IUL - ISCTE Business School
Accounting Department

Management Accounting Change in Health Sector

Ana Cristina Mendes da Conceição

Thesis specially presented for the fulfilment of the degree of
Doctor in Accounting

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ABSTRACT

This thesis relates to management accounting changes occurred in the Portuguese health sector. Introducing a responsibility centre within a cardiothoracic surgery service led to a change process despite pressures for stability. The change was driven by institutional entrepreneurship steered by power strategies. The institutionalization of change was conditioned by entrepreneurship that flowed through three circuits of power. The case demonstrates the role of power relations in initiating and blocking institutional change when implementing innovative accounting. We demonstrate that accounting innovations must always be interpreted in the context of the broader macro-economy, in this case, a context characterized by austerity politics.

Moreover, the pursuit of efficiency in health care delivery has led to the development of a project for implementing activity-based costing (ABC) in a Portuguese hospital. The tensions that arise between the care (quality) and business logics, constitute a paradox that doctors from this hospital recognized as to be possible to overcome by using ABC. ABC became a tool to account for the outcomes of medical care, allowing comparisons between clinical practices, also providing a common language between managers and doctors. The case demonstrates that ABC could bridge tensions arising between competing institutional logics, enhancing its applicability in health care settings. Our focus was upon a set of actors that usually are not regarded in both paradox and institutional complexity theories. Therefore, we contribute to the existing literature on hybrid organizations and paradox theory, by highlighting how professionals and managers differentially experience paradoxes that arise from competing institutional logics that persist over time.

Key Words:

Institutional entrepreneurship, Circuits of power, Institutional logics, Paradox theory

JEL Classification System:

M 41 Accounting

M 49 Other

RESUMO

Esta tese refere-se a mudanças na contabilidade de gestão ocorridas no sector de saúde Português. Apesar das pressões para a estabilidade, a introdução de um centro de responsabilidade num serviço de cirurgia cardiotorácica induziu um processo de mudança. A mudança foi impulsionada pelo empreendedorismo institucional direccionado por estratégias de poder, fluindo através de três circuitos de poder. O caso demonstra o papel das relações de poder ao iniciar e bloquear mudanças institucionais decorrentes da implementação de novas práticas de contabilidade, sendo que essas práticas devem sempre ser interpretadas num contexto macroeconómico mais amplo, neste caso, um contexto caracterizado por políticas de austeridade.

Além disso, a busca pela eficiência na prestação de cuidados de saúde convergiu na implementação de um projeto de custeio baseado em atividades (ABC) num hospital Português. As tensões que surgem entre as lógicas de cuidado (qualidade) e de gestão, constituem um paradoxo que os médicos desse hospital reconheceram como sendo possível superar pelo uso do ABC. O ABC tornou-se uma ferramenta de aferição dos resultados dos cuidados médicos, permitindo comparações entre práticas clínicas, constituindo igualmente uma linguagem comum entre médicos e gestores. O caso demonstra que o ABC pode colmatar as tensões originadas por lógicas institucionais divergentes, evidenciando a sua aplicabilidade em organizações de saúde. Focámo-nos num conjunto de atores que geralmente não são considerados nas teorias do paradoxo e da complexidade institucional. Portanto, contribuímos para esta literatura, realçando como médicos e gestores experimentam diferencialmente paradoxos que surgem de lógicas institucionais concorrentes, que persistem ao longo do tempo.

Key Words:
Institutional entrepreneurship, Circuits of power, Institutional logics, Paradox theory

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Ana Conceição

LIST OF TABLES

LIST OF ABBREVIATIONS

ABC - Activity-based Costing
ACSS - Central Health Care System Administration
CHLC - *Centro Hospitalar de Lisboa Central*
CHO - West Lisbon Hospital Centre
CSS - Cardiothoracic Surgery Service
DRGs - Diagnosis-related Groups
EPE - *Entidades Públicas Empresariais*
FFH - *Fernando da Fonseca* Hospital
IAS - International Accounting Standards
ICD-9-CM - International Classification of Diseases, Ninth Revision, Clinical Modification
ICU - Intensive Care Unit
IFRS - International Financial Reporting Standards
IPSAS - International Accounting Norms for Public Sector
MoH - Ministry of Health
NHS - National Health Service
NIE - New Institutional Economics
NIS - New Institutional Sociology
OIE - Old Institutional Economics
OPP - Obligatory Passage Points
PCAH - Cost Accounting Plan for Hospitals
POC - Official Accounting Plan
POCMS - Official Accounting Plan of the Health Ministry
POCP - Official Plan of Public Accounting
RAFE - State Financial Administration Regime
RHAs - Regional Health Administrations
SA - *Sociedades Anónimas*
SNC - Accounting Standardization System
TDABC - Time-driven Activity-based Costing
UK - United Kingdom

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CHAPTER I – INTRODUCTION

1.1. Gaps in the literature and purpose of the study

Management accounting change has been a central issue to accounting researchers since the Johnson and Kaplan's warning, in 1987, for the risk of management accounting to be losing relevance. Since then, new management accounting systems and practices have proliferated in organizations, becoming imperious to researchers to understand management accounting.

According to Wickramasinghe and Alawattage (2007) there can be three different views of management accounting: (i) technical-managerial; (ii) critical-socio-economic; and, (iii) pragmatic-interpretive. According to the technical-managerial view, management accounting is a collection of concepts and techniques aimed to grant efficiency and effectiveness in the management of organizations. The second view analyses management accounting practices regarding the relation between organizations and their socio-economic contexts. The pragmatic-interpretative view is concerned in understanding how management accounting is being practised and the inherent organizational consequences.

In this thesis, we adopt a pragmatic-interpretative view, because our aim is to understand and theorize what is actually happening within organizations. To reach these answers, we adopt the interpretative perspective. Accounting researchers that use the interpretative perspective are concerned on management accounting change considering a given context, and the way people create meaning and values. Since individuals have different interests, individuals and social interaction is the focus of analysis. "[R]eality is subjective: the only 'meanings' which actions and events can have are those that are filtered through individuals' shared perceptions" (Hopper *et al*., 1987: 441).

Institutional theory is one of the social theories used by researchers within the interpretive perspective. This theoretical framework was a result of critiques from accounting scholars who argued that there was a gap between theory and practice, therefore lacking explanations for managers' behaviour who use management accounting (Wickramasinghe and Alawattage, 2007). Institutional theory has been used to refer to a diverse set of theories, such as: new institutional economics (NIE) focusing in rationality; old institutional economics (OIE) which emphasizes the micro level of analysis, where rules become routines through a social and cultural process in which human interaction and inherent subjectivity determines peoples actions (Burns and Scapens, 2000; Scapens, 1994, 2006) and new institutional sociology

(NIS)[1], whose focus is on macro level and on how organizations are influenced by their external environment (DiMaggio and Powell, 1991a,b; Scott and Meyer, 1983, 1991; Scott, 2008, 2014).

NIS highlights how organizations are subjected and adapt to external pressures, defining institutions as "socio-political and cultural practices which produce legitimacy (meanings and rules) for the conduct of organizations and the existence of management accounting therein" (Wickramasinghe and Alawattage, 2007: 432). Therefore, organizations in searching for legitimacy tend to be isomorphic with external institutional environments. This emphasis on stability (disregarding change) has been target of criticism as it neglects "how new practices emerge and treats organizations as unitary, passive entities or 'black-boxes' that only gain legitimacy by conforming to environmental demands" (Hopper and Major, 2007: 64). Moreover, NIS emphasis in the macro level ignores important micro level dynamics, such us, the role of actors in institutional change (Battilana *et al*., 2009; Scott, 2008; Dacin *et al*., 2002; Ribeiro, 2003). As Seo and Creed (2002: 222) question: "[i]f institutions are, by definition, firmly rooted in taken-for-granted rules, norms, and routines, and if those institutions are so powerful that organizations and individuals are apt to automatically conform to them, then how are new institutions created or existing ones changed over time (DiMaggio & Powell, 1991)?". Therefore, as a theory of stability, NIS theory lacked arguments for explaining change, which led to the proliferation of studies regarding institutional change (Hopper and Major, 2007).

Following the criticism of scholars such as Abernethy and Chua (1996) and Dacin *et al*. (2002) who argued that institutional theory neglects issues of power and interest, academic research began to address how actors can also influence and change institutions. There was thus a call to the need to develop a "theory of action" (Battilana *et al*., 2009: 66). Accordingly, recent organizational researches have been interested in explaining, "how actions and actors affect institutions" (Lawrence *et al*., 2009: 7), in opposition to the traditional emphasis on the study of the isomorphic pressures of institutions on actors. Institutional entrepreneurship emerged as an important concept that seeks to explore the activities of institutional entrepreneurs that aim to create new institutions. Institutional entrepreneurs are actors who have an interest in specific institutional arrangements (Hardy and Maguire, 2008), and have the power to manage the resources to innovate with new

[1] NIS is also referred in literature as 'neo-institutional theory' or 'institutional theory'.

institutional rules that substitute traditional practices (Dacin *et al.*, 2002; Battilana *et al*., 2009; Sharma *et al.*, 2010).

Institutional entrepreneurship literature has pointed out several favourable conditions for institutional entrepreneurship and inherent driving forces for institutional change. Some conditions are related to the external environmental context in which the institutional entrepreneur is embedded. In addition to the field conditions, another enabling condition for institutional change is related to actors' specific characteristics, qualities and abilities and social positions from which actors can act. Although these conditions increase the possibility of institutional change, a major institutional entrepreneurship gap is in how this process occurs. Furthermore, previous studies concerning actor's characteristics do not explicit address the role of power (Lawrence, 2008; Levy and Scully, 2007). This gap extends to the own institutional theory, where power has been only implicit or superficially addressed (Dillard *et al*., 2004; Hardy and Clegg, 1996; Lawrence, 2008; Oliveira, 2010a; Ribeiro and Scapens, 2006; Yang and Modell, 2013).

A model of power was proposed by Clegg (1989), the 'circuits of power' framework. Our choice was justified by the breadth that it is attributed to this model, which complements and integrates different approaches of power that have been developed in academic literature through time (Smith *et al*., 2010; Silva and Backhouse, 2003). This model identifies three different circuits: (i) episodic circuit, specialized on agency; (ii) circuit of social integration, related to dispositional power; and, (iii) circuit of system integration, concerning the facultative power (Clegg, 1989). Through these circuits, different types of power circulate across the networks of actors, explaining which effects those powers produce and how they are linked together, promoting stability and/or change (Oliveira, 2010a).

In this thesis, we present a process of institutional change, derived from the attempt to implement a responsibility centre in a service of a Portuguese public hospital (chapter three). This was a process of institutional entrepreneurship, which had as its foundation a legislative initiative, which nonetheless failed. Failed cases of institutional entrepreneurship are almost absent, since scientific literature has focused in the successful ones. As Battilana *el al*. (2009: 95) argue "[f]ailure cases are, in fact, more difficult to detect and study in retrospect, but this situation introduces a strong bias in our understanding of institutional entrepreneurship". Therefore, this case study revealed itself as a unique opportunity to analyse not only what the role of power is in initiating a change process, but also, how power strategies have undermined this change process.

Another strand of studies on institutional change has focused on analysing institutional logics. Institutional logics are taken-for-granted meanings and practices that define and provide meaning to members of a particular social reality (Friedland and Alford, 1991; Thornton *et al*., 2012; Greenwood and Suddaby, 2006; Rao *et al*., 2003). Regarding the different theories of institutional theory, institutional logics approach is argued to provide a bridge between the macro and the micro perspectives. Despite sharing the concerns with NIS on how the cultural rules affect organizations, it also focuses on its effects on individuals, therefore providing a link between institutions and action (Ezzamel *et al*., 2012; Friedland and Alford, 1991; Reay and Hinings, 2009; Scott *et al*. 2000; Thornton and Ocasio, 2008, 1999; Thornton *et al*., 2012). Interests and agency of individuals and organizations are both enabled and constrained by the prevailing institutional logics where they are embedded. The problem that arises is that organization's reality incorporates institutional complexity, due to incompatible prescriptions from multiple institutional logics (Greenwood *et al*., 2010; Greenwood *et al*., 2011; Lounsbury, 2007; Pache and Santos, 2013; Thornton and Ocasio, 2008).

Our broad area of research is the management accounting change in the health sector. However, in order to address the gap identified by Gadolin (2018), our focus is at the micro level.

> "Despite the potential of the institutional logics perspective to 'look inside organizations', there is a lack of studies that focus on how institutional logics play out at the micro-level of analysis, thus limiting the understanding of their effect on everyday practice". Gadolin (2018: 127).

In that sense, in our case study (chapter four) we analyse the case of implementation of activity-based costing technology (ABC) in a Portuguese public hospital. Hospitals are organizations that incorporate multiple organizational identities, organizational forms, and, institutional logics, therefore, being also known as hybrid organizations (Battilana *et al.*, 2017; Battilana and Lee, 2014; Haveman and Rao, 2006). Hospitals have to combine multiple and conflicting logics (Battilana and Dorado, 2010; Scott *et al*., 2000), with the most prevalent being the professional and care logic, and the business logic. This last logic has been expanding (e.g. Gadolin, 2018; Reay and Hinings, 2005, 2009; Scott *et al*., 2000), and the implementation of ABC in our empirical environment is an evidence of this.

As Reay and Hinings (2009: 629) alert, there is a gap in institutional logics literature since "few studies identified situations where competing logics continue to co-exist for a lengthy period of time". In addressing this gap, we realized that we were faced with a paradox,

because these institutional logics in addition to persisting over time and being contradictory, are interdependent. Therefore, this drove our attention towards the paradox theory, following the recommendation of Smith and Lewis (2011) who argue for its potentiality for bridging research on hybrids and institutional logics.

Both institutional complexity and paradox theories have addressed the nature of the tensions that arise in hybrid organizations when facing contradictory demands from different institutional logics. However, the gap that persist in both theories is the analysis on how organizational' members differently experience them (Smith and Tracey, 2016). This led us to question how different members of organizations experienced the assumptions of competing logics and how they balanced their interests, identities, values and emotions, to cope or resist to the prescriptions of different logics, which ABC embodies. The implementation of ABC in a hospital embraces tensions between care logic, and the business logics. However, it has been argued that ABC increases the value of health care by linking cost reduction with quality issues associated with the activities performed by medical staff (Kaplan and Porter, 2011). This led us to question the extent that ABC is able to mediate the logics of care and business in the eyes of different actors in the field.

1.2. Research methods

In the present research the ontological perspective, this is, "the very nature and essence of things in the social world" (Mason, 2002: 14), that is relevant to this study is the "reality as a social construction" (Ryan *et al.*, 2002: 38), where reality is subjectively perceived, depending on human interaction, thus concerning on social actions and how individuals make sense of their everyday. Our choice by institutional theory as our theoretical lens is hence the result of such perspective. In particular, we adopt institutional theory as we wanted to understand how and why managers use management accounting within the organization. Connected to this ontological perspective, the epistemological perspective, that is the principles and rules by which social phenomena can be known and knowledge can be demonstrated (Mason, 2002), chosen was the interpretive one associated with case-based research. The research questions, set at the beginning of this work, drove our choice for a qualitative research design. The method used was an in-depth and longitudinal case study, as our purpose was to understand management accounting in hospitals in the context they operate, also allowing us to present a richer story and gather depth findings. Case study

research has been considered as suitable to investigate management accounting practices in complex organizational settings, such as that of the health care (cf. Scapens, 2004; Ryan *et al.*, 2002; Yin, 2009, 2014).

Health sector is characterized by institutional complexity (Greenwood *et al*., 2010; Greenwood *et al*., 2011; Luo *et al*., 2017; Kraatz and Block, 2008; Ramus *et al*., 2017), posing additional challenges for implementing, managing, and/or changing management accounting systems and practices.

Among these features, Abernethy *et al*. (2007: 805) highlight,

> "the complexity of the core operating processes; the control by dominant professionals of these core operating processes; the multiple and often conflicting goal sets imposed on the organization by both internal and external stakeholders; the highly politicised environment in which these organisations function (…); and organizational charters that typically preclude the use of monetary incentives as a mechanism for achieving goal congruence"

It is also the institutional complexity that characterises the health sector, that drove our attention and our choice for this empirical setting, because, it is "an ideal laboratory in which to study how the implementation of accounting systems can result in unintended consequences and to predict when these systems will and will not work" (Abernethy *et al*., 2007: 810).

Our choice for chapter three – "Institutional entrepreneurship and power: Responsibility centres in a Portuguese hospital" and chapter four – "Activity-based costing in mediating the paradox between competing institutional logics: The case of a Portuguese hospital", fell into the explanatory case study (Ryan *et al*., 2002; Scapens, 2004) since previously developed theory is used to understand and explain the social nature of management accounting change practices in the health sector. Chapter two depicts a descriptive study (*ibid*), because our goal was to describe the evolution of the funding policies of the public hospitals and the underlying cost systems implemented.

The case study research followed an interactive process of research steps as proposed by Yin (2009, 2014), Scapens (2004), and Ryan *et al.* (2002): (i) developing a research design; (ii) preparing to collect data; (iii) collecting evidence; (iv) assessing evidence; (v) identifying and explaining patterns; (vi) theory development; and, (vii) writing up case study research.

These stages were performed interactively, and were followed in the explanatory case studies (chapters three and four). The descriptive study (chapter two) did not include step (vi), since it was not intended to contribute to the broadening of the theory.

Regarding the first stage and after choosing the health sector as our broad empirical setting, we began to review existing research literature and to analyze the chronological events that have affected the sector in previous years. This allowed us to gain familiarity with the field. We have also conducted a pilot case study, from September to December 2010 in the hospital were we end up developing our case study in chapter three. This hospital was undergoing a process of organizational change, but which had not been widespread to the entire hospital structure, remaining confined to one of its services. This individual initiative was led by a physician, which directed us to the institutional entrepreneurship theory. This institutional change initiative ended up failing, thus our case study began to analyse the causes of this failure, then leading us to the academic research relating power issues.

In assessing the collected evidence, we saw that another management accounting change initiative failed to be implemented in this hospital, a project for activity-based costing implementation. However, in another public hospital, the project continued under the leadership of a hospital manager. This induced us to think that we were in the presence of a successful case of institutional entrepreneurship, thus, conducting us to the case study presented in chapter four. Yet, this project was also eventually abandoned; however, as we prepared to collect data, we realized that we were facing a context of greater complexity. The tensions between different logics that characterize this context: care and business logics, also influenced the management accounting change with the implementation of ABC technology. Thus, we knew that we would have to use institutional logics as our theoretical lens. With the development of our research, we realized that in order to obtain a greater explanatory insight we should also have to integrate paradox theory.

According to the previously defined objectives, the empirical work focused on the analysis of 43 interviews. The interviewees were the key players in the two case studies presented in chapters three and four. The groups were members of the Board of Directors, hospital managers and medical staff (doctors and nurses). We also interviewed: academics, whose academic interest is health policies; and responsible for other organizational structures of the Ministry of Health (MoH) with responsibilities in the area of hospital financing. This last group of interviews allowed us to contextualize the health reforms that occurred in both hospitals mentioned above, and in the Portuguese National Health Service (NHS) in general,

also constituting the basis for our case study of the second chapter. The interviews were previously planned through scripts designed for each type of interviewee.

In addition to the interviews, varieties of other evidence were collected and interpreted, allowing the use of triangulation, increasing data validity and reliability (Hopper and Major, 2007; Mason, 2002; Yin, 2009, 2014; Vieira *et al*., 2009, 2017).

Data was gathered from archival data, print artefacts and observation. Public documentation collected included the legislation issued by the MoH in the period between the creation of the Portuguese NHS until the present; government studies on the financial sustainability of the Portuguese NHS and on hospitals' restructuration; reports from the Portuguese and the European Observatory on Health Systems and Policies; Audit Court reports; media; and, information from the websites of the government and regulators and from hospitals. We have also analysed annual reports of hospitals from cases studies on chapters three and four, and contracts for hospital payment system (the '*contrato-programa*'). These complementary data were the basis to explore the organization and organizational field of our research setting.

