Strengthening relationships with contractors allowed improvements in 79% of trusts. - Some trusts reported difficulties in allowing contractors to manage maintenance risk, due to clinical activity interference. - PFI schemes transferred all maintenance risks to the project company without comparing prices with the general market to check competitiveness. - The public sector lacked mechanisms for encouraging performance beyond contracts specifications and for sharing efficiency gains.

The major problem when evaluating healthcare PFI projects is the lack of consistent data on individual performance and benchmarking. The performance assessments presented are self-made, and although project/contract managers are the most suitable to evaluate performance on behalf of the trust, they have incentives to show VfM (Gaffney *et al.*, 1999b; Holmes *et al.*, 2006). Most of the problems identified are consistent with the ones already referred in the general case.

[16] National Audit Office (2010b). *The performance and management of hospital PFI contracts*. London: House of Commons. Retrieved from: https://www.nao.org.uk/report/the-performance-and-management-of-hospital-pfi-contracts/, consulted on 15/04/2020.

Henjewele *et al.* (2014) compared performance of healthcare and transport sector projects and recognized increased complexity in delivering healthcare services in comparison with transport sector contract specificities.

High debts for the NHS were accumulated, and there were no suitable contracted compensation mechanisms that favored the public sector. Designing well-structured and fair contracts and monitoring them appropriately is, thus, the major difficulty revealed in the healthcare sector. The initial 13 billion pounds invested in the PFI/PF2 in new hospitals, will end up costing in the long-term about 80 billion pounds to the NHS in England until contracts awarded are over in 2050.[17]

3.2 Spain

3.2.1 Remarks on legislation

Spain introduced PPPs, as toll-road concessions (similar to Build-Operate-Transfer (BOT)), in the 19th century with tolled bridges and railways built by the private sector (Yescombe, 2007). In the 20th century, with increasing budgetary constraints, concessions grew to a large scale (22 PPPs between 1998 and 2003).

The political reality had impact on the use of private sector companies to provide public services. The conservative government, which came to office in 1996, focused on deregulating and privatizing the economy (Allard & Trabant, 2007). Although the first projects focused on the transportation sector, PPP legislation was updated, and project characteristics changed, branching out to different sectors, including healthcare.

In the late 1990s, the Spanish parliament approved legislation which expanded mechanisms of healthcare provision in the Spanish National Health System. This provided a view which differentiated between purchasing and provision roles to increase social efficiency; in turn, it allowed autonomous communities to develop PPPs at a regional level (Comendeiro-Maaløe *et al.*, 2019).

3.2.2 Alzira model

Legislation allowed a unique model, called the Alzira model, to be developed by the autonomous community of Valencia, in the town of Alzira. The model was introduced with a ten-year contract awarded in 1997 between the Valencian government and RSUTE, a joint venture constituted mainly by healthcare provider RiberaSalud and insurance group ADESLAS. The novelty of the model resided in the management of both clinical and non-clinical facilities, as well as the construction of the Hospital de La Ribera (Acerete *et al.*, 2011). Hospital construction work was to be concluded in 18 months (Tarazona Ginés &

[17] Thomas, C. (2019). The 'make do and mend' health service: Solving the NHS' capital crisis, *IPPR*. Retrieved from:http://www.ippr.org/research/publications/the-make-do-and-mend-health-service, consulted on 18/05/2020

Marín Ferrer, 2005). The initial contract duration had a possibility of renewal for an additional five years, after which the building ownership would revert back to the government.

In summary, the Alzira model is grounded on the following key aspects:

- Public funding, with a payment system based on a per capita payment according to the number of inhabitants in the provision area;
- Private provision, with company commitment to ensure proper operation and management of the public service;
- Public control, with public evaluation of private compliance of contract clauses, with power to establish regulations and impose sanctions, and
- Public ownership, guaranteeing the public nature of the health service.[18]

The rationale was the possibility of money savings by the Valencian Department of Health (VDoH), but no PSC was developed or adapted to be used in the determination of potential VfM of this PPP formula (Allard & Trabant, 2007).

The project was funded by a capitation fee of 204 euros per resident per year in the relevant health zone, charged to the VDoH, and rising by the consumer prices index each year (Acerete *et al.*, 2011). In comparison, this value is 43.6% less than the healthcare expenditure in hospital and specialist care services per person in the Autonomous Region of Valencia public healthcare system. The tendering process consisted on a single bid from the RSUTE consortium, regarded as a tight deal by health officials (Acerete *et al.*, 2011).

In terms of contract management, a joint committee with members from both RSUTE and the VDoH was set up to provide oversight on the contract. The commissioner is a civil servant appointed and paid by the VDoH to act as a link between partners. Its role is to provide oversight to contract activities, mainly in service quality control and compliance with specifications (Acerete *et al.*, 2011; Tarazona Ginés & Marín Ferrer, 2005).

In addition, there was a management committee and a board of directors for RSUTE (Tarazona Ginés & Marín Ferrer, 2005). It is relevant to note that there was no publicly available evidence that these roles were carried out according to expectations or even if problems were acted upon (Acerete *et al.*, 2011). Table 3.3 lists in detail the reasons why the initial contract was not successful.

The situation resulted in the termination of the contract with RSUTE, in December 2002, and establishment of a new one with RSUTE II. The process of contractual termination and reestablishment of the partnership was also target of criticism, since there was no real alternative for providing the services.

[18] NHS European Office (2011). *The search for low-cost integrated healthcare: The Alzira model – from the region of Valencia*, Retrieved from: https://www.nhsconfed.org/-/media/Confederation/Files/Publications/Documents/Integrated_healthcare_141211.pdf, consulted on 29/04/2020.

Table 3.3: Issues regarding the contract of introduction of the Alzira model
Source: (Acerete *et al.*, 2011)

Topic	Detailed issue
Employment contracts	Terms and conditions were worse than the government tenured scheme, with less job security, lower pay scales and longer working hours.
Productivity	Changed work practices and longer working hours to boost productivity.
Regional savings banks	Close link between political control and financial institutions lead to acceptance of excessive financial risks in the project.
Financial analysis	- From 1999 to 2003, the annual capitation fee increased 14% as the Valencian healthcare expenditure rose by 28%. This implies great efficiency savings for the hospital, which did not happen. - The costs with patients from the health area which attended other hospitals corresponded to around 5% of the capitation fee received each year. - Difficulty to generate cash flows to pay interest to financiers caused wage disputes when RSUTE refused to implement the wage increases passed by the VDoH. - Reversion fund created to protect shareholder wealth eliminated profits. - The initial capital cost of the hospital was higher than anticipated.

The contract could have been renegotiated, compensation mechanisms were not appropriate and the competitive setting was discouraging for other bidders (Acerete *et al.*, 2011).

The new contractual arrangement established some different terms. It added primary care to the specialist care already provided, with two more outpatient clinics and 30 healthcare centers. The annual internal rate of return was capped (at 7.5%), the capitation fee was increased by 62% (accounting for primary care services), and capitation charge updates became related with the yearly percentage increase of the Valencian health budget (Acerete *et al.*, 2011; Tarazona Ginés & Marín Ferrer, 2005).

Despite negative aspects, the hospital received official awards from 1999-2003, distinguishing it in terms of innovation in healthcare and quality of service (Tarazona Ginés & Marín Ferrer, 2005). The hospital had a 91% approval rating against the 85% customer satisfaction globally in Spain's public healthcare system (Bes, 2009). The Alzira PPP stands out with the capacity to tightly control costs, spending 20–25% less than comparable publicly managed institutions (Bes, 2009). The efficiency savings were achieved with lower salaries, with fewer workers and with longer working hours (Acerete *et al.*, 2011; Bes, 2009).

After the introduction of the Alzira model in La Ribera, the administrative concession of Valencia expanded the use of this kind of PPP to other four healthcare areas, representing 18.7% of the population in the region (Comendeiro-Maaløe *et al.*, 2019). Despite this, and the advocated benefits for this model, Valencia's Health Authority decided to terminate the concession and to revert to direct public provision at the end of the contract in 2018.

3.2.3 Model evaluation and lessons from experience

Allard & Trabant (2007) argued that the only relevant factors for implementing PPPs in Spain relate to obtaining additional financing in time of budget constraints and the need for improved infrastructures

and services. Consequently, they point a lack of strategy by the government for support with specific guidelines to obtain VfM and negotiate satisfactory contracts. In fact, the Spanish government relied mostly on private initiative and the markets to achieve the benefits of PPP for the community (Allard & Trabant, 2007).

Accordingly, the concerns about governance and financial achievements of the Alzira model constituted the main cause for its reversion (Comendeiro-Maaløe et al., 2019). The most relevant arguments were:

- Absence of real competition, with most bidding process having only one offer;
- Questionable role of regional savings banks and collusion with political stakeholders;
- High potential for corruption;
- Difficulties with contract design;
- High costs of effective contract oversight, and
- Extra costs for the public sector due to patient transfers from public providers being paid at average costs (Acerete *et al.*, 2011; Comendeiro-Maaløe *et al.*, 2019; Peiró, 2017)[18,19].

Comendeiro-Maaløe *et al.* (2018) performed a comparative analysis between Alzira model's performance and similar public hospitals in the Spanish National Health System. The authors conclude that this model does not generally outperform public tenured providers, although it shows outstanding development in some areas.

The question regarding the idea that private providers deliver high quality and efficient care is not answered with this model, despite high expectations (Tarazona Ginés & Marín Ferrer, 2005). In fact, existing studies are inconclusive and emphasize the need for available homogeneous and adequate information to compare the sustainability of both PPP and public hospitals (Caballer-Tarazona *et al.*, 2016; Comendeiro-Maaløe *et al.*, 2019). Without reports, the Spanish government lost valuable opportunities to review its experience, correct errors and learn from its mistakes (Allard & Trabant, 2007).

Contrary to the efforts made by the UK in terms of transparency and effective communication of objectives and results, the Spanish approach to PPPs revealed little effort in these areas at any government level (Allard & Trabant, 2007).

The lack of gathered knowledge from experience makes the decision to revert the PPP back to the public sector a matter of political preference. In reality, there is an absence of debate regarding the assurance of high quality care by health authorities while achieving VfM, ensuring the respect of social

[19] *Comisión Nacional de la Competencia* (2013). *Aplicación de la guía decontratación y competencia a los procesos de licitación para la provisión de lasanidad pública en España*; Retreived from: https://www.cnmc.es/sites/default/files/12964743.pdf,consulted on 12/05/2020.

values and implementing monitoring mechanisms to assess policy impact (Comendeiro-Maaløe *et al.*, 2019).

Until further developments are achieved, it is not possible to report the success or failure of this model. Healthcare PPPs are complex projects, for which Spanish authorities were not prepared, lacking tools necessary to guarantee VfM (Allard & Trabant, 2007).

3.3 Summary

International experience, both in Spain and the UK, provided crucial insights on how PPPs should and should not be executed implemented in the healthcare sector. The political priority of reducing budgetary restrictions for short term investments, evident in both cases, led to a significant disregard for financial and economic variables. Contract monitoring and management was neglected and the private sector benefited from lack of public sector knowledge and experience. Goal alignment and trust between public and private partners is essential to foster successful partnerships, associated with rigorous monitoring of service provision.

Moreover, the PPP process is a long and complex system which demands technical resources to effectively explore and predict its present and future implications and costs. Prices for public entities became increasingly higher than private partner's costs for service delivery due to economies of scale and adaptability during the long term contract. From VfM assessments to contract renegotiations, there are a lot of aspects were explored in this chapter that can compromise the success of PPPs. In the specific case of Spain and the UK, these led general dissatisfaction with implemented partnerships and governments reverted investments back to the public sector.

4

Portuguese healthcare PPP experience

Contents

4.1 Legal framework

Portugal, following the principals established by the NPM and international tendencies, also focused on developing PPPs.

The first PPP legal regime for the healthcare sector was published in the Decree-Law 185/2002. The document established the instruments and principles for partnership development, with private management and finance, while referring the importance of innovation and non-public investment in the healthcare system. Besides generalizing public-private collaboration, the idea for an alternative model intended to promote citizens' best interests, through a more efficient SNS without affecting quality of care.[1] However, the PPP concept was only defined in Portugal through Decree-Law 86/2003.

Decree-Law 86/2003 regulated the public procurement regime based on PPPs. The document defined general norms regarding State intervention across all sectors, in different partnership phases (definition, conception, preparation, tender and adjudication), monitoring and control of PPPs (Marques & Silva, 2008). Similarly to previous international definitions, it remarked the requisite for PPPs to address collective needs with total or partial private partner investment and exploration responsibilities.

Table 4.1 presents the evolution of legislation regarding PPPs in Portugal, as initial legislation was reviewed in several occasions.

Table 4.1: Evolution of applied legislation regarding PPPs in Portugal

Year	Legislation
2001	*Estrutura de Missão Parcerias.Saúde* (EMPS) created to develop innovative management experiences in the healthcare sector, including PPPs (Minister Board Resolution 162/2001).
2002	Approved new legal framework for hospital management (Law 27/2002).
2003	Defined special norms applied to PPPs (Decree-Law 86/2003).
2006	First update to Decree-Law 86/2003, aiming to strengthen the supervision of public financing interest, intervening specifically on partnership preparation and monitoring of contract execution to deal with risk sharing and benefits (Decree-Law 141/2006).
2008	EMPS extinct and integration of its functions in the ACSS (Decree-Law 234/2008).
2011	Established guidelines referring to the EMPS extinction process, to ensure the PPP program continuity in the Ministry of Health (Order 1324/2011).
2012	Second update to Decree-Law 86/2003, motivated by the approval of the Code of Public Contracts (Decree-Law 18/2008) which lacked specification for PPPs in responsibilities associated with the Ministry of Finance. UTAP was created to improve PPP processes (Decree-Law 111/2012).
2019	Approved changes regarding: partnership changes, guidelines for partnership constitution, and unilateral public sector contract modifications (Decree-Law 170/2019).

[1] Nunes, A. (2020). *Eficiência e produtividade nas unidades hospitalares em Portugal: análise comparada dos regimes PPP e E.P.E.* PhD thesis presented to ISCSP – Instituto Universitário de Lisboa.

4.2 PPP contractual process evolution

The contractual process for PPP projects is more expensive and complex than public procurement models (Silva, 2016). Thus, the tender process should be well structured to minimize the costs for potential bidders and encourage competition (Silva, 2016). In Portugal, Decree-Law 86/2003 and Decree-Law 141/2006 defined this process. Table 4.2 presents the main stages required to develop a PPP.

Table 4.2: PPP contractual process
Source: (Decree-Law 86/2003; Decree-Law 141/2006)

Stages of PPP contractual process
1. Interested sector governance notification of the Ministry of Finance
2. Strategic study definition
3. Ministry of Finance and sector governance nomination of Monitoring Commission (Parpública)
4. Monitoring Commission development of project study and evaluation
5. Sector governance entity responsible for project preparation evaluation of recommendations
6. Ministry of Finance and sector governance approval of partnership launch conditions
7. Ministry of Finance and sector governance nomination of the Proposal Evaluation Commission
8. Partnership launch
9. Proposal Evaluation Commission evaluates content and nature of proposals
10. Adjudication and contract celebration

The Monitoring Commission is responsible for developing an in-depth strategic and financial analysis regarding the impact of the partnership on Government's objectives (Decree-Law 141/2006). It can provide recommendations regarding partnership development according to project evolution (Decree-Law 86/2003). The Proposal Evaluation Commission is responsible for the evaluation of public sector costs, possible impact of risks, and relative merit of each proposal (Decree-Law 141/2006).

The process of PPP launch needs Ministry of Finance and sector governance approval of partnership conditions, including an analysis of different options, justification for the chosen model and project affordability (Decree-Law 86/2003).

Parpública became responsible, in 2003, for providing technical support to the Ministry of Finance in dealing with every phase of PPP development (Normative Order 35/2003). In this regard, Parpública intervenes in establishing monitoring, proposal change and evaluation commissions for every PPP contractual process (Normative Order 35/2003).

In the Ministry of Health, EMPS was responsible for partnership monitoring and global evaluation of the first wave of PPP hospitals until 2011. Decree-Law 234/2008 approved the transference of its responsibilities to *Administração Central do Sistema de Saúde* (ACSS). Order 1324/2011 noted the importance of ACSS to monitor the different stages of development of the second wave of PPP hospitals, harnessing from EMPS previous work. Additionally, ACSS became responsible for monitoring existing PPP contracts and developing knowledge regarding the application of these contracts and its monitoring in the healthcare sector.

Under these rules for contractual process, *Tribunal de Contas* identified severe program deadline and skidding issues, both in highway concessions and in the first wave of PPP hospitals. [2,3]

Acquired experience created the need for PPP legal regime modification, in terms of application ambit, internal public sector organization, monitoring and transparency (Decree-Law 111/2012). Until 2012, there was no specialized technical support to deal with the complex process of PPP development. As seen in Chapter 3, the absence of a public center of expertise for PPPs implies the incapacity for the public sector to accumulate experience and improve technical and human resources.

Decree-Law 111/2012 determined the creation of an autonomous administrative entity, *Unidade Técnica de Acompanhamento de Projetos* (UTAP). This unit assumes preparation, development, execution and global monitoring responsibilities and ensures specialized technical, economical and financial support to the Ministry of Finance (Decree-Law 111/2012). In addition, UTAP has the possibility to provide technical support to public entities in contract management, assuming the role of contract manager entity (Decree-Law 111/2012).

The contractual process suffered important changes under the new legal regime which followed European measures to introduce, in Portugal, a rigorous cost and risk control (Decree-Law 111/2012). Initial proposals are amended to include economical justification and financial viability (Decree-Law 111/2012). In case of proposal acceptance, UTAP nominates the Project Team solicited by the Ministry of Finance to initiate partnership preparation. Table 4.3 presents the functions of the Project Team.

Table 4.3: Project Team functions in the PPP process
Source: (Decree-Law 111/2012)

Functions of the Project Team
Develop preparation work necessary for partnership launch
Elaborate on adopted model justification (technical efficiency, economic and financial rational)
Undertake the strategic, economical and financial study which supports partnership launch
Demonstrate budgetary affordability, considering generated gross claims
Propose solutions and measures aiming to defend public interest
Elaborate minutes of the legal tools for the process previous to contracting
Promote effective articulation between entities involved
Cooperate with fiscal and global monitoring entities

Regarding partnership launch, the Project Team submits the decision proposal for consideration of the responsible government members (finance and project). Partnership conditions must now also include the procedure jury composition and environmental impact (when legally applied) (Decree-Law 111/2012). The jury, defined by UTAP and sector governance, must elaborate a report describing the project, financing method and evaluating quantitatively public sector predicted charges and potential risk

[2] *Tribunal de Contas* (2008). *Directrizes e Procedimentos: Linhas de Orientação (Guide Lines) e Procedimentos para o desenvolvimento de Auditorias Externas a PPP*. Retrieved from: https://www.tcontas.pt/pt-pt/NormasOrientacoes/ManuaisTC/Documents/LinhasOrientaPPP.pdf, consulted on 13/03/2020.

[3] *Tribunal de Contas* (2009). *Auditoria ao Programa de Parcerias Público Privadas da Saúde*. Report 15/2009. Retrieved from: https://www.tcontas.pt/pt/actos/rel_auditoria/2009/2s/auditdgtc-rel015-2009-2s.pdf, consulted on 23/04/2020.

impacts of each proposal (Decree-Law 111/2012). UTAP is responsible for delivering administrative and technical support to the jury (Decree-Law 111/2012).

