Healthcare Public-Private Partnerships in Portugal: a strategic analysis to project and contract management

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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.

1. Introduction

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 PPP models in Portugal, as public management increasingly focused on performance and Value for Money (VfM) (Simões, *et al.*, 2009).

The first wave of five PPP hospitals, announced in 2001, used a PPP model which included both infrastructure and clinical services management. Four of them were contractually concretized: *Hospital de Cascais* in 2008, then *Hospital de Braga* and *Hospital de Loures* in 2009, and finally *Hospital de Vila Franca de Xira* in 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.

Portugal is facing a period of strong budgetary restrictions. Now, more than ever, aspects of VfM and efficiency become imperative for the sustainability of the SNS. 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.

[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.

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

The dissertation aims to develop an organic Strengths, Weaknesses, Threats and Opportunities (SWOT) analysis on implementation and execution of PPPs in the healthcare sector in Portugal, followed a strategic formulation with recommendations. The work aims to increase the quality of information available for public decision-making in this area.

1.3. Methodology

Developing a strategic management approach is a multifaceted process. Before the SWOT analysis and strategy formulation, the work presents an internal and external environment analysis to public sector's approach to hospital PPPs.

The methodology consisted firstly in an extensive literature review, including mainly 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).

2. International framework of PPP management

2.1. United Kingdom

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). 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).

The initial 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]

Despite some changes introduced to correct the issues raised, much of the process remained identical.[3] Aided by the overall complexity and inflexibility of these projects, the Government announced PFI would no longer be used for capital projects.[4]

2.1.1. Lessons from general evidence

Using off-balance sheet financing (common in these partnerships), the only budgetary hurdle became the long-term affordability of the project (Spackman, 2002). The PFI could then 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).

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. The procurement process lasted up to five years and was longer than expected in every case.[5] Financial uncertainty and time delays are a proof of inefficient project management which mean spending extra resources to achieve the initial plan.

Heald (2003) 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. 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. However, the efforts did not change the possibility for VfM assessment to consistently favor the PFI model.

[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.

[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

[5] HM Treasury (2003). *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

2.1.2. PFI in the healthcare sector

The Department of Health's approach to private finance revealed itself to be harmful for the National Health System (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 lead 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.

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.

2.2. Spain

2.2.1. Alzira model

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).

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.[6]

The initial contract was not successful, resulting in the termination of the contract with RSUTE, in December 2002, and establishment of a new one with RSUTE II. Issues of less job security for workers, with lower pay scales and longer working hours; close link between political control and financial institutions, and financial difficulties are the main reasons for termination (Acerete *et al.*, 2011).

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. 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 to solve the raised issues. It also added primary care to the specialist care already provided, with two more outpatient clinics and 30 healthcare centers. 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).

Although the administrative concession of Valencia expanded model to other four healthcare areas, Valencia's Health Authority decided to terminate the concession and to revert to direct public provision at the end of the contract in 2018.

2.2.2. 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;

[6] 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.

- 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)[6,7].

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).

3. Portuguese healthcare PPP experience

Portugal, following the principals established by the NPM and international tendencies, also focused on developing PPPs. The PPP concept was only defined in Portugal through the publication of Decree-Law 86/2003. This 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). Initial legislation was reviewed in several occasions, in response to issues which appeared as PPP processes developed.

3.1. PPP contractual process evolution

The contractual process for PPP projects is more expensive and complex than public procurement models (Silva, 2016). In Portugal, Decree-Law 86/2003 and Decree-Law 141/2006 defined this process. Table 1 presents the main stages required to develop a PPP.

Table 1: PPP contractual process (Decree-Law 86/2003; Decree-Law 141/2006)

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

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 the Ministry of Health, *Estrutura de Missão Parcerias.Saúde* (EMPS) was responsible for partnership monitoring and global evaluation of the first wave of PPP hospitals until 2011, when responsibilities were transferred to *Administração Central do Sistema de Saúde* (ACSS).

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.[8,9] 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).

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).

The contractual process changes introduced under the new legal regime followed measures to introduce, in Portugal, a rigorous cost and risk control (Decree-Law 111/2012).

Table 2 summarizes the main intervening entities and its functions in general PPP preparation processes.

Table 2: Intervening entities in PPP general processes (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).
Prop. Eval. Com.	Evaluate public sector costs, possible impact of risks, and relative merit of each proposal.
Monitoring Com.	Develop in-depth strategic and financial analysis regarding PPP impact on Government's objectives.
Negotiation Com.	Represent the public entity in negotiation session with private entities.

3.2. 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 ex-

[7] *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.

[8] *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.

[9] *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.

ecuted and Loures) and three replacement hospitals (Cascais, Braga and Vila Franca de Xira).[10] In 2002, the XV Constitutional Government took office and announced a second wave with five additional partnerships.[9] The second wave was reannounced later, in 2006, and has yet to be concretized.

Similarly to the Alzira model, in the first wave model, the private society assumed hospital construction, finance and exploration, and is responsible for providing clinical services. The entity responsible for infrastructure construction and maintenance (EGED) enters the contract for a 30 year period. The entity responsible for hospital management and healthcare provision (EGEST) commits to a contractual period of 10 years, with a possibility for extension up to a 30 year period.