The data analysis initiated with the development of a narrative account that chronicled the evolution and the reforms that were implemented in Portuguese NHS, since its creation until nowadays. As we proceeded with the data analysis, we performed a data reduction (Miles and Huberman, 1994; Miles *et al*., 2014), with activities that comprised the construction of chains of evidence, coding and creating patterns and categories. Lastly, we prepared tables listing issues frequently raised in interviews, which enhanced the identification of patterns and categories.

From this categorization of data, first-order themes emerged (cf. Gioia *et al*., 2012). Throughout our data analysis process, we proceeded iteratively between the data, the emerging themes and our theoretical framework. As our theoretical framework was reframed, the first categorization was revised. In the final phase we aggregated the existing categories into second-order themes and then into broader aggregate dimensions.

1.3. Organization of the thesis

The structuring of the thesis reflects the aspects earlier discussed in this chapter. In the continuation of this thesis, we developed three case studies followed by the final chapter referring to the final conclusions.

Chapter two refers to the first case study – "Management accounting change in Portuguese national health service". In this study, we trace the evolution of the Portuguese NHS since its creation until actuality. Our analysis directed towards the implementation of health sector reforms triggered by the need to contain cost increases in this sector. These initiatives were aligned with a business logic and led to the development and implementation of new accounting techniques. Our focus was the evolution of the funding policies of the public hospitals and the underlying cost systems implemented. These reforms incorporate an institutional change process, arousing our curiosity to understand its influence on actors and organizations.

The third and fourth chapters adopt a micro level approach, focusing on the management accounting change process within two hospitals.

Chapter three presents the second study – "Institutional entrepreneurship and power: Responsibility centres in a Portuguese hospital". It is a case study about a responsibility centre implementation led by an institutional entrepreneur. Drawing on Clegg's (1989) 'circuits of power' framework, this study demonstrates how power influences institutional change, boosting it and/or inhibiting it. On the other hand, in the fourth chapter we address "Activity-based costing in mediating the paradox between competing institutional logics: The case of a Portuguese hospital". This is a study about an activity-based costing implementation in a public hospital. ABC was considered as a fundamental part of the contracting process, in order to ensure that the contracting process is based on accurate costs calculation. It began as a governmental initiative covering several hospitals, however, shortly after its inception, this project was abandoned. Although it did not continue, the project had a peculiar development in our empirical scenario, surviving for a few more years. ABC implementation underlies a conflict between two competing logics: care and business logic. Combining institutional logics and paradox theories, this study analyses how actors deal with this complexity.

The last chapter is reserved to the conclusion of the thesis, summarizing the main conclusions of each study, including the theoretical and practical contributions, limitations of the study and the directions for further research.

CHAPTER II – MANAGEMENT ACCOUNTING CHANGE IN PORTUGUESE NHS

More care and more expensive care
is not necessarily better care.
(Kaplan and Porter, 2011: 5)

2.1 Introduction

Many studies conducted in different countries have sought to analyse the public reforms in the health sector and the role that accounting has performed, following demands for greater efficiency (e.g. Covaleski *et al*., 1993; Jacobs, 1998; Jacobs *et al*., 2004; Kurunmäki *et al*., 2003; Lehtonen, 2007; Llewellyn and Northcott, 2005; Norhcott and Llewellyn, 2003; Pettersen, 1999; Preston, 1992; Shaoul, 1998). Common issues pervade these studies, focusing separately areas, such as: cost accounting systems, contracting mechanisms, the role of managers and doctors; however, health policy is complex, covering different fields that are not, in fact, watertight themes.

The management accounting literature in the field of health sector reforms refers, mainly, to the case of developed Western economies (Abernethy *et al*., 2007). The aim of this study is to investigate the practices of management accounting in the health sector and subsequently to contribute to a greater empirical and theoretical knowledge within this field. The overall objective is to provide explanations to the challenges of implementing a market ideology within health reforms, in a different environment and context of prevailing studies, which is that of South-European countries. Therefore, we propose ourselves to conduct a research that covers in an integrated, holistic and coherent way, the interaction between different aspects that might have influenced the implementation of management accounting techniques in the Portuguese health sector, analysing factors that enabled or hindered the adoption of these measures in practice.

The transposition of a market ideology, which is associated with the private sector, to the public sector, has underlined a business logic. The implementation of health sector reforms under the umbrella of efficiency was a consequence of successive cost increases in this sector. However, despite consecutive political measures, health costs continued to increase,

questioning the relevance of those measures, and the effectiveness of the transposition of political intentions into practice. The literature review demonstrates a need for investigating whereas those changes constitute, in fact, a new management model paradigm or were limited to policy decisions without any real impact on performance in the national health system (Lapsley, 2008).

Our empirical setting is the Portuguese National Health Service (NHS), which has undergone major developments, under a reform that has occurred in many European countries. In Portugal, in the last forty years, several health reforms were implemented, not always mirroring one coherent and unique path. Health policies followed the development of the remaining public sector, where the growth of public spending, the consequent need for its restraint and public pressure, prompted the adoption of a set of measures. According to Simões (2009), there are two main driving causes for these health reforms: (i) exogenous contingencies, namely, political, economic and social conditions; and, (ii) internal environment, characterized by the overwhelming increase in health care costs. The rising of health costs has been a result of the aging of populations, new expensive technologies, the fact that health care services are labour-intensive, the forms of care organization and its financing, as well as population coverage and the universality of the access to health care services (Comissão para a Sustentabilidade do Financiamento do Serviço Nacional de Saúde, 2007).

Grounding on Dillard *et al*. (2004), we analyse the health sector historical evolution since Portuguese NHS creation. Our analyses focus at the political and economic level and at the organizational field context. Dillard *et al*. (2004) argue that institutional dynamics occur at three levels of social systems, being that most research has focused at the organizational field level, neglecting the societal and the economic and political levels.

This chapter also addresses a gap identified by Suddaby *et al*. (2013: 100), who presents the need of adoption of a more critical articulation of the role of history in institutions, because its absence results in a “flat and mechanistic understanding of institutions”.

In the remainder of the chapter, we address the evolution of health policies in the Portuguese NHS from its creation to the present day. Our focus is on the evolution of the funding policies of the public hospitals and the underlying cost systems implemented. We continue with the presentation of the research methods and methodology adopted, then presenting and discussing the case findings. The chapter ends with the conclusions and suggestions for further research.

2.2 Portuguese health policies

2.2.1. Portuguese NHS history

The Portuguese NHS dates from 1979, with a law[2] that established for the first time the universal right to health care and protection, opening the access to NHS to all citizens, regardless their economic and social condition. A Bismarkian model, where only employed citizens and their dependents, had health care protection through social security and sickness funds, was replaced by a Beveridge[3] model. Therefore, all national citizens had access to health care services, which according to the Portuguese Constitution should be free of charge.

Immediately preceding the creation of the Portuguese NHS, during 1974 and 1975, local, district and central hospitals previously owned by religious charities named *Misericórdias* were taken over by the Portuguese state (Barros and Simões, 2007). Until then, these structures were used exclusively for social welfare beneficiaries. Furthermore, in 1977 more than 2.000 medical units and health posts located all over the country were integrated and centralized in the new public health care services (*ibid*).

The new NHS is structured[4] at central, regional and local levels, therefore being an organizational structure decentralized, providing primary care services (community health centres) and differentiated care services (general and specialized hospitals).

With the democratization of the Portuguese NHS, a reality in which the costs were considerable inevitable, gave rise to a trend of growth in health expenditure that was higher than the overall growth of the economy. In parallel, we have witnessed successive state budgets, characterized by public expenses contraction concerns, which forced the adoption of new management perspectives in this sector (Simões and Dias, 2010; Barros and Simões, 2007; Simões *et al*., 2017).

The period between 1985 and 1995, was a decade where the Portuguese NHS began to denote an approach to the market ideology. In the Law on the Fundamental Principles of Health[5] and

[2] Law n.º 56/79, of 15th September – National Health Service Law.

[3] The Bismarkian model, first adopted in Germany in 1883, was based on compulsory contributions by employees and employers to health insurance. This was the first example of a social security system imposed by the state. The Beveridge model dates from 1942, from Great Britain. This model is based on tax receipt to fund public services. It is a universal system covering all citizens, being independent of the ability to pay of the patients (Simões, 2009).

[4] Article 18.º, Law n.º 56/79, of 15th September.

in the new NHS Status[6], it is established as one of the principles of the NHS, to have regionalized organization and decentralized and participated management. This reform followed the example of many European countries, who proclaimed decentralization as the solution to improve the efficiency in the service delivery, to increase the effectiveness in the resources allocation, to involve the community in health decision-making and to reduce inequities in health (Barros and Simões, 2007). Within this logic, the NHS is decentralized by the creation of Regional Health Administrations (RHAs), and it is promoted the development of the private health sector by the establishment of agreements with private entities to provide care. There are five RHAs[7] (North, Centre, Lisbon and Tagus Valley, *Alentejo* and the *Algarve*), which are accountable directly to the Minister of Health. They were established to ease regional implementation of national health policy objectives and to coordinate all levels of health care, delegating decisions and management authority closer to the NHS clients. However, all public hospitals and health centres still belonged to the central administration, with public funding, and centralized decisions in matters of staff management, investment decisions and organizational rules (Campos, 2004).

The Law on the Fundamental Principles of Health, also implies the diversion from the Beveridge model. The state has alienated its exclusive responsibility for providing health care. Citizens and society should also be held accountable. In practice, this means that even though being inspired in a Beveridge model, the Portuguese NHS was transformed into a mixed model, where the universal system covering all citizens, is not entirely funded by the state. Therefore, the access to health care services, previously characterized as 'free-of-charge' becomes 'tendentially-free-of-charge', taking into account citizens' social and economic conditions (Campos, 2008; Oliveira, 2010b). This legislation goes even further enabling the creation of private health insurances. Furthermore, it establishes that the management of health units should obey to corporate governance rules and, paves the way to the delivery of hospitals or health centres management contracts to private entities (Simões and Dias, 2010).

Public hospital status has been changing over the last years, adopting a diverse set of legal models. They had the status of public institution under the Ministry of Health (MoH), but according to Decree-Law n.º 19/88, 21st January, its management had to obey to business management, also prescribing the creation of responsibility centres at the intermediate decision level. In 1994 a new legal regime of the public hospital it is tested. It was awarded a

[5] Law n.º 48/90, 24th August.
[6] Decree-Law n.º 11/93, 15th January.
[7] Initially they were eighteen, but in 1993 they were reduced to five.

contract to manage an NHS hospital by a private consortium, the *Fernando da Fonseca* Hospital (FFH). This new management model was created in a turbulent period of political transition, therefore, it was not ensured its proper monitoring and control. Despite this, and other issues related to human resources and funding model, the FFH achieved increased management autonomy and flexibility, and a better sensitivity to the performance of the hospital (Simões, 2009).

Initially, after 1995, a health reform began to be prepared, whose main measures, especially the most controversial, were not implemented. This discontinuity of government health policies caused the temporary suspension of the market ideology. Notwithstanding such reforms' discontinuity, a number of initiatives have been taken in the context of this health reform. A contractual model was adopted. In that sense, public support was combined with a system of contracting between payers and providers functionally separated. In that sequence, contracting agencies[8] (initially named 'Accompanying Agencies') were created in each of the RHAs. These agencies are responsible for clarifying the health needs, ensuring the best use of public resources for health, potentiating the efficiency and equity in health care to be provided. Moreover, an experimental payment scheme, based on performance to boost general practitioners' productivity and satisfaction, was tested; and, a new model of hospital management was introduced, where human resources and procurement of goods and services, were conducted under private management rules, but, maintaining the public management status (Simões, 2009; Simões and Dias, 2010). Three hospitals[9] were created with a new legal format, which subjected them to private management rules.

From 2001 and forward, market ideology is retaken, assuming the state, an increasingly important regulating role (Simões, 2009). Since 2002, the governance of public hospitals began an approach to a business management system, being promulgated new regulations[10] for hospital management, despite being foreseen by the legislator since 1968[11]. Under this new hospital management model, it is opened the possibility of creation of health units as

[8] Normative Order n.º 46/97, 11th July.

[9] The three hospitals created under this new legal model were the: *São Sebastião* Hospital, with the granting of its management to a private company; *Unidade Local de Saúde de Matosinhos*, integrating the *Pedro Hispano* Hospital and the Health Centers of the municipality of *Matosinhos*, it was a unit with public management of the business type, created with the intention of fostering coordination between these health units and with other institutions of this geographical area; and, *Barlavento Algarvio* Hospital.

[10] Decree-Law n.º 39/2002, of 26th February and Law n.º 27/2002, of 8th November – approve the new legal regime of hospital management, predicting in the status of the health professionals from the NHS, the system of individual employment contract; and, Decree-Law n.º 185/2002, of 20th August, which regulates health partnerships, under private management and financing.

[11] Article 35.º of Decree n.º 48357, of 27th April of 1968 - Hospital Status, which provided the organization and administration of hospitals "in terms of corporate governance".

publicly-owned private firms, known as '*Sociedades Anónimas*' (SA) hospitals. The state leaves the function of health provider, just supporting the financing by the payment of health services provided by these business entities.

The legal new legal status of hospital management[12], typifies hospitals in five legal nature models: (i) public establishments, with legal personality, financial and administrative autonomy, with or without patrimonial autonomy; (ii) public establishments, with legal personality, patrimonial, financial and administrative autonomy, with management nature; (iii) SA hospitals with public capital; (iv) private establishments with whom a contract it is signed; and, (v) institutions of the NHS managed by public or private entities, with a management contract. Thirty-four hospitals adopted the SA model, reaching efficiency gains with the change of management rules (Barros, 2009; Vaz, 2010; Simões *et al*., 2017).

The transformation of the legal status of hospitals was complemented with the amendment of the rules governing hospital management in order to ensure business management regime for hospitals. Substantial changes were implemented at the level of those responsible for hospital management, to guarantee a 'shared responsibility for management'. Therefore, the appointment process of the heads of technical management bodies (clinical director and nurse-director) was changed and the hospitals procurement processes were made more flexible, bringing it closer to the private law regime.

Moreover, in 2002, a framework for the implementation of public-private partnerships for health facilities was created, encouraging the private sector to participate in the management and financing of public hospitals. The basic principles and instruments that guided these partnerships, was that these hospitals should have private financing, with the participation of the private sector in the design, construction, and operation of hospital units of the NHS. Therefore, there is the transference of the financial risk from the state to the private sector for a long period of time as previously agreed, after which the hospital control returns to the public sector (Barros and Simões, 2007).

In the following year, the network for primary health care was established, aiming to provide comprehensive health care to citizens. This network besides being articulated with the hospital health care and continued health care services, it is also connected to private and social organizations (Decree-law n.º 60/2003, 1st April).

From 2005 to 2009 a new phase of reforms took place, characterized by the "demand of a combination between maintenance of the NHS ideological reference and efficiency gains

[12] Law n.º 27/2002, 8th November - Legal status of hospital management.

under the NHS itself" (Simões and Dias, 2010: 184). The number of hospitals with business management model increased, being adopted a new legal statute, the '*Entidades Públicas Empresariais*' (EPE) hospitals, to signal that there was no intention of privatization. What changed was just the management model, keeping intact the responsibility of the state for the provision of health care.

However, the adoption of these new management models has not been accompanied by the implementation of evaluation mechanisms, especially with regard to the provision of public services that have been privatized. Even where evaluation mechanisms have been established, such assessments have proven to be ineffective, therefore, and as it is noted in the report from Portuguese Observatory of Health Systems (Observatório Português dos Sistemas de Saúde, 2009: 60):

> "Omissions of state, when public interest is at stake, in the widest sense of term, results in mistrust and insecurity, to the extent that there is no effective regulatory system that ensures and guarantees the pursuit of health objectives".

Between 2006 and 2007, a national network of integrated continuous care was created to address the population aging, the increased life expectancy and the growing prevalence of people with chronic diseases. In this period, it was also allowed the selling of over-the-counter (pharmaceuticals) products in other authorized establishments (i.e. outside pharmacies). The first family health units emerged, giving shape to the reform of primary health care, bringing closer patients to general practitioners (Barros and Simões, 2007).

From 2009 until 2011 the government gives priority to the consolidation of the reforms in the primary health care and the integrated continuous care. Furthermore, another guiding principle of this government is the improvement of the quality of results, correcting the inequities that remained, focusing on efficiency, gains in access to health care and, ensuring the sustainability and accountability of health professionals. The state reinforced its regulatory role in the private health sector, promoting the competition among providers of health services.

Notwithstanding the above, the corporatization of the Portuguese NHS did not result in good management practices, persisting the lack of transparency and accountability in the decision-making process. Moreover, the patient and the quality of health care services provided were transferred to second plan, being that the performance improvement and cost containment are only feasible in the context of clinical excellence (Ministério da Saúde, 2010).

In 2008, the financial crisis that began in the United States, had repercussions on the economy of the European Union countries. Its effects were particularly disastrous for the Portuguese economy, forcing this country to ask, in 2011, for financial assistance from the so-called Troika, consisting of the European Commission, the European Central Bank and the International Monetary Fund. In return there was a commitment from national authorities to implement an unprecedented austerity plan. In the Portuguese health sector savings were made by reducing the NHS budget, there was a concentration and rationalisation of medical facilities, and human resources expenditures were cut. The repercussions of these measures were felt in the reduction of the available resources and on the implementation of an increased control. The assessment of the financial assistance program of Portugal, in 2014, found that the reforms carried out in the health sector have led to a reduction in spending on the NHS at around 1.500 million euros, 15% less than in 2010 (Observatório Português dos Sistemas de Saúde, 2014).

Notwithstanding the trend towards a centralized control was already noticeable, its effect was, however, more pronounced after the financial crisis.

Between the year of 1999 and 2011, twenty-five hospital centres were created (Entidade Reguladora da Saúde, 2012). These centres aggregate different hospitals with the aim of resources rationalization, reorganizing hospital capacity with the centralization of health care delivery (Observatório Português de Sistemas de Saúde, 2006). Moreover, in 2010 it was created the 'Shared Services of the Ministry of Health', with the attributions of providing specific shared services in the health area on purchasing and logistics, financial and human resources to NHS facilities and services. Therefore, the responsibility for these strategic services no longer belonged to the state and to the NHS entities, being guaranteed by a single supplier for all of the health system entities. This measure allowed the release of hospitals to focus on the performance of its nuclear activities: the provision of health care services for citizens, but, simultaneously it reduced at a large extent its degree of freedom in decision making. A year later[13], there was a strengthening of the control mechanisms and monitoring by the central services of the Finance and Health Ministries, by modifying the recruitment procedures, selection and appointment in senior management positions in public administration. The human resources cost control was even tighter by restricting hospitals' ability to the award or renewal of employment contracts for the provision of services by health professional; with the non-authorization to carry out overtime; and, the unfeasibility of

[13] Law n.º 64/2011, 22nd December 2011.

distribution of financial incentives. Also, in 2012, a new legislation, known as 'the commitments law'[14], states that it is not allowed the assumption of commitments that exceed the available funds (and as such it is considered the funds available in the very short term, i.e., three months). The assumption of multi-year commitments, irrespective of its legal form, is subject to prior authorization (a joint decision of the finance and health ministers). This measure also limits the managers' performance by constraining their management framework to a very short-term period.

The health sector, although usually averse to change (Reihlen *et al*., 2010; Scott *et al*., 2000), entered in a reformist phase due to the imperativeness of cost reduction. Market-based mechanisms were introduced in the Portuguese NHS and in hospitals organization. However, the corporatization of public hospitals was at odds with its decentralization being mainly normative, confined to changes in hospitals legal status (Observatório Português de Sistemas de Saúde, 2006). There was no development on internal hospital organization, keeping the lack of transparency due to the strong influence of professional groups (doctors) (*ibid*).