4.2.1 PPP modification, monitoring and transparency

Decree-Law 111/2012 clarifies the public sector possibility to solicit financial re-equilibrium. The public entity must estimate the financial effects of such process and verify budgetary affordability in advance. Additionally, any partner can invoke facts to justify a share of benefits, financial re-equilibrium or contract renegotiation, leading to the creation of a Negotiation Commission for the purpose (Decree-Law 111/2012). Table 4.4 presents the Negotiation Commission functions.

Table 4.4: Negotiation Commission functions in the PPP modification process.
Source: (Decree-Law 111/2012)

Functions of the Negotiation Commission
Represent the public partner in negotiation session with the private partner
Promote effective articulation with the public partner
Negotiate measures and solutions, aiming to defend public
Demonstrate budgetary affordability for the proposed solutions
Quantify public sector charges and estimate potential impact of changes in public sector risks
Elaborate and submit the project report for higher management approval
Present the legal tools necessary for process conclusion

Regarding arbitration proceedings, its monitoring is also responsibility of UTAP, providing technical support when solicited by the public sector (Decree-Law 111/2012). This activity is encompassed in the existing need for PPP monitoring, aiming to verify and impose contractually defined terms. Table 4.5 presents the objectives of PPP monitoring.

Table 4.5: Objectives of PPP monitoring activities
Source: (Decree-Law 111/2012)

PPP monitoring objectives
Ensure project knowledge continuity, on the public sector
Collect, treat and centralize economic and financial information relative to partnership contracts
Inform about the economical and financial situation of partnership contracts and their evolution
Endow the Ministry of Finance with adequate informative tools
Identify and prevent situations with potential to aggravate public sector financial efforts.
Contribute to improve the process of partnership constitution
Evaluate and compare partnership results with others achieved in the same areas of activity

Decree-Law 141/2006 identified lack of transparency as a problem for the public sector to obtain the expected benefits of PPPs. In this area, UTAP must make public every useful document related to partnership processes, including quarterly reports, experts appointed for arbitration procedures, composition of relevant teams and commissions, PPP contracts and its modifications (Decree-Law 111/2012).

4.3 PPP hospitals: first wave

The Portuguese government announced the first wave of PPP hospitals in 2001, which included five partnerships: two new hospitals (Sintra - not executed and Loures) and three replacement hospitals (Cascais, Braga and Vila Franca de Xira).[4] In 2002, the XV Constitutional Government took office and announced a second wave with five additional partnerships (Algarve, Évora, Guarda, Vila Nova de Gaia e Póvoa do Varzim/Vila do Conde).[3]

The second wave was re-announced in 2006 after prioritization study, defining changes from the initial plan, with six partnerships, by order of implementation: *Hospital de Todos os Santos* (Lisboa Oriental), *Hospital de Faro* (Algarve), *Hospital do Seixal*, *Hospital de Évora*, *Hospital de Vila Nova de Gaia* and *Hospital Póvoa do Varzim/Vila do Conde*.

The second hospital PPP wave has yet to be achieved due to the budgetary restrictions imposed by the Memorandum of Understanding on specific economic policy conditionality of 2011.[4]

According to *Tribunal de Contas*, the first wave of PPP hospitals, designed by EMPS, corresponds to a Design-Build-Finance-Operate-Transfer (DBFOT).[3] Similarly to the Alzira model, presented in Chapter 3, in the Portuguese model, the private society assumed hospital construction, finance and exploration, and is responsible for providing clinical services. Therefore, there is a contract established after public tender, between the State and two different entities, one for hospital building construction and maintenance, and another for healthcare provision. The entity responsible for infrastructure construction and maintenance (*Entidade Gestora do Edifício* (EGED)) enters the contract for a 30 year period. The entity responsible for hospital management and healthcare provision (*Entidade Gestora do Estabelecimento* (EGEST)) commits to a contractual period of 10 years, with a possibility for extension up to a 30 year period.

Despite international influences, this model constituted an advanced and innovative approach to healthcare sector management and finance, aiming to achieve health gains for patients and VfM for the public sector (Martins, 2014). Table 4.6 presents information regarding first wave PPP hospital units.

Table 4.6: Details regarding first wave hospital PPPs
Source: [4,5]

Hospital	Cascais	Loures	Braga	Vila Franca de Xira
Construction area (in m^2)	46 000	63 000	102 000	49 000
Activity initiation	2010	2012	2012	2013
Hospital beds	277	424	704	280
Operating rooms	6	8	12	9
Consultation offices	33	44	59	33
Population	285 000	272 000	1 093 000	244 000

[4]Nunes, A. (2016). *Reformas na Gestão Hospitalar: Análise dos efeitos da empresarialização*. PhD Thesis presented to Instituto Superior de Ciências Sociais e Políticas da Universidade de Lisboa.

4.3.1 Contract details

The contracts drafted and celebrated for each of the four first wave PPP hospitals are similar in structure and content, regarding both EGED and EGEST activities. Table 4.7 presents the uniform aspects across hospital PPP contracts.

Table 4.7: Main constant details across PPP first wave hospital contracts
Source: [4]

Dimension	PPP model characteristics
Legal regime	Private establishments, for profit or non-profit, with whom the contracts are celebrated.
Capital structure	Private.
Management type	Business nature (private law instruments).
Government bodies	Board (one president and four members). General Meeting and inspection bodies (one auditor and one alternate).
State relation	Contractual concessions for infrastructure and hospital management.
Inspection	*Administração Regional de Saúde* (ARS).
Financiers	- Management entities are responsible for obtaining necessary funds for activity development, as to fulfill contractual obligations; - *Entidade Pública Contratante* (EPC) allocations, and - Third party and user contributions through user charges.
Management impositions	PPP management must present and update: - Assistance and organizational model, with functional organization chart; - Activity regulation, including service and hospital area procedures, and - Protocols and existing clinical guides.
Hospital production evaluation	Hospital performance evaluated by: - Internment episodes by homogeneous diagnostic group; - Outpatient surgical interventions by homogeneous diagnostic group; - Number of emergency episodes, external consultations, and outpatient, pediatric and psychiatric sessions. Planned production is agreed between EPC and EGEST according to: - Hospital usage in the last five years by influence area population; - Developed activity in the last five years in each activity area considered; - Hospital establishment effective capacity, and - Hospital usage in the last year by nearby population.
Performance evaluation	Done by the EPC by area, by service (accomplishment of established criteria) and by the user satisfaction index.
Quality	A quality management system exists, which includes: - Environmental management systems; - Assistance results evaluation and monitoring programs; - User and professional satisfaction periodic surveys; - Accreditation process; - Discharge planning systems; - Hospital infection control systems, and - Information systems (including for healthcare provision).
Accountability and entity results	Assumes emission of: - Management and accountability reports; - Inspection body opinion and legal certification of accounts; - Audit report by the independent auditor; - Social balance; - Balance sheet cost accounting, and - Updated inventory.

4.4 Project and contract management in hospital PPPs

4.4.1 Tender procedure

PPP contracts require adjudication at the end of public tender, which supposes the demand for competition between private entities, aiming to offer the best proposals for the public sector.[1] In the healthcare sector, the public sector took into consideration the need for competitive tendering in every phase, without implying a great cost for competitors (Simões, 2004).

PPP implementation in the healthcare sector requires a set of complex and rigorous processes for project development, for both public and private entities (Simões, 2010). Thus, the amount of cost and time resources associated to PPP processes, from launch to contract celebration, is a central issue in these partnerships (Barros, 2010). The level of bureaucracy demanded to competitors throughout the process led to high costs for both public and private entities and to delays in every process.[3] Concretely:

- The pace for tender launching (one per year) was half the expected by EMPS for the first wave;
- None of the 10 initially predicted projects (first and second wave) was definitely contracted eight years after the announcement of the first wave;
- The proposal evaluation phase, for the first wave PPP hospitals, lasted between 13 and 23 months, from an initial expectation of 5 months;
- The final negotiation phase lasted, on average, more 200% than the initial objective, and
- EMPS predicted four hospitals in construction by 2006, when only in 2008 the first hospital (Cascais) started its construction phase.[3]

Marques & Silva (2008) noted public tender for PPPs demanded unnecessary documentation, which complicated the proposal evaluation phase. In fact, proposal evaluation was the larger and more delayed phase.[3] Besides, there are costs associated to the population affected by construction delays, since they have to obtain healthcare from other hospital units inadequate to their needs (Barros, 2010). Adding to time delays and costs, *Tribunal de Contas* identified other issues and criticized the global process of PPP implementation in the healthcare sector. The most relevant criticisms were:

a) Experimentation in implementation, with successive setbacks which delayed the realization of expected benefits for the population, the State and private partners;

b) Easiness in using the PPP model, as most part of the project is private partner's responsibility, which led to the State using this model without adequate caution;

c) Lack of adequate planning in articulation between public entities and overall PPP experience;

d) Lack of pilot project, needed due to the absence of previous PPP projects in the healthcare sector;

e) Transaction accumulation at public entity and structure level, already poorly equipped in resources;

f) Lack of benchmarks, with difficulties in obtaining and solidifying information to build reference tools useful for public management;

g) Inflexibility of tender documents, with inadequate requisites for PPP contracting;

h) Lack of clarity in documentation, with information gaps and vague concepts, and

i) Negative private sector perspective, with failure of the expectations created by the public sector.[3]

In response to unsuccessful procedures, both the PPP launch process and the support structures suffered changes. The State integrated members of the *Direção-Geral de Saúde* and the *Direção-Geral das Instalações e Equipamentos* in Proposal Evaluation Commissions and Monitoring Commissions and members of the ARS in Proposal Evaluation Commissions.[3]

According to the EMPS, the involvement of the health sector entities should happen as soon as possible in the PPP process.[3] These changes promoted direct intervention of the ARS, from the beginning of public tender because they represent the EPC, and thus are responsible for contract management.[3] Additionally, the EMPS reduced the level of detail of tender documents for infrastructure projects, increased process control for central administration and endowed itself with technical expertise.[3]

During this initial period, studies showed large State expenses with external consulting services, concluding that the initial PPP model chosen was not the most favorable due to management and monitoring costs.[1] Unsatisfactory results propelled the State to develop a new contract model excluding clinical management services, with the aim of reducing costs and delays, and ensuring efficiency with simpler processes.[3] The model was to be applied in the second wave of hospital PPPs.

The most recent approach for PPP launch in hospital construction clarifies a learning process for the public sector. There is now a bigger concern with the definition and quantification of partnership activity results instead of the initial focus mainly on internal organization issues (Simões *et al.*, 2009).

4.4.2 Monitoring and control

Monitoring and control of PPP development procedures is important for the State to preserve public interest. Contract performance evaluation is key for PPP success (Marques & Silva, 2008) In the Ministry of Health, PPP monitoring and evaluation responsibilities were initially delivered to EMPS but integrated later in the ACSS. In the Ministry of Finance, since 2012, PPP economical and financial monitoring is ensured by UTAP.

Additionally, Regulatory Decree 14/2003 determined the creation of Joint Commissions represented by members of public and private entities. Joint Commissions can elaborate recommendations and

have access to all the documentation relating to any management contract activity, but they cannot make decisions relating to contract execution, modification or extinction (Regulatory Decree 14/2003). These commissions are responsible for:

- Intervening in the elaboration of management contract change proposals;
- Monitoring the execution of management contract activities, and
- Proposing the adoption of measures to improve management contract activities performance (Regulatory Decree 14/2003).

Healthcare sector legal PPP framework also regulates for the EPC to nominate a Permanent Monitoring Commission to guarantee compliance with contract conditions and ensure regularity, continuity and quality of clinical services provided (Regulatory Decree 14/2003). Legally, the members of this commission are to be defined specifically in tender documentation (Regulatory Decree 14/2003). Simões (2004) argued that the Permanent Monitoring Commission should be constituted by members of the EPC which monitored the PPP development process, namely negotiations with the private sector. Table 4.8 presents the main functions of the Permanent Monitoring Commission.

Table 4.8: Permanent Monitoring Commission main functions in the PPP process.
Source: (Regulatory Decree 14/2003)

Functions of the Permanent Monitoring Commission
Proceed with inspections and audits to management entities activity
Demand management entities periodic account presentations
Obtain information about assistance activities and user service
Monitor contract execution, establishing alert systems regarding activity indicators

4.4.3 Contract management

In order for both the public and private sector entities to achieve expected benefits when developing a PPP, allied to thorough monitoring and control, contract management is a key phase (Simões, 2004).

For every hospital PPP, contract management responsibilities lie with the ARS in the region of the hospital. Mainly, the intention is to minimize the most likely existing tension between the EGED and the EGEST (Simões *et al.*, 2009). Thus, contract management in healthcare PPPs require specific technical knowledge, given the innovative and complex partnership environment, more demanding for the public sector.[1] Associated to the ARS, there is an appointed Contract Manager, essential for establishing a connection between public and private entities. Table 4.9 details the functions of the appointed Contract Manager.

Table 4.9: Contract Manager functions in the PPP process.
Source: (Simões *et al.*, 2009)[5]

Functions of the Contract Manager
Verifies management entities delivery on contract obligations
Define the philosophy and tools for monitoring
Design the monitoring model, focusing on early problem detection
Predict contract infringement risk areas
Maintain adequate means for contract monitoring
Creates periodic reports regarding management entities activity and performance

Contract managers also develop activities according to the specific contract they manage and require internal articulation with remaining functional areas or departments, in this case mainly ACSS.[5] Additionally, contract managers need to use specialized consulting services in healthcare, engineering, legal and financial technical areas.

The framework of PPP contract management inside the responsible public entities is not uniform for every partnership, and suffered changes with increased experience. ACSS argued that monitoring a hospital PPP with construction and clinical management requires a broad set of technical skills which are difficult to be gathered by one individual.[5] Thus, ACSS suggested the creation of specialist teams for effective contract monitoring.

Additionally, at the central level of the Ministry of Health, there is ACSS intervention in coordination and monitoring of contract execution (Decree-Law 35/2012). ACSS centralizes the information provided by the ARS regarding contract execution and reports it to UTAP.[5]

Hospital PPP financial control, besides the internal component managed to Ministry of Finance and Ministry of Health, is also composed by an external component. *Tribunal de Contas* manages external control, aiming to maintain PPP costs within State's budgetary capacity (António, 2014). The activity of *Tribunal de Contas* can be divided in two phases: (a) public interest protection analysis and evaluation (in terms of VfM), based on the contract formulation process, and (b) financial execution monitoring during contract lifetime (Cluny, 2011).

The *Entidade Reguladora da Saúde* (ERS) represents a legal person with independent administrative nature whose mission regards regulation of healthcare provision establishments' activity (Decree-Law 126/2014). Accordingly, the ERS can intervene in PPP hospitals in different areas, including:

a) Operation requirements control of healthcare provision establishments;

b) Ensuring access to healthcare, making use of prevention and punishment practices;

c) User rights defence, dealing with complaints and monitoring follow-up;

[5] *Tribunal de Contas* (2013). *Encargos do Estado com PPP na saúde*. Report 18/2013 - 2nd Section. Retrieved from: https://www.tcontas.pt/pt/actos/rel_auditoria/2013/2s/audit-dgtc-rel018-2013-2s.pdf, consulted on 23/04/2020

d) Ensuring quality of healthcare delivery, promoting a national system for healthcare provision establishment classification according to objective and verifiable criteria, and

e) Economic regulation, elaborating studies and emitting recommendations regarding economic healthcare relations (Decree-Law 126/2014).

Legislation also predicts the designation of a user delegate, which is responsible for gathering user suggestions, recommendations and complaints, and forward it to the management entities.

Whenever a private entity evaluation verifies inadequate conditions for access and safety regarding infrastructure or healthcare provision, sanctions are applied. PPP contracts predict deductions for failures in availability and service at a maximum of 10% of total annual remuneration to EGED, without the sum of total deductions passing the annual base remuneration (UTAP, 2008; 2009; 2010; 2011).

4.4.4 Contract renegotiation and financial re-equilibrium

In PPPs, every phase is important, from initial formulation to preparation, procurement, monitoring and control. It is relevant to note that PPP contracts are naturally incomplete and contractual flaws can exist which imply the need for economical and financial re-equilibrium (Marques & Silva, 2008).

Due to the long term duration of PPP contracts, changes to contractual terms will inevitably be needed (Azevedo, 2009). Thus, there was a need to establish mechanisms which allow for a safeguard of project viability, with private partner profitability, provision of public services and financiers reimbursement.[6]

Contract renegotiation is a controversial topic because negotiations occur in a different setting in comparison with the competitive context of initial contract negotiation. Here, there is a risk for private sector abuse, which is much more relevant if the initial contract is not carefully drafted.[6]

Financial re-equilibrium is predicted in PPP hospital management contracts whenever there are significant changes to contract conditions, exclusively for:

a) Unilateral modification, imposed by the EPC, as long as the result is increase of expenses or decrease in revenues;

b) *Force majeure* occurrences, with direct and substantial effect on financial equilibrium and if not encompassed in the management entities assumed risks;

c) Legislative changes, with result in direct revenues losses or expense increase, and

d) Unilateral EPC decision for imposing new genetic therapies or new mandatory medication prescriptions (UTAP, 2008; 2009; 2010; 2011).

[6] Pereira, C. (2014). *Fatores determinantes nas parcerias público-privadas: a aplicação prática em investimentos de âmbito municipal*. PhD Thesis presented to ISCTE – Instituto Universitário de Lisboa.

Internationally, contract renegotiations are not as usual in the healthcare sector as in other areas such as transport, sanitation and water supply, and result in extraordinary burdens for the State (Barros, 2010)[1].

4.5 Summary

The Portuguese framework for PPP implementation and execution is extensive, aiming, in theory, to continuously mitigate the issues raised by national and international experience. Tables 4.10 and 4.11 summarize, respectively, the intervening entities and its functions in general PPP preparation processes and in healthcare PPP monitoring and evaluation.

Table 4.10: Intervening entities in PPP general processes
Source: (Decree-Law 141/2006; Decree-Law 111/2012)

Entity	Functions (summary)
Project Team	Develop preparation work necessary for partnership launch (model justification, various supporting studies, and budgetary affordability).
Proposal Evaluation Commission	Evaluate public sector costs, possible impact of risks, and relative merit of each proposal.
Monitoring Commission	Develop in-depth strategic and financial analysis regarding PPP impact on Government's objectives.
Negotiation Commission	Represent the public entity in negotiation session with private entities.

Table 4.11: Intervening entities in healthcare PPP monitoring and evaluation
Source: (UTAP, 2008; 2009; 2010; 2011; Decree-Law 111/2012; Regulatory Decree 14/2003)

Entity	Functions (summary)
Permanent Monitoring Commission	Ensure management entities compliance with contractual obligations and cooperation with the EPC.
Joint Commission	Elaborate contract modification proposals, monitor execution of contractual activities and propose adoption of measures to improve activity performance.
EMPS (replaced by ACSS)	Supervise and coordinate partnership formulation, and ensure healthcare PPP monitoring, control and evaluation.
UTAP	Develop and monitor PPP processes, and deliver technical support to public entities for PPP contract management.
User Delegate	Receive user complaints and suggestions and report them to the management entities.
ERS	Ensure fairness in healthcare access and act with penalties or sanctions in case of disrespect of SNS principles.
Tribunal de Contas	Consulting function, of technical or political nature; preventive and jurisdictional control regarding public accounts.

The existing approach was accused of being solely experimental, lacking needed strategic and preparation studies. The amount and extent of issues raised in an initial phase, followed by reactive responses, reflected budgetary temptation for PPP investments, similar to international experience. Portugal presents a learning curve in PPP implementation and execution which must continue, as to achieve the expected benefits and protect public interests.