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 3 presents information regarding first wave PPP hospital units.[10,11]

Table 3: Details regarding first wave hospital PPPs[10,11]

Hospital	Cascais	Loures	Braga	VFX
Const. area (m²)	46 000	63 000	102 000	49 000
Act. initiation	2010	2012	2012	2013
Hosp. beds	277	424	704	280
Op. rooms	6	8	12	9
Cons. offices	33	44	59	33
Population	285 000	272 000	1 093 000	244 000

3.3. Project and contract management in hospital PPPs

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). Table 4 summarizes the intervening entities and its functions in healthcare PPP management.

Table 4: Intervening entities in healthcare PPP management (UTAP, 2008; 2009; 2010; 2011; Decree-Law 111/2012; Regulatory Decree 14/2003)

Entity	Functions (summary)
Perm. Mon. Com.	Ensure management entities compliance with contractual obligations and cooperation with the EPC.
Joint Com.	Elaborate contract modification proposals, monitor execution of contractual activities and propose adoption of measures to improve activity performance.
EMPS (and 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.

4. Strategic analysis of Portuguese hospital PPPs

4.1. PPP hospital contract execution

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.[12] *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.[13] *Hospital de Braga* presented great financial results, but lower quality of service, in terms of waiting times, due to production restrictions.[14] *Hospital de Vila Franca de Xira* also presented excellent financial performance but less good service performance.[15]

4.2. Hospital PPP value chain

Value chains can be used for internal environment analyses (Santos, 2008). 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.

[10] 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.

[11] *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

[12] *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.

[13] *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.

[14] *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.

[15] *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.

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 but, more importantly, the specific PPP healthcare delivery process value chain. Figure A.1 presents the value chain for the healthcare process in Portuguese PPPs. Players are presented according to legislation and PPP hospital management contracts.

4.3. PESTLE analysis

A Political, Economic, Social, Technological, Legal and Environmental (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 A.1 presents the PESTLE analysis for the external environment surrounding hospital PPPs.

4.4. 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; Srdjevicet al., 2012).

Following the work already presented, Table 5 presents the initial SWOT analysis for the use of hospital PPPs in Portugal.

Developing a complete and organic SWOT analysis requires establishing connections between Strengths/Weaknesses and Opportunities/Threats, harnessing from national PPP experts' opinions.

Table 5: SWOT analysis on the Portuguese public sector approach to hospital PPPs

	Characteristics of hospital PPPs with VfM impact
S	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
W	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
O	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
T	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

4.5. Qualitative case study with experts

A one to seven Likert scale questionnaire with 20 affirmations was used to study the opinions of policy makers, PPP contract managers and private sector PPP managers. The objective was to understand their level of opinion homogeneity and agreement with the theoretical analysis made, while providing their view to the elaboration of the SWOT matrix.

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. 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.

Moreover, the responses in this study are aligned with the issues raised in the SWOT analysis. Table A.2 presents the organic SWOT matrix, reworked to include PPP experts' opinions.

4.6. 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).

In order to achieve public sector's mission (associated to accessible healthcare services that ensure VfM based on a national framework), and create successful PPPs in the healthcare sector, it is critical 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[16];

- **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;
- **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[17]; 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.

[16] 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.

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

5. Conclusions

The 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.

The Portuguese PPP framework was set to raise the same questions as international frameworks, 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.

The use of the SWOT analysis as a strategic management tool is the main innovation of this work. The recurrence to a more organic SWOT analysis implied a SWOT matrix development integrating national PPP experts' point of view, and consequent 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, public sector technical expertise must be increased for future PPP procedures. 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. Finally, fostering a better environment for trust and cooperation between public and private entities is crucial for partnership success, independently of the model chosen.

5.1. Limitations & future work

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.

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.

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A. Appendix

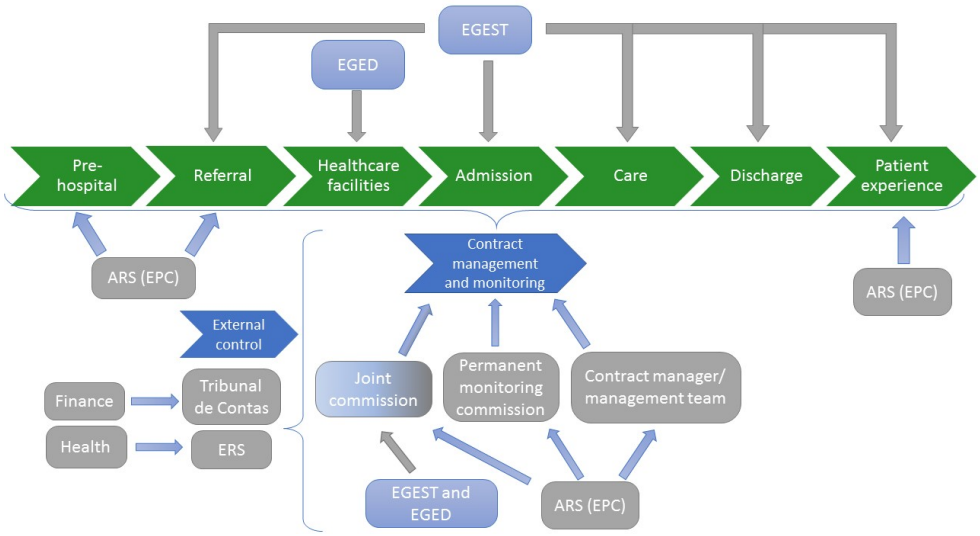

Figure A.1: Portuguese PPP hospital management value chain

Table A.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 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

Table A.2: 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