2.2.2. National context: hospital's financing system

As mentioned, health policies in Portugal evolved from total gratuity and universality after NHS creation to a mixed system where there is a co-responsibility of the state, society and the citizens. Therefore, the funding is provided by the state; by citizens according to their social and economic status (through user fees); and, by insurers and health subsystems. The argument of the financial sustainability of the NHS is combined with the ideology that socio-economic development of a society is not an exclusive responsibility of government (Harfouche, 2016). Following this policy, the main health subsystem, which existed before the NHS creation, was reformulated in 1983. In that date, it was approved that subsystems should pay for services provided by the NHS to their beneficiaries. The immediate implication of this change was the need for settling the prices for health services so that the health budget could incorporate these revenues. The absence of appropriate management accounting information regarding the definition and costing of services provided by hospitals, implied the adoption of an alternative tool, the diagnosis-related groups (DRGs) (Fetter and

[14] Law n.º 8/2012, 21st February 2012. This law establishes that commitments are obligations to make payments to third parties regarding the supply of goods or services. The commitments are considered as being made when a formal action by the entity is performed, such as the issuance of a purchase order.

Freeman, 1986). DRGs were first introduced in Portuguese hospitals through a pilot study in 1984. Portugal was the first European country to begin operating a DRG-based payment system from 1999 onwards (Santana, 2005). The MoH had the objective to increase transparency (Geissler *et al*., 2011), but on the expenditure side of the health budget, DRG solution also has become urgent given the need to rationalize the allocation of funds to hospitals (Mateus, 2011).

Until the 2000s the system of funding hospitals was based on a retrospective payment system. This meant that hospitals were reimbursed in full for all health service costs. Using historical costs has resulted in situations of underfunding and disincentive against objectives previously established (Barros and Simões, 2007; Simões, 2009). Frequently supplements were needed for covering overspending, which created the perception of lack of financial constraints between doctors and other professionals (Mateus, 2010).

With hospitals' corporatization process, the reimbursement of expenses was replaced by a prospective payment system, based on average prices in homogeneous groups of hospitals. Hospitals started being reimbursed by pre-determined rates for health care services. If the actual cost of those services exceeded those rates, the hospitals were expected to absorb the loss (Lehtonen, 2007). On the hospital management side, the use of DRGs has also been advocated as a tool for understanding and controlling the health costs, therefore improving efficiency (Fetter and Freeman, 1986; Lehtonen, 2007).

Regarding the DRG process, when accounting for hospital production, the main obstacle that arises is that in the extreme case, the number of hospitals' production lines is equivalent to the number of patients and clinical procedures. To transpose the difficulty resulting from this complexity, acute[15] hospital inpatients were classified according to common clinical characteristics (diagnosis and procedures) that consume similar level of health resources, thus defining hospital products (Fetter and Freeman, 1986; Quentin *et al*., 2011). Diagnoses and procedures are coded in hospitals according to standardized classification systems. In Portugal, the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) database of diseases classifications, was used as the starting point to obtain this DRG categorisation. To cost each DRG, Portugal adopted the relative standardised cost weights incurred by hospitals operating in the state of Maryland in the United States ('Maryland matrix'), with some adjustments on the basis of costs occurred in the Portuguese NHS hospitals, to calculate Portuguese prices. These relative weights express the relation of

[15] Hospitals are classified according to the situation in the disease as acute or chronic.

each DRG with the remaining ones. Summarizing, the greater is the relative weight of a DRG, more significant is the consumption of associated resources. To calculate the average cost of each DRG, the total of the inpatient costs are allocated to each DRG, using the 'Maryland matrix' and according to the information of patients' lengths of stay in hospitals (Tan *et al*., 2011).

The complexity of the health care services provided and the level of resources required is transposed by the case-mix[16] (Simões, 2009; Vaz, 2010). The case-mix represents the average weight of each DRG, depicting the expected cost of a typical patient in a DRG compared to the mean cost for all the DRGs in all NHS hospitals.

Since 2002, the new experimentalism derived by innovative hospital management models, boosted the health contracting in Portugal (Ferreira *et al.*, 2010). Following the transformation of many NHS hospitals into corporate entities, the hospital payment system has evolved into a contract-based approach (called '*contrato-programa*'). Health policies focused on splitting of the provider-purchaser of health care services, following a broader path towards more efficient resources utilization due to financial pressures to cost reduction. The aim was to encourage competitiveness, flexibility and to promote transparency and responsiveness to patient necessities. In practice, the MoH abandoned its role as provider and became the buyer of health services, and therefore, the definition of the prices to pay for these medical acts, assumed an increasing relevance.

Through 'c*ontrato-programa*' the hospital commits to a certain level of health service activity, were negative financial results should be internally supported by the hospital (Barros *et al.*, 2011). The amount of funds to be paid depends on the contracted price (based on DRG costs) adjusted to the case-mix index, and the activity carried out expressed in equivalent patient terms[17], reflecting the level of resources consumed (health delivery activity). In activities without defined DRG (e.g. Outpatient, Emergency and part of the Day Hospital), the amount of reimbursement results from the production agreed and the unit price set by the MoH.

The medical acts payment to hospitals lies on an approved price list, common to groups of hospitals with resembling characteristics. Since structural factors (e.g. size, technology

[16] For further details on DRG and case-mix accounting, see Covaleski *et al*. (1993); Fetter and Freeman (1986); Preston (1992); Ridder *et al*. (2007); and, Thompson *et al*. (1979).

[17] For hospital funding calculation, inpatient episodes are transformed into equivalent. Therefore, in each DRG, outlier episodes (short and long-term stay) are converted into normal episodes, by dividing these episodes to the average length of stay for each DRG. The final budget results from the aggregation of the inpatient budget, calculated as mentioned above, and the budget for ambulatory services (when the patient stay for less than 24 hours) (Mateus, 2010).

acquired by hospitals, location of the hospital, type of hospital, etc.), which are not reflected in the case-mix index, could be relevant to explain hospital costs, four clusters of hospitals were identified. These contracted prices, although basing on DRGs costs as mentioned above, and being updated with the expected inflation rate for the year in consideration, are downward adjusted, in order to encourage hospitals to be efficient. The annual prices review is not faithful to the evolution of costs, being limited by budgetary constraints at the expense of efficiency targets that are only possible when there is a thorough knowledge of the costs of health services (Tribunal de Contas, 2011).

The financing process initiates with the allocation of the health budget to each RHA by the MoH. The initial phase of the contracting process is the negotiation between hospitals and the Central Health Care System Administration (ACSS)[18], a departmental agency of the MoH, supported by the RHAs. The goal is to approximate the offer to the health care needs, taking into account the budgetary constraints. The MoH, through ACSS is, thus, empowered with the strategic coordination of production levels and valences of the various hospitals according to the populations' needs.

In order to operationalize the risk sharing associated with lower or higher production than the contracted, the state established penalties and incentives for hospitals. If a hospital exceeds the level of production that has been agreed, the marginal production is paid up to a prescribed limit (usually 10% of contracted production), from which the price suffers severe penalties. From this limit, the production it is not paid. It was believed that this measure would discourage hospitals' production above the contracted amounts, thus allowing the control of hospital costs obeying to the restrictions of government budgets, and simultaneously, reducing hospital's inefficiency needs (Ribeiro, 2004). Likewise, penalizations were predicted in order to prevent production levels significantly below the contracted volume (usually when production is 50% less than the volume agreed in the contract, there is no payment). In fact, these rules regarding marginal production led to lower unit prices of health services as the real hospital production is higher than the volume within the contract (Tribunal de Contas, 2011).

As the NHS hospitals did not have equal efficiency development, an additional instrument for reimbursement was designed, the 'convergence value'. This value had the purpose of enabling economic and financial sustainability of hospitals in fulfilling its obligations within the NHS,

[18] ACSS mission is to ensure the management of financial and human resources of the Ministry of Health and the NHS, as well as the NHS patrimonial resources. The ACSS is accountable for the definition and implementation of policies, regulation and health planning, in collaboration with the RHAs, namely in the area of health service contracting.

taking into account the gap between operational costs and contracted prices for each production line[19]. This value is, by nature, exceptional and temporary being linked to the accomplishment of a performance plan. It is related to the provision of health services with a strong social impact, despite not having an underlying economic rationale.

To objectively measure hospital performance and the execution of the signed contract, it was developed a set of indicators (performance indicators, health service indicators and, indicators of data quality), which also enable the benchmarking across hospitals (Mateus, 2010). The rationale behind hospitals performance benchmarking is that this exchange of information could lead to greater efficiency and improved quality of health care (Jones, 2002). However, as Abernethy *et al*. (2007) found, there is a gap in empirical research that can support these assertions.

Following the increasing levels of accountability of hospital managers, also the realization of the negotiated level of performance is rewarded by the attribution of incentives to hospitals that can reach 5% of the total financial resources negotiated. To access the level of compliance of these contracted indicators, and to ensure greater consistency and equity in the assessment process, it was developed a global performance index. This indicator was preconized to analyse the overall performance of each institution, corresponding to the sum of the weights of compliance of each indicator. The degree of compliance of each indicator is adjusted by a weighting in order to eliminate outliers. As reported by Llewellyn and Northcott (2005: 561), referring to a similar index implemented in British hospitals to report their costs "…hospitals become a '79', a '100' or a '121'. A single number on a comparative Index has the power to represent the complexity and ambiguity of the external 'reality' of patient episodes, clinical procedures, activity costs and hospital performance".

The most relevant outputs are publically disclosed on a monthly basis by the ACSS in order to encourage hospitals to assess their performance relatively to other hospitals. Furthermore, this transparency of economic and financial situation of hospitals, acts as an influencer to reduce costs and increase performance as it is information that is publicly available.

From 2008 and forward there was a change in the pricing policy for some diseases, the so-called comprehensive price. This methodology was initially adopted in the fields of HIV-AIDS and dialysis, and subsequently extended to other diseases, like, multiple sclerosis. In 2013 the comprehensive price was also extended to oncological diseases, namely, breast

[19] The health care services contracted are grouped by activity lines (surgical and non-surgical inpatient, surgical and non-surgical ambulatory services, outpatient encounters, emergency, day care, home care and other services).

cancer, uterine cancer and colon and rectum cancer. This new payment model translates payment by treated patient per month, rather than the payment based on DRGs. This price is the average cost for treating each patient, encompassing the set of clinical instruments and medication, according to previously defined clinical standards and therapeutic protocols (Escoval *et al*., 2010a).

Several challenges still remain on the Portuguese health contracting process. Hospitals financing process continues to be asymmetric (hospitals with underfunding along with others with over-financing). It remains a mismatch of pricing methodologies and the absence of complete and reliable information on the actual costs associated with the various hospitals' activities. According to the Tribunal de Contas (2011) audit report regarding the payment system and formation of prices paid to hospitals belonging to NHS, the price adjustment mechanisms to differentiate hospitals' structure and activity have not proven to be sufficient. The casuistry of each hospital has not been assured because the case-mix index had no significant changes over the years, consisting primarily, of historical values. There is also a long way to go to save on costs in a number of situations where there is waste of resources. However, the dominant trend is the underfunding of hospitals and consecutive price reductions due to financial pressures, unrelated to efficiency criteria (Observatório Português dos Sistemas de Saúde, 2012). The source of the problem it is more upstream, relapsing on non-uniformity on the costing approaches of hospitals.

2.2.3. Evolution of costing in Portuguese hospitals

When the Portuguese NHS was created, public accounting was a budget accounting, based on the administrative codes, and the rules of the state budget law. Its main purpose was to demonstrate that public bodies applied the financial resources allocated to them under the terms approved by the budgetary authorities, thus respecting budgetary control and compliance with the law. It was a cash accounting, since it only highlighted the financial flows of inflows and outflows deriving from budget execution, using the unigraphic method or 'simple departures', where each event is recorded, either at debit or credit, of only one account (Rua and Carvalho, 2006). This regime remained in place over a long period and was only questioned with Portugal's entry into the European Union in 1986, however, the public accounting remained broadly unchanged until 1990.

In 1990, a public administration reform began, with the approval of the Basis Law on Public Accounting[20]. Within this law, the financial regime has two basic configurations: (i) administrative-financial[21] autonomy, as an exceptional regime; and, (ii) administrative autonomy. The services and organisms with administrative autonomy could continue to use cash accounting, and should also implement a cost accounting system to evaluate management results. Under the exceptional regime, it was established that these organizations should use the accrual system and the digraph method based on the official accounting plan applicable to banking institutions or other appropriate official plan.

In 1992, a new state financial administration regime (RAFE)[22] was created, whose main objective was to develop the principles established by the Basis Law on Public Accounting, replacing 31 fundamental diplomas of public accounting, dating the oldest from 1908. RAFE created the necessary conditions for the appearance of a new public accounting system materialized in the official plan of public accounting (POCP)[23], in 1997. In the period leading up to the publication of the POCP, several sectorial accounting plans were approved (official accounting plan for local authorities, official public accounting plan for the education sector, official accounting plan of the health ministry and official accounting plan for the institutions of the solidarity and social security system). This led to a lack of harmonization on public accounting, making it impossible to obtain consolidated financial information for the entire public sector. With the approval of the POCP, sectorial accounting plans were abolished and all central, regional and local administration bodies were required to implement an integrated budget, equity and analytical accounting system. After the basic rules of public accounting were standardized, new sectoral plans were approved. Therefore, in 2000 it is published the official accounting plan of the health ministry (POCMS)[24]. This plan incorporates the budget, financial and management accounting, taking into account the specificity of the NHS and the MoH, adapting the POCP to this sector. This sectorial plan also provides, as mandatory the application of the cost accounting plan for hospitals (PCAH).

The calculation of the hospital's costs is thus, based on the POCMS and on the PCAH. The process begins with the allocation of direct resource costs to the main (production) cost centres (e.g. inpatient services, and ambulatory services), auxiliary (service) cost centres (e.g. clinical support cost centres, such as operating room, anaesthesiology, diagnosis and

[20] Law n.º 8/90, of 20th February.
[21] This scheme covers services whose own revenue exceeds 2/3 of the total expenditure or there is a constitutional imperative.
[22] Decree-Law n.º 155/92, of 28th July.
[23] Approved by Decree-Law n.º 232/97, of 3rd September.
[24] Ordinance n.º 898/2000, of 28th September.

therapeutic tests, and other clinical general support centres; and, auxiliary general support sections, such as facilities and equipment service, and accommodation services) and administrative support cost centres (e.g. technical and administrative services).

To allocate the costs of the auxiliary (service) cost centres to the main cost centres, PCAH stipulates the use of the 'simultaneous equation method', where the distribution of costs takes into account the reciprocal relation between cost centres. The unit costs are the value that results from dividing the total cost of each cost centre and the respective unit of production. Hospitals send the outputs of this cost accounting system to ACSS, which compiles the cost information for each type of cost centre. However, this method of cost allocation based on cost centres, precludes the calculation of costs per DRG and per patient, which are the basis of the financing system through '*contrato-programa*'. This inefficiency results in a disregard for cost accounting by hospitals, because as the Court, responsible for public auditing, found on its auditing report, cost accounting exists due to legal requirements, not being used as a management tool (Tribunal de Contas, 2011). Furthermore, the outputs from different hospitals were inconsistent, reflecting the lack of standardization of accounting criteria between hospitals, reducing the reliability of cost accounting (*ibid*). One reason for this inequality in accounting procedures derives from the lack of a common information system. Moreover, data quality it is also affected by the discretionarily of clinical coding and data collection capacity. Although there is a common accounting official plan for hospitals, the POCMS, in practice, still remains a variety of accounting principles and procedures, which has reflections on DRGs as the cost weights do not reflect the actual cost of treating patients (cf. Abernethy *et al*., 2007; Tribunal de Contas, 2011).

The accuracy of the costing system is vital to the success of the contracting process (Järvinen, 2005), whether with external, or internal entities when transposing the contracting process for the hospital services. In order to overcome this limitation, obtaining more reliable information about the costs of the services delivered by the hospitals, it was initiated a project for the implementation of the activity-based costing (ABC) technology in public hospitals in 2007, the 'SCAH' project (Borges *et al*., 2010). The project was developed in partnership with an external consultant firm, Deloitte Portugal. Initially it involved five pilot hospitals[25] (Borges *et al*., 2010), and was expanded in a second phase, in 2008, to more six hospitals. These hospitals were selected from the different RHAs, according to different characteristics (e.g. size, expertise, complexity) in order to assure the heterogeneity of the selected group.

[25] *Santo António* Hospital, *Infante D. Pedro* Hospital, *Santa Marta* Hospital, *Baixo Alentejo* Hospital Centre, and *Barlavento Algarvio* Hospital Centre.

However, shortly after being implemented, the project was abandoned by the MoH (Tribunal de Contas, 2011).

ABC has the advantage of determining costs by activity, identifying those who have more weight on the cost of each therapy. This process analysis also allows the reduction of process variations and the elimination of activities and processes that do not improve the outcomes (Kaplan and Porter, 2011). ABC adoption was also held by the need to compare practices and inherent production costs among hospitals, highlighting the activities that incorporate the higher costs and hospital practices that are more efficient. Nonetheless, and according to Borges *et al*. (2010), the main goal for the ABC implementation was to encourage hospitals' efficiency. By knowing the impact of activity costs, it would be possible to develop and decide about different production scenarios. Moreover, giving transparency to the costs of hospital activity makes them more perceptible by those responsible for treating patients, increasing their awareness about the costs involved. So, ABC implementation in hospitals also encompassed the aim of changing organizational culture towards a more cost conscious approach.

The model advocates that costs (e.g. human resources costs, medicines, supplies, facilities and equipment, water, electricity) are assigned to activities (e.g. activities oriented for patients and support activities, such as, administrative activities), according to the way resources are consumed by the activities, through the resources cost drivers (e.g. number of labour hours). The activities costs are then imputed to the cost objects (e.g. inpatient services, consultations, surgery), based on their use of activities, by the activity cost drivers (e.g. time spent doing an exam, number of days in the inpatient service, number of patients).

Costs are classified as direct, common, joint, and, excluded costs. Some costs are directly attributed without using any cost driver as they relate to a particular cost object (e.g. direct costs of the inpatient services activity are traced to the cost object of inpatient services). Costs are attributed on a cause and effect relation. However, it was not possible to establish those relations to all costs, as it is the case of the common and joint costs. Those costs were assigned according to their weight on the calculated costs of the cost objects. Therefore, the common costs were attributed across all cost objects based on the cost each on represents.

The activities are structured according to the typical and common hospital procedures (e.g. urgency, and, outpatient consultation), aiming to allow comparisons between hospitals. Regarding the cost objects, SCAH defines two types: (i) elementary, respecting clinical acts, attributed to final cost objects (intermediated costs, as the inpatient service); and, (ii) final, which is the aggregation of diverse clinical acts/elementary cost objects. The unused

overcapacity was not object of treatment under this system. This implies that in hospitals with overcapacity, the inherent activities are more expensive, because it was not considered the marginal cost for the use of that capacity. Moreover, it is also not included in the analysis the associated cost for providing a public service. If only the economic rational was under consideration, those activities would be abandoned.

The SCAH implementation process was developed in five stages: (i) planning and nomination of the project team from each hospital; (ii) model adjustment; (iii) collection and treatment of the information; (iv) implementation and reporting; and, (v) data interpretation and communication. Project teams training occurred along the implementation process, being complemented with the on-the-job training during the final stage. The main objective was to develop project teams to manage the system so that it could remain independent from external consultants at the later stage of the implementation phase. The implementation team incorporated elements from different levels in order to involve them in the implementation of SCAH. The project had the support of top management, the hospital Board of Directors of each hospital, who along with elements of the clinical board and nursing, and, Deloitte representatives composed the monitoring committee. The project management team consisted of hospital managers and Deloitte consultants. Finally, the main project team was composed of technicians from the economic and financial area from hospitals and from the consulting firm; and, the follow-up project team was composed by hospital's doctors and nurses.