5

Strategic analysis of Portuguese hospital PPPs

Contents

Performing a strategic analysis requires more than exploring relevant information presented in the literature. In the Portuguese case, as presented in Chapter 4, official Government documentation presented the framework for PPP implementation and execution. Existing literature, already presented in this work, focused mainly on discussing expected benefits and disadvantages of PPP models. The development of a second wave of hospital PPPs requires a new strategic approach, presented in this chapter, after exploring in detail both what went wrong and right in the first wave.

5.1 PPP hospital contract execution

During the period of contract execution, *Tribunal de Contas* is responsible for the financial control the partnerships, evaluating if they are generating overall VfM for the State. For every hospital, result audits regarding management contract execution were performed. Thus, consistent information regarding how the contracts have been and are being managed is here systematized. This subsection presents relevant data for analysis regarding costs, production, benchmarking, performance evaluation, contract monitoring and overall contract management of PPP hospitals.

5.1.1 *Hospital de Cascais*

Hospital de Cascais presented an average charge difference from the base case of 15.392 million euros, for the 2010-2012 period, from which 11,823 million euros corresponded to base case unexpected charges.[1] In this period, unexpected charges represented an average 18% of total charges. The majority of these charges regarded the protocol for healthcare delivery to HIV patients (89%).

Hospital de Cascais showed highly negative profitability for the 2008-2012 period which were, consequently, greatly inferior to expected projections for the base case.[2] Until December of 2012, poor economic and financial profitability, associated with structural imbalances, lead to a situation of technical bankruptcy and project value reduction for the managing company.

Tribunal de Contas considered the responsibilities lied on poor private management which lead to a reduction in partnership value, due to high structural charges for the EGEST. The transition period to the new hospital building (initiated in 2010) was characterized by reactive management, which caused an increase in costs, in comparison with the base case, with human resources and external services.[2]

Regarding the EPC (*Administração Regional de Saúde de Lisboa e Vale do Tejo* (ARSLVT)), facing budgetary constraints as a result of the economic crisis, chose to underestimate the price variable in annual production negotiations, until 2012, through the Consumer Price Index (CPI) and the case-mix

[1] *Tribunal de Contas* (2013). *Encargos do Estado com PPP na saúde*. Report 18/2013 - 2nd Section. Retrieved from: https://www.tcontas.pt/pt/actos/rel_auditoria/2013/2s/audit-dgtc-rel018-2013-2s.pdf, consulted on 23/04/2020.

[2] *Tribunal de Contas* (2014). *Auditoria à execução do contrato de gestão do Hospital de Cascais*. Report 11/2014 - 2nd Section. Retrieved from: https://www.tcontas.pt/pt-pt/ProdutosTC/Relatorios/RelatoriosAuditoria/Documents/2014/rel011-2014-2s.pdf, consulted on 03/10/2020.

index.[2] Thus, after small percentage increases and decrease in remuneration from the SNS from 2010-2012, only in 2013 the remuneration agreed between both entities increased 19% in comparison with the previous year. This happened because the EPC chose not to underestimate the price variable when negotiating annual production for the hospital. The EPC did not consider this unilateral decision affected the risk matrix with negative impact for the EGEST.

The EPC contributed both directly and indirectly to the evident problems of the EGEST. In the financial area, the treasury problems were accentuated by the EPC, since it was one of the main debtors of *Hospital de Cascais*, representing about 60% of the total trade receivables account between 2010-2012.

In comparison with similar SNS hospitals, *Hospital de Cascais* presented the lowest direct unitary costs for emergency production lines and hospital stays, as well as the lowest weight of extra hours payments.[2] In addition, the performance indicators patient leaves per bed, average hospital stay duration and assistance quality were the highest.

Also regarding benchmarking, *Hospital de Cascais* was the most efficient in terms of cost with staff per standard patient (1.460 euros) in 2012.[2] In opposition, the costs with external services and supplies were the highest per standard patient. In this area, the differences between the actual costs and the predicted costs increased consistently in the 2009-2012 period, amounting to 107% more than predicted in 2012 (more 8.962 thousand euros).[2]

Tribunal de Contas remarked, in this case, the lack of consistent benchmarking exercises, which complicates the *ex post*[3] evaluation of management alternatives for healthcare provision in terms of quality, efficiency, efficacy and economic factors.[2]

EGED service provision occurred according to management contract predicted parameters, without litigious procedures which affected partnership performance.[2]

The monitoring system for this contractual model implied that EPC resorted to contracting external consultants for hospital activity validation tests. In the 2009-2012 period, the cost for these resources amounted to 339 thousand euros, without a strategy for know-how incorporation in technical internal structures.[2]

Not every performance parameter defined in the management contract was evaluated, namely the ones with respect to hospital activity comparison between *Hospital de Cascais* and similar hospital entities. In concrete terms, 69% of these parameters were not monitored.[2]

Besides occasionally sharing information, there was no effective strategy for monitoring and control between the EPC and the ACSS, and between the EPC and the Ministry of Finance.[2]

[3] *ex post* refers to what is based on knowledge and retrospection, essentially objective and factual.

5.1.2 *Hospital de Loures*

For the 2012-2013 period, *Hospital de Loures* did not present higher efficiency due to its private management model, in comparison with other public managed hospital units in the SNS.[4] In fact, at the end of 2013, operational costs per standard patient (2.512 euros) were higher in *Hospital de Loures* than in various publicly managed hospitals in the SNS, although bellow the average.[4]

In 2012, the carried out production was 38% inferior to the production agreed with the EPC.[4] However, from 2013, every production line registered significant activity increases, stabilizing production levels according to predictions.

Comparing initially predicted charges with annually contracted charges incurred by the SNS, results are mixed. In 2012, the charges incurred by the SNS were 16% less than predicted; in 2013, these charges amounted to 10% more than predicted.[4]

Hospital de Loures was introduced to replace existing public hospitals in the same influence area. The predictions of the strategic and economic and financial studies carried at the time of partnership launch, which evaluated the impact of this introduction, were higher than the real impact. This fact suggested doubling of resources and expenses for the SNS.[4]

The annual evaluation procedure was impaired by the lack of determined results by the EPC, for the public hospitals in the reference group.[4] Similarly to the case for *Hospital de Cascais*, not all parameters predicted in the management contract were monitored, with a lack of reference values for 46% of parameters.[4]

Ex ante[5] and *ex post* free cash flow analysis showed a reduction of project value of 14.714 thousand euros. This reduction was caused mainly by excessive costs with staff and with supplies and external services (respectively 69% and 30% of all not predicted costs, which amounted to 41.025 thousand euros).[4] On the other hand, this effect was attenuated essentially by a gross margin higher than projected by the base case (positive deviation of 13.789 thousand euros, 52% of total positive deviations).[4]

Tribunal de Contas (2015) determined the absence of any level of conflict between public and private partners which could potentially harm management contract execution. Relatively to EGED, there were no significant deviations between predicted and executed production, which gives stability to the more demanding developments regarding clinical management.[4]

Just as for the *Hospital de Cascais*, the EPC resorted to contracting external consultants for management contract monitoring, with accumulated expenses, over the 2010-2014 period, of almost 453 thousand euros.[4]

[4] *Tribunal de Contas* (2015). *Auditoria à execução do contrato de gestão do Hospital de Loures*. Report 19/2015 - 2nd Section. Retrieved from: https://erario.tcontas.pt/pt/actos/rel_auditoria/2015/2s/audit-dgtc-rel019-2015-2s.PDF, consulted on 03/10/2020.

[5] *ex ante* refers to what is based on assumption and prediction, essentially subjective and estimative.

5.1.3 *Hospital de Braga*

Hospital de Braga registered an increase in 99% in external consultations between 2009 and 2015 and hospitalisation, outpatient, medical and surgical activities more than doubled in this period.[6] Similar to the situation in *Hospital de Cascais*, the existence of budgetary restrictions imposed by the State budget generated differences between the production values agreed between the EPC and the EGEST and actual production.

In effective terms, agreed values for annual production supposed insufficient contracted activity to respond to the healthcare needs of the population in the hospital's influence area. This resulted in increased waiting lists and times for consultations and surgeries and hospital activities for which *Hospital de Braga* is not compensated financially, when it exceed the level of services contracted.[6]

Hospital de Braga, in 2015, had the lowest operational costs per standard patient (2.158 euros) between every SNS hospital.[6] State's financing per standard patient for *Hospital de Braga* was the lowest (2.084 euros) among the sample of public managed hospitals selected for comparison.[6]

In terms of performance parameters, the average patient waiting time for external consultations increased throughout the years, marking the second highest value between hospital units selected for comparison. This was a consequence of imposed restrictions in contracted production, which was increasingly further from effective production (-7% in 2013, -8% in 2014 and -15% in 2015).[6]

From 2011, production contracted by the public sector was more than double the estimated production in the base case, but did not reach the eligible production (realized by the hospital and validated by the EPC). Once again, the public sector decreased the amount of healthcare to be delivered to the population in response to budgetary restrictions.[6]

The private partner did not contest this decision, adapting itself to public partner proposals. The idea behind this accommodation was the investment in a potential management contract renovation, in which the private partner could recover from the accumulated losses during the first 10-year contract.[6] Although the EGEST regarded the losses as imperative for a stable long term relationship with the EPC, the management contract for the delivery of healthcare in the *Hospital de Braga* was not renewed.

In 2011, the year of transference for the new hospital building, EGEST evaluation was considered unsatisfactory, and a sanction of 5.681 thousand euros was applied due to non-compliance with performance parameters.[6] This was the biggest deduction made in the execution of hospital PPP management contracts.

The EGEST manifested some disputes with the EPC regarding remuneration of certain activities which, in the EPC's point of view, was already accounted for in the management contract. Concretely, in dispute is the delivery of medicines in outpatient treatment of patients with HIV/AIDS and multiple

[6] *Tribunal de Contas* (2016). *Auditoria à execução do contrato de gestão do Hospital de Braga em Parceria Público-Privada (PPP)*. Report 24/2016 - 2nd Section. Retrieved from: https://www.tcontas.pt/pt-pt/ProdutosTC/Relatorios/RelatoriosAuditoria/Documents/2016/rel024-2016-2s.pdf, consulted on 03/10/2020.

sclerosis, for which additional protocols were celebrated between 2013 and 2015 for remuneration, but these were not renovated for 2016.[6]

The EGEST operated since 2011 in technical bankruptcy which was predicted to be maintained until the end of the management contract.[6] This society strongly depended on outside capital and resorted to capital injections from the shareholders.

Regarding the EGED, its remuneration was slightly lower that predicted initially by the financial model, essentially due to the price updating factor in the variable component of remuneration, which has been inferior to model estimations.[6]

In order to assess the several management contract teams (4 different contract managers until 2016), the EPC resorted to outsourcing of consulting services in the areas of economy, finance, law and information systems. From 2009 to 2016, the costs with these services were about 1.288 thousand euros.[6]

5.1.4 *Hospital de Vila Franca de Xira*

Healthcare management in the *Hospital de Vila Franca de Xira* allowed the State to obtain savings, between 2013 and 2017, estimated in 30 million euros (8,8 %) in comparison with the average cost of production for comparable SNS hospitals with public management in the same period.[7]

Benchmarking hospital management performance with SNS hospitals showed the second lower operational costs per standard patient (2.653 euros) in 2017, only higher than *Hospital de Braga* (2.134 euros).[7] *Hospital de Vila Franca de Xira* also showed above average operational efficiency, with a 96% occupancy rate for hospital stays in 2017, the highest among comparable hospitals, and average quality and efficacy indicators.[7]

Production contracted by the EPC, since 2015, was not enough to accommodate the growth in demand by the population. Despite this, hospital stays and outpatient activities increased 96% from 2012 to 2017.[7]

Access to specialty external consultations and surgery has deteriorated since 2015, with an increase in waiting lists and average waiting times. In terms of surgery access indicators, its values are inferior to the average of comparable hospitals.[7]

Performance evaluation of EGEST by the EPC in *Hospital de Vila Franca de Xira* included components of results (with 70 parameters) and of service (with 27 parameters). Between 2011 and 2017, *Hospital de Vila Franca de Xira* was attributed with four “satisfactory” evaluations (2011-2013 and 2017) and three “good” evaluations (2014-2016).[7]

While evaluations relative to the quality of delivered clinical services were good overall, the evaluations regarding the service components were less positive. From these components resulted more than

[7] *Tribunal de Contas* (2019). *Auditoria de resultados à execução do contrato de gestão do Hospital de Vila Franca de Xira em PPP*. Report 24/2019 - 2nd Section. Retrieved from: https://www.tcontas.pt/pt-pt/ProdutosTC/Relatorios/RelatoriosAuditoria/Documents/2019/rel024-2019-2s.pdf, consulted on 03/10/2020.

66% of total penalty points determined, as a result of the performance monitoring model applied to PPP hospitals, between 2011 and 2017.[7]

The third evaluation component (user satisfaction) was not considered in the global evaluation attributed to EGEST given the absence of comparable information in the Ministry of Health, for publicly managed SNS hospitals.[7]

Regarding the EGED, contract execution occurred without litigious processes which could damage the partnership. In this case, overall performance was evaluated "good", in 2013 and 2014, and "very good", in 2015 and 2016, in the areas of availability, service and user satisfaction, as predicted in the management contract.[7]

For contract monitoring, similarly to the other PPP hospitals, external consulting was heavily used. In *Hospital de Vila Franca de Xira*, the costs with these services amounted to 1.2 million euros between 2011 and 2018.[7] Monitoring and control of contract execution was compromised due to budgetary restrictions which impaired hiring of external consultants. These processes revealed themselves to be time-consuming, with frequent (and some severe) delays in comparison to schedule predictions in the management contract.[7]

Tribunal de Contas (2019) pointed out the absence of conflicts between public and private partners which could threaten contract execution. On the other hand, they warned for existing divergences in contract interpretation, which can generate litigious processes in the future, with financial impact. Main conflict areas are: (a) emergency unavailability examination methodology; (b) penalties applied to EGEST remuneration, and (c) lack of financing for delivery of some healthcare services.[7]

5.2 Internal and external environment analysis

In order to develop a complete SWOT analysis, the internal and external environments regarding hospital PPPs in Portugal should be studied. The internal environment can be studied through a value chain analysis, both involving the PPP process in Portugal, and hospital management under this type of partnership. The external environment can be studied through a PESTLE analysis, which encompasses all relevant external factors to PPP implementation.

As shown up to this point, literature regarding hospital PPP VfM internationally and in Portugal is extensive and particular to the sector, which reveals a more complex framework for evaluation. Lesser evidence is dedicated to PESTLE external analysis or to the SWOT analysis (Visconti, 2014).

5.2.1 Hospital PPP value chain

Strategies for public healthcare management question whether a PPP synergistic and bundled healthcare value chain delivers more VfM than traditional procurement (Visconti, 2014).

Buttigieg *et al.* (2016) studied value chains in both the public and private sectors in Malta, an European Union (EU) state with a health system similar to Portugal, with principles of equity, universality and solidarity. In this research study, PPPs were suggested as an option to create a beneficial situation for both sectors, since neither are capable of solving the complex problems health systems all over the world present (Buttigieg *et al.*, 2016; Torchia *et al*, 2015).

Originally, Porter (1985) defined a fixed framework for the value chain process, as a set of internal operational activities a company performs to achieve competitive advantage in product delivery. For healthcare, as a service industry, Burns *et al.* (2002) laid the foundations with the Wharton School Study of the Health Care Value Chain. This study was developed for the United States healthcare system, with its unique composition and stakeholders.

Burns *et al.* (2002) argued that there is normally a lack of coordinated efforts among the different parties, in terms of strategy, trust and knowledge sharing in order to deliver the best VfM. The introduction of PPPs in healthcare is an attempt to take advantage of these potentialities.

A PPP value chain represents a set of coordinated and sequential activities that public and private players strategically perform in order to deliver a valuable infrastructural project for the market (Visconti *et al.*, 2018). Thus, the activities presented in a PPP value chain must consider all steps from definition of the project to end of partnership contracts, as well as define the important stakeholders and their roles.

In the specific case of Portuguese hospital PPPs, not only the infrastructure is created but healthcare is delivered by the private sector. Therefore, it is relevant to explore, on the one hand, the overall PPP process value chain and, on the other hand, the specific PPP healthcare delivery process value chain.

Figure 5.1 presents the value chain for the Portuguese PPP process in the healthcare sector, following Visconti *et al.*, (2018). Activities and players are presented according to legislation, introduced and detailed in Chapter 4. Clarifying, the management entities (EGED and EGEST) represent the private stakeholders that interact with the public procurer (EPC), the financing banks, sub-contractors and public users. Sub-contractors in PPPs, in the healthcare sector, are private entities which perform activities such as construction and maintenance (EGED), cleaning and catering (EGEST).

Healthcare delivery in PPPs, for the Portuguese case, represent a mix of responsibilities divided and shared by the public and private sectors, in the search for the best VfM. “Hospital management” can be analysed with its own value chain, according to the management contracts defined for first wave PPP hospitals. In this context, hospital logistics are not accounted for, since the main focus of this work lies in the added value of hospital operational management in PPPs. Figure 5.2 presents the value chain for the healthcare process in Portuguese PPPs, following Buttigeig *et al.* (2016). Players are presented according to legislation and PPP hospital management contracts, detailed in Chapter 4.

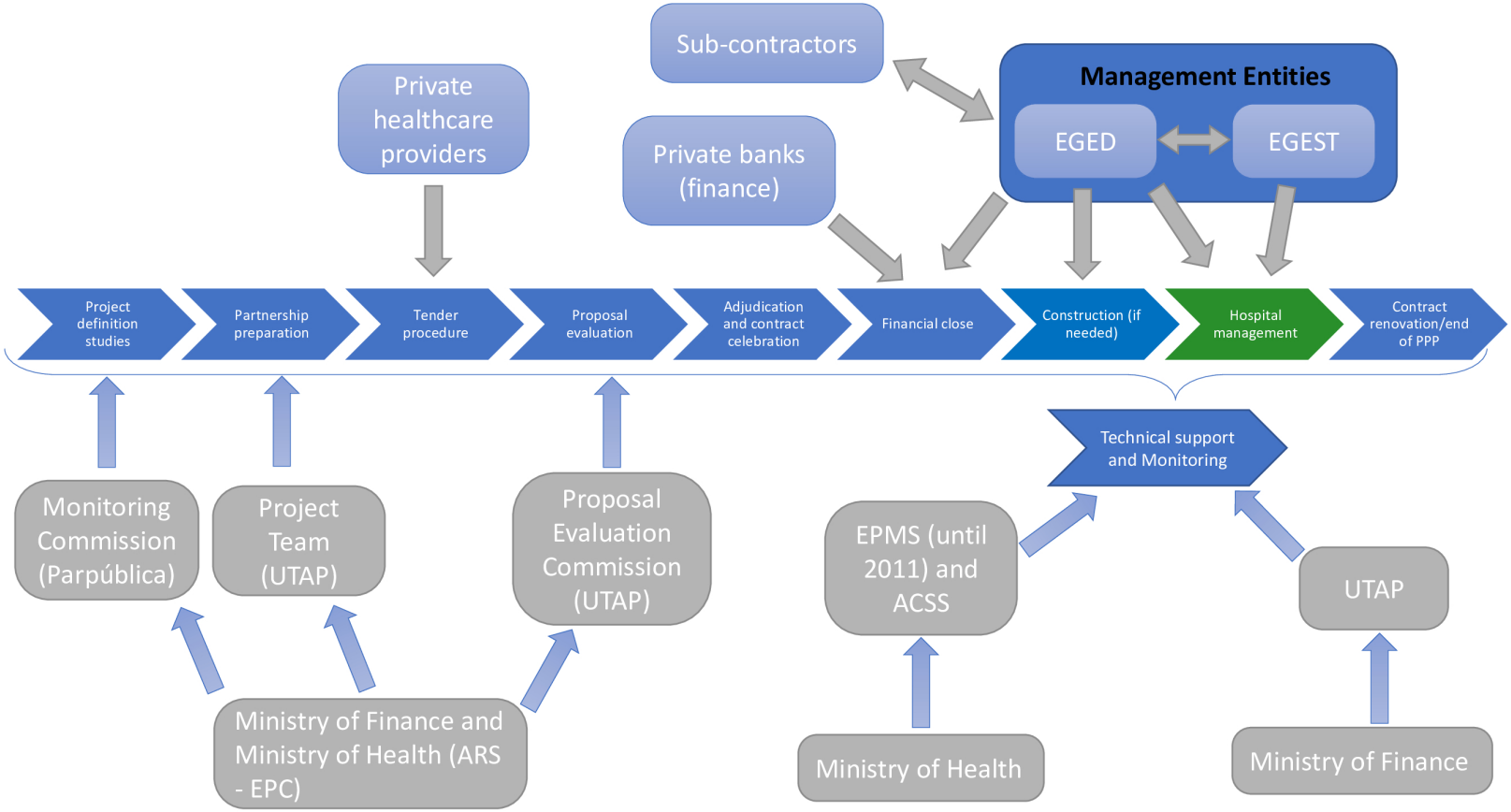

Figure 5.1: Portuguese PPP process value chain

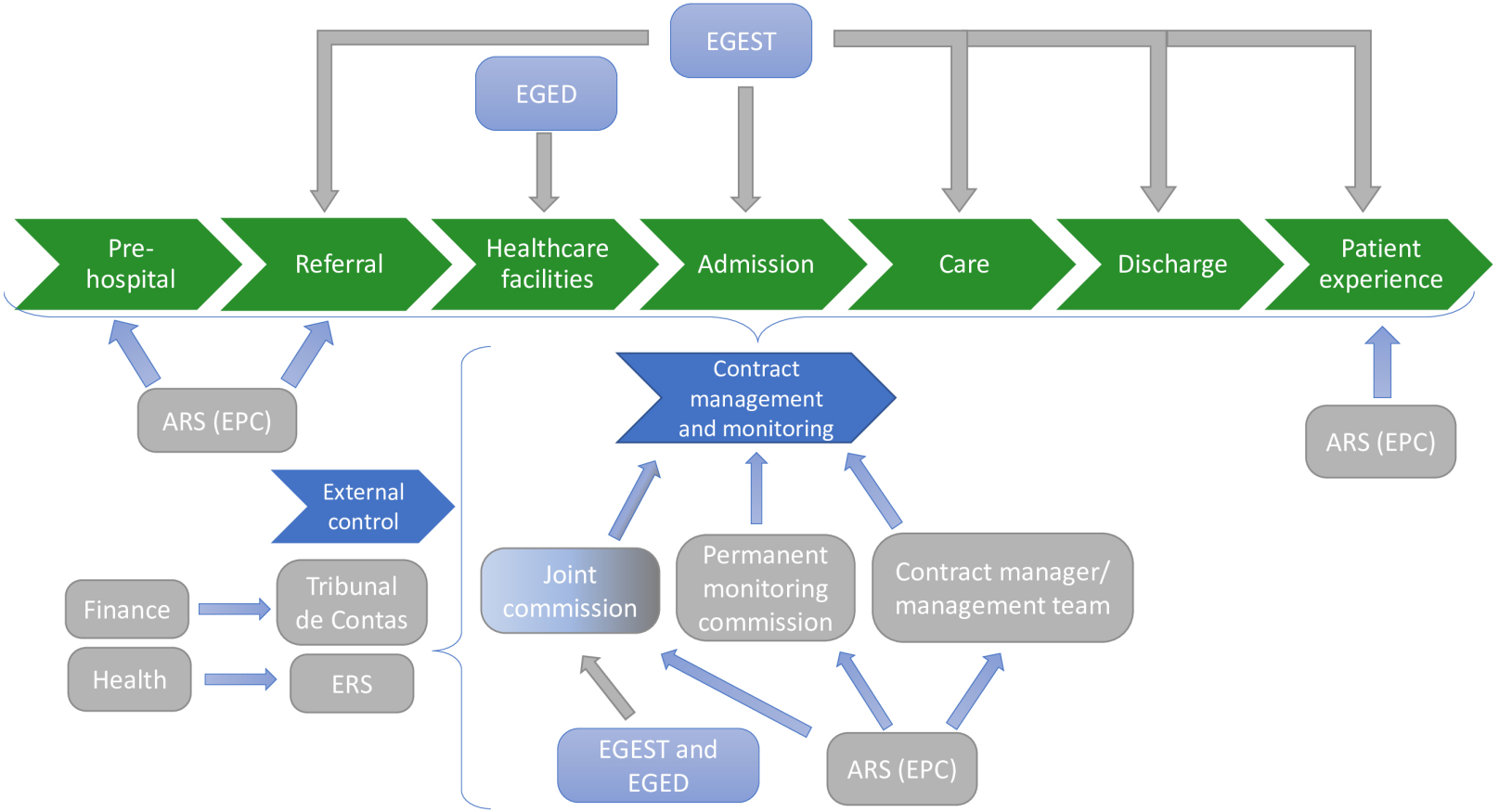

Figure 5.2: Portuguese PPP hospital management value chain

This model presents a mix of responsibilities for the public and private sectors which is the case for this unique type of PPP. Although hospital clinical services are delivered by the private partner, PPP hospitals are integrative part of the SNS. The value chain starts with pre-hospital care. This is always public sector concern and responsibility, as it refers to primary care, prevention education, social care, and screenings. In spite of this, management contracts for PPP hospitals encompass the possibility for the EGEST to carry out health promotion and prevention activities (UTAP, 2008; 2009; 2010; 2011).

Pre-hospital care is followed by referral, which primarily an EPC responsibility, as PPP hospitals are integrated and articulated in a national network of establishments. Thus, the public sector is responsible for determining the specific rules for patient referrals and ensure the rules are applied in every health establishment. The EGEST is then responsible for applying those rules, defined in the management contract.

In terms of healthcare facilities, these are solely responsibility of the EGED, not accounting for all the publicly managed establishments integrated in the SNS network. Admission, care and discharge are private partner responsibilities. The levels of quality and quantity of production are agreed by both the public and private sectors and the EGEST manages the whole process of healthcare provision accordingly.

Finally, patient experience is of utmost relevance for the public sector, represented by the EPC. The State, with hospital PPPs, is interested in ensuring both quality outcomes regarding the financial situation of the hospital and the quality of the patient experience. The government maintaining SNS users satisfied with healthcare provision is, to some extent, more important than financial success, which is why user satisfaction is one of three EGEST performance evaluation components. Thus, patient experience becomes indirectly also private partner responsibility.

These value chains aim to take advantage and combine the strengths of both public and private sectors in healthcare delivery. The State has the best infrastructure to handle population issues outside hospital facilities (education, promotion of health habits, primary care, social health related issues). Additionally, the government health service infrastructure has the capacity to develop an articulation system between the different healthcare establishments. This ensures universal healthcare almost free at the point of use, as well as continuation of care from primary to long-term care to the population.

Infrastructures projects present high costs for the State for which necessary funds are usually not available, and this is no different in the healthcare sector. Thus, the State recurred to a private entity to manage infrastructures, which included a new hospital in one case (Loures) and replacement hospitals in the other three cases (Cascais, Braga, and Vila Franca de Xira). Here, the chain benefits from available funding and private infrastructure expertise.

Regarding specifically healthcare provision, admission, care and discharge are normally the main priorities of private sector healthcare management, for which they present more strengths and less

weaknesses than the public sector (Buttigeig *et al.*, 2016). Publicly managed hospitals reveal several problems in these steps of the value chain, which lead the State to search for a high level of expertise, associated to the private sector.

5.2.2 PESTLE analysis

Analysing the external environment can be achieved through PESTLE analysis. PESTLE and SWOT analyses have been applied to the healthcare industry to reflect the operational environment, but not often applied to healthcare procurement choices (Visconti, 2014). Just as the value chain analysis can be articulated with a SWOT analysis, PESTLE and SWOT analyses can be complementary (Buttigeig *et al.*, 2016).

This synergy may improve VfM considerations, allowing for a long term strategic perspective, imperative to public allocation and management of limited resources (Visconti, 2014). It can also provide a more complete and accurate analysis of multidimensional environment interactions of a complex system, such as healthcare delivery (Srdjevic *et al.*, 2012).

A PESTLE analysis corresponds to a strategic methodology used to comprehend the trends of the external macro environment and the impact of those forces on strategic planning (Visconti, 2014). Table 5.1 presents the PESTLE analysis for the external environment surrounding hospital PPPs.

Table 5.1: PESTLE analysis for hospital PPPs

Variable	Factor
Political (P)	Government predisposition to launch PPPs Political cycles Public opinion on healthcare services Opposition to ongoing hospital PPP procedures
Economic (E)	Budgetary restrictions to public investment Lack of human resources in public hospitals High healthcare costs High costs associated to long term partnerships Delays in initial phase Private partner profit
Social (S)	Inadequate public healthcare services Aging population Public perception of hospital PPPs Impact distribution of hospital PPP
Technological (T)	Growth of healthcare solutions Growth of Information Technology (IT) solutions Innovation in construction Specialized staff for handling PPP processes
Legal (L)	Compliance with existing PPP legislation Changes in PPP legislation (general and healthcare) Evaluation of legal procedures Experience gathering for future reference
Environmental (E)	Site conditions for construction Changes of global conditions

5.2.2.1 Political, social and environmental factors

Firstly, it is important to note that every factor impacts more than one variable. Moreover, there is an interdependence of variables within the PESTLE framework. Consequently, the PESTLE framework evidences risk factors that should be accounted for in the elaboration of future partnerships.

Launching PPPs, as with any other investment, must be a response to an existing population need. Accordingly, political and social variables are inseparable. Public opinion on the state of healthcare services, particularly the SNS, and the existing opposition to ongoing hospital PPP procedures have direct impact in political decisions.

On the one hand, the recurrent unsolved problems regarding public healthcare services influence public opinion and pressure the public sector to improve. In consequence, with this PPP model for hospitals, the State can use private sector skills in healthcare delivery and hospital management to improve public opinion of the SNS. On the other hand, the political opposition regarding PPPs in Portugal encompasses the promiscuity between public and private partners, which could eventually to excessive private sector profits. Consequently, this would mean SNS degradation, with great benefits for private healthcare providers and severe social problems.

The existence of political cycles (every four years) also has an important impact on PPPs. A change in political views affects ongoing PPP procedures, which is clear in the Portuguese case, namely in the second wave of PPP hospitals. Initially, the second wave was announced 18 years ago, soon after legislative elections which shifted the political scale to the right wing. When the scale was re-established, four years later, the second wave was re-announced.

In fact, Portugal needs to continue the search for new developments in the healthcare sector, as the State's budget for healthcare only tends to increase, due mostly to an aging population with increasing needs. The social impact distribution of developing a new hospital PPP also needs to be carefully studied.

Concerns with the location chosen for the new hospital are not solely environmental. Despite the site conditions for construction and its changes during the long partnership period being relevant for any project of this type, social impacts are just as relevant. The location decision has a strong impact on public opinion, since it inevitably changes the network of SNS hospitals, the referral process and has economic impact on the region. Also, hospital features and specialization must be in agreement with the strategic planning for the healthcare network in place.

5.2.2.2 Economical, legal and technological factors

PPP proponent political parties argue for the use of this model if there is a clear economical advantage for the State, which is evaluated in every case through VfM analysis. In reality, the Government limited the use of PPPs to contracts with supplementary and temporary nature, which should only be signed in

cases of well-founded necessity.

Thus, economic and legal realities are directly associated with the political environment and critical for PPP implementation. For example, the temptation for investing in PPPs in periods of budgetary restrictions, evidenced by national and international experience, must be cared for with adequate legislation.

The healthcare sector is undoubtedly associated with high costs, both in management and infrastructure. Long term partnerships for hospital PPPs reflect these costs and the costs associated to the PPP process. Additionally, public and private sectors have different economic goals when joined in a partnership. The public sector aims for maximizing VfM without compromising public healthcare services. In opposition, the private sector has a particular aim which is making profit by delivering healthcare services or hospital infrastructure.

The economic relations between partners are crucial for a healthy and long lasting partnership. If the Economic scale tends too much for the private partner, this means the initial VfM evaluation and management contract monitoring were not effectively made. Thus, the legal process for PPP development and the technical abilities of responsible teams are questioned, as well as the overall political decision to promote the model.

On the other hand, if the Economic scale tends too much for the public partner this can be seen as a success due to reduced charges for the State. In reality, this type of partnership is normally unsustainable for the private partner. Negative economic and financial results are certainly not predicted in the base case. In consequence, litigious disputes can occur, in an attempt to achieve financial re-equilibrium and partnership continuity. If not possible, partnership ending means the public sector must assume control of previously contracted services. In any case, this is prejudicial for the State, as the ultimate financial risk still remains in the public sector, more specifically with taxpayers.

The existing legal framework for PPPs serves the purpose of establishing best practices for handling PPP processes. Compliance with existing PPP legislation is necessary to guarantee public and private transparency and accountability. However, it can create setbacks and delays, specifically in the healthcare sector due to its complexity. The delays observed in the initial phases of PPP development, both nationally and internationally, result in underestimation of initial costs which are difficult to predict.

The Portuguese PPP legislation was implemented without previous testing with a pilot project (Sarmento, 2013). Portugal adapted its framework from international experience, and several legislative changes were made since the announcement of the first wave of PPP hospitals. Managing a demanding and inexperienced partnership model, such as the private management of clinical services, requires a flexible framework.

In fact, evaluating the adaptation and effectiveness of legal procedures is extremely relevant. Comparing the initial expectations and theoretical benefits of PPPs with data gathered from actual manage-

ment of PPP projects and contracts is the only way to assess if the model is successful. Success is here considered as the achievement of business goals for both public and private partners.

The ability for the public sector to gather experience in internal structures is currently absent in hospital PPP procedures. Normally, public partners reach out to external consultants for monitoring of private partners' activity. The necessity for contracting external consultants limits the accumulation of technical knowledge in a complex area for which there is a lack of previous experience. In a long term perspective, this represents increased costs for the State, as the skills required for performance monitoring would be beneficial for informed decision-making.

The fast growth of healthcare and IT solutions must be accounted for when designing PPP contracts. On the one hand, PPPs can promote technological advancements because the contracted production is fixed each year. This means every efficiency gain by the private partner will contribute to an increase in profit. PPPs also provide a vehicle for innovative architecture and construction to generate an efficient articulation with the modernization of clinical services.

On the other hand, the long term nature of a PPP contract can difficult the incorporation of new technologies. It is difficult for the public sector to predict user requirements of infrastructure over a 30-year period. Significant changes in population imply severe modifications to initial contracts, since the hospital can become redundant or need to be expanded. Similarly, a relevant healthcare technological advancement may require significant changes in infrastructure or in hospital resources.

5.3 SWOT analysis

The SWOT analysis matrix is an analytical tool which supports strategic thinking. Its primary use is the identification of strategic options by linking internal and external factors, assessing the level of alignment and highlighting misfits between both environments (Santos, 2008; Srdjevic *et al.*, 2012).

There are two types of SWOT analysis: the regulated SWOT and the organic SWOT. The regulated type is seen as the final step of a strategic analysis, for which other tools have been previously used to identify the relevant external and internal factors based on quantitative data (van Wijngaarden *et al.*, 2010). The organic type emerged due the fear of bureaucratic use of SWOT without attention to the different parties involved. Proponents of this type of analysis in the healthcare sector argue for the benefits of a SWOT analysis organized as a social process, with inputs from important stakeholders from different parts of the organization (van Wijngaarden *et al.*, 2010).

Following the work already presented in this chapter, Table 5.2 presents the SWOT analysis for the use of hospital PPPs in Portugal. This analysis highlights the key differential points between the PPP model used in the first wave of hospitals and traditional procurement.

Firstly, the use of the PSC to assess VfM allowed the public sector to decide to form the partnerships

Table 5.2: SWOT analysis on the Portuguese public sector approach to hospital PPPs

SWOT parameters	Characteristics of hospital PPPs with VfM impact
Strengths	Preliminary strategic study (with recommendations) Legal and administrative power Short-term affordability for large investments Bundling of healthcare services with infrastructure management and auxiliary services Partitioning of the financial burden on the public sector VfM initial assessments using the PSC High public bargaining power (depending on competition size) Whole-life cost perspective Contractual flexibility for adaptation
Weaknesses	Information asymmetries Limited resources with lack of technical expertise Inefficient public resource allocation Poor performance in healthcare delivery Lack of public quality control over the delivery of services Complexity of tender and contract management Poor protection mechanisms against renegotiations Length and delay of procedures Underestimation of investment costs Lack of long term strategy
Opportunities	Competitive alternative to traditional procurement Increase transparency and accountability Development of public sector procurement and negotiation skills VfM in risk transfer to the private sector Private sector focus on efficiency and user satisfaction Value based competition Technology and innovation Goal alignment between partners Complete benchmarking of SNS hospitals Better administrative and financial responsibility
Threats	Investment temptation due to budgetary restrictions Accumulation of heavy future charges Underestimation of investment costs Loss of operational synergies between private partners (second wave) Private bargaining for financial re-balancing Mismatch between technological changes and contract duration Politically motivated delays Legislative and fiscal changes External consultation for partnership monitoring without internalization of knowledge Inappropriate incentives and penalties

for each of the four hospitals, instead of delivering those goods and services directly with public management. In every case, the Best and Final Offer (BAFO) must be, and was, lower than the PSC for total partnership value. However, for three out of the four hospitals (all except Braga), the BAFO presented by the EGED was 13% to 48% higher than the PSC for those services.[1]

Thus, in these hospitals, only the inclusion of clinical services in the management contract allowed the State to decide in favor of the PPP model. In the face of the second wave of PPP hospitals, this reality becomes more problematic, since clinical services will not be included. Additionally, there is a clear possibility for loss of operational synergies between private partners which must be accounted for

in future proceedings.

Buso (2019) argued that bundling contracts in PPPs is beneficial "*when governments cannot easily assess ex ante the long term risks associated with public investments but can evaluate performance ex post*". This is certainly the case with hospital PPPs. Bundling of healthcare services with infrastructure management (including construction) and auxiliary services, associated to involvement of private sector skills reveal a competitive advantage of PPPs.

Information asymmetries rise because the partner which controls the business (private) has access to more information than the one who owns the business (public) (Buso, 2019). The long term nature of PPPs gives more time for asymmetries to develop, which can mean excessive profits for the private partner (Yescombe, 2007). Information asymmetries make strategies more difficult to conceive and monitor for the public sector.

The impact of information asymmetries can be augmented if associated with factors present in the Portuguese hospital PPP framework. The lack of pilot project to study the implementation of the new model and the overall complexity of tender and contract management create an environment of uncertainty and increased risk for the public sector. These also show a lack of long term strategy, and a trial and error type of approach, which is shown by risk allocation differences between partnerships.