Unexpectedly the project for implementing SCAH on Portuguese hospitals was abandoned. Tribunal de Contas (2011) points out some of the potential reasons for this failure. First the heterogeneity of the selected sample of hospitals, which in addition of not being representative, limited the comparability of the calculated costs. Although the use of samples may decrease the costs of collecting and processing information, it also requires further considerations about the representativeness and the optimum size of the sample (Chapman *et al*., 2013). Furthermore, it was identified methodological constraints respecting to asymmetries on the methodologies developed for the calculation of costs; and, crass errors in the cost accounting system, which formed the basis for the project, without necessarily have been corrected (Tribunal de Contas, 2011). Another difficulty relates to the services of the external consultants who besides have been considered extremely expensive, did not provide a close and consistent follow-up to all pilot hospitals (*ibid*). Other recurring explanation for the ABC implementation failure was doctors' resistance to management duties aggravated by their fear of losing autonomy and power (cf. Northcott and Llewellyn, 2003; see also, Major and Clegg, 2019). ABC exposes clinical activity and allows the control of medical work.

After 18 years since the creation of the POCP, there is an outdated, fragmented and inconsistent accounting standardization for the public sector. In 2009, a new accounting standardization system (SNC)[26] for the private sector was implemented, in the sense of transposing for national law the international accounting standards[27]. This implied that POCP was based in national laws, meanwhile, revoked (official accounting plan (POC) was the conceptual and reference bases of POCP, but in the meantime it was revoked by the diploma that established the SNC). This resulted in an increased inconsistency and fragmentation with public organizations adopting the IAS/IFRS (which is the case of some public companies), the SNC (which includes most public companies and non-profit entities), the POCP or the different sectorial plans.

This fragmentation affected the efficiency in the consolidation of accounts in the public sector, entailing many adjustments that are not desirable, questioning the reliability of the information. To overcome these limitations, in 2015 a new accounting official plan for the public sector was established, the SNC-AP[28]. It contemplates the subsystems of budget accounting, financial accounting and management accounting. SNC-AP is based, namely, on: (i) a conceptual framework for public financial information; ii) in public accounting standards converging with IPSAS; iii) in models of financial statements; (iv) a rule on budgetary accounting; v) a multidimensional chart of accounts; and, (vi) a management accounting standard. Regarding the management accounting standard (NCP 27), it establishes the basis for the development of a management accounting system in public administrations, defining the general requirements for its presentation, providing guidelines for its structure and development, and providing for mandatory minimum requirements for its content and disclosure. Interestingly, this standard recommends the adoption of ABC in public organizations. Given the increasing complexity of activities and services of public organizations, ABC is depicted as the most suitable method to the reality of public authorities whose services are focused on citizens and their needs.

[26] Decree-law n.º 158/2009, 13rd July.
[27] International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS).
[28] Decree-law n.º 192/2015, 11th September which approves the accounting standardisation system for public administrations (SNC-AP), transposing the international accounting norms for public sector (IPSAS).

2.3 Research methods and methodology

The chapter first undertakes a chronological examination of the Portuguese NHS history since its creation until the actuality. The research strategy that we have adopted to conduct this investigation is a longitudinal case study. Our choice focused on the need to understand the health sector field characteristics and how policy-makers influenced costing practices at Portuguese public hospitals. By analysing the observed changes in costing practices within their historical, social, economic and organizational contexts, we were able to fully comprehend the complexity of these organizations (cf. Scapens, 2004, 2006; Ryan *et al*., 2002; Dillard *et al*., 2004).

The case study began by the preliminary exploration of previous research on Portuguese NHS change. Our goal was to find relevant research focus and questions that warranted further examination. As we conducted our analysis we started to detect influences on the logics of health policy-makers in the Portuguese public hospitals' financing system.

After our preliminary analysis, we supplemented our field data collection with government publications; media articles; reports from the Portuguese and the European Observatory on Health Systems and Policies; Audit Court reports; laws governing the Portuguese health sector since the 1970s; and, information from the website of the MoH. This analysis allowed us to gain contextual knowledge about NHS reforms initiatives. Our findings were validated against comments from key actors in the field. In this respect, we have conducted semi-structured interviews with politicians, academics and top managers from health organizations. A total of ten interviews, generally lasting between 30 to 60 minutes, were conducted (see appendix I for details on the interviews). The interviews sought to explore how different actors perceived the main changes occurred in the health sector in last years, and the impact of those reforms in the change of accounting practices within hospitals.

Our research was guided by analysing the Portuguese NHS reforms that had influence on the hospital's financing system and the resulting evolution of costing in public hospitals.

2.4 Discussion and conclusion

The Portuguese NHS creation democratizes the access to health care services under a logic of total gratuity to users. As health care costs became unbearable, reforms began to be implemented, following the path of many other European countries. These successive reforms

underpinned the intention to bring the public sector closer to the private sector and the business logic. The innumerable legislative changes that affected the sector had as a guideline the decentralization of the organic structure of the MoH. This aimed to improve the efficiency and effectiveness in the service delivery, reducing inequities in health, and to involve and co-responsible the hospital managers in health decision-making. However, in the opposite direction, numerous legislative measures have been implemented towards a centralized control (Campos, 2004). The consequent loss of decision-making capacity on the part of the governing bodies of the hospitals has implications that, in the long term, could become the cause of cost-generating that health policies have been trying to avoid.

Another paradigm that was changed occurred with the replacement of funding to hospitals on the basis of historical budgets to a contract-based approach. The contract-based approach implementation aimed to improve the performance of health care service providers. Responsibility for health care, and the inherent risk, is now shared between the state and the hospitals, which have the incumbency for providing a specific volume of health services, with a given degree of quality at negotiated or regulated prices. However, the introduction of a business logic in the health sector, for instance, with the change of the state as health provider to purchaser, did not had as a result the implementation of a market as in the private sector. As Abernethy *et al*. (2007: 808) then predicted the failure of this internal competition was a result of

> "providers of health services do not necessarily aim to maximise profits; consumers of health services do not exercise choice concerning purchasing decisions but rather these choices are made by a third party (central funding authority) acting on their behalf; and funding authorities have limited bargaining power in purchasing required health services".

The adoption of prospective payment system aimed replacing the inequity in the distribution of health care resources between health organizations. Hospitals' funding based on historical data was, allegedly, corrected by the implementation of DRGs and case mix accounting. However, cost accounting in hospitals has been criticized for being inaccurate and for misrepresenting the costs hospitals support.

Furthermore, the definition of prices by the ACSS does not reflect the actual costs and outcomes of hospitals, as noted by the Tribunal de Contas (2011). Unit prices of internment and ambulatory are based on the total costs per equivalent patient, calculated from the hospitals' cost accounting. ACSS receives from hospitals data regarding costs per cost centre

in order to calculate the costs of DRGs. The prices established in the contracts for inpatient and outpatient surgical procedures are thus, a weighted average of the costs per DRG calculated by the ACSS. However, the ACSS establishes the prices of hospital services at a price slightly lower than the average value of the costs per DRG in order to introduce incentives for efficiency and effectiveness in hospitals. Hospitals in which costs were higher than the prices paid, would have to improve performance in order to decrease the cost of services provided. In practice this does not happen, and overspending has to be borne by the MoH because, as public hospitals, the figure of bankruptcy does not apply. Those responsible for hospital management are not held accountable, even because their autonomy of action has been increasingly limited. This situation has repercussions among doctors and other professionals who are left with the perception that there are no financial constraints and therefore, do not feel pressured to introduce more cost-effective procedures for treating patients (Mateus, 2010). Thus, the possibility of maintaining equity in the distribution of resources is not safeguarded, potentiating that "ineffective and inefficient providers remain in the system, delivering inadequate care at high societal cost, and depriving effective and efficient providers from delivering higher value to a larger population of patients" (Kaplan and Witkowski, 2014: 366).

Political tariffs and information requirements by central authorities (e.g. performance indicators related to the quality and quantity of health care services provided) have also, the associated risk of hospital managers prioritizing responses to such requests for information. This may lead to a negligence on hospitals' cost management of the developed activity and clinical decision making, as this will not have a direct impact on the negotiations under the '*contrato-programa*'.

> "Providers have aggravated this problem by structuring important aspects of their costing systems around the way they are reimbursed (…). Rather than developing and maintaining accurate costing systems that are based on actual resource usage, separate from the regulatory standard required for reimbursement, hospitals defaulted to reimbursement-driven systems" (Kaplan and Porter, 2011: 6).

Evolution of costing in Portuguese hospitals, followed the changes implemented at the MoH, especially those concerning hospitals financing system. In Portugal, as a result of a major reform in the public sector initiated in 1990, it is for the first time preconized a law concerning the basis of public accounting applicable to all hospitals, the Basis Law on Public Accounting. In the following years the official plan of public accounting, the official

accounting plan of the health ministry and the cost accounting plan for hospitals were published. This legislation aimed the harmonization of regulations for the public sector and also enabling comparisons with the private sector. As Chapman *et al*. (2013: 25) argue "[a]ccurate information regarding costs has become more and more important over time and most of th[is] changes (…) have aimed to provide greater transparency and ease of understanding in the cost and financial information being published".

However, the health sector presents additional challenges for cost measurement, being one of the reasons, the complexity of health care delivery (Arnaboldi and Lapsley, 2005; Popesko, 2013; Kaplan and Porter, 2011). This complexity influences the way cost accounting is made. In Portuguese public hospitals, cost accounting is a top-down process were costs are allocated to each cost centre through a volume-based allocation, which may distort cost information (cf. Johnson and Kaplan, 1987).

To overcome the traditional costing system drawbacks, an attempt was made to implement the ABC. ABC it is an alternative to traditional cost accounting, by assigning indirect costs to activities, and then attributing those activity costs to products and services. According to the valences that are advocated in the academic literature, ABC would have changed the role of costing in the NHS, by allowing funding to be based on the real costs of hospital activity. The establishment of political tariffs without knowing the actual costs of hospitals, as it happens in the traditional costing system implemented, implies that ACSS are unaware if it is inducing efficiency or inefficiency (by setting a price higher than the cost of the activity, inducing hospitals to continue to overspend).

Furthermore, it was argued that ABC would inform health providers decision-making by making costs transparent by creating cause and effect relationships between costs and the activities that are performed. Regarding doctors, it would also increase their engagement with accounting tools. By understanding how costs are related to their clinical activity, it would allow physicians to relate their decisions to the inherent costs and clinical outcomes. This could impact both clinical and financial outcomes (Chapman and Kern, 2010), thus shifting from "ticking a box that cost data is reported, but rather that cost data constructively informs clinical decision making: taking the step from reporting to managing" (Chapman and Kern, 2010: 2).

However, what actually happened is that the cost accounting tools that were introduced in the Portuguese NHS, were mainly driven by central control purposes. The attempt to implement ABC in public hospitals by ACSS was an example of this. There was no clear intention to implement the ABC widely in all hospitals. Its main purpose was to confirm that the tariffs

practiced by the MoH were closer to the reality of those costs. The reimbursement system, where cost information is designed for central control purposes, in order to calculate prices that could be applied to all hospitals, was not intended to be changed.

ABC project was abandoned, but, the interest in this bottom-up costing system still remains, as evidenced by the recently enacted legislation (SNC-AP, in 2015). Yet as a resource intensive technology, its cost-benefits should be balanced. Hospitals need to have interest in having cost information with quality. This only occurs if they recognize its usefulness for negotiating the funding from the MoH, also enabling them to find strategies through costing systems to reduce costs and become more efficient. This interest would be extended to medical staff, by the potential benefits of the outputs generated by cost accounting to support the every-day medical decisions of doctors.

For central authorities, despite establishing political tariffs, it is also imperative that they acknowledge the necessity in knowing the real costs of hospitals, in order not to run the risk of inducing inefficiency by transferring resources in excess to the hospitals because they are misusing them.

Without these conditions, the new attempt to implement ABC in Portuguese public hospitals, may become a political intention whose main result is the waste of financial and human resources.

CHAPTER III - INSTITUTIONAL ENTREPRENEURSHIP AND POWER: RESPONSIBILITY CENTRES IN A PORTUGUESE HOSPITAL

give us the space/money/staff/equipment
and we'll do the job which in our professional judgment we consider necessary
(Dawson *et al*., 1995: 171)

3.1 Introduction

Recently, the institutional theory literature moved to the study of the forces driving divergent institutional change (Dacin *et al*., 2002; Seo and Creed, 2002). However, the process (how, why, and when) through which those sources of change actually promote institutional change remains unclear (Ribeiro and Scapens, 2006). This research intends to exceed this literature gap, using the health sector as a setting.

The Portuguese National Health Service (NHS) has undergone major developments in the last forty years, following the reformist impulse from other European countries. One of the measures that were designed in hospital organization was the responsibility centres, a new organizational structure that generally has not been transposed into hospitals' reality. In fact, in Portugal the NHS reforms pursuing decentralization, paradoxically led to centralized control (Barros and Simões, 2007; Campos, 2004; Koivusalo *et al*., 2007). This resistance to change or tendency towards stability is explained by institutional theory in which individuals and organizations are shaped by institutions.

Despite the above, the cardiothoracic surgery service (CSS), in the *Santa Marta* Hospital, which is our research setting, changed its organizational structure with a decentralized model establishing a responsibility centre. Moreover, the CSS transformation into a responsibility centre can be attributed to a single actor, the CSS Director, who despite being embedded was able to identify the need for change, develop a new vision, and, mobilize resources and other actors to embrace the new practices. This led us to question how this institutional entrepreneur maneuvered to engender this change.

In our first approach we thought that this was a case of institutional change, which would be assigned to a single actor, the institutional entrepreneur (Battilana, 2006; Battilana *et al*.,

2009; Dorado, 2005; Fligstein, 1997; Garud *et al*., 2007; Greenwood and Suddaby, 2006; Hardy and Maguire, 2008; Maguire *et al*., 2004). However, after conducting a deeper analysis of the case we found that the introduction of the responsibility centre has had only minor impacts on management accounting and everyday interactions and practices. Different interpretations and conflicting interests remained about the degree of decision-making capacity and the type of responsibility centre that should be implemented at the CSS. Furthermore, the imposition of new rules and routines to be followed in order to improve the CSS performance, induced resistance by the actors involved. This led us to consider that this attempt to change institutional practices encompassed another phenomenon, power.

There has been a call from different researchers (DiMaggio and Powell, 1991a; Lawrence, 2008; Oliveira, 2010a) who emphasize the need to address the theme of power in institutional analysis. Power has been absent in institutional research, despite their intimate relationship (Covaleski *et al*. 1993; Lawrence, 2008). As Oliveira (2010a: 87) observes "[i]t was argued that power has not been a major and explicit concern in much institutional theory, although fundamental debates in institutional theory (e.g., between structure and action, stability and change, etc.) can be stated and explored drawing on the topic of power".

The concept of 'institutional entrepreneur' reintroduces agency, interests and power into institutional analyses of organizations (Garud *et al*., 2007; Lounsbury and Crumley, 2007). In institutional entrepreneurship, power is present through all the process in which embedded actors engage when disrupting existing institutional arrangements. Despite that, and as Lawrence (2008) argues, academic research on this area has maintained a relatively narrow focus on the forms of power it examines.

In our case study, the change process has not developed beyond an embryonic stage, but it intrigued us what were the existing conditions for initiating that change process and how power and interests have been exercised. Our first purpose is therefore to provide an explanation for the sources of the change process in its early stages, regardless of it becoming institutionalized or not, theorizing with a framework of power. Power and institutions are interconnected. "Institutions exist to the extent that they are powerful" (Lawrence, 2008: 170). Notwithstanding the stability inherent to institutions, power does not embody stability, being diffused, local, contingent and emergent (Ribeiro and Scapens, 2004). Clegg's (1989) 'circuits of power' framework, explains how power circulates across the network of actors. Power flows through conduits or pathways, facing support or resistance that can have an effect of stability or change (Oliveira, 2010a).

Beyond making power more explicit in the phase that precedes and enables the change process, we aim to verify what motivations were behind the responsibility centre creation in the *Santa Marta* Hospital. The leadership of this process can be assigned to an actor, the CSS Director who aimed to become an institutional entrepreneur; however, he failed to succeed on this institutional change process. This led us to question the reasons that undermined this change.

We apply the 'circuits of power' (Clegg, 1989) framework, which we adopt as our theoretical lenses for this case. We draw on Ribeiro and Scapens (2006) view, using institutional theory with a more comprehensive approach that considers the concept of power for explaining the institutional change process. By deploying institutional theory and power frameworks, we provide contributions for the development of both institutional and power theories, in particular by strengthening and developing the linkages between both areas.

The remainder of the chapter is structured as follows. The next section introduces the relevant literature on responsibility centres. We then discuss the contributions and challenges of institutional theory and institutional entrepreneurship literature. We follow this discussion with the power theory literature and the main concepts of our theoretical approach using the 'circuits of power' (*ibid*) framework. This is followed by an explanation of our research methods, and, the case study background. Final sections of the chapter presents case findings and discussion and conclusions.

3.2 Responsibility centres

Responsibility centres introduce substantial changes in the overall functioning of the hospital, as well as in the service structures. This new organic framework is based on the idea diffused by management accounting textbooks that responsibility centres are a management tool that aids the implementation of organizational strategies, guiding managers' behaviour for the accomplishment of specific goals that must converge with the organization's objectives and strategies (Anthony and Govindarajan, 2007).

There are different relevant strands of literature that have developed issues related to responsibility centres, particularly, the resource allocations methods and inherent implications (e.g. Bengu and Can, 2010; Billera *et al*., 1981); and, transfer pricing practices (e.g. Alles and Datar, 1998; Baldenius, 2000; Foreman *et al.*, 1999; Göx, 2000; Indjejikian and Matejka,

2012; Narayanan and Smith, 2000). Some researchers have addressed the responsibility centre theme superficially focusing on the process (Jarvie, 2002) and on the respective advantages and disadvantages of its use (Grigore *et al*., 2010; Lang, 1999). These studies do not, however, provide empirical evidence on the extent responsibility centres are used in practice, what are the determinants of their usage, their effectiveness and efficiency (Modell and Lee, 2001; Shoute, 2008), and, what are the effects on the role of doctors and hospital managers. Reece and Cool (1978) paper is an exception to this gap. They made a survey of the Fortune "1000" Companies for 1976, in order to determine how many of these companies used profit or investment centres. Shoute (2008) study also highlights the determinants of firms' responsibility centre choices (profit and/or investment centres), and how these choices are associated with some characteristics of the firms[29]. More recently, Portz and Ler (2010) provide a comparison between cost centre practices of Germany and the United States, identifying the differences in cost centre practices concerning classification of costs, measures to use, size and scope of cost centres, and responsibility assigned to responsibility centre managers.

Responsibility centres are decentralized organizational units of an organization whose manager is accountable for specific activities (Anthony and Govindarajan, 2007; Foster, 1991; Horngren and Pintado, 1965). This feature is more common in large organizations (Christie *et al*., 2003; Melumad *et al.*, 1992; Murray, 1967). Its origins date back to the 1950s, first being adopted in industry (Berkwitt, 1969).

In order to achieve greater efficiency and effectiveness, local managers are assigned with additional responsibility (Brown and Sprohge, 1987; Grigore *et al*., 2010; Jarvie, 2002), increasing their decision-making capacity, being accountable for the results obtained. This promotion of decentralization and inherent responsibility varies according to the type of responsibility centre[30]. Researchers have been focusing on the discussion of the optimal organization structure, more specifically this dichotomy of centralization versus decentralization (Christie *et al*., 2003; Smith and Pretorius, 2003; Strauss and Curry, 2002; Baiman and Rajan, 1995; Melumad *et al.*, 1992; Kaplan and Mackey, 1992; Horngren and Foster, 1991). Several advantages have been attributed to the decentralization process as

[29] Shoute (2008) had as a starting point the empirical work of Christie *et al.* (2003) which investigates the use of profit and cost centres and its relation with the specialization of knowledge generated in the firm, externalities (the extent to which there are interdependencies between activities of different business units), and, price regulation. Shoute addresses the relationship between the use of profit and investment centres with firms' investment opportunity set, size, diversification, and capital intensity.