Although there were no substantial differences between hospitals, more recent contracts tended to allocate more risks to the private sector. The greater differences were shown by the first management contract (Cascais), with more risks allocated to the public sector. Additionally, although the demand risk is allocated in every case to private partners, these do not control it, since the State determines the healthcare offer for influence area.[1]

Transferring a significant part of the risks from the public sector to the private sector can generate VfM for the project if the risks transferred can be better managed by the private sector. Clear opportunities arise, as the private sector can focus solely on efficiency, effectiveness and user satisfaction (monitored by the public partner), investing on innovation and technology with a whole-life cost perspective.

The PPP model, with or without inclusion of clinical services, if well designed, can become a competitive alternative to traditional procurement. The absence of long term strategy and adoption of short term solutions to public investment restrictions led to substantial criticism of the overall PPP idea. Along with investment temptation there is an excessive optimism regarding cost predictions by the Ministry of Finance, leading to the underestimation of future costs and accumulation of heavy future charges.

Longer and more complex contracts cannot provide for all possible future eventualities, and the State retains the responsibility of dealing with unexpected circumstances (Yescombe, 2007). However, uncertainty can be used as an opportunity in PPPs (Cruz & Marques, 2013). Contractual flexibility allows for changes (demand, legislation and fiscal) to be dealt with more efficiently. Concretely, annual contracting of predicted production and contractually predicted financial adjustment processes in hospital PPPs are

reveal a degree of flexibility.

The flexibility argument for PPPs has its own downsides. In *Vila Franca de Xira*, the ARSLVT argued that the base case projections do not represent a binding scenario, so to explain the discrepancies between effective contracted production and predictions on the base case.[7] The scenario of lower contracted production is common in hospital PPPs, mainly due to budgetary restrictions. Unilateral determination of production by the EPC with this reasoning is not predicted in management contracts, since it must be in agreement with healthcare necessities of the population.

The same issue presents for the comparison of actual State charges with the base case predicted charges. The *Administração Regional de Saúde do Norte* (ARSN) argued that the deviations observed in this area neglected the annual adjustments made in agreement between both partners, and thus led inevitably to unsatisfactory results.[1] In addition, ARSN added that these adjustments result from the application of predicted adaptation mechanisms to the evolution of health, in order to protect the public interest.[1]

Estimations of production and charges in the base case are not binding. However, these are the basis used to decide whether to go or not through the PPP route instead of direct public management by the State. Discrepancies in costs were frequently due to hidden costs, such as politically motivated delays in the PPP process. Goal alignment between public and private stakeholders can mitigate this problem, by blending private entrepreneurship with public interest.

Complexity of tender and contract management also increase uncertainty regarding the actual cost of hospital PPPs. However, the level of production and quality control aims to be much higher than in other types of SNS hospitals, as to prove VfM of this model. Monitoring of performance parameters and healthcare safety is more demanding and thorough than in publicly managed hospitals in the SNS.[6]

Hospital benchmarking in the SNS is a great opportunity to increase the quality of healthcare in Portugal, but slow implementation has limited its benefits. Management contracts of hospital PPPs require the presentation of a performance parameter matrix for services and results. The lack of comparable performance indicators in publicly managed hospitals impaired the *ex post* evaluation of healthcare efficiency, efficacy, quality and economy.[2,6,7]

The development of a preliminary strategic study, with specific recommendations for the ongoing procedure allows for better informed decision-making. The tender procedure gives high bargaining power to the public sector if there is real competition between several private entities. Overall, the detailed legal framework generates an opportunity for better administrative and financial responsibility, depending on efficient public resource allocation and expertise to carry out the work needed.

In order to develop a solid strategy for the public sector approach to hospital PPPs, factors from the initial SWOT analysis must be related with each other. Strengths can be used to take advantage of opportunities and to avoid threats, while weaknesses can be overcome by taking advantage of opportu-

nities or minimized by avoiding threats.

After exploring and discussing internal and external factors, as well as positive and negative characteristics of hospital PPPs, Table 5.3 presents the SWOT matrix, which serves as guidance strategy formulation.

Table 5.3: SWOT matrix on the Portuguese public sector approach to hospital PPPs

	O	T
S	- Use high public bargaining power to develop procurement and negotiation skills and promote value based competition - Take advantage of short-term affordability to promote new technologies and innovation - Harness from an whole-life cost perspective to obtain VfM in risk transfer to the private sector	- Improve VfM assessments to avoid accumulation of heavy future charges - Use contractual flexibility to react efficiently to changes (legislative, technological, ...) - Use legal and administrative power to internalize PPP monitoring knowledge - Use preliminary strategic studies to mitigate investment temptation
W	- Gather additional technical expertise to allow for the development of PPP models as competitive alternatives to traditional procurement - Improve resource allocation contributed to ensure complete benchmarking of SNS hospitals - Improve trust to avoid delays in procedures and accentuated information asymmetries, promoting goal alignment between partners - Improve performance in healthcare delivery in the SNS by taking advantage of private sector focus on efficiency and user satisfaction	- Complexity of tender and contract management contributed to underestimation of investment costs - Lack of public quality control over service delivery led to inappropriate incentives and penalties - Lack of long term strategy contributed to politically motivated delays - Poor protection mechanisms against renegotiations led to frequent private bargaining for financial re-balancing

5.4 Qualitative case study with experts

Following the initial theoretical SWOT analysis on the public sector approach to hospital PPPs, this section aims to perform a its discussion, harnessing from the opinions of national healthcare PPP experts. The methodology chosen was a questionnaire answered through a one to seven Likert scale, with one corresponding to total agreement with the presented affirmation and seven corresponding with total disagreement.

5.4.1 Case study sample and objectives

The studied sample consisted of policy makers, ARS PPP contract managers and private sector PPP managers, forming a total of eight participants. This methodology aims to understand:

- The level of homogeneity in experts' opinions regarding the implementation and execution of hospital PPPs;
- To which extent the problems in contract and project management identified in the theoretical analyses are relevant, and

- Additional strengths/weaknesses and opportunities/threats not included in the SWOT matrix.

5.4.2 Case study structure

The affirmations in the questionnaire regarded the crucial factors and connections established in the SWOT matrix. Initially, it focuses on the more general topics such as VfM, risk allocation and public interest. Afterwards, the questionnaire goes into detail regarding the factors explored in the SWOT analysis and finishes with an overall appraisal of the use of private sector skills for public sector services. This method creates a more organic SWOT analysis, with involvement of important stakeholders in guiding future work in this area. Table A.1, in Appendix A, presents the complete study structure, with both the original and the translated version of each affirmation.

5.4.3 Results and discussion

Appendix B presents the full results obtained from the study, with response percentages for each question. This subsection provides the qualitative analysis made according to the answers given by the study participants.

In general, the agreement with each affirmation varies greatly, not only in the side of the scale (agree vs disagree) but with answers on both extreme values of the scale. The major agreement between participants arises in the affirmation about the existence of a coherent medium-long term strategy implemented by the Portuguese State regarding the use of PPPs. In this specific case, it is consensual that the State did not have a clear vision when PPPs started appearing in Portugal, and currently still does not know how to mitigate the issues raised by healthcare PPP implementation.

The major disagreement is present in the affirmation regarding the balance achieved by the risk allocation in Portuguese hospital PPPs. Although 37.5% of participants totally agree that hospital PPP risk allocation allows for efficiency gains in comparison with publicly managed hospitals, 50% of participants strongly disagree. This heterogeneity of opinions is clear along the study.

Despite heterogeneous opinions, it is possible to assess some tendencies based on the majority of opinions. In fact, at least 50% of study participants agree that:

- **Lack of cooperation and confidence** between public and private partners and priority difference hinders efficiency gains predicted in theory;
- **The current political situation** is a threat to the continuity and deepening of healthcare PPP models;
- **Legislation** regarding PPPs was implemented in Portugal without previous economic and social studies;

- PPPs represent an **adequate public management tool** to SNS necessities;
- **Lack of accountability** of PPP charges in government deficits and debt is a determinant factor for choosing PPP models in the SNS.
- **Delays** in PPP development and implementation led to severe additional costs for the public sector;
- **Lack of PPP monitoring know-how incorporation** in public entities has a relevant impact in technical decision-making;
- **Incomplete benchmarking** in the SNS is an obstacle to the evaluation of PPP hospitals in terms of service performance;
- **Accountability mechanisms** regarding risk allocation are efficient to promote public interest and respond to performance failures;
- **The State benefits from private sector** management skills in PPPs.

On the other hand, at least 50% of study participants disagree that:

- **The VfM tests** used have the necessary robustness to predict efficiently global charges of healthcare PPPs;
- The ARSs are equipped with adequate **negotiation capacities**;
- Hospital PPP contracts combat **information asymmetries** efficiently;
- **Contract management mechanisms** are adequate to deal with healthcare sector contractual complexity and requirements, and
- The impacts of **not including clinical services** in PPP contracts are known and considered when structuring those partnerships.

Furthermore, affirmations regarding legislation and technological updates do not present any type of agreement between participants, with great response variation along the scale. This situation, besides reinforcing the already mentioned heterogeneity of opinions, can be explained due to limited understanding of legislation impact on the success of PPPs. Particularly, the level of detail and clarity of the legal framework for contract monitoring and control, its promotion of transparency and impact of long term commitments in technological adequacy.

Moreover, the responses in this study are aligned with the issues raised in the SWOT analysis. Healthcare PPP experts' opinions, generally, reflect the demand for delineating a strategy, which is absent at this moment in time. Case study results accentuate the importance of guiding PPP processes away from past national and international experiences. The level of uncertainty regarding the robustness

of VfM assessments, lack of adequate contract monitoring and control and severe delays in the PPP process value chain are constant factors across reviewed PPPs.

Similarly to the UK experience, expert opinions agree on massive procedure delays and issues in risk transfer which harm the achievement of VfM by the public sector. Limited information to compare PPP with non-PPP hospitals is also responsible for limiting the possible benefits of UK and Portuguese models. Similarly to Spanish experience, PPP experts identified lack of strategy, without specific guidelines to obtain VfM, failures in transparency at government level and ineffective communication. In addition, neither this model nor the Spanish one has been proven to outperform publicly managed hospitals.

Overall, literature reviewed from international experience showed much of the same problems as the Portuguese approach. Specifically, regarding the importance of political power over the real search for VfM. In theory, the concepts discussed in Chapter 2 create a favorable scenario for the implementation of PPPs in the healthcare sector. Consequently, the arguments can be used politically, but implementation, in practice, is very complex and can ruin expectations of service quality and innovation at a lower cost. Although literature points out important issues which determine unsuccessful partnerships, some study participants defended the existing approach and mechanisms for partnership preparation and execution.

In reality, as other experts defended, these projects suffered from experimentation in implementation and general trust that PPP benefits from private sector skills would appear without rigorous public sector control. The execution of the first wave of hospital PPPs revealed an unsustainable framework for both sectors. Concretely, mostly due to underestimation of costs and absence of knowledge internalization in the public side, while trust and communication are limited and private partners are vulnerable to public budgetary restrictions.

Implementing the simpler second wave model, more common in the healthcare sector, will not solve the existing problems with hospital PPPs. Reducing complexity makes VfM easier to achieve but, as the UK experience shows, does not solve the majority of problems by itself. Previous preparation from studying the economic and financial impacts of changes from the first wave model are crucial but absent at the moment. The environment surrounding PPPs is currently prepared for repetition of errors and consequent reactive measures.

Lack of consensual opinions shows the different perspectives of public and private sectors. Not only in this study, but since the existence of hospital PPPs, it has been difficult to align interests. This environment makes it difficult to solve the issues raised by each party when cooperation is needed and can lead to critical disagreements and poor results which determine partnership termination.

Management of clinical services in *Hospital de Braga* ended in 2019 as a PPP model and responsibilities reverted to the public sector. *Hospital de Vila Franca de Xira* will also revert this service to the public sector in 2021, without any predictions on a new procedure for PPP procurement. For *Hospital de Loures* and *Hospital de Cascais*, a new tender in the same PPP model will be launched but the existing

contract was not renewed.

Hospital PPP contracts were created and celebrated without proper assessments for its impact and, in some cases, were terminated without considering possibilities for solving the existing problems. Similarly to what happened internationally, mistakes were made and issues were raised. The set of analyses and discussions presented in this work show a great margin for improvement and the need for a clear vision to make those improvements in key areas.

Moreover, for the results of the case study, it is possible to rework the SWOT matrix presented in Table 5.3, in order to include the views of the participants in the study, as PPP experts. Thus, Table 5.4 presents the organic SWOT matrix, reworked to include PPP experts' opinions.

Table 5.4: SWOT matrix on the Portuguese public sector approach to hospital PPPs

	O	**T**
S	- Use high public bargaining power to develop procurement and negotiation skills and promote value based competition - Take advantage of short-term affordability to promote new technologies and innovation sector	- Improve VfM assessments to avoid accumulation of heavy future charges - Use contractual flexibility to react efficiently to changes (legislative, technological, ...) - Use legal and administrative power to internalize PPP monitoring knowledge - Use preliminary strategic studies to mitigate investment temptation - Reform risk allocation process to allow efficiency gains in comparison with publicly managed hospitals
W	- Gather additional technical expertise to allow for the development of PPP models as competitive alternatives to traditional procurement - Improve resource allocation contributed to ensure complete benchmarking of SNS hospitals - Improve trust to avoid delays in procedures and accentuated information asymmetries, promoting goal alignment between partners - Improve performance in healthcare delivery in the SNS by taking advantage of private sector focus on efficiency and user satisfaction - Study specific second wave model characteristics to learn the implications of the loss of synergies between private partners	- Complexity of tender and contract management contributed to underestimation of investment costs - Lack of public quality control over service delivery led to inappropriate incentives and penalties - Lack of long term strategy contributed to politically motivated delays, failure in cost predictions and limited healthcare delivery - Poor protection mechanisms against renegotiations led to frequent private bargaining for financial re-balancing - Current political situation complicates the deepening of healthcare PPP models - Lack of PPP charge accountability in public debt contributed to investment temptation

5.5 Strategy formulation

The strategy formulation results, in general, from the compatibility assessment between the contributions of organization members and the internal and external analyses results, while accounting for social responsibility and its impact on stakeholders (Santos, 2008).

The outcome of strategy formulation is the determination of the organization's mission (according to its vision and values) and strategic goals (economic and non-economic). The mission is the clarification of an organization's global orientation (Santos, 2008). Strategic goals are a specification of the defined

vision and mission, as they should provide a specific direction in accomplishing them, relating to their critical success factors (Ginter *et al.*, 2006).

In the public sector, strategy involves the "*systematic use of public resources and power, by public agencies, to achieve public goals*" (Mulgan, 2009). In this sense, a good strategy requires: (a) the simplification of a complex problem, by identifying specific and critical aspects to address; (b) an overall approach to coping with the discovered obstacles; (c) coherent and coordinated actions to ensure policy is achieved with success (Rumelt, 2011).

For the private sector, value simply reflects the willingness to pay a monetary charge for a product or service. In the public sector, measuring value is not so easy. Ultimately, public value is linked to the social mission of the organization. Specifically, the clients receive services, are satisfied with them, and are able to achieve the social outcomes the seek (Moore, 2003).

In the healthcare sector, public and private organizations have very different missions, and thus different visions and strategic goals, which creates problems already explored in this Chapter. Focusing of the public sector, its goals are normally multiple, conflicting and vague.[8] In healthcare PPPs, the public interest must be protected, but private partners should have their goals accounted for. It is therefore necessary to develop strategies goals which balance the interests of the wide variety of stakeholders while protecting the political support needed for political negotiations.

In addition, there is no consensual conclusion regarding the superiority of the PPP model in the healthcare sector in Portugal. The ERS concluded the PPP were overall globally efficient, but there was no statistically significant evidence to differ the efficiency of these hospitals from other SNS hospitals.[9]

However, indicators from audits on service quality, financial situation, and contract execution show the potential benefit of this model in protecting the public interest. There are also indicators in the same areas which show additional flaws in these hospitals, whether on procurement procedures or contract management. Therefore, developing a model which can be supported by a coherent strategic approach is essential for its success.

Most of the existing information from international experience regards the use of PPPs solely for hospital infrastructure, which is the simpler second wave model, but not yet implemented in Portugal. National experience focuses only on the use of PPPs in healthcare for both infrastructure and clinical services management, a come complex first wave model. Independently of the model chosen, the mission of the public and private sectors are the same, and the specific goals are mostly similar. Thus, the strategic approach is considered the same, with occasional differences according to model specificity.

The mission of the State is to provide universal healthcare to the Portuguese population, while main-

[8] Wauters, B. (2019). *Strategic management in the public sector and public policy-making: friend or foe?* Retrieved from: https://ec.europa.eu/esf/transnationality/content/strategic-management-public-sector-and-public-policy-making-friend-or-foe, consulted on 10/11/2020.

[9] ERS - *Entidade Reguladora da Saúde* (2016). *Estudo de Avaliação das Parcerias Público-Privadas na Saúde*. Retrieved from: https://www.ers.pt/uploads/writer_file/document/1841/ERS_-_Estudo_PPP.pdf, consulted on 26/02/2020.

taining an economically affordable system supported directly by the taxpayers, the SNS. From the mission statement, it is possible to derive some specific goals:

- Establish accessible healthcare infrastructure in place accounting for population size and distribution;
- Deliver healthcare services while ensuring VfM in investment options;
- Develop a national framework to monitor and control healthcare delivery, based on concrete and evidence based legislation, and
- Promote social well-being, and satisfaction with services delivered.

According to this perspective, and the analysis made up to this point, it is clear that the PPP option to provide public services, such as healthcare related services, cannot be ruled out as an investment option for the public sector. The implementation and execution of PPPs, nationally and internationally, raised severe concerns and showed flaws that must be corrected. The issues regarded both the promotion of private values to deliver on public responsibilities and the ability of the public sector to generate positive outcomes from partnering with the private sector.

In order to achieve the strategic goals presented, and create successful PPPs in the healthcare sector, it is critical for the public sector to consider the recommendations presented in the following areas:

- **VfM assessment**, reviewing the initial VfM assessment based on the PSC to increase robustness, aiming to create guidelines and directives following international best practices, such as presented by the EPEC[10];
- **Public sector negotiation skills**, endowing the public partners with better negotiation skills to face private partner demands, not only in contract development but to respond adequately to renegotiation procedures;
- **Renegotiation mechanisms**, protecting contracts from unnecessary renegotiations by increasing transparency of procedures, mitigating information asymmetries and developing more efficient contract regulation mechanisms; clarifying which events can lead to renegotiations, adopting an initial period during which renegotiations cannot happen and involving an external independent entity in the validation of costs associated to renegotiations;
- **Accountability**, mitigating budgetary temptation by accounting the initially predicted charges with PPPs to reflect their impact on public debt and decreasing bureaucratic complexity for responsibility assessments;

[10]European PPP Expertise Center (EPEC) (2015). *Value for Money Assessment: Review of approaches and key concepts*. Retrieved from: https://www.eib.org/en/publications/epec-value-for-money-assessment, consulted on 02/06/2020.

- **Contract monitoring and control**, creating non-political entities which gather essential technical knowledge for managing the PPP process;
- **Contract management**, creating guidelines for contract manager activities based on international best practices, such as the tool developed by Global Infrastructure Hub[11]; creating a network of contract managers of PPP hospitals to promote efficient decision-making through shared experiences and cooperative problem solving;
- **Benchmarking**, evaluating all defined performance criteria in SNS hospitals as to finally effectively compare performance and form informed conclusions regarding the PPP model;
- **Cooperation between partners**, revisiting risk assessment and contingency plans during partnership lifetime and creating a solid and transparent communication plan between public and private partners; developing an environment of respect and trust founded on the management contract for dispute resolution;
- **Second wave model specificity**, assessing the impact (logistically and financially) of the absence of synergies between infrastructure management and clinical services PPPs, and
- **Model differentiation**, studying and clarifying a set of conditions which distinguish *a priori* the choice of PPP model, in inclusion or exclusion of clinical services, according to variables such as technological complexity, social benefits and public investment costs.

5.6 Summary

Comprehending all relevant aspects surrounding PPPs and modeling them in order to achieve much needed VfM is no simple task. Using an organic SWOT analysis, it was possible to understand where project and contract management both failed and succeeded according to a public sector perspective. A complete analysis was performed, after exploring contract execution for the first wave PPP hospitals, with value chain and PESTLE analyses of, respectively, internal and external environments to their implementation and execution.

The created value chains show a complex and long process, where there is a lot to gain, in comparison with typical publicly managed hospitals, but also imply rigorous contract monitoring and control. Contracts must then be cared for with time, money and technical resources normally difficult to gather in public entities. Additionally, PESTLE factors, mainly political and economic, limit the potential for partnership success. Consequently, great ambition was generally met with poor performance.

[11] Global Infrastructure Hub (GIB) (2018). *Managing PPP Contracts After Financial Close*. Retrieved from: https://managingppp.gihub.org/, consulted on 20/03/2020.

The SWOT analysis included a case study (as a Likert scale questionnaire) with national PPP experts from public and private entities. Positive financial and performance outcomes shown by contract audits support the strengths hospital PPPs present, mainly in taking advantage of private sector skills to transfer risks and bundling infrastructure management with clinical services.

However, the major problems, identified by the theoretical analysis and case study results, regard the lack of long-term strategy by the public sector in implementing long-term PPP contracts and the lack of trust between partners. Principles of accountability, transparency and contract management are disregarded, consequence of the political need for big short-term investments for which there is not enough public resources. However, it is relevant to note that opinions are not unanimous among experts, and this too presents an issue which requires attention.

The strategy formulation which concludes the analyses and discussions previously made, results from the connection between strengths/weaknesses and opportunities/threats. Focusing on the State's vision for healthcare delivery, recommendations follow the need for increased technical support to PPP management, promotion of trust and efficient communication between partners, and impact assessment of implementing the second wave model.

6

Conclusion

Contents

This last chapter concludes the dissertation, summarizing the work developed and its intentions, the main achievements, issues and limitations. Finally, it presents a perspective on the future work needed to be done to carry on increasing the quantity and quality of information available on these topics, driving more successful investments in the healthcare sector.

6.1 Conclusions

This work set out to produce a consistent strategic analysis on project and contract management of hospital PPPs in Portugal, aiming to create a comprehensive document regarding this topic for future reference. In order to achieve this main objective, supported by the concepts presented in Chapter 2, this dissertation also aimed to:

1. Understand the Portuguese framework surrounding hospital PPPs;
2. Analyse the internal environment regarding hospital PPP project and contract management in Portugal;
3. Analyse the external environment surrounding hospital PPP project and contract management in Portugal, and
4. Perform an organic SWOT analysis, benefiting from expert opinions to improve the quality of the strategic study.

Regarding the first point, Portuguese legislative procedures were studied, not only in terms of their content but also, and firstly, in terms of their context.

A poorly prepared program (PFI), in the UK, from the public interest point of view, showed issues on accountability, transparency, risk transfer, VfM assessments, renegotiations and duration of procedures. The political necessities, which materialized in the first place in the temptation of investing in PPPs to delay expenditures, prevailed against the efforts made to solve the problems documented, not only but also in the healthcare sector. Overall, these projects, in the way they were prepared and executed, were more expensive in the long-term for the public sector.

The Spanish case presented a more similar framework to the Portuguese in the healthcare sector, with a PPP model which included provision of healthcare. In this model (Alzira), lack of public sector strategy for achieving VfM created an opportunity stakeholders (banks and healthcare providers) to generate increased profits at the population's expense. Lack of oversight, little effort for proper contract monitoring, and absence of mechanisms to gather knowledge from experience, made it impossible to evaluate this complex model effectively.

The Portuguese framework was set to raise the same questions, particularly in the healthcare sector, with an innovative, intricate and poorly documented model. Legislative procedures aimed to create the public and independent structures needed to promote successful partnerships, but did so in a reactive manner. This approach, although not completely disastrous for the projects in place, affected the initial expectation of improved outcomes from private sector increased management efficiency.

Low quantity and qualification of staff, excessive bureaucracy, broad conditions for renegotiation requests and severely delayed procedures marked the initial phase of hospital PPP implementation. The lack of experience and transparency, associated to the complexity of procedures, was clear in the elaboration of first wave hospital PPPs. Contract execution showed mixed results for these partnerships in terms of financial results and service quality.

Hospital de Cascais faced a situation of technical bankruptcy and project value reduction for the managing company, and heavy unexpected charges. However, performance indicators for service and results were very good in comparison with similar SNS hospitals. *Hospital Beatriz Ângelo* presented unsatisfactory efficiency results in comparison with publicly managed hospitals. Errors in impact predictions at the time of hospital replacement lead to doubled expenses and resources. *Hospital de Braga* presented great financial results, but lower quality of service, in terms of waiting times, due to production restrictions. *Hospital de Vila Franca de Xira* also presented excellent financial performance but less good service performance.

From an internal environment analysis, value chains for the overall PPP process and the healthcare delivery in hospital PPPs allowed to establish the main activities which can deliver VfM. These evidenced the possible synergies between all players involved in the PPP process. Inherent project complexity demands well-though planing. Monitoring and control processes play a crucial role for the delivery of VfM. The delivery of healthcare in this model has the potential be more effective, if public and private partners foster effective cooperation.

From an external environment analysis, exploring the PESTLE factors was determinant to understand the forces which impact strategic planning. Political and economic forces present here a major role, with also a large impact for their social and legal implications. The necessity to improve the public opinion on SNS healthcare delivery and avoid budgetary restrictions while modernizing healthcare services propelled the State to create the complex legal framework for PPPs in this sector. The motivation behind PPP framework development was the main reason why severe flaws appeared during partnership management.

The final objective point was also the more complex and the main innovation of this work. The recurrence to a more organic SWOT analysis implied a theoretical SWOT matrix development, followed by integration of national PPP experts' point of view and strategic formulation. The strategy formulated tackles the main issues discussed and envisions specific actions to execute in order to successfully

achieve the intended VfM on future hospital PPPs (mostly for the second wave).

The VfM assessment procedures for the initial proposals should be revisited, as the selection criteria are not clearly quantified and weighted, resulting in great cost deviations from the base which should be better controlled. There is potential to choose the option which better safeguard public interest, but it has not yet been fully achieved.

Public sector technical expertise must be increased for future PPP procedures. Shortage of qualified human resources difficult delivering on deadlines, entailing extra costs. Lack of public sector qualified staff creates an imbalance between public and private partners, favoring private profits in negotiation procedures. Recurring to external consultants for performance monitoring without knowledge internalization means losing extremely important data necessary for decision-making processes.

Lack of accountability of charges in public debt issues, associated to the ability to dilute investments along a long time period, are responsible for investment temptation which overlaps with real VfM intentions. Renegotiation conditions must be more specific to avoid unnecessary procedures, considering these will eventually occur during partnership lifetime, due to inherent incomplete contracting and complexity of projects in the healthcare sector. Contract management guidelines should be created to facilitate managers' activities, since the experience gathered up to this point is limited, especially in hospital PPPs which include clinical services management.

Finally, fostering a better environment for trust and cooperation between public and private entities is crucial for partnership success, independently of the model chosen. Effective benchmarking of all SNS hospitals increases transparency in decision-making, as performance comparisons between PPPs and publicly managed hospitals would finally provide well-founded results. Revisiting risk assessments during partnership lifetime and creating a complete communication plan will also benefit both parties, as it will create a possibility for goal alignment.

Regarding the second wave model, many issues no longer pose a threat to success. Concretely, the proposal evaluation process is simpler, risk allocation is safer, and the impact of fast changes is avoided for healthcare technologies. However, the impact of removing the synergies between private partners in the first wave model is not known and requires assessment.

6.2 Limitations

This work presents a few limiting features, regarding the lack of updated reports on hospital PPP execution and the limited study sample used for the Likert scale questionnaire.

Despite PPP hospital contract duration for clinical services provision being near termination or already terminated, only *Hospital de Vila Franca de Xira* presents an updated report on contract execution, from 2019. Other hospitals' reports present analyses of contract time periods before 2015, when

execution was still in the beginning. Although the information is not completely up to date, significant changes are not expected, as the management situation is similar in every case, and there were no legislative modifications.

The current pandemic situation affected the work performed in this dissertation, has it made more difficult the contacts with experts. This situation affected the development of an even more organic SWOT analysis, with face to face session of discussion. The sample of experts with responded to the questionnaire was short and this study would benefit from a wider range of individuals with work experience in different steps of the PPP process.

6.3 Future work

The use of the SWOT analysis as a strategic management tool is very common worldwide and in different sector, including for healthcare organizations. However, its application to healthcare PPPs in this format (preceded by an internal and external environment analysis) is the first of its kind. The analysis here made focusing on project and contract management was broad and so, the strategy formulation is characterized by recommendations for which execution is not explored.

Strategy execution is a out of the ambit of this work and should be the next step which follows the solutions here presented. The practical viability of recommendations is also a topic to be explored in the future. The economic and financial impacts of introducing, modifying, and reforming PPP processes are not yet known.

A more in-depth discussion of the topics included in the questionnaire with a broader set of experts also would benefit the implementation of a coherent strategy. Understanding the concerns of both public and private partners and how the asymmetries of information can be mitigated while protecting both parties' interest.

Finally, and focusing on the implementation of the second wave model, it is important to understand the rationale behind the exclusion of clinical services before execution of the first wave model. It is clear that implementation of complex procedures without strategy is disastrous. If the course of action suffers no changes, it is highly probable that the issues here explored will appear again in future partnerships. Ultimately, inability to protect the public interest will result in termination of the PPP program in the healthcare sector without achieving its VfM potential.

Bibliography

Acerete, B., Gasca, M., & Stafford, A. (2019). Two Decades of DBFO Roads in the UK and Spain: An Evaluation of the Financial Performance. *Annals of Public and Cooperative Economics*, 90(2), 269–289.

Akbiyikli, R., Eaton D. (2004). Risk management in PFI procurement: a holistic approach. *Khosrowshahi, F (Ed.), 20th Annual ARCOM Conference*, 1-3 September 2004, Heriot Watt University. Association of Researchers in Construction Management, 2, 69-79.

Allard, G., Trabant, A. (2007). Public-Private Partnerships In Spain: Lessons And Opportunities. *International Business & Economics Research Journal*. 7(2), 1-24.

Allen, G. (2003). The Private Finance Initiative (PFI). *Economic Policy and Statistics Section*. House of Commons Library 03/79.

Alshawi, M. (2009). *Concept and background to Public Private Partnership (PPP)/Private Finance Initiative (PFI): UK Experience*. Salford: University of Salford.

António, I. (2014). Das Parcerias Público-Privadas no Sector da Saúde: Análise e reflexão sobre alguns Aspectos Económico-Financeiros. *Revista Electrónica de Direito*, 2, 1-35.

Azevedo, M. E. (2009). *As Parcerias Público-Privadas: Instrumento de uma Nova Governação Pública*, Coimbra: Livraria Almedina.

Barros, P. (2010). As parcerias público privadas na saúde em Portugal. In Simões, J. (Coord.). *30 Anos de Serviço Nacional de Saúde: Um percurso comentado* (pp. 519-560). Coimbra: Almedina.

Bes, M. (2009). *Spanish health district tests a new public-private mix"*. Bulletin of the World Health Organisation, No. 87, pp. 892-893.

Burger, P. & Hawkesworth, I. (2011). How To Attain Value for Money: Comparing PPP and Traditional Infrastructure Public Procurement. *OECD Journal on Budgeting*. 11. 4-4.

Burns, L.R., Degraaff, R.A., Danzon, P.M., Kimberly, J.R., Kissick, W.L., & Pauly, M.V. (2002). The Wharton School Study of the Health Care Value Chain. In: Burns L.R., editor. *The Health Care Value Chain: Producers, Purchasers and Providers*. San Francisco: Jossey-Bass. p. 3–26.

Buso, M. (2019). Bundling versus unbundling: Asymmetric information on information externalities. *Journal of Economics*, 128(1), 1–25.

Buttigieg, S.C., Schuetz, M., & Bezzina, F. (2016). Value Chains of Public and Private Health-care Services in a Small EU Island State: A SWOT Analysis. *Frontiers in Public Health*, 4, 201.

Caballer-Tarazona, M., Clemente-Collado, A., Vivas-Consuelo, D. (2016). A cost and performance comparison of Public Private Partnership and public hospitals in Spain. *Health economics review*, 6(1), 17.

Cluny, A. (2011). *Responsabilidade Financeira e Tribunal de Contas*. Coimbra: Coimbra Editora.

Comendeiro-Maaløe, M., Ridao-López, M., Gorgemans, S., & Bernal-Delgado, E. (2019). Public-private partnerships in the Spanish national health system: The reversion of the Alzira model. *Health Policy*, 123(4), 408–411.

Cruz, C.O. & Marques, R.C. (2013). Flexible contracts to cope with uncertainty in public–private partnerships. *International Journal of Project Management*, 31(3), 473-483.

Cruz, C.O. & Marques, R.C. (2011). Revisiting the Portuguese experience with public-private partnerships. *African Journal of Business Management*, 5(11), 4023-4032.

Eurostat (2004). *Long term contracts between government units and non-government partners (Public-private partnerships)*, Luxembourg: Office for Official Publications of the European Communities, KS-BE-04-004-EN.

Forrer, J., Kee, J., Newcomer, K. & Boyer, E. (2010). Public-Private Partnerships and the Public Accountability Question. *Public Administration Review*, 70(3), 475-484.

Gaffney D., Pollock A.M., Price D., & Shaoul J. (1999a). NHS capital expenditure and the private finance initiative—expansion or contraction? *British Medical Journal*, 319, 48-51.

Gaffney, D., Pollock, A.M., & Shaoul, J. (1999b). PFI in the NHS: Is there an economic case?. *British Medical Journal*, 319, 116–119.

Gaffney, D., Pollock, A.M., & Shaoul, J. (1999c). The politics of the private finance initiative and the new NHS. *British Medical Journal*, 319, 249–53.

Ginter, P. M., Duncan, W. J., & Swayne, L. E. (2006). *Strategic management of health care organizations*. Blackwell: Oxford.

Grimsey, D., & Graham, R. (1997). *PFI in the NHS. Engineering, Construction and Architectural Management*, 4(3), 215-231.

Grimsey, D., & Lewis, M. (2002). Evaluating the Risks of Public Private Partnerships for Infrastructure Projects. *International Journal of Project Management*. 20. 107-118.

Grimsey, D., & Lewis, M. (2005). Are Public Private Partnerships value for money?: Evaluating alternative approaches and comparing academic and practitioner views. *Accounting Forum*, 29(4), 345-378.

Hayllar, M., & Wettenhall, R. (2010). Public-Private Partnerships: Promises, politics and pitfalls. *Australian Journal of Public Administration*, 69, 1-7.

Heald, D. (2003). Value for money tests and accounting treatment in PFI schemes. *Accounting, Auditing Accountability Journal*, 16(3), 342–371.

Hellowell, M., & Pollock, A.M. (2009), The private financing of NHS hospitals: Politics, policy and practice. *Economic Affairs*, 29, 13-19.

Henjewele, C., Sun, M., Fewings, P. (2014). Comparative performance of healthcare and transport PFI projects: Empirical study on the influence of key factors. *International Journal of Project Management*, 32(1), 77–87.

Hodge, G., & Greve, C. (2007). Public–private partnerships: An international performance review.*Public Administration Review*, 67(3), 545-558.

Hodge, G., & Greve, C. (2010). Public-Private Partnerships: Governance Scheme or Language Game?. *Australian Journal of Public Administration*, 69(1), S8-S22.

Holmes, J., Capper, G., & Hudson, G. (2006). Public Private Partnerships in the provision of health care premises in the UK. *International Journal of Project Management*, 24(7), 566–572.

Keane, C.R., & Weerasinghe, M.C. (2017). Public/Private Mix in Health Systems. *International Encyclopedia of Public Health (2nd ed.)*. doi:10.1016/B978-0-12-803678-5.00367-2.

Khadaroo, I. (2008). The Actual Evaluation of School PFI Bids for Value for Money in the UK Public Sector. *Critical Perspectives on Accounting*, 19(8), 1321-1345.

Klijn, E., & Teisman, G. (2003). Institutional and strategic barriers to public—private partnership: An analysis of Dutch cases. *Public money and management*, 23(3), 137-146.

Linder, S. (1999). Coming to Terms with the Public-Private Partnership: A Grammar of Multiple Meanings. *American Behavioral Scientist*, 43 (1), 35-51.

Marques, R.C., & Silva, D. (2008). As parcerias público-privadas em Portugal. Lições e recomendações. *Revista de Estudos Politécnicos*, (10), 33-50.

Marques, R.C., & Berg, S (2011). Risks, Contracts, and Private-Sector Participation in Infrastructure. *Journal of Construction Engineering and Management*, 137(11), 925-932.

Martins, G. (2014). 2nd preface. In Nunes, R., *Regulação da saúde (3rd ed.)* (pp.19-26). Porto: Vida Económica.

Moore, M. (2003). *The Public Value Scorecard: A Rejoinder and an Alternative to 'Strategic Performance Measurement and Management in Non-Profit Organizations' by Robert Kaplan*. doi: 10.2139/ssrn.402880.

Mulgan, G. (2009). *The art of public strategy: Mobilizing power and knowledge for the common good*. Oxford: Oxford University Press.

OECD (2008). *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money*. Paris: OECD Publishing. doi:10.1787/9789264046733-en.

OECD (2012). *Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships*. Paris: OECD Publications. doi:10.1787/9789264304864-en.

Peiró S. (2017). Aspectos de la política sanitaria. In: López-Casasnovas G, del Llano-Señarís J, editors. *Colaboración Público-Privada en Sanidad: El modelo Alzira*. Madrid: Fundación Gaspar Casal.

Pollock, A.M., Shaoul, J., & Vickers, N. (2002). Private finance and "value for money" in NHS hospitals: a policy in search of a rationale?. *BMJ (Clinical research ed.)*, 324(7347), 1205–1209.

Pombeiro, A. (2003).*As PPP/PFI – Parcerias Público-Privadas e sua Auditoria*. Lisboa: Áreas Editora.

Porter, M.E. (1985). *The Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.

Posner, P. (2002). Accountability Challenges of Third-Party Government. In *The Tools of Government: A Guide to the New Governance*, edited by Lester M. Salamon. 523–51. New York: Oxford University Press.

Roe, P., Craig, M. (2004). *Reforming the Private Finance Initiative*. London: Center for Policy Studies.

Rumelt, R.P. (2011). *Good strategy, bad strategy: The difference and why it matters*. New York: Crown Business.

Santos, A.J.R. (2008). *Gestão Estratégica: Conceitos, modelos e investimentos*. Vila Franca de Xira: Escolar Editora.

Sarmento, J. (2010). Do Public-Private Partnerships Create Value for Money for the Public Sector? The Portuguese Experience. *OECD Journal on Budgeting*, 10(1), 1–27.

Sarmento, J. (2013).*Parcerias público-privadas*. Lisboa: Fundação Francisco Manuel dos Santos.