[30] Usually responsibility centres are typified in four types: revenue, cost, profit and investment. For further details on the various types of responsibility centres, see, for example: Anthony and Govindarajan (2007); Drury, 2008; Kaplan (2012); and, Merchant and Van der Stede (2012).

improving flexibility and job satisfaction because it encourages participation (Vrangbaek, 2007), more productivity and quality, and organizational adaptation to the needs and demands, increasing transparency and accountability (Campos, 2004; Monrad Aas, 1997). Moreover, as Vrangbaek (2007: 66) argues, the "process performance may be enhanced by the fact that decentralization creates a countervailing power to central decision-making, thus providing a situation of checks and balance, which will reduce the risk of uninformed and unrealistic policies from the central level".

These organic structures are, supposedly, more flexible, multidisciplinary and operational. However, and according to Barros (2009), to achieve this objective it should be given priority to the participation of professionals, their accountability and the inherent incentive policy. Indeed, decentralization is inhibited in organizations with more specialized knowledge (Christie *et al.*, 2003). Regarding the health sector, responsibility centre implementation faces resistance from doctors who fear of losing independency in medical acts. Doctors' profession has ethical responsibilities and their submission to management rules can question their legitimacy of actuation. Comparing to the context of universities there is also resistance from academics in relation to financial measures. But, as Strauss and Curry (2002: 24) argue, "academic values must drive, and be seen and heard to drive, the financial decisions expressed through relative subvention, and, that resource availability will force priorities and thus academic choice".

The promotion of decentralization intends to provide those in charge of organizational structures where costs are generated, with management autonomy and inherent accountability. So, on the other hand, it can also be argued that responsibility centres may empower doctors, allowing them to choose the best medical action, according to the available resources, rather than leaving that decision and responsibility for hospital managers. Corbridge (1995) also stresses the importance of coordination and mutual support between managers and doctors. According to him, it is essential that service Directors whose academic background is not management, receive support from managers.

A weak responsibility decentralization combined with a lack of incentive distribution can lead to professional demotivation. Therefore, it is essential an effective delegation to the service Directors ensuring their participation in decision making (Scott, 2002; Corbridge, 1995). Furthermore, a management model structured around responsibility centres and corresponding set of performance targets, involves the establishment of management control systems in order to monitor managers' performance, facilitating incentives and attribution of rewards (Merchant and Van der Stede, 2012; Antle and Demski, 1988). However, the measurement of

outcomes (on which rewards are based) and motivation of non-profit organizations' managers, are very difficult to determine (Jarvie, 2002; Modell and Lee, 2001; Olson, 2000). Rewards might not be established only by means of measurable variables such as those used in for-profit organizations. In non-profit organizations efficiency and effectiveness are subjective since it compares the satisfaction of perceived needs and the scarce public resources that are available (Jarvie, 2002).

While responsibility centres have been in use in the private sector for quite some time (Vonasek, 2011), its use and development in the health sector have not been uniform. There is no evidence whether these structures really contribute to the improvement of hospitals' effectiveness in providing health care services. Responsibility centres are integrated in the highly complex and political context of the NHS reforms and there is no agreement about whether they are or not successful. "Like the parable of the three blind men meeting an elephant for the first time, each interest group may provide new insights into function and structure, but there seemed to be no picture of the whole" (Corbridge, 1995: 16). Additionally, the health sector is a mature field (Reihlen *et al*., 2010; Scott *et al*., 2000) with a high degree of institutionalization and, therefore, less permeable to change. Highly institutionalised fields have been pointed out as being comprised of "established networks" and "federations of organisations" strongly embedded (Maguire *et al*., 2004: 659) in the norms, rules and values of the field. The introduction of Clinical Directorates on the intermediate organizational structure of hospitals in Italy translates this resistance to change. Despite isomorphic processes towards Clinical Directorates implementation, it faced resistance by the clinical leaders (Lega, 2008). In the United Kingdom (UK) NHS, the creation of these Clinical Directorates, notwithstanding having experienced some difficulties, it has resulted in an increased effectiveness and efficiency, as reflected in the increasing number of treated patients (Jones and Dewing, 1997). However, Braithwaite *et al.* (2005) concluded that these intermediate organizational structures have not lived up to initial expectations, lacking on support by the professionals involved, because it was merely "restructuring the boxes on the organizational chart" (Braithwaite *et al*., 2005: 332). Also, in Portugal the legislation that enacted the creation of responsibility centres in hospitals has more than 25 years, however, to date this project has not been implemented on a national basis. According to Pereira (2009), in the period of 1988 and 2008, only 37 responsibility centres were created, on 14 hospitals from a total of 67 hospitals. However, according to Tribunal de Contas (2012), the number of responsibility centres that was effectively implemented in cardiothoracic surgery services was limited to one, the CSS of the *Coimbra* University Hospital. Despite the above, the CSS has

changed its organizational structure; with a decentralized model that contemplates the responsibility centre. However, we cannot argue that there was a divergent change.

In the following section we look at the institutional entrepreneur literature because our case study is about an institutional change which could apparently be assigned to a single actor, the CSS Director. However, this actor actually did not manage to bring about the divergent change. So this chapter is about a case of an institutional entrepreneurship failure, which increases its interest, since it is rarely discussed in the literature (Battilana *et al*., 2009). Furthermore, in trying to make sense of the story behind this process, and to provide an explanation for why the institutional entrepreneur was unsuccessful, we adopt the 'circuits of power' framework (Clegg, 1989) since it seemed that there was issues of power behind this institutional change failure.

3.3 Institutional entrepreneurship and power

3.3.1. Institutional entrepreneurship and change

The cornerstone of institutional theory is that institutions are stable and constrain embedded actors. Institutions are culturally embedded understandings (Garud *et al*., 2007) providing performance guidelines for action, and, simultaneously, repressing deviant procedures (Scott, 2008, 2014). Despite facing a strong power of inertia (Battilana *et al.*, 2009), organizations are subjected to processes of institutionalization and deinstitutionalization (Scott, 2008, 2014; Dacin *et al*., 2002). Scholars have been addressing the study of institutional creation and convergent change processes, highlighting the organizations isomorphism (Beckert, 2010; DiMaggio and Powell, 1991b); however, these days institutional theorists have begun to focus their attention on divergent institutional change, privileging the study of how the existing norms and practices are criticized and replaced by new institutional arrangements (Battilana *et al.*, 2009; Scott, 2008, 2014; Dacin *et al.*, 2002). Nevertheless, as a theory of stability, institutional theory lacks arguments for explaining change (Quattrone and Hopper, 2001). One perspective has been focusing on the role of institutions in shaping actors' behaviour (Scott, 2008, 2014). Another approach has privileged agency, promoting the role of actors in influencing and changing institutions. These researchers have also been criticized, for considering actors as heroes, not explaining the unintended consequences of action (Garud *et*

al., 2007). Tensions between agency and structures arise due to the difficulty of explaining how actors, whose actions are, on the one hand, constrained by institutional beliefs, can, on the other, break with those same institutions and create a divergent change (Battilana *et al.*, 2009; Hardy and Maguire, 2008; Battilana, 2006; Seo and Creed, 2002). The answer for this question has not been fully addressed by institutional theory (Greenwood and Suddaby, 2006). There was thus a call for the development of "a coherent theory of action, the lack of which was institutional theory's core weakness" (Battilana *et al*., 2009: 66). Institutional entrepreneurship arises as a solution for reintroducing agency into institutional theory, combining structure and agency. One of the pioneers in the study of the power of actors was DiMaggio (1988) who called the agents that change institutions, institutional entrepreneurs. Institutional entrepreneurs are actors who have an interest in specific institutional arrangements (Hardy and Maguire, 2008), and have the power to manage the resources to innovate with new institutional rules that substitute traditional practices (Sharma *et al.*, 2010; Dacin *et al.*, 2002). Institutional entrepreneurs are, therefore, actors who change the institutional environment, even if not intentionally or whether they fail in implementing such change (Battilana *et al.*, 2009).

Institutional entrepreneurship aims, therefore, to develop a theory of action that accounts for the role of embedded actors who act as internal change agents in their institutional environment (Battilana *et al.*, 2009; DiMaggio and Powell, 1991a; Dorado, 2005; Seo and Creed, 2002; Sharma *et al*., 2010).

Previous studies have looked at the various driving forces for institutional change. The first category refers to the external environmental context where the institutional entrepreneur is embedded, which may create inconsistencies within an organization (Oliver, 1992). Researchers have pointed to various field conditions that might destabilize established practices: e.g. changes in government regulations, new technologies, economic environment, social upheavals (Battilana *et al*., 2009; Greenwood and Suddaby, 2006; Greenwood *et al.*, 2002); tensions and contradictions created by the high variance of institutional arrangements in a field (Battilana *et al.*, 2009; Dorado, 2005; Rao *et al*., 2003; Seo and Creed, 2002; Sharma *et al.*, 2010); and, fields characterized by lower degrees of institutionalization (Battilana *et al*., 2009; Dorado, 2005). Even in highly institutionalized organizational fields, change can be legitimized through the intervention of professional associations (Greenwood *et al*., 2002). Greenwood and Suddaby (2006) also argue that in mature fields change is possible when there is an exposure of central actors to field-level contradictions, reducing their embeddedness, which combined with a poor performance, leads them to achieve the

motivation, awareness, and openness required to become institutional entrepreneurs. These events create uncertainty for which institutional change can represent the solution (Hardy and Maguire, 2008). Another enabling condition for institutional change is related to actors' specific characteristics, qualities and abilities (*ibid*), because, not all actors are able or have the motivation to initiate institutional change (Battilana, 2006; Dorado, 2005). A considerable body of work has focused on the social positions from which actors can take action. Actors moving between fields, belonging to multiplicity of structures, or located in the periphery of the field, are more exposed to inter-institutional incompatibilities and to alternative practices (Battilana *et al*., 2009; Hardy and Maguire, 2008; Greenwood and Suddaby, 2006; Boxenbaum and Battilana, 2004; Sewell, 1992). The informal actor' position in organizational networks and his formal position in the organizational hierarchy might also provide legitimacy and garner the support of other members of the organization, thereby increasing the ability to mobilize resources needed to engage the divergent change (Battilana *et al.*, 2009; Battilana, 2006).

Although these conditions increase the possibility of institutional change, there is, however, a lack of knowledge on how this process occurs. Institutional theory has focused on institutionalisation as an outcome rather than a process (Scott, 2008, 2014; Tolbert and Zucker, 1996) and as a result has neglected the role of power and group interests (Oliveira; 2010a; Covaleski *et al*., 1993). This gap can also be identified in institutional entrepreneurship (Lawrence, 2008; Levy and Scully, 2007), where power has not been explicit. Thus, if institutional entrepreneurship is a process of reconfiguration of power relations, reflecting the power and interests of actors (Maguire *et al*., 2004), then its theorization within a framework of power is essential for an embracing understanding of institutional entrepreneurship. Indeed, in management literature power is almost absent. "Much of this work does not focus on power per se and, so, does not bother to define it" (Hardy and Clegg, 1996: 629). Institutional analysis of management accounting change, and as Ribeiro and Scapens (2006) argue, would benefit from a more explicit conceptualization of power achieved by drawing on Clegg's (1989) 'circuits of power' framework, which we will develop in the next section.

3.3.2. Power and 'circuits of power' framework

The conceptualization of power has been evolving through the years, keeping its complexity and multiplicity. Early researches conceived power as a creator of effects over others (Oliveira, 2010a; Ribeiro, 2003). Power is negatively portrayed as it implies the ability to get others to do what they want them to, or to get them to do something they otherwise would not (Dahl, 1957). A second approach proclaimed that power has a hierarchical nature. For these researchers, power was embedded and legitimated in the organizational structures that served some interests and dominated other divergent interests (Hardy and Clegg, 1996). Another stream of research draws on Foucault accounts of power. Foucault proclaimed the shift from the episodic to a continuous and permanent form of power, where the individuals perception of the possibility of being monitored, produces self-disciplinary effects (Oliveira, 2010a)[31].

Researchers have been trying the integration of the different approaches of power. Clegg's (1989) 'circuits of power' framework is considered as one of the most successful (Smith *et al.*, 2010; Silva and Backhouse, 2003). The 'circuits of power' framework comprises three circuits known as agency, social integration, and, system integration (Clegg, 1989). This framework explores how different types of power circulate across the networks of actors, which effects those powers produce and how they are linked together, promoting stability and/or change (Oliveira, 2010a).

The episodic circuit notion derives from Dahl's (1957) perspective of a single concept of power, representing causal power, which under appropriate standard conditions predetermines certain outcomes. It is constituted by the actions carried out by actors in their social relations. This circuit translates actors' struggles to control resources and achieve intended outcomes (Silva and Backhouse, 1997). However, Clegg (1989) argues that power will not be able to be exercised without the availability and control of appropriate standing conditions, despite also having to face the inherent resistance. This circuit deals on the relationship between resources and outcomes which are dependent on: the stabilisation of favourable standing conditions, rules, reflected in the circuit of social integration; and, material conditions, reflected in the circuit of system integration.

The circuit of social integration focuses on the relations between actors in a social system. It embraces the symbolic power (Smith *et al*., 2010) associated with rules of meaning (the ways

[31] An exhaustive literature review about different power frameworks is beyond the scope of this chapter. For a more detailed discussion, see Clegg (1989), Hardy and Clegg (1996), Lukes (2005), Ribeiro (2003), and, Wickramasinghe (2006).

actors make sense of the world) and membership (what actors perceive to be appropriate behaviour). This circuit comprises the institutional order (Silva and Backhouse, 1997), nevertheless, in this power framework, rules are a consequence and a source of power, whereas in institutional theory it tends to emphasise the isomorphic role of institutions. In institutional theory, rules are taken-for-granted, while on 'circuits of power' framework, rules are dependent on the context of interpreters, the actual situation in which the rule is interpreted, and the acceptation and enactment of those rules by actors (Oliveira, 2010a). In this circuit, rules may strongly influence actors' actions by the creation of dispositions among actors to behave, pursuing their own interests. Therefore, this dispositional power is a set of capacities, which enables actors with the potential of its usage (Oliveira, 2010a; Silva and Backhouse, 2003). These standing conditions are necessary for episodic power to occur (Silva and Backhouse, 2003), and, they may also influence the circuit of system integration.

The circuit of system integration sees power as facilitative. When material conditions of production change, actors are empowered or disempowered, hence embodying a facilitative power (Ribeiro, 2003). The circuit of system integration sees power exercised through techniques of production and discipline. The everyday routine depends on actors' compliance to collective goals through the exercise of power translated into disciplinary practices, like normalisation and routinisation (e.g. management accounting could be a technique which can be resorted to achieve this control). The circuit of social integration was depicted as the promoter of stability in the 'circuits of power' framework. In turn, the major source of change lies in the circuit of system integration, consequence of actors' strategic attempts to achieve their intents within the episodic circuit, as emphasised by Clegg (1989). Notwithstanding the existing rules, change may be accomplished if the disciplinary effects of new technologies enable the acceptance and accommodation of new sets of rules within the social system.

Changes in the 'circuits of power' may be endogenous as a result of episodic power, as mentioned above or, exogenous (*ibid*). Change introduced by exogenous environmental contingencies disturbs the circuits of social and system integration (Backhouse *et al*., 2006; Clegg, 1989). Oliveira (2010a) adds that exogenous contingencies can also affect the outcomes of the episodic circuit.

The circuits are linked by Obligatory Passage Points (OPP). OPP "are actor networks linked by pieces of discourse whereby organizations translate the circuits of social and system integration in order to achieve outcomes" (Silva and Backhouse, 1997: 22). Rules in social system may establish itself as pathways through which actors make sense of the world.

Similarly, in the circuit of system integration, strategic actors introducing new techniques will also attempt to promote them as pathways that actors should follow (Oliveira, 2010a).

Institutions constrain organizational structures, activities and individuals who seek legitimacy within the environment where they are embedded. Norms, regulations and procedures implemented in organizations shape actors' behaviours providing stability (Scott, 2008, 2014). This taken-for-granted nature of institutions, which is likely to resist to emergent changes (e.g., new management accounting systems and practices) makes them powerful (Lawrence, 2008). This raises the question of the sources of change. Could it just be the shared values and meanings of institutions, the power of the system (Burns, 2000; Lawrence, 2008; Ribeiro and Scapens, 2006) that makes institutions powerful? When institutional entrepreneurship takes place and institutional change occurs, does that translate into weakness of institutions? Or, alternatively, are there other sources of power? And what is the role assumed by management accounting practices in this process?

According to Ribeiro (2006: 97) "management accounting may potentially constitute a device used in attempts by strategic actors to gain in power, by being able to fix the rules followed by many others. However, these attempts and their fate are, at least to some extent, framed by existing circuits of power, by the strategies and counter-strategies of other actors, and by contingent events".

Clegg (1989: 236) power framework argues that social relations can be empowered and disempowered through the innovation in techniques of discipline and production. "The circuit of power through system integration is a source of new opportunities for undermining established configurations of episodic circuits of power, as it generates competitive pressure through new forms of technique, new forms of disciplinary power, new forms of empowerment and disempowerment". Oliveira (2010a) contributes to this discussion by adding that actors may also be empowered and disempowered by rules of meaning and membership, through social relations and OPP. However, we can see that some actors are more empowered than others, thus promoting divergent change. These embedded actors, the institutional entrepreneurs, engage in power struggles, mobilizing resources, empowering or disempowering institutions according to their own interests (Fligstein, 1997; Maguire *et al*., 2004; Seo and Creed, 2002). As Ribeiro and Scapens (2006: 5) argue strategic actors "propose representations and deploy strategies that are framed by the existing configuration of the circuits of power (...), and they may also attempt to promote changes in those configurations".

3.4 Research methods and methodology

3.4.1. Methods and methodology

The research method used is a case study, because as Yin (2009, 2014) argues it is the most suitable for the analysis of research questions of the explanatory type, obeying to the following three conditions: (i) it is the appropriate method to answer research questions from type 'how' and 'why'; (ii) there is no control on behavioural events; and, (iii) it is focused on contemporary events. This case study is an "explanatory case study" (Ryan *et al*., 2002: 144; Scapens, 2004: 260), because the researchers seek to understand and explain the social nature of management control practices (Chua, 1986) in the health sector, based on a prevailing theory.

The case study research followed an interactive process of research steps as proposed by Yin (2009), Scapens (2004), and Ryan *et al.* (2002): developing a research design; preparing to collect data; collecting evidence; assessing evidence; identifying and explaining patterns; theory development; and, writing up case study research. The research has been conducted in two phases: a pilot case study from September to December 2010 and a main study from January 2011 to February 2015.

Cardiothoracic surgery service in the *Santa Marta* Hospital provided a fruitful context for research. Responsibility centres have not been widely adopted by Portuguese hospitals. The *Santa Marta* Hospital was no exception. The interest in this particular setting was raised when against the existing institutional arrangements, one service, the CSS, adopted the responsibility centre in 2009. What drove our attention to this case was that this organizational change process in a mature and complex field such as the health care sector was being initiated and promoted by a doctor with a very unusual vision.