Silva, J. (2016). *Parcerias Público-Privadas*. Coimbra: Livraria Almedina.

Simões, J.A. (2004). As parcerias público-privadas no setor da saúde em Portugal. *Revista Portuguesa de Saúde Pública*, 4, 79-90.

Simões, J., Barros, P., Silva, S., Temido, M., & Valente, S. (2009). *Análise e parecer sobre o processo de criação e desenvolvimento das parcerias para a construção de hospitais em regime de financiamento privado e avaliação comparada do desempenho do Centro de Reabilitação do Sul, em São Brás de Alportel. Relatório final da Equipa de Análise Estratégica para o Acompanhamento Externo de Modelos de Gestão Hospitalar*. Lisbon: Ministry of Health.

Simões, J. (2010). A Iniciativa PPP na Saúde: Aspectos de Política, Finanças e Gestão. In Cabral, N., Amador, O., Martins, G. (2010). *A Reforma do Sector da Saúde*, p. 205-232. Coimbra: Almedina.

Spackman, M. (2002). Public–private partnerships: Lessons from the British approach. *Economic Systems*, 26(3), 283–301.

Srdjevic, Z., Bajcetic, R., & Srdjevic, B. (2012). Identifying the Criteria Set for Multicriteria Decision Making Based on SWOT/PESTLE Analysis: A Case Study of Reconstructing A Water Intake Structure. *Water Resources Management*, 26(12), 3379–3393.

Tarazona Ginés, E., & Marín Ferrer, M. (2005). La experiencia del “Modelo Alzira” del Hospital de La Ribera a La Ribera-área 10 de salud: La consolidación del modelo. *Revista de Administración Sanitaria Siglo XXI*, 3(1), 83–98.

Teisman, G., & Klijn, E. (2002). Partnership Arrangements: Governmental Rhetoric or Governance Scheme?. *Public Administration Review*, 62(2), 197-205.

Torchia, M., Calabrò, A., & Morner, M. (2015). Public–private partnerships in the health care sector: A systematic review of the literature. *Public Management Review*, 17(2), 236-261.

UTAP – Unidade Técnica de Acompanhamento de Projetos (2008). *Contrato de Gestão do hospital de Cascais*.

UTAP – Unidade Técnica de Acompanhamento de Projetos (2009). *Contrato de Gestão do hospital de Braga*.

UTAP – Unidade Técnica de Acompanhamento de Projetos (2010). *Contrato de Gestão do hospital de Loures*.

UTAP – Unidade Técnica de Acompanhamento de Projetos (2011). *Contrato de Gestão do hospital de Vila Franca de Xira*.

Visconti, R.M. (2014). PPP versus Traditional Healthcare Procurement in Italy: Assessing Value for Money with PESTLE and SWOT Analysis. *SSRN Electronic Journal*. doi:10.2139/ssrn.2422450.

Visconti, R.M, Doś, A., & Gurgun, A. (2018). Public-Private Partnerships for Sustainable Healthcare in Emerging Economies. In *The Emerald Handbook of Public-Private Partnerships in Developing and Emerging Economies: Perspectives on Public Policy, Entrepreneurship and Poverty*, p.407-438. Bingley: Emerald Publishing Limited.

Willems, T. & Van Dooren, W. (2011). Lost in Diffusion? How Collaborative Arrangements Lead to an Accountability Paradox. *International Review of Administrative Sciences*. 77. 505-530.

Yescombe, E.R. (Ed.) (2007). *Public-Private Partnerships: Principles of Policy and Finance (1st ed.)*. United Kingdom: Elsevier Ltd.

Legal references

Decree-Law 185/2002. *Define o regime jurídico das parcerias em saúde com gestão e financiamentos privados*. Republic Diary 191, I Series A, August 20th, pp. 5852-5859.

Decree-Law 86/2003. *Define normas especiais aplicáveis às parcerias público-privada*. Republic Diary 97, I Series A, April 26th, pp.2682-2686.

Decree-Law 141/2006. *Primeira alteração ao Decreto-Lei n.º 86/2003, de 26 de abril, revendo o regime jurídico aplicável à intervenção do Estado na definição, concepção, preparação, concurso, adjudicação, alteração, fiscalização e acompanhamento global de parcerias público-privadas*. Republic Diary 144/2006, I Series, July 27th, pp.5344- 5356.

Decree-Law 234/2008. *Primeira alteração aos Decretos-Leis n.os 212/2006, de 27 de Outubro, que aprova a Lei Orgânica do Ministério da Saúde, e 219/2007, de 29 de maio, que aprova a orgânica da Administração Central do Sistema de Saúde, I. P., transferindo as competências atribuídas à Administração Central do Sistema de Saúde, I. P., em matéria de qualidade, para a Direcção-Geral da Saúde e fixando a forma de extinção da estrutura de missão Parcerias.Saúde, criada pela Resolução do Conselho de Ministros n.º 162/2001, de 16 de novembro, cujo prazo de vigência foi prorrogado*

pela Resolução do Conselho de Ministros n.º 102/2004, de 1 de julho. Republic Diary 233, I Series, February 12th, pp.8600-8608.

Decree-Law 18/2008. *Aprova o Código dos Contratos Públicos, que estabelece a disciplina aplicável à contratação pública e o regime substantivo dos contratos públicos que revistam a natureza de contrato administrativo*. Republic Diary n.º 20/2008, I Series, January 29th, pp.753-852.

Decree-Law 111/2012. *Disciplina a intervenção do Estado na definição, conceção, preparação, concurso, adjudicação, alteração, fiscalização e acompanhamento global das parcerias público-privadas e cria a Unidade Técnica de Acompanhamento de Projetos*. Republic Diary n.º 100, I Series, May 23rd, pp.2702-2713.

Decree-Law 126/2014, de 22 de agosto. *Procede à adaptação da Entidade Reguladora da Saúde, ao regime estabelecido na lei-quadro das entidades reguladoras, aprovada em anexo à Lei n.º 67/2013, de 28 de agosto*. Republic Diary n.º 161,I Series, August 22nd, pp.4400-4416.

Decree-Law 170/2019. *Procede à décima primeira alteração ao Código dos Contratos Públicos, aprovado em anexo ao Decreto-Lei n.º 18/2008, de 29 de janeiro, e à segunda alteração ao Decreto-Lei n.º 111/2012, de 23 de maio*. Republic Diary n.º 233, Series I, January 4th, pp.2-30.

Health Commission (2019). *Requerimento do BE, sobre «a decisão de lançamento de concurso para uma nova Parceria Público Privada para o Hospital de Braga»; Requerimento do PSD, a «propósito do Relatório n.º 20/2018, do Tribunal de Contas, no qual se procede a uma «Auditoria à Conta Consolidada do Ministério da Saúde - exercício de 2017»; Requerimento do CDS-PP, sobre a «renúncia do mandato do Conselho de Administração do CHUSJ e a veracidade de mais pedidos de demissão»*. Parlamentary Hearing 182-CS-XIII.

Law 27/2002. *Aprova o novo regime jurídico da gestão hospitalar e procede à primeira alteração à Lei n.º 48/90, de 24 de Agosto*. Republic Diary nº 258, I Series A, November 8th, pp.7150-7154.

Minister Board Resolution 162/2001. *Cria uma estrutura de missão denominada «Parcerias. Saúde» destinada a desenvolver e implementar no sector da saúde experiências inovadoras de gestão, designadamente parcerias público-públicas e público-privadas, aplicando-as aos estabelecimentos hospitalares e ao universo de unidades de prestação de cuidados primários e cuidados continuados de saúde*. Republic Diary n.º 266, I Series B, November 16th, p.7338-7339.

Normative Order 35/2003. *Incumbe à PARPÚBLICA - Participações Públicas (SGPS), S. A., a prestação de apoio técnico ao Ministro das Finanças no contexto dos procedimentos de definição, concepção, preparação, concurso, adjudicação, alteração e acompanhamento global das parcerias público-privadas, regulados pelo Decreto- Lei n.º 86/2003, de 26 de Abril*. Republic Diary n.º 191, I Series B, August 20th, pp.5237-5238.

Order 1324/2011. *Estabelece orientações, referentes ao processo de extinção da estrutura de missão Parcerias.Saúde (EMPS), de forma a assegurar a continuidade do programa de parcerias público-privadas no âmbito do Ministério da Saúde*. Republic Diary n.º 10, II Series, January 14th, p.3014.

Regulatory Decree 14/2003. *Aprova o caderno de encargos tipo dos contratos de gestão que envolvam as actividades de concepção, construção, financiamento, conservação e exploração de estabelecimentos hospitalares*. Republic Diary n.º 148, I Series B, June 30th, pp.3743-3762.

A

Case study structure

Table A.1 presents the 20 affirmations presented to the study participants, which were answered according to a one to seven Likert scale. The study followed the achievements of the SWOT analysis, referring to identified factors which affect the delivery of VfM. Moreover, it aims to deepen the understanding of failures regarding implementation and execution of hospital PPPs, while envisioning a possible course of action to solve those failures.

Table A.1: Questionnaire structure

Question (original)	Question (translated)
1. Numa perspetiva de análise de custo-benefício (i.e. ”value for money”), os atuais testes baseados no Custo Público Comparável apresentam a robustez necessária para prever eficazmente os encargos globais associados às PPPs no setor da saúde para ambas as entidades (gestora do edifício e do estabelecimento).	1. In a cost-benefit perspective analysis (i.e. value for money), the current tests based on the Public Sector Comparator present the necessary robustness to effectively predict the global charges associated to healthcare sector PPPs for both entities (infrastructure and clinical services management entities).

2. Em termos gerais, a alocação de riscos entre parceiros públicos e privados definida contratualmente nas PPPs em análise foi adequada, permitindo ganhos de eficiência face à típica gestão inteiramente pública dos hospitais do SNS.	2. In general, risk allocation between public and private partners contractually defined for the PPPs in question was adequate, allowing efficiency gains to occur relatively to typical entirely public management in SNS hospitals.
3. A diferença de prioridades entre parceiros inerente a contratos de PPP (obtenção de lucros privados vs salvaguarda do interesse público), associada a falta de confiança e cooperação entre os mesmos impede ganhos de eficiência previstos teoricamente pelo modelo de PPP implementado.	3. The priority difference between partners inherent to PPP contracts (private profit vs safeguard of public interest), associated to lack of confidence and cooperation between them hinder efficiency gains theoretically predicted in the implemented PPP model.
4. O Estado possui atualmente uma estratégia coerente a médio-longo prazo que permite política, económica e socialmente dar resposta eficaz às fraquezas e ameaças evidenciadas pelas análises independentes efetuadas.	4. The State currently has a coherent medium-long term strategy which allows for political, economic and social effective responses to weakness and threats evidenced by conducted independent analyses.
5. A atual situação política em Portugal é uma ameaça à continuidade e aprofundamento dos modelos de PPP no setor da saúde, apesar dos resultados financeiros e de performance positivos demonstrados.	5. The current political situation in Portugal is a threat to the continuity and deepening of healthcare PPP models, despite demonstrated positive financial and performance results.
6. A legislação implementada referente às PPPs no setor da saúde foi adaptada da experiência internacional numa perspetiva de experimentação, sem estudos prévios que revelassem o seu impacto social e económico.	6. Implemented legislation regarding healthcare sector PPPs was adapted from international experience in a experimentation perspective, without previous studies to reveal its social and economic impact.
7. Atendendo à experiência nacional e internacional, a utilização de PPPs no setor da saúde, no modelo atual, representa um instrumento de gestão pública adequado às necessidades do SNS.	7. Given the national and international experience, the use of PPPs in the healthcare sector, in the current model, represents a public management tool which is adequate to SNS necessities.
8. O enquadramento legal das PPPs no setor da saúde é detalhado e claro, estabelecendo todos os intervenientes (e suas funções) públicos e privados necessários para o controlo e monitorização dos contratos em termos económico-financeiros e de prestação de cuidados de saúde.	8. The legal framework for healthcare PPPs is detailed and clear, establishing all public and private players (and their functions) necessary for contract monitoring and control regarding the economic and financial situation and healthcare delivery.

9. A estrutura legal dedicada às PPPs promove adequada transparência necessária ao SNS, no universo das entidades envolvidas nos contratos, em termos de posições financeiras, resultados de operações e processos de renegociação.	9. The legal structure dedicated to PPPs promotes adequate transparency needed in the SNS, for the universe of entities involved in the contracts, regarding financial positions, operational outcomes and renegotiation procedures.
10. As ARSs, tendo em conta os processos de contratação já decorridos para a primeira vaga de hospitais, estão dotadas de adequadas capacidades de negociação para fazer face às intenções dos parceiros privados e preservar o interesse público.	10. The ARSs, given the completed contracting processes for the first wave of hospitals, are equipped with adequate negotiation capacities to face private partners' intentions and safeguard the public interest.
11. Os contratos das PPPs em análise englobam condições específicas e mecanismos de regulação eficazes para combater assimetrias de informação entre os setores público e privado, prevenindo processos de renegociação desnecessários	11. PPP contracts in question encompass specific conditions and effective regulation mechanisms to combat information asymmetries between public and private sectors, preventing unnecessary renegotiation procedures.
12. A ausência de contabilização dos encargos com PPPs para efeitos do défice da dívida pública é um fator determinante na decisão das entidades públicas de adotarem este modelo para investimentos no SNS.	12. The lack of accountability of PPP charges for the purpose of government deficits and debt is a determining factor for public entity decisions in adopting this investment model for the SNS.
13. Os atrasos revelados nos processos de desenvolvimento e monitorização das PPPs no setor da saúde são responsáveis por graves custos adicionais para o setor público.	13. The delays occurred in healthcare PPP development and monitoring processes are responsible for severe additional costs for the public sector.
14. Os existentes mecanismos de gestão dos contratos previstos para as PPPs no setor da saúde são adequados para lidar com a complexidade e exigência contratual das parcerias.	14. The existing mechanisms for contract management predicted in healthcare PPPs are adequate to deal with partnership contractual complexity and requirements.
15. A pontual recorrência a consultoria externa com o objetivo de monitorizar a execução dos contratos das PPPs em análise sem internalização do know-how em estruturas internas do setor público é uma lacuna com impacto na tomada de decisões técnicas adequadas ao sucesso das parcerias.	15. Occasional recurrence to external consulting services for monitoring contract execution of PPPs in question without know-how internalization in public sector structures is a gap with impact in technical decision making adequate to partnership success.

16. A incompleta avaliação de todos os indicadores de desempenho de hospitais do SNS para o efeito de benchmarking, apesar de serem apurados para o conjunto de hospitais geridos em PPP, é um entrave à comparação objetiva dos custos para o Estado dos serviços de saúde prestados, tendo em conta o desempenho de serviço.	16. Incomplete evaluation of every performance indicator in SNS hospitals for benchmarking purposes, despite being determined for the set of PPP hospitals, is an obstacle to objective comparison of healthcare provision costs for the State, considering service performance.
17. Os mecanismos contratuais a longo prazo, a 30 anos no caso da gestão do edifício, das PPPs em análise, têm em conta o ambiente atual de rápida transformação tecnológica, que pode tornar obsoletas as tecnologias utilizadas.	17. The long-term contractual mechanisms, 30 years in the case of infrastructure management, for the PPPs in question, account for the current environment of fast technological transformation, which can render the used technologies obsolete.
18. De acordo com a alocação de riscos estabelecida nos contratos de gestão das PPPs, os mecanismos de responsabilização em vigor são eficientes para promover o interesse público e dar resposta a falhas de desempenho.	18. According to the risk allocation established in PPP management contracts, the existing accountability mechanisms are efficient to promote public interest and respond to performance failures.
19. Os impactos gerados pela não inclusão da gestão clínica nas PPPs da segunda vaga e nas PPPs da primeira vaga após a não renovação do contrato, perdendo sinergias operacionais entre parceiros privados, são conhecidos e considerados na estruturação das mesmas.	19. The impacts generated by the non-inclusion of clinical services management in the second wave of PPPs and on the first wave after contracts were not renewed, loosing operational synergies between private partners, are known and considered in their structuring.
20. O Estado, de um modo geral, beneficia com o aproveitamento das capacidades de gestão do setor privado em PPPs, com ganhos superiores aos encargos adicionais provenientes da implementação e monitorização, e financiamento privado.	20. The State, overall, benefits from private sector management skills in PPPs, with superior gains to the additional charges resulting from implementation, monitoring and private financing.

B

Case study results

Appendix B presents the results gathered from the answers to the Likert scale questionnaire. Every question was answered by every participant. Results are presented in full. Firstly, Table B.1 presents the answers given by each participant to each affirmation, where the participants are numbered from 1-8 according to the chronological order of participation. Next, Figures B.1 to B.20 present the answer percentages for each affirmation. In the Likert scale, the answer 1 corresponds to total disagreement, and the answer 7 corresponds to total agreement, while the answer 4 represents the middle answer (no agreement or disagreement). The percentages are presented in a colored pie chart with label.

Due to the small number of participants (8), the percentage values are easily discretized. In absolute values, for the values obtained in this study:

- 12.5% corresponds to 1 answer;
- 25% corresponds to 2 answers;
- 37.5% corresponds to 3 answers; and
- 50% corresponds to 4 answers.

Table B.1: Case study full results

(*P* represents the column of participants (1-8) and *A* represents the line of affirmations (1-20))

P\A	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
1	1	2	7	1	4	7	7	4	5	1	1	7	7	7	7	5	1	7	5	7
2	4	7	4	1	7	7	7	4	4	6	5	7	6	4	7	7	6	4	7	7
3	3	2	3	2	3	3	6	6	5	3	3	5	4	3	4	7	4	5	2	6
4	6	7	4	3	4	1	7	7	7	3	5	3	1	3	2	2	5	5	2	5
5	5	7	5	1	7	5	2	2	2	1	2	4	6	3	7	7	7	5	3	5
6	1	1	2	1	1	3	1	1	1	2	1	1	2	2	3	3	1	1	1	1
7	4	4	5	3	6	4	5	5	4	3	4	3	4	4	4	5	4	4	4	4
8	2	2	5	3	5	5	6	2	4	3	2	5	6	3	5	6	3	2	2	6

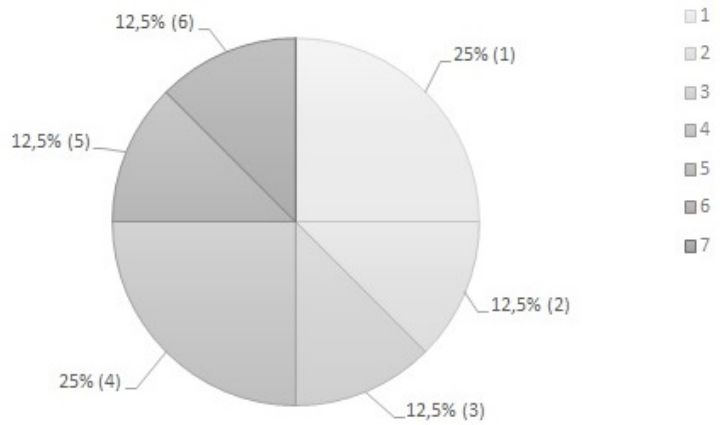

Figure B.1: Answer results for affirmation 1, in percentage

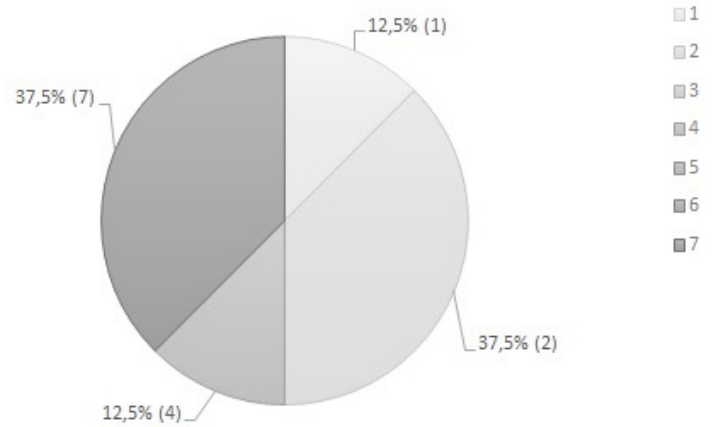

Figure B.2: Answer results for affirmation 2, in percentage

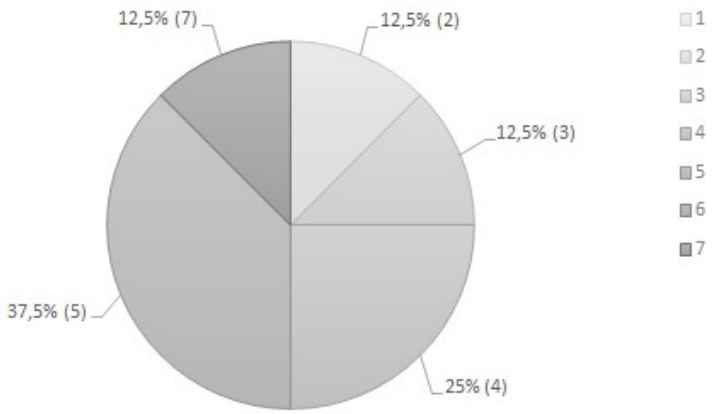

Figure B.3: Answer results for affirmation 3, in percentage

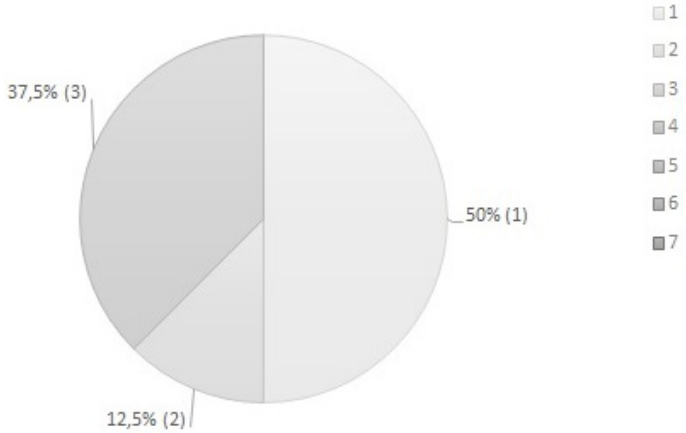

Figure B.4: Answer results for affirmation 4, in percentage

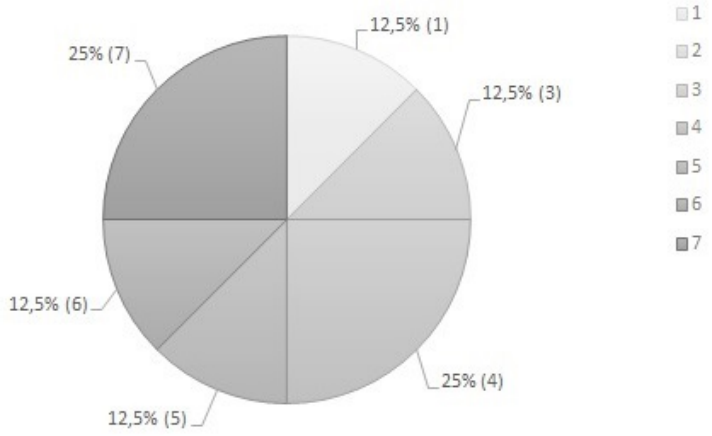

Figure B.5: Answer results for affirmation 5, in percentage

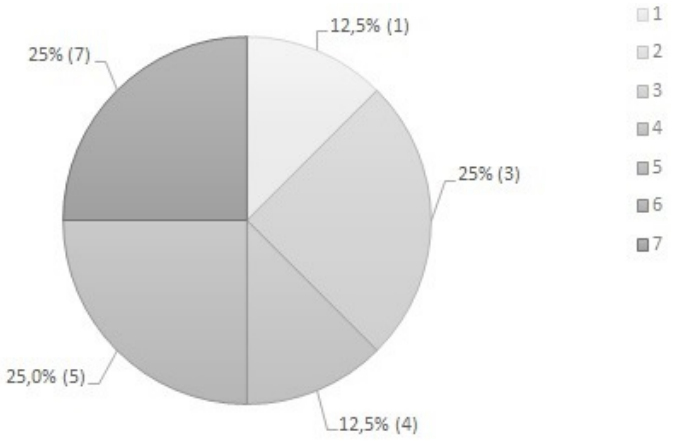

Figure B.6: Answer results for affirmation 6, in percentage

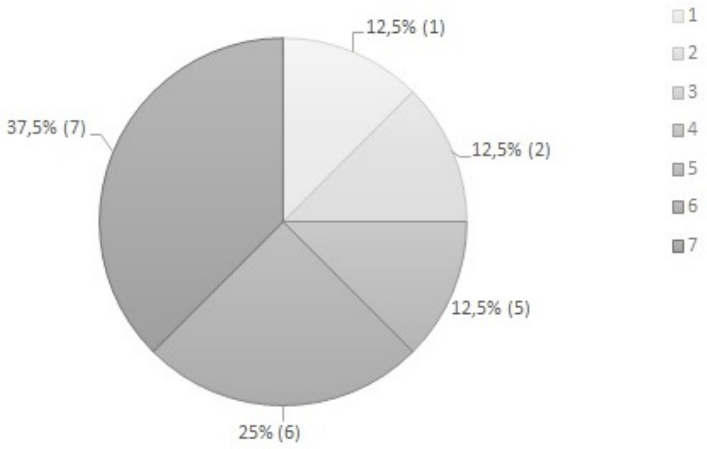

Figure B.7: Answer results for affirmation 7, in percentage

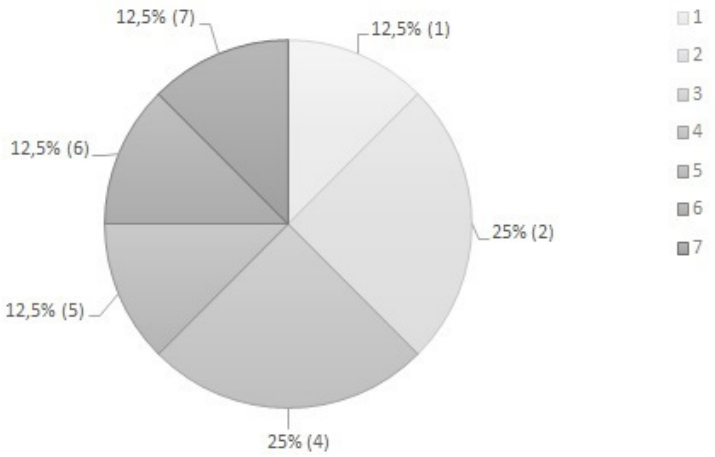

Figure B.8: Answer results for affirmation 8, in percentage

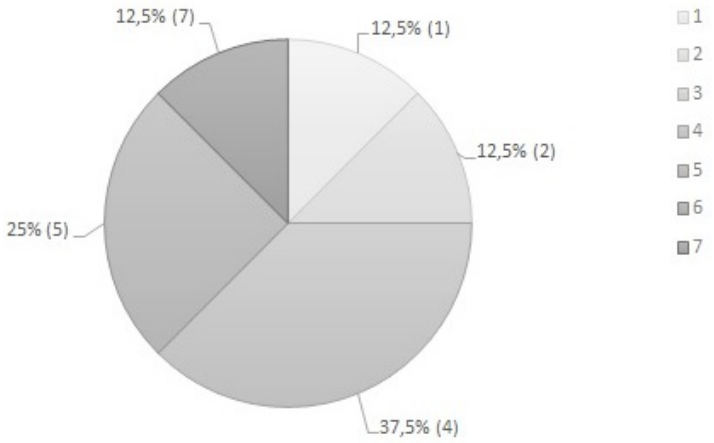

Figure B.9: Answer results for affirmation 9, in percentage

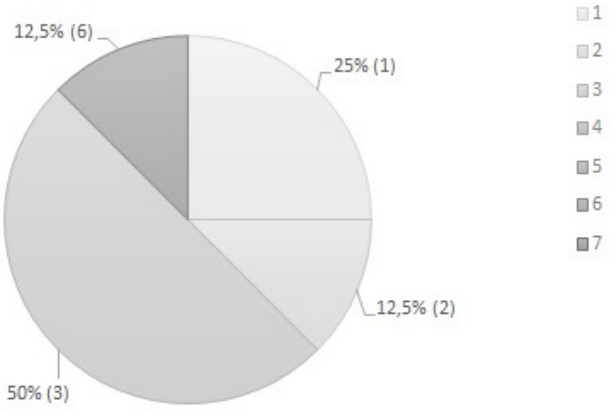

Figure B.10: Answer results for affirmation 10, in percentage

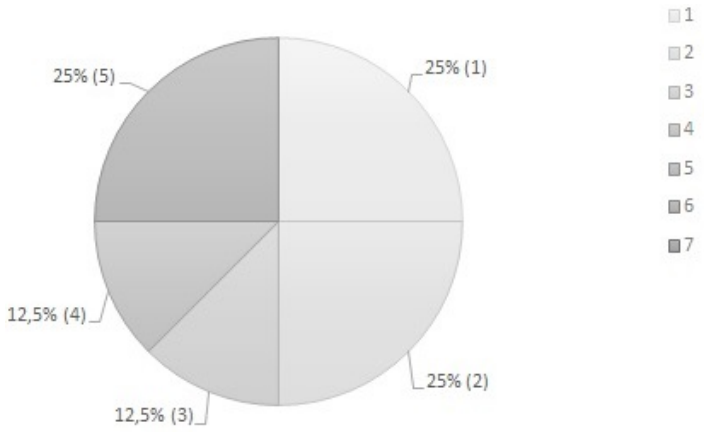

Figure B.11: Answer results for affirmation 11, in percentage

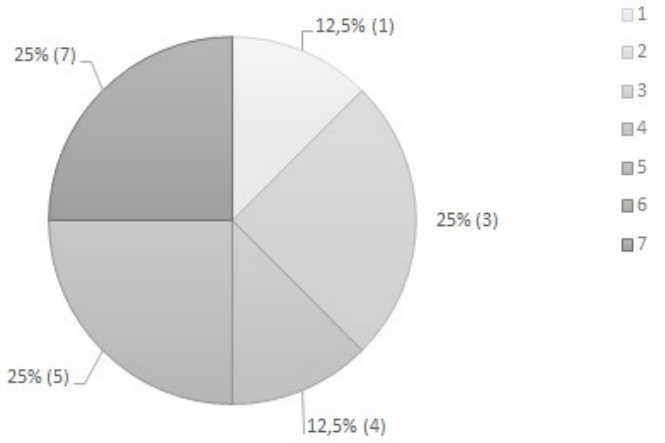

Figure B.12: Answer results for affirmation 12, in percentage

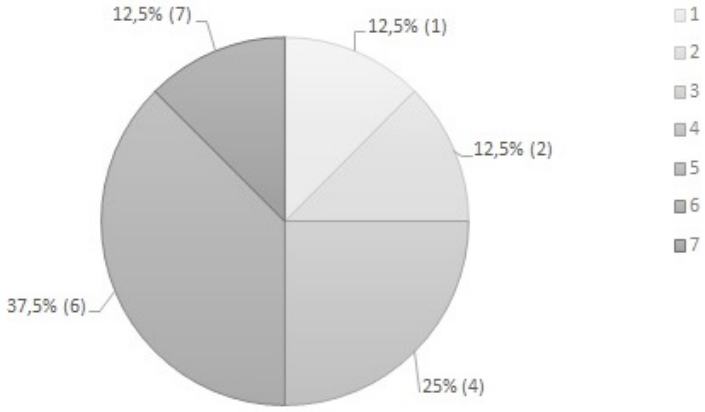

Figure B.13: Answer results for affirmation 13, in percentage

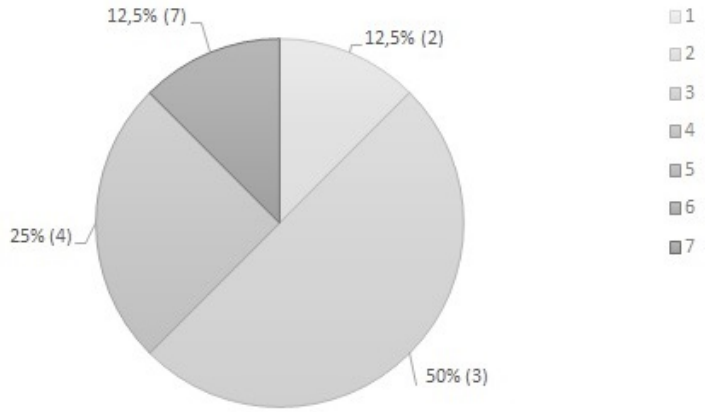

Figure B.14: Answer results for affirmation 14, in percentage

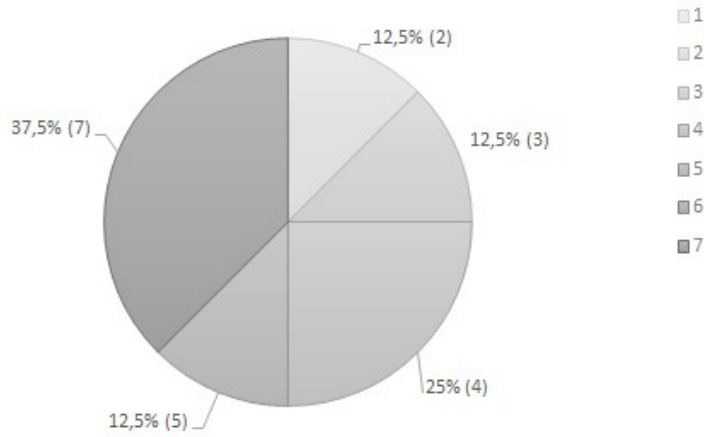

Figure B.15: Answer results for affirmation 15, in percentage

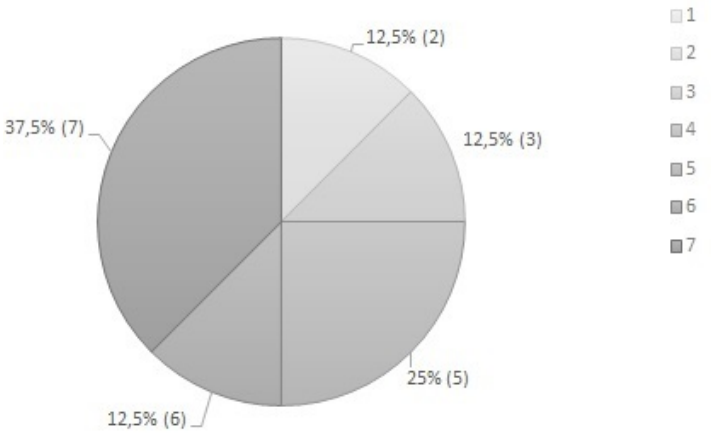

Figure B.16: Answer results for affirmation 16, in percentage

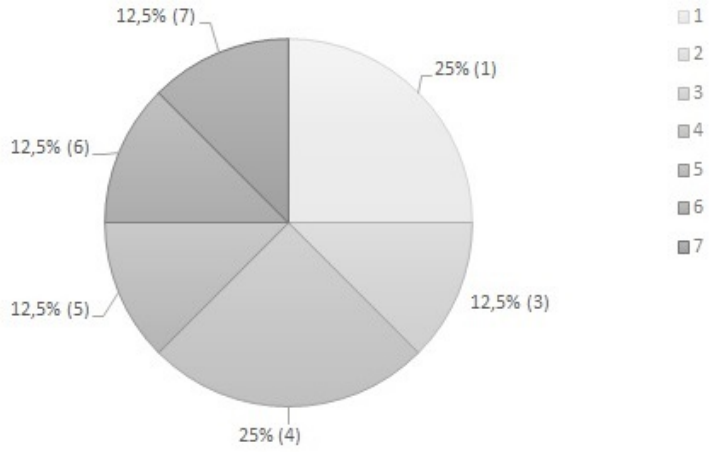

Figure B.17: Answer results for affirmation 17, in percentage

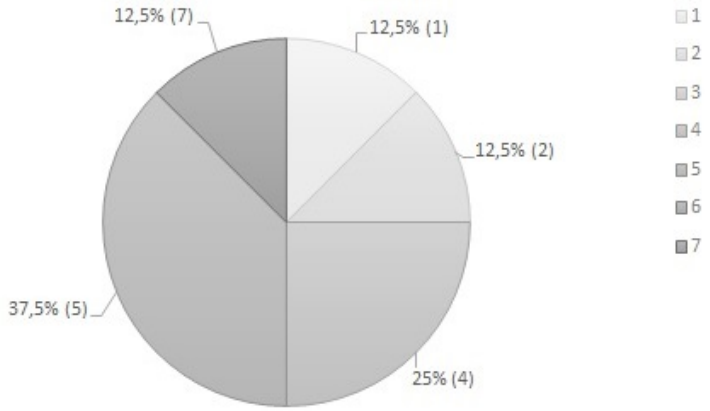

Figure B.18: Answer results for affirmation 18, in percentage

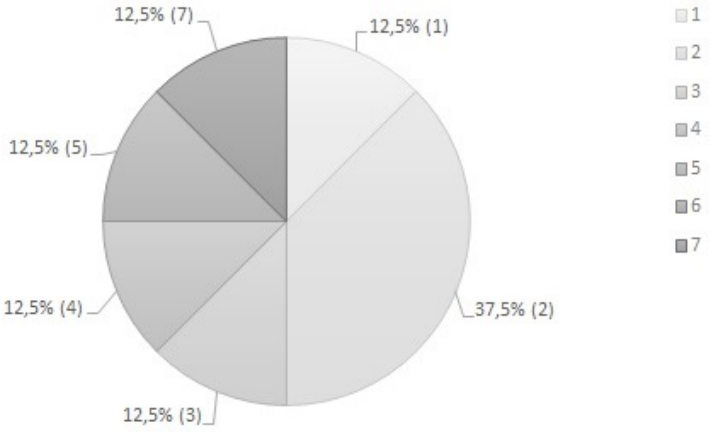

Figure B.19: Answer results for affirmation 19, in percentage

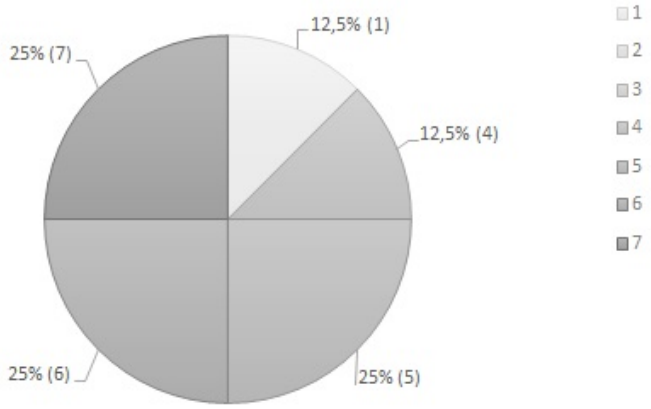

Figure B.20: Answer results for affirmation 20, in percentage