Our research study drew upon multiple sources of data. Data was gathered from public available information; internal proprietary documentation, including financial and non-financial reports; and, semi-structured interviews. Public documentation collected included the *Santa Marta* Hospital and the *Centro Hospitalar de Lisboa Central* (CHLC) annual reports (2003 to 2013); government studies on the financial sustainability of the Portuguese NHS and on hospitals' restructuration; reports from the Portuguese and the European Observatory on Health Systems and Policies; Audit Court reports; laws governing the Portuguese health sector since the 1970s; media; and, information from the websites of the

Santa Marta Hospital, the CHLC, the government and regulators, which were the basis to explore the organization and organizational field of our research setting. Interviews were conducted, between September 2010 and February 2015; with the CSS Director, hospital managers and administrative staff, doctors and nurses from CSS and with the director of financial management and accounting area of the CHLC. We have also conducted interviews with the CSS Director of the *Coimbra* University Hospital (also a responsibility centre), academics, and recognized specialists in health policy; aiming to understand the institutional context that enabled or undermined this organizational change (see appendix III for details on the interviews). The interviewees were selected in order to represent the main groups of actors who were involved or affected by this process of change: e.g. politicians; managers; and, doctors. Twenty-two interviews (twenty semi-structured, and two that were made by sending a group of questions by email, as requested by the respondents) were conducted, corresponding to a total of nineteen hours. The interviews were recorded and transcribed verbatim (for a few interviews that were not tape-recorded, extensive notes were taken during the interview).

Finally, the main investigator followed the CSS activity for a week, from 11th to 15th October 2010, accompanying the daily routine of the service. This direct observation started daily in the early morning with the medical visit. In this routine the service Director and his medical staff visit each patient hospitalized for an evaluation of the patient's condition enabling subsequent medical decisions (e.g. treatments to perform, decision to transfer to another hospital service or hospital discharge authorization). As result of this stay into the *Santa Marta* Hospital the procedures and routines that take place daily at the CSS were followed and analysed and process flowcharts were drawn. Also, day-to-day behaviour and interaction between the different elements of the service were observed. Direct observation has been noted as an important source of evidence because when triangulated with other sources enables researchers to get a profound knowledge of the setting they are studying (Yin, 2009, 2014). By collecting evidence from these multiple sources, data triangulation could be used to increase validity and reliability (Yin, 2009, 2014; Vieira *et al*., 2009, 2017; Mason, 2002).

The data analysis started with data reduction (Miles and Huberman, 1994; Miles *et al*., 2014), with activities that comprised the construction of chains of evidence, coding and creating patterns and categories. Lastly, we prepared tables listing issues frequently raised in interviews, which enhanced the identification of patterns and categories.

On the following subsections we elaborate our data analysis. We consider that there are two main stages of the process of implementing a responsibility centre at the CSS in the *Santa Marta* Hospital: an initial phase, from 2007 until May, 2010, where the service Director aims to create a responsibility centre; and, the following stage after May, 2010, where he failed to implement this divergent change. Each subsection describes the specific procedures for data analysis that were used in each phase.

3.4.2. Creation of the CSS responsibility centre

Our choice on the health sector as our research context was based on the fact that we considered it could be a great setting for analysis of an institutional entrepreneurship case. Different managerial initiatives have been introduced in this sector over the last decades in many countries which have attracted accounting academic interest (to this respect see e.g., Jacobs *et al*., 2004; Llewellyn, 2001; Llewellyn and Northcott, 2005; Northcott and Llewellyn, 2003; Pettersen, 1999, 2004; Preston, 1992); however, despite the considerable amount of research on the health sector in general, there has been a limited research on management issues on the health field, a conclusion similar to that obtained by Hunter and Brown (2007). Furthermore, management accounting literature refers, mainly, to the case of developed Western economies (Abernethy *et al.*, 2007), urging the need to develop research in other environments and contexts other than of the reality of developed countries mentioned above. It also has been observed that most of the research in the health care sector has been conducted in the United States and United Kingdom, and that there are few studies from other national contexts, particularly from non-English speaking countries (Kurunmäki, 2009; Hunter and Brown, 2007; Lehtonen, 2007; Pettersen, 1999).

We started to differentiate and combine the data by using codes related to institutional entrepreneurship literature, trying to identify whether each of the ideas of this theory was applied. Our goal was to identify the conditions that enabled the service Director to get the pretension to become an institutional entrepreneur. Furthermore, we aimed to analyse what sort of processes and procedures the potential institutional entrepreneur undertook in order to introduce the responsibility centre.

We have identified the activities and strategies engaged by the service Director in order to institutionalize new practices. We have also characterized the main features of his individual

characteristics by analysing the transcripts of the interviews and by our direct observation, during our stay at the CSS, to the relations between the service Director and his staff.
Despite CSS Director embeddedness within a mature field as the health sector, this has not precluded him from trying to implement new institutional practices. Thus, underlying this data analysis there was an attempt to capture the conditions that were or not present for that the CSS Director could have been characterized as an institutional entrepreneur.

3.4.3. Failure of the CSS responsibility centre implementation

In the second stage, our analysis addressed: the degree of change occurred with the introduction of a decentralized model, the responsibility centre in the *Santa Marta* Hospital; the social relations of the actors involved in the change process; and, the perceptions of the different actors concerning the new management control practices.
Despite the service Director individual characteristics and the strategies he engaged, he could not bring about institutional change. We could not find an explanation for that failure on institutional entrepreneurship literature, because, it seemed that this theoretical framework was lacking on a relevant dimension for this case, power.
Besides the typical dimensions identified by the institutional entrepreneurship literature, we observed an arena where actors struggle and resist according to their vested interests. After the recognition of the existence of power issues in this case, we returned to the interviews transcripts and reanalysed the data using a new theoretical framework, Clegg's (1989) 'circuits of power' framework. It is a challenge when observing and collecting evidence in order to make inferences about issues of power. Our analysis drew on the identification of actors' actions and reactions, interpreting them through the three circuits of power of Clegg's (1989) framework.

3.5 The empirical study

3.5.1. Responsibility centres in Portuguese NHS

Responsibility centres were initially regulated in Portuguese hospitals in 1988[32] under a legislation which states that hospitals should be managed in terms of business management, for which they must organize and develop themselves into responsibility centres. They were set up as a mean of establishing intermediate management levels and promoting the decentralization of responsibility (Barros, 2009; Barros and Simões, 2007). The Portuguese government felt that delegating responsibility as close as possible to the point of delivery would improve the performance of hospitals, thus creating the possibility of implementing these structures with more management autonomy (Barros and Simões, 2007; Campos, 2001). Responsibility centres were created intending a greater focus on patient, in quality and safety of delivered services, efficiency and accountability of results.

The responsibility centres were linked to the private sector, following the approach of market ideology that marks the political health measures of this period. In that sense apart from its creation has been residual, it is also argued that it was just a way to legitimize the private medical practice in public hospitals[33] (Observatório Português de Sistemas de Saúde, 2006).

After 1995, there was a discontinuity of government health policies which caused the temporary suspension of the market ideology (Simões, 2009; Simões and Dias, 2010). These policies also had repercussions on responsibility centres, which were separated from the practice of private medicine. The new hospitals' organization emphasized the role of responsibility centres as intermediate management level endowed with decision-making power, in order to enable the decentralization of decision-making process and inherent accountability (Barros, 2009; Barros and Simões, 2007). There was an integration of management functions with the technical direction and operational leadership; new forms of funding were defined in proportion to the results obtained; and, an incentive system was created aiming to motivate the participation of health professionals in management. It was also stipulated that the director of the responsibility centres should be a doctor instead of a manager as under the previous legislation, because only then a philosophy of accountability could be achieved (Barros and Gomes, 2002). Based on an organization with cost centres was

[32] Decree-Law n.º 19/88, 21st January 1988, a legislation which approved the law on health management.

[33] The medical careers regime on that date, guarantee to doctors in an exclusive dedication to the public sector, if they were incorporated in the responsibility centres the possibility, with prior approval, to attend private patients on public hospitals out of duty hours.

set a timetable for its creation[34], determining that all NHS hospitals should be organized in responsibility centres by December 2003. But this political intention did not actually come to pass.

The new hospital legal regime[35] which marks the retaken of market ideology (Simões, 2009), and the existence of various types of NHS hospitals, led to the creation of specific rules for hospitals organization[36]. Under this new legal framework and due to the corporatization of the Portuguese NHS and the decentralization policy, the intention of hospitals' organization in responsibility centres, is recovered. The association of private business methods to responsibility centres was reiterated, by establishing the possibility of exploitation or subcontracting of a responsibility centre by groups of health professionals or by other public or private entities. There was a clear focus on the decentralization need of the functional structure with the inherent accountability of clinical managers. This legislation also expands the scope of the responsibility centres which could be: (i) cost centres; (ii) profit centres; or, (iii) investment centres.

In 2009, the Government renewed its interest in the responsibility centres. There was a political goal of reforming hospitals' internal organization promoting the experience of responsibility centres (Programa do XVIII Governo Constitucional, 2009; Ministério da Saúde, 2010). Notwithstanding the responsibility centres have been created, but as we mention below, they did not become popular and its implementation remains sparse.

Despite the winding path of health policies in this area, there was an attempt for an implementation of a responsibility centre in the CSS. Therefore, in the next subsection we approach the background to the case company, analysing the itinerary that the *Santa Marta* Hospital and the CSS have undertaken towards the establishment of the responsibility centre.

3.5.2. Background of the case company

The *Santa Marta* Hospital has a long history having already completed its fiftieth anniversary. Its initial use was religious, having been founded as a monastery in the sixteenth century. It

[34] Article 25º of Decree-Law n.º 374/99, 18th September 1999.
[35] Law n.º 27/2002, 8th November 2002. This law establishes that hospitals integrated in the network to provide health care may take the following legal forms: (i) public hospitals; (ii) 'EPE hospitals'; (iii) 'SA hospitals'; and (iv) private hospitals under public-private partnerships.
[36] Decree-Law n.º 188/2003, 20th August 2003.

started to work as a public hospital in 1890, being integrated into the Lisbon Civil Hospitals in 1953. In 2002, the *Santa Marta* Hospital was transformed into a 'SA hospital'. Three years later, similarly to what succeeded to other 'SA hospitals', the *Santa Marta* Hospital legal regime was changed to an 'EPE hospital'. Currently, the *Santa Marta* Hospital is integrated in the CHLC[37], which was created in 2007 as an 'EPE Hospital' Centre. A Hospital Centre is comprised of a number of different hospitals with the aim of achieving cost efficiencies, together with better quality health services (Observatório Português de Sistemas de Saúde, 2006). Beyond resources rationalization, the creation of the CHLC follows the political intention of expanding the universe of hospitals as public enterprise entities, and the reorganization of hospital capacity with the centralization of health care delivery in Hospital Centres.

The area of influence of the CHLC is integrated into the RHA of Lisbon, and comprises 38 of the 53 parishes of the Lisbon county, and, 7 of the 18 parishes of the *Loures* county[38]. The six hospitals belonging to the CHLC have different profiles in relation to the health services they provide. The specialties linked to the heart, blood vessels and chest are located at the *Santa Marta* Hospital, namely, in the CSS[39].

The CSS is the only in Portugal who provides all types of interventions in this speciality and it is the national centre for lung transplantation. The installed capacity is about 1,500 patients per year, varying according to the number of transplants that are performed (Tribunal de Contas, 2012).

The CHLC is organized in five structures of activity: (i) clinical structure, based on management processes for pathologies/specialties, grouped in areas of technical and functional affinity ('Areas' and 'Specialties' and 'Functional Units'); (ii) clinical supporting structure, which relies on technical processes to support clinical activity; (iii) teaching and investigation structure; (iv) support and logistic structure; and, (v) technical support[40]. The CHLC clinical governance model is based on three management levels. It encompasses the strategic management level, by the Board of Directors; the intermediate level, named as 'Areas'; and, the operational level, by the 'Specialities' and 'Functional Units'.

[37] The Hospital Centre of Central Lisbon is a fusion of the Lisbon Hospital Centre (composed by the *São José* Hospital and the *Santo António dos Capuchos* Hospital) with the *D. Estefânia* Hospital, the *Santa Marta* Hospital, the *Curry Cabral* Hospital, and, the *Dr. Alfredo da Costa* Maternity.

[38] This corresponds to approximately 379.000 inhabitants, but indirectly this area is expanded. This hospital centre covers about 1,5 million inhabitants, since the CHLC is referenced for some medical specialties, extending its influence to the regional and national level.

[39] Beyond CSS, the *Santa Marta* Hospital also provides the following services: angiology and vascular surgery; internal medicine; and, the pulmonology.

[40] CHLC organizational structure is in appendix II.

In the clinical structure of the CHLC, at the intermediate level ('Areas') and at the operational level (in the 'Specialities' not integrated in any 'Area'), there is the possibility of implementation of responsibility centres. This organic structure is in line with the legislation that creates 'EPE hospitals'[41], which determines the existence of responsibility centres in order to transpose to hospital services and departments the internal contracting mechanism. Interestingly, even before the *Santa Marta* Hospital has been integrated into the CHLC in 2007, its internal regulation (special rules on hospital functioning, approved by the General Assembly) already foresaw the possibility of creating responsibility centres. However, at that time no centre has been created in the *Santa Marta* Hospital until 2009 when the CSS, with teaching responsibilities, implemented a responsibility centre. The CSS changed its organizational structure heading in the opposite direction to most NHS hospitals, and even in relation to its own hospital (CHLC and the *Santa Marta* Hospital), being the sole responsibility centre that would be constituted. This whole situation led us to question the reasons and motivations that allowed this organizational change to occur.

The CSS responsibility centre was created on May, 2010, following the ratification of the Minister of Health of its internal regulation on November 16th, 2009 (special rules on service structure, responsibilities, organization and functions). The priorities established were: (i) get better cost-benefit relations, keeping quality, security and patients' preferences; and, (ii) ensure increasing levels of professionals' satisfaction. The Board of Directors is responsible for establishing objectives, defining strategies and monitoring the implementation of projects outlined in pursuit of the objectives previously defined. The responsibility centre ensures the intermediate management level. An internal contracting between Board of Directors and the Direction of the CSS sets the objectives and expected results, according to the CHLC strategies previously defined. The CSS management body is composed by: the Director (senior doctor named by the board); a Department manager (hospital manager); and, the chief nurse. The CSS Director main professional occupation is being Professor at a medical university; and, the Department manager is not at a full time in the CSS, having responsibilities in other hospital units. The chief nurse as well as being responsible for nurses and clerks' coordination, also has to manage the pharmaceutical products (including drugs) that are used in the service.

The CSS responsibility centre adopts a management model based on an accounting framework that integrates the following cost centres: cardiothoracic surgery nursing;

[41] Decree-Law n.º 233/2005, of 29th December 2005.

cardiothoracic surgery intermediate care; pediatric cardiothoracic intensive care unit (ICU); adults' cardiothoracic ICU; transplantation ICU; cardiothoracic surgery medical consultation; and, cardiothoracic surgery operating room. Funding of the CSS is through the payment of rendered services, but it is not a cash payment. Reimbursement for the CSS is translated into an available budget for spending. It is carried out according to the complexity of cases, the case-mix, through the diagnosis-related groups (DRGs) determined for each service provided[42]. Case-mix value was subjected to negotiations with the Board of Directors, who initially wanted to use the medical and surgical index of the CHLC. However, this could have a severe detrimental effects on the CSS income since the health care services it provides incorporate a higher degree of complexity comparing to the average services of the hospital.

Initially the CSS responsibility centre had an incentive system, as established in its internal regulations, subject to annual contracting with the Board of Directors. At the end of the financial period if the CSS reached positive financial results, it could reallocate a percentage of those results to the incentive system. However, currently these incentives cannot be of a financial nature due to legal restrictions arising from the Portuguese financial crisis[43] in 2011, when Portugal had to ask for financial assistance from the so-called Troika. They are restricted, for example, for providing additional qualifications to the employees.

The CSS does not have autonomy to manage human resources (only holds the technical and functional responsibility, and has the possibility to make subtle internal adjustments in the service not being able to transfer, promote or hire new employees).

Acquisition processes are centralized in one hospital service[44]. This means that CSS cannot buy directly from suppliers, being limited to providing technical advice on procurement procedures (mainly by the chief nurse). The investment processes in fixed assets are *a priori* submitted to the Board of Directors approval.

At this intermediate level of management, it was expected that decentralization became effective through delegation of responsibilities, involving the doctors in the management process. Despite that, and according to an auditing performed by the court responsible for reviewing the legality of public expenditure (Tribunal de Contas, 2012: 48) "the truth is that the operationalization of this responsibility centre has never been materialized. Therefore, it

[42] The amount of funds to be paid depends on the contracted price adjusted to the case-mix index, and the activity carried, reflecting the level of resources consumed (health delivery activity).

[43] This restriction was initiated in 2011, under Article 24º of the Law n.º 55-A/2010, 31st December 2010 (Law of the state budget for 2011).

[44] Support services to management and general logistics.

was not achieved the desired goal of the creation of the responsibility centre of the CSS, thus working without any autonomy".

The failure on the attempt to implement an institutional change with the creation of the responsibility centre in the *Santa Marta* Hospital illustrates the need to consider new dimensions in institutional entrepreneurship. Although complying with the requirements presented by the literature on institutional entrepreneurship for the driving forces for the divergent change, in fact this was not what happened.
In the next section we analyse and discuss the data in light of the theoretical framework. We first address the rise of the responsibility centre on the CSS, then discussing its fall. So the first subsection examines the enabling conditions that triggered the creation of the CSS responsibility centre and the role of the potential institutional entrepreneur in this process. The second subsection discusses the process of how the responsibility centre creation, in fact, did not bring about an institutional change.

3.6 Case findings

3.6.1. Service Director individual characteristics and strategies undertaken for the responsibility centre creation

As discussed before in the *Santa Marta* Hospital, the introduction of a responsibility centre was restricted to the CSS. This change is largely the responsibility of a single actor, the CSS Director that despite the pressure towards stability, promoted this organizational change. To analyse the role that this potential institutional entrepreneur played in creating this organizational change, we first focused on his individual characteristics that helped him to mobilize the necessary resources (Hardy and Maguire, 2008). Accordingly, we have identified and analysed those aspects of the CSS Director social position that were linked to his initial success.
CSS Director formal position (Battilana, 2006; Battilana *et al.*, 2009) as service Director provided him legitimacy before the elements of his team, thereby, enabling him to implement changes. He also relied on his own experience and professional reputation as a cardiothoracic surgeon doctor, to legitimize the new practices that he wanted to institutionalize, as he states,

> *"*I am 30 years in this specialty, I am a very experienced person, and I know what I am saying… *"* (CSS Director).

The likelihood of the service Director initiate an institutional change was also influenced by his position in different organizational contexts (Yang and Modell, 2013). The main occupation of this innovative doctor is lecturing as a full Professor at one of the two medical universities in Lisbon. He develops his functions as service Director in the CSS at the *Santa Marta* Hospital, in accumulation. This means that he can only dispense a third of his normal working hours to the CSS (which also implies that his salary as service Director, has as limit an amount equal to one-third of his salary as a Professor). Furthermore, he also works in a private hospital as responsible for the Cardiac Surgery Unit, being also a member of national and international scientific societies. Furthermore, he is also the director of a post graduate programme ('Health Services Management') in a business university. Therefore, this exposition to different fields over time facilitated his access to different institutional practices. This allowed the service Director to take a reflective position, bridging new ideas and alternative modes of getting things done (Beckert, 1999; Boxenbaum and Battilana, 2004). In fact, our institutional entrepreneur has a very particular vision about health care services. Despite being a doctor he has very 'unusual' ideas of how to manage a hospital service, as we can see on his own words,

> *"*I would like to see patients in the service as an assembly line. Services are focused on the medical service, but are not geared to patients. If we want to see this as a manufacturing process, and medicine today is a production process, with all the features, but truly medicine is a manufacturing process, and therefore, the patient must have a flow itself, and it is looking at this flow that we must draw the process after... *"* (CSS Director).

His unique vision on how to treat patients is perhaps also related to his passion for management, and the self-development of his skills in this area over the past few years. The CSS Director goes even further stating that if he had not chosen medicine, he would have the academic formation on the management area.

The institutional entrepreneur also deployed strategies in order to promote his intended changes, by the exercise of episodic power. Hence, the initial actions of the CSS Director were targeted to the actors who he considered as having more power and status, the politicians and the hospital Board of Directors. The question that arose was how this actor, a doctor, was able to promote these changes? He exercised causal power seeking to get the support from the

hospital Board of Directors, for the creation of the CSS responsibility centre, regardless of also having to face the resistance from other actors such as the medical staff.

The institutional entrepreneur enrolled managers and politicians, creating a sense of urgency towards this institutional change. For this, he relied on arguments of cost containment and performance improvement, using accounting and management tools. CSS Director developed an action plan covering issues like autonomy and power delegation, staff, salaries, extra staff and, necessary material conditions. Six sigma is used to reduce waste and improve the safety of health care services and lean methods are being introduced, namely, with the study of the patient process flowcharts. Furthermore, information is gathered for a number of performance measurement indicators[45] that were set to monitor financial and non-financial dimensions of performance. This information allows self-analysis, monitoring progress against established targets and taking corrective actions where deviations are identified. It also aids the hospital internal contracting process, and the subsequent report of the CSS activity to hospital administration. Furthermore, the CSS Director has managed to increase the volume production of the CSS in order to legitimate himself as manager of the responsibility centre and, to demonstrate the benefits of this new organizational structure. Moreover, the CSS Director introduced changes on human resources roles.

Hence, nursing teams were trained to ensure flexibility and multidisciplinarity; and, teams and surgery block schedules were reorganized aiming to maximize profitability. Nurses were no longer confined to a particular unit of the service. Thus, their specialization gave place to a training plan giving expertise for nurses to perform their duties on other units (except in the surgical team, which remained independent, due to its technical distinctiveness). Intermediate levels of leadership were also eliminated and centralized on one nurse, the chief nurse. Before these changes, there were three distinct nursing teams: a team of intensive care, inpatient team and the surgical team, with different managers (chief nurses).

Regarding doctors, the number of doctors who are on duty in the emergency unit outside of normal working hours has been reduced, thus, saving on overtime that needed to be paid. Additionally, a plan of the doctors' weekly activity was implemented by the CSS Director, increasing their surveillance and control. Doctors' technical performance is also monitored by the CSS Director, who has available statistical information about the success or failure of the surgeries performed out by each doctor.

[45] Performance indicators used by the CSS is in appendix IV.

These changes in human resources management has proved fruitful in standardizing procedures, allowed greater flexibility and enhanced the learning process and exchange of expertise among professionals, implying that decisions can be taken at a lower level of organization. Nevertheless, these changes were not equally accepted by all elements of the service, also causing some resistance or discontent among the actors affected by these new practices:

> "Not everyone is equally happy… these changes, not everyone like these changes..." (Nurse responsible for the Office of Quality and Records).

> "In nursing there was a complicated trading in the operating unit, because there was a need to change schedules and to create odd hours. It had to be an agreement with people and that was achieved. Also, for the doctors in the emergency unit, it was not a peaceful decision, but the CSS Director decided that it was technically possible and that there was no injury to the quality of services provided, but obviously people were not satisfied because we went to their pocket" (Department manager).

The CSS Director prepared himself with the study of management and leadership literature; he dedicated himself to create and lead his team, and, explained and emphasized the advantages associated to the responsibility centre implementation. He also relied on the chief nurse to negotiate with the other nurses about the changes in practices; and, on the Department manager to sensitize doctors for a medical practice, with cost concerns, by presenting periodic reports about the activity and costs of the CSS. These reports emphasize the variations in consumptions and activity levels; and, the costs of some medical techniques and equipment, and existing alternatives.

> "I advise the professor [CSS Director], for example, if we are spending more heart valves than last year, I try to understand why. Why are we doing more valve surgeries? Yes, but we are doing fewer repairs... The valve surgery can be (...) made in several ways: by replacing the cardiac valve (mechanical or biological valve) or by valve repair (which is to repair without putting prosthesis). Technically, when we say that the cardiac valve will be replaced, the fact that it is a mechanical valve, in terms of cost, that means I would

> have to spend more 2.000 euro in relation to a valve repair. I advise (...) but I have to assume that this is the best clinical decision…" (Department manager).

Within the strategies engaged by the CSS Director to mobilize allies, he also counted on the Office of Research and Data for the presentation of periodical reports about the medical performance, using variables as predetermined by the Society of Thoracic Surgeons[46]; and, on the Office of Quality and Records, responsible for the diffusion of the best practices, and, for the audit and control of their implementation.

Institutional entrepreneurship literature provided indications on what were the conditions that enabled the CSS Director to aspire to become an institutional entrepreneur, despite pressures to stability by existing institutions. Although, apparently those conditions for institutional change were satisfied, in reality the divergent change did not occur.

> "…we did not change anything ... this is a farce…" (CSS Director).

3.6.2. Institutional change failure

CSS Director wanted to bring about institutional change, but he did not succeed in doing so. In fact, notwithstanding the responsibility centres have been foreseen in Portuguese law, in practice, the majority of hospitals maintained their management structure.

> "I believe that what happened reflects the continuing trend of inefficiency of public policies in Portugal. The instability in policies and in the different actors (decision makers and executors), and persistent tensions between different interests, often lead to a poor practical application of good ideas and projects" (Academic at National School of Public Health).

From a broader perspective of our analysis, we can see that exogenous conditions played a major role in this process. As a member of the CHLC Board of Directors argued,

> "We lost flexibility… we lost a lot of autonomy. We are very conditioned by 'the commitments law', we are very conditioned by all legal requirements on public procurement, we are very conditioned on

[46] The variables coverage: the preoperative (if the patient smokes, has diabetes or/and has hypertension), operative (surgery, type of procedure, other surgeon, assistant, perfusionist, anaesthesiologist) and postoperative (number of days on the intensive care unit), periods.

> staff procurement... but, we still have all the burden of the public service" (Member of the CHLC Board of Directors).

The Portuguese NHS reforms aimed at pursuing decentralisation, resulted in the opposite effect, a centralized control. Verily, as Campos (2004) argues, in Portugal, decentralization in the NHS was never really a goal, it was mere rhetoric used as a public administration tool. In addition, new contradictory reforms began to be implemented by the Nordic European countries, like Sweden and Norway, where there is a tendency towards the centralization of hospital management (Observatório Português dos Sistemas de Saúde, 2014).

The Portuguese NHS allowed the creation of responsibility centres in order to provide more hospital autonomy, in line with the intention to decentralize the NHS. However, although the political discourse and related legislation has made possible the creation of responsibility centres, it did not regulate nor promoted its implementation. According to an academic whose research area is the policies in the health sector,

> "Often resistance to change asserts itself by passivity, inertia and by the administrative blocking. To change is always needed two levers: strategy and leadership in addition to political will. In many of these situations lacked some of these elements" (Academic at National School of Public Health).

Actors' intentions (politicians, managers and doctors) were anything but linear, since, their actions had underlying strategies to achieve more power and/or resist losing power. Therefore, considering the elements of the episodic circuit of power, the first bump that crossed through our way derived from the difficulty to determine the outcomes for which actors struggled within their social relations.

The CSS Director championed the creation of a new organizational form, the responsibility centre, pursuing the increment of the CSS performance. The manager of a responsibility centre is accountable for a combination of resources necessary for the accomplishment of a subset of organizational objectives. There is a delegation of power to a responsibility centre's manager in order to achieve a most efficient use of the resources (Melumad *et al*., 1992). Therefore, it is expected that the manager of the responsibility centre being accountable for the achievement of those results, will engage in additional efforts to increase service performance and to lead other actors do to the same. To achieve this outcome, as analysed in the previous section, the potential institutional entrepreneur relied on his individual characteristics, his social position and developed a set of strategies accordingly. Deepening our empirical analysis, it stood out other outcomes that the CSS Director wanted to achieve.

There was a latent competition with other cardiothoracic surgery services from other hospitals in the country. The institutional entrepreneur aimed to achieve more productivity, to perform innovative surgeries, and above all professional recognition as the leader and as technical expert in cardiac surgery. He wanted to create value and development, as he stated, but foremost, autonomy and power to decide on the management of CSS resources. He wanted to increase the results of medical delivery, having therefore the need to maximise the available resources. His desire was to have the same decision capacity that any manager of a private company has.

> "… the problem of all is that power is something that we use on a discretionary way, but I did not want a discretionary power, I got it here if I want... I wanted an entrepreneurial power that is a different thing... to be able to build something, for example... to be free to say that patients who come from the Azores, as each day of hospitalization costs 1.500 euros here at CSS, so I am going to send them to a hostel, and I will provide a doctor to go there and follow the patient, which will be cheaper ... but I have no power to do so…" (CSS Director).

This intention by the CSS Director reveals a desire to get even more power and influence than the hospital Board of Directors and the corresponding prestige among service Directors counterparts,

> "The problem is that, conceptually, there is a dichotomy between those who direct and who execute and this is a terrible problem and specialties that have a large component hands on (e.g. airline pilots, surgeons), of course, claim that power should reside on who execute" (CSS Director).

This raises a particular interesting feature, since the behaviour of the CSS Director does not follow the findings of Llewellyn (2001), regarding the resistance from doctors to administrative work, because of their fear of losing clinical visibility and respect. The medical culture perceives management practices as secondary, so if a doctor makes management work, runs the possibility of losing respect among his clinical counterparts. However, this resistance to management practices was manifested in the other service directors who have not expressed interest in getting involved in this project. As a matter of fact, the other service Directors of the *Santa Marta* Hospital start feeling impaired. Driven by feelings of insecurity, fear of loss of power and prominence, these doctors start boycotting the responsibility centre model, creating insecurity in the Board of Directors that became

reluctant fearing the potential internal conflicts due to this organizational change. It is expected that doctors with management roles, assume a privileged way to reach other doctors, and thus influence their decisions in order to comply with management objectives (Llewellyn, 2001). However, this power of influence of doctors with management duties must be executed respecting consensus among their counterparts (Jones and Dewing, 1997). According to our institutional entrepreneur, he could not achieve this adhesion. What happened was quite the opposite. For the remaining service Directors, the responsibility centre was an instrument that some privileged doctors obtained, aiming at self-promotion and to achieve increasing financial compensation.

Another group of actors who remained neutral not fully committing to this process of change was the CSS medical staff. Doctors are recognized as having a significant role in resource allocation in the health care they provide, and subsequently in health costs, since they designate the appropriate treatments of diseases. Furthermore, the pursuit of cost reduction and performance concerns are objectives that can be diametrically opposites with the Hippocrates oath, where doctors proclaim respect for human life, despite inherent treatment costs. Notwithstanding the strong leadership of the CSS Director, also doctors belonging to the CSS have not perceived the creation of the responsibility centre as being relevant or that could influence their performance duties. They remained restricted to existing clinical action protocols, regardless of financial information associated.

> "In terms of my records there was no change. In clinical terms we are not doing anything different, and that is what interests me…" (Doctor responsible for Office of Research and Data).

The clinical decisions can bear very high costs, due to the increasing introduction of technological complexity, which can result in conflicts between doctors, whose primary focus is health care provision and, hospital managers who despite being aware to the necessity of the service quality, are also very concerned with its costs. As Llewellyn (2001: 595) argues "clinicians have been guided by the logic of appropriateness and managers have operated according to a logic of consequences". The different language and perceptions restrain communicational transparency between two groups with different expertise, being undeniable the power and autonomy of doctors (Jacobs *et al*., 2004; Llewellyn, 2001). Therefore, belonging to a senior position it is not a guaranty for having more power than those belonging to lowers positions. The most powerful positions may not be directly connected to the hierarchy. This might explain why some initiatives in order to decentralize the NHS have been successful and others have not. As one academic mentioned,

> "The aspects of centralization/decentralization may be less obvious than the formal structures, being most desirable the positions that hold greater influence… greater power" (Academic at Nova School of Business & Economics).

Administrative tasks are considered as secondary and relegated to nurses. Furthermore, the creation of the responsibility centre resulted in a reduction of their wages (due to reduction of the overtime) which has not been compensated by the distribution of incentives given its current legal impossibility, as mentioned above. Nurses feel that responsibility centre has undergone major changes to their day to day work, being the class most affected, even more than doctors. Thus, the responsibility centre is seen, by medical staff, as an imposition needed to control health costs, but without direct benefit to workers.

Our institutional entrepreneur also indicated self-interest, nonconformity and ambition to justify his motivation to implement the responsibility centre.

> "I believe that the public system is totally suffocating, castrating, inhibitor of any innovation, either of management or either of method, whatever it is. And so, as I am a person dissatisfied and with some degree of ambition, I proposed [transforming CSS in a responsibility centre] to the administration that said yes…" (CSS Director).

The responsibility centre implementation mirrored not only the need for more autonomy and power, but also the intention to change medical practices. CSS Director, without neglecting the ethical principles that guide doctors' activity, wanted to integrate a cost-benefit analysis, considering each patient as an investment. As the CSS Director argues,

> "it was necessary to establish: how much it costs, what is the normal life expectancy, which is the expected quality of life, which is the expected quality of life with the disease, how much the disease costs, how much is that costs to treat disease, that is, what is my breakeven point for a surgery..." (CSS Director).

This logic of the CSS Director is identifiable with the expected thought of a manager. CSS Director' strategies demonstrated his sensitivity to the power of the system, but that did not ensure him the support of politicians and of hospital Board of Directors. He embraced this economic vision, thinking that it was the appropriate behaviour which would facilitate the relationship with other actors who he expected would attribute the same meaning to responsibility centres. However, that is not what happened.

We cannot conclude that political actors' real intention was to delegate power to lower levels of management. So, why is that they have created a legal mechanism that provides for the responsibility centre existence, and hence why they have allowed its creation? One possible explanation provided by the chairmen of the *Garcia da Horta* Board of Directors, who was part of the working group that proposed, to the Health Minister in 1998, a design for the implementation of responsibilities centres in Portuguese hospitals is,

> "Dr. Maria de Belém [Health Minister at the time], was confronted with wage demands by the medical profession. The way she saw to be able to pay more to doctors was captivating them for a model that could bring, simultaneously, more efficiency to the system. And so, the responsibility centres were settled as a way to help this goal to come to fruition. If professional groups expect that their wage conditions should improve, then what we think is that there has to be a compromise that the activity, the efficiency of the health care institutions should also improve a lot. With such a model or a model of this type (…) balancing is safeguarded" (Chairmen of the *Garcia da Horta* Board of Directors).

Aligned with the politicians who created the conditions for the organization of hospitals in responsibility centres, also CHLC Board of Directors were open to that possibility, at least in theory. Following political orientation, the CHLC as an 'EPE hospital', should have been settled into responsibility centres. "The organic structures should develop its action by responsibility centres that allow the realization, internally contracted, of their activity programs with autonomy and responsibility, in order to enable forms of work focused primarily on the patient, in accordance with good clinical management practices" (Decree-Law n.º 233/2005, 29th December). Alongside with politicians, and despite its stated intention, the CHLC also has not promoted the creation and development of this middle management level. 'Areas' and 'Functional Units' maintained their organizational structures, not having been influenced to constitute themselves as responsibility centres. In addition to resistance to decentralization, the CHLC was not motivated to change and to increase its economic performance, because in practice there was no major consequence if the CHLC did not reach the expected results. Despite belonging to the business sector of the state, the CHLC provides a public interest service. Therefore, the state confers a financial compensation designed to ensure coverage of specific costs resulting from obligations of public health service. In practice this means that 'EPE hospitals' never go bankrupt. Hospital Board of Directors also

did not perceive that responsibility centres implementation was mandatory and its usefulness was outstripped by their fear of losing control and power.

> "…any Board of Directors knows that responsibility centres are a powerful tool because it has incentives to generate surpluses and therefore benefits the hospital. But they also know, and there lies the behavioural problem (...) of not being willing to share power. (…) This feeling, this attitude or this behaviour is wrong, because the power in a hospital is not at the top, is at the base." (Member of the *José de Mello Saúde* Hospital Board of Directors and Former Health Secretary)

> "In short, the laws are ineffective. Usually it [laws] do not have compliance when it regards this issue of hospitals' organizations…" (Member of the *José de Mello Saúde* Hospital Board of Directors and Former Health Secretary).

Furthermore, while recognizing the benefits of responsibility centres, the hospital Board of Directors was concerned that doctors were not able of undertaking these management duties. So, on the one hand the Board of Directors allowed the creation of responsibility centres because they wanted to legitimize themselves before what was required by law. On the other hand, they felt safeguarded because they believed that this organizational change could not be successful due to their perception of the lack of capacity and interest of medical professionals to assume management tasks. Therefore, the CHLC assumed that service directors would not act towards responsibility centres implementation or even if they did, the degree of decision making capacity that the administration would be able to given in and/or would have interest to decentralize would be very limited.

> "I actually have some difficulty in believing that a clinical director can, in terms of management skills, be self-sufficient (...) an enormous sensitivity to management, with a great capacity for learning and mastery of skills management... but I think it may be so isolated cases that are not enough to believe that in a typical structure, a director, a doctor, can master all the skills necessary to do both, which is be technical director and, simultaneously, the centre manager…" (Chairmen of the *Garcia da Horta* Board of Directors).

For hospital Board of Directors, the responsibility centres were seen as an additional tool for doctors' surveillance and control. Power of doctors over hospital managers is a result of their technical expertise, restricting managers' field of manoeuvre for decreasing operating costs. Board of Directors believed that the responsibility centre would allow the balancing of these power relations. The hospital administration gets more information, financial and non-financial, about the CSS activity increasing its accountability. Accordingly, the decentralization of decision-making capacity inherent to a responsibility centre was not effective. Notwithstanding the apparent interest by the Board of Directors in responsibility centres, the reality demonstrated that there was resistance on sharing power with intermediate levels. CSS Director of the *Santa Marta* Hospital and CSS Director of the *Coimbra* University Hospital (the only CSS responsibility centre that was successfully implemented) share the same opinion with regard to this aspect,

> "I think there are two reasons why the Board of Directors have not operated this [responsibility centre]: the first is the difficulty they have sharing power, and this is because they are not comfortable with their leadership and secondly: they just do not know." (CSS Director of the *Santa Marta* Hospital).

> "But the truth is that those who already have little [power], you know, nowadays a board cannot hire an assistant or even a technical assistant, and therefore, those who already have little, no longer want to give more to anyone and that is, in my reading, the cause of the system failure…" (CSS Director of the *Coimbra* University Hospital).

The responsibility centre has not reached systemic integration, because, beyond the changes mentioned above, there was not a consensus of what the responsibility centre should be. Notwithstanding CSS responsibility centre has been created in accordance with internal regulations that came from the negotiation held by the CSS Director and the Board of Directors, ratified by the Health Minister; the reality is that it has not been translated in major changes on management and accounting practices.

The CSS responsibility centre autonomy is very limited. According to the goals and strategies that are established for the hospital, an internal contract for the CSS is formalized through its business plan, which is submitted for approval by the Board of Directors. This contract is not restricted to CSS by the fact it is a responsibility centre. It results from an internal contracting process, covering the various areas of the hospital. CSS contracts the level of production (for

instance, number of surgeries, number of medical consultations) with the Board of Directors, following a former process of negotiation between the central health care administration system (an agency of Ministry of Health's accountable for managing the financial and IT resources of NHS) and public hospitals. The implementation of the responsibility centre in the CSS has been subjected to successive negotiations between CSS Director and the Board of Directors, consequence of the existing laws, which as mentioned earlier are too vague and thus prone to misinterpretation. The regulation opens the possibility for the creation of the responsibility centres, leaving to the hospitals' Board of Directors the discretionarily to decide how to lead that process. The internal regulations of the CHLC did not shed light on this process. In consonance with the political guidelines, the hospital also has allowed the responsibility centre implementation despite remaining silent regarding how it would be operationalized. There is no guidance about what type of responsibility centre should better respond to the needs of the hospital, what degree of autonomy and the level of decision capacity on resources that should be assigned to the responsibility centre manager. The follow up of the business plan implementation is done by the Department manager, which uses indicators pre-defined by the CHLC and others considered relevant, monitoring all activity and the evolution of the costs of clinical consumables, medications and human resources. This information is collected from the information system of the hospital. Besides this monitoring made by the Department manager, there was no major changes in the administrative and bureaucratic practices. However, the time available by the Department manager, to the CSS remained unchanged. Indeed, a major concern of the CSS Director is his feeling of lack of support, not only from the Board of Directors, but also from the Department manager that takes part of the management body of the CSS. The Department manager is not able to get more involved, because it was not made available effective means, which would allow him to devote himself entirely to the CSS management. In fact, this Department manager accumulates functions as Department manager on other services of the *Santa Marta* Hospital. The CSS Director does not want to be determined by the management decisions. However, he feels the need of having management information fully and timely available, so that he stays in possession of all the necessary information for decision making.

> "The Department manager of a centre like this one has to adopt a management style of proximity (...) It was important that the manager was here because the manager is the person that will say to me 'this module you are managing clinically, for patients is good but it is not for us, so I suggest that you remove it'. What happens is that the

> manager only comes once a month and comes telling me 'the numbers are in this level', and I say ‘thank you, but what I wanted to know was how the numbers were before reaching this value’...” (CSS Director).

Responsibility centre implementation at the CSS did not have major impacts on the working practices associated to management accounting. The systems information used remained almost the same, the information required by the hospital managers and accountants did not change, and, no major additional controls were designed.

In fact, we could see that there is a high sense of powerlessness and frustration from the CSS Director in relation to the political power and the hospital administration due to his scope of action not being the desired one. The autonomy and decision capacity he got was, in his opinion, insufficient to achieve his goals. CSS Director argues that he could not change the CSS business model, regretting having “just a cost centre”.

3.7 Discussion and conclusions

In this chapter we regarded institutions and accounting as a process which reflects the power and interests of actors, rather than as an outcome (Burns, 2000; Collier, 2001; Covaleski *et al.*, 1993). Institutions are not just the outcome of stable practices, but it also embraces conflict, interests and divergent change. To understand this process of organizational change, we have adopted a micro level approach (Covaleski *et al*., 1993), the lack of which “we risk treating institutions as a black box at the organizational level” (Zucker, 1991: 105). We have focused on the dynamics of change at an intra-organizational level but, without neglecting exogenous environmental contingencies. Within institutional theory, the change process has been approached by focusing on change across organizations and organizational sectors. We adopt a different approach, the micro level, focusing on the management accounting change process within organizations, which in our case are hospitals. Hospitals are such complex organizations that incorporate a whole variety of services, different actors with distinct objectives, reflecting the complexity of the health sector and the National Health Service (Abernethy *et al*., 2007).

The implementation of the CSS responsibility centre in the *Santa Marta* Hospital was promoted by the CSS Director, a doctor that initiated a change which could have transformed the institutions in which he was embedded, having, thus, constituted as an institutional entrepreneur. In fact, on our first approach we were led to believe that this change was in an

embryonic stage, and it would be succeeded by the institutionalization of new practices. In accordance with the institutional entrepreneurship literature, the enabling conditions for a divergent change occurrence were fulfilled. The CSS Director was able to mobilize resources and other actors towards his project. The theory of institutional entrepreneurship does not, however, explain how the CSS Director has managed to use those enabling conditions towards his intended institutional change.

Institutions affect individual behaviours, perceptions and constrain their actions, therefore, inhibiting the occurrence of divergent change. But it is not only the power of the system that makes the institutions powerful. It is also the subjectivity inherent to rules interpretation that even in their nature we can say that they also include the openness to change occur. Power only exists if there is resistance. If everything is accepted, then there is no power. Therefore, institutions incorporate a duality: power of stability derived from the power of the system; and, openness to change resulting from actors' interests and individual interpretations of the rules. Thus, despite the enabling conditions previously identified in the institutional entrepreneurship literature, which have created a particular embodiment for this change to occur, it emerged that there were also issues of power involved, leading us to redirect our research in that direction.

The powerful pressure of existing institutions towards stability was overcome by the CSS Director who driven by the desire to get more power and autonomy was able to disembed himself from the existing institutions. In the system integration circuit, the CSS Director introduced new technologies for direct control of the medical staff. Also, new practices were implemented to increase the flexibility of human resources, aiming a better performance. These actions had the goal to demonstrate the management skills of this doctor. By exhibiting increased CSS performance, this service Director proved his ability to manage the CSS resources. Therefore, these strategies empowered and allowed the potential institutional entrepreneur to exercise power on the other two circuits (episodic and social integration circuit).

Individual' skills and social position enabled the CSS Director to act as an institutional entrepreneur and to conduct divergent organizational change, despite institutional pressures for stability. Our protagonist resorted to his individual characteristics to nurture the higher authorities, therefore facilitating the relationships and overcoming the resistance on the episodic circuit. Moreover, CSS Director' legitimacy as renowned doctor, gave credibility and influenced the decision-making of politicians and the hospital Board of Directors for the creation of the responsibility centre. His leadership allowed the exercise of causal power

within the elements of his team. His sustained efforts were intended to transform the deep-seated culture of doctors and to instil a managerial culture.

The process for organizational change within the *Santa Marta* Hospital was also enacted due to exogenous contingencies and contradictions, illustrating that institutions may change, and institutional entrepreneurship takes place if exogenous environmental contingencies have the power to influence them. The health sector, a mature organizational field, has pronounced characteristics and culture embeddedness that can constitute an obstacle to the implementation of reforms (Thomas and Davies, 2005). Nevertheless, there have been successive attempts to implement reforms in the NHS, due to the untenable increased growing of health costs. Responsibility centres in hospitals organization, a heavily institutionalised environment, were integrated into a policy of decentralization. The goal was to involve doctors on administrative tasks in order to reduce health costs, since they have the power to decide on medical acts and inherent resources expenditure. This reformist impetus allied to the fact that our institutional entrepreneur, was embedded in multiple institutional arrangements, provided him with the ability to see the need for change.

Management accounting change, namely, the responsibility centre creation was used as enabler for empowerment by the involved actors, the CSS Director as mentioned above, politicians and hospital administrators. Politicians endorsed the responsibility centres as a public administration tool. As Lapsley (2008) argue, structural changes are attractive to politicians because it is the easiest reform to design, if not to implement. The creation of responsibility centres in hospitals organization is in line with the intention to decentralize NHS. Decentralization was proclaimed as the solution to improve the efficiency in the service delivery and to increase the effectiveness in the resources allocation (Barros and Simões, 2007). There was a politic intention to transfer the financial risk from the Portuguese state to health providers and to ensure lower public spending (Observatório Português dos Sistemas de Saúde, 2014). The creation of responsibility centres as an intermediate management level in hospitals internal organization aimed, therefore, to provide those in charge for costs generation in hospitals - doctors, with management autonomy and inherent accountability.

The creation of the responsibility centre at the *Santa Marta* Hospital was allowed by the Board of Directors, because there was a need for compliance with legal requirements. Furthermore, it was considered as a potential instrument for monitoring and control doctors' activity. This increased medical staff accountability had the purpose to change the balancing of the power relations between doctors and managers in favour of the latter.

These findings widen the concept of institutional entrepreneurship by proposing a new dimension of analysis of the enabling conditions for initiating an institutional change process. Traditional dimensions for divergent change pointed by the literature are intrinsically connected with actors' individual interests, lacking on how power relations are exercised. Thus our study enabled a better understanding of the role of power when initiating a divergent change process.

The responsibility centre became a mechanism imbued with power, and, its legitimation was dependent on the social integration circuit. However, social integration was not achieved. The institutionalization of the responsibility centre was not successful, since it was the subject of resistance and lack of interest among actors, even from politicians who had initially promoted this management accounting tool. Management accounting changes can be a source of conflict between politicians, managers and technicians, like doctors. The CSS responsibility centre was apparently promoted by politicians and managers, but, it was these same actors that first offered resistance to its implementation, through inertia and passivity. Despite an apparent commonality of interests, when there was the awareness that the ultimate results that each actor wished to obtain were different, the implementation and development of the responsibility centre, was not encouraged. The responsibility centre turned out to be a source of uncertainty, object of resistance, and therefore it lost its power. The CSS Director sought to achieve more power, but the other service Directors did not followed him. Their lack of knowledge on management tools could not provide the security they needed to endorse this change. The CSS Director did not conform to the average culture of doctors, therefore lacking sensitivity to the social integration circuit. Doctors refute the interference of management tasks and resist to the intrusion of the culture of cost containment in the development of their work as technicians. Moreover, the creation of the responsibility centre had as presupposition the distribution of incentives, which did not come to fruition. The deterioration of Portugal economic situation resulted on the application for financial assistance from Troika. In this sequence, the economic measures that were designed imposed a number of restrictions, including the inability of the distribution of incentives of financial nature and the prohibition for carrying out overtime work. In addition, it decreased the hospitals managers' autonomy. These exogenous contingencies came to frustrate the medical staff expectations who did not felt rewarded for their extra effort. Also hospital Board of Directors hid behind these contingencies to justify the change on their attitude, with their lack of support for this project. A plausible conclusion is that to accomplish a divergent change, the power that the different actors expect to obtain must be equilibrated. Or at least, that expectative should be created. If

an actor anticipates that he will maintain or lose power with the institutionalization change process than, he will not commit himself and power of the system will prevail. Therefore, the possibility of an institutional change occurrence is increased or diminished by the degree of communality of interests of the actors who challenge the existing institutions, despite being those contradictions that initially awoke the necessity to change.

Silva and Backhouse (2003: 295) argue that "the exercise of power is required to institutionalise a system, particularly if the system is resisted, and, once in place, it becomes a source of power". The CSS responsibility centre creation was not translated into a change on institutional practices, not being institutionalized. Change in exogenous environmental contingencies and the emergence of new interests and conflicting expectations of individual actors undermined the possibility of the CSS Director to exercise causal power. The inability of the CSS Director to respond effectively to these events was due to the fact that he was not able to anticipate them; therefore, he did not develop new strategies in order to pursue his goals. On the other hand, the measures that were implemented by our institutional entrepreneur to increase the service performance at the beginning of this process remained unchanged, with no adaptation to the new reality. Therefore, the power exercised through techniques of discipline and production, induced the disempowerment of the other two circuits, for being decontextualized with the new exogenous environment contingencies and the power struggles that in the meantime have been developed. The power exercised was through inertia and passivity, promoting the power of the system that was first in place.

Our analysis illustrated how 'circuits of power' framework can shed light on the process of institutional change and its linkage with power struggles and resistance within organizational setting. Therefore, by using the lens of power to investigate how that change is interconnected with power relations, we have attempted to extended institutional theory regarding issues of power and change.

CHAPTER IV – ACTIVITY-BASED COSTING IN MEDIATING THE PARADOX BETWEEN COMPETING INSTITUTIONAL LOGICS: THE CASE OF A PORTUGUESE HOSPITAL

Life, disconcertingly and reassuringly, is bigger than straight-line logic,
it conforms with a kind of curved logic which turns things around and often,
before you become aware of it, turns them into their opposites.
(VanderBroek, quoted in Lewis, 2000: 775)

4.1. Introduction

The economic crisis, of 2008 that has wreaked havoc on the global economy fuelled concerns towards inefficiency in the health care sector. New funding mechanisms and managerial technologies that could allow greater transparency in hospitals activity and the increase of the scrutiny of clinical decisions have raised particular interest in the last years (cf. Conrad and Uslu, 2011; Chapman and Kern, 2010; Chapman *et al*., 2013; Llewellyn *et al*., 2016). Among the technologies pointed out of relevance to the sector is activity-based costing (ABC) (Campanale *et al*., 2014; Chapman *et al*., 2016; Demeere *et al*., 2009; Kaplan, 2014; Kaplan and Witkowski, 2014; Kaplan and Porter, 2011; Lin *et al*., 2007; McBain, *et al*., 2016; Popesko, 2013). Advocates of ABC claim that by changing the unit of analysis from the hospital departments/services or procedures to the patients, it allows the improvement of the quality of the outcomes, while maintaining or reducing costs (Kaplan and Porter, 2011). Accordingly, "the potential to improve outcomes while driving down costs is greater in health care than in other field we have encountered" (*ibid*: 6). ABC technology is argued to be the right means to accomplish such ends.

While the adoption of managerial technologies, such as ABC, have been recommend, changes in the health care sector has additional challenges due to institutional complexity that characterizes the field. Hospitals are hybrids organizations, which combine distinct identities (Major and Clegg, 2019; Major *et al*., 2018; Reay and Hinings, 2005, 2009; Scott *et al*., 2000) as well as, emotional registers (Toubiana and Zietsma, 2017; Voronov, 2014) with different institutional logics. Contradictory institutional logics can encourage institutional change, but

they can also hamper it (Lewis, 2000). As Kraatz and Block (2008: 244) argue "[i]n an organization with multiple identities, purposes, and belief systems, no group is likely to be fully satisfied, and political tensions are likely to be endemic. (…) However, we think that institutional pluralism [e.g. when multiple institutional logics coexist] may create important opportunities for organizations, as well. (…) the same institutional pressures that threaten to divide the organization may, at least in some circumstances, hold it together instead".

Both institutional complexity and paradox theories have addressed the nature of the tensions that arise in hybrid organizations, but the understanding of how organizational' members differently experience and emotionally reacted to them has been neglected to date. In institutional complexity theory, research has addressed the incompatibility of the demands from competing institutional logics (e.g. Greenwood *et al*., 2011; Reay and Hinings, 2005, 2009). The focus has been on the integration and/or inability to integrate, and strategic use of the 'business logic' within the professionals' responsibilities (e.g. Gadolin, 2018; Llewellyn, 2001). In paradox theory, the few studies that approach this issue highlight managers' reactions (Huq *et al*., 2017), ignoring other members of organizations (e.g. doctors). Huq *et al*. (2017) is an exception, but their focus is on interprofessional collaboration to understand how professionals engaged with paradox in collective decision-making; and, Sparr (2018), who address how leaders' followers make sense about paradoxes in organizational change. Moreover, the role of emotions in processes of institutional change has been almost excluded from prevailing research (Lok *et al*., 2017).

Our focus is on a hybrid organization, a hospital where institutional complexity (and different emotional registers) prevails. Two main institutional logics within a health care setting are care and business logics (cf. Doolin, 2002; Major and Clegg, 2019; Reay and Hinings, 2005, 2009). On the one hand we have the care logic, were all service provision is guided by the "physician-patient relationship" (Reay and Hinings, 2009: 630), this is, to provide the best health care disregarding inherent costs. On the other hand, the business logic, which is associated to "cost-effective treatment, lowest-cost provider and customer satisfaction" (*ibid*). They are, thus, contradictory logics that coexist in permanent tension. This led us to question how the implementation of ABC mediated the competing demands from logics that are contradictory yet interdependent, i.e. that constitute a paradox in the perspective of the members (the board, managers and doctors) of a Portuguese hospital specialized in cancer diseases ('Hospital X', henceforth), as well as of the Ministry of Health (MoH).

The implementation of ABC technology in hospitals embraces tensions between these logics. However, recent interest in ABC has as its main argument that this technology is suitable to

health care organizations since it increases the value of health care by making transparent the care delivery activity and comparing it with the outcomes (Kaplan and Porter, 2011). Claims that ABC technology is able to link quality issues associated with the activities performed by medical staff with the quest of cost reduction (cf. Chapman and Kern, 2010; Kaplan and Porter, 2011; Kaplan and Witkowski, 2014), motivated us to question to which extent ABC is perceived as allowing to reconcile the logic of care ('quality of the health services provided') with the logic of business ('efficiency of resources consumed and cost reduction'), and the role of emotions in such process.

In so doing, we not only aim to examine the hospital Board of Directors and managers' perceptions and emotions, but also those of the health care professionals, as well as those of the MoH in a setting characterized by institutional complexity. Therefore, we address the gap identified by Jarzabkowski and Lê (2017), who alert for the need to address how paradoxical tensions are actually constructed in the micro-interactions through which people perform their duties. We use the lenses of both institutional complexity and paradox theories as suggested by Smith and Tracey (2016) together with the idea that logics incorporate emotions, thence providing a greater explanatory potential.

The chapter continues with the discussion of the theoretical framework in the next section. Research methods and methodology are then presented. Subsequently we present our findings and analysis. The chapter ends with conclusions and implications of our investigation for future research.

4.2. Hybrid organizations and institutional complexity

"Hybrids are by nature arenas of contradiction" (Pache and Santos, 2013: 972). Hybrid organizations blend aspects of multiple organizational identities, organizational forms, and, institutional logics (Battilana *et al.*, 2017; Battilana and Lee, 2014; Haveman and Rao, 2006). The interrelationships between these elements is translated in the concept of hybrid organizing, which Battilana and Lee (2014: 398) define as "the activities, structures, processes and meanings by which organizations make sense of and combine aspects of multiple organizational forms".

Hybrid organizations research has focused on hybridity as a combination of multiple organizational identities, forms or rationales, with inherent theoretical perspectives being

isolated. This fact led Battilana *et al*. (2017: 128) to argue that "the study of hybrids remains fragmented". In the organizational identity perspective, studies focus on organizations incorporating multiple identities (e.g. Ashforth and Reingen, 2014; Glynn, 2000), or "shared views among members about 'who we are' and 'what we do' as an organization" (Battilana *et al.*, 2017: 130). The combination of different organizational forms is accounted in another theoretical perspective on hybrids. Battilana *et al*. (2017) identifies four perspectives within hybrids organizational forms: (i) transaction cost economics (hierarchical and market forms); (ii) network forms (intra-organizational relationships); (iii) categories (organizational forms combining features from different social categories, or "what an organization is and what it ought to be or do" (*ibid*: 135)); and (iv) organizational archetypes (multiple and distinct configurations of structures and practices regarded as legitimate within an institutional context). The last theoretical perspective relates to the organizations that combine antagonistic rationales. Within this perspective it is included the distinct institutional logics; different cultures; and, transitioning economic regimes, concerning to organizations that combine arrangements from regimes such as market economies and socialist economies (*ibid*: 136).

The health care sector is comprised of organizations that reflect these dimensions of hybrids, incorporating a hybrid organizing (Battilana *et al*., 2017). It embraces distinct configurations of structures and practices, combining social and business forms at its core (Battilana and Lee, 2014). Health care organizations also have multiple hybrid identities (Pratt and Rafaeli, 1997) (e.g. doctors as managers; managers with social concerns), which potentially lead to internal conflicts (Ashforth and Reingen, 2014; Battilana and Lee, 2014; Battilana *et al*., 2017; Glynn, 2000; Pratt and Rafaeli, 1997). According to Reay and Hinings (2009: 646) "[i]dentity is an important component of institutional creation, maintenance and destruction". Reay and Hinings (2009) found that actors guided by different logics maintain strong separate identities (e.g. doctors and hospital managers), achieving the intended organization goals through collaboration. "Physicians and RHA [regional health authority] managers developed new collaborative relationships because it was the only way to accomplish their work. Necessity was the mother of invention" (*ibid*: 646). Even when sharing the same profession, subcultures may be translated in different identities, with distinct interests. For instance, clinical specialities integration and collaboration is challenged by the scarcity of financial resources or by the strongly internalized institutional norms pertaining to duties and obligations of each specialty. This was the case of Wright *et al*. (2017) study, which shows how emergency department physicians reacted emotionally when they felt that other specialists treated patients as a low-priority unit of work. These identities "serve as a filter influencing how

institutional logics are interpreted and enacted internally by members" (Battilana *et al*., 2017: 151). However, the coexistence and adoption of logics with antagonistic prescriptions may question organization's legitimacy as a "generalized perception" (Greenwood *et al.*, 2017: 5), reflecting instead the interaction between the organization and their multiple audiences.

In the health sector, historically dominated by a professional and care logic, a business logic has been expanding (cf. Major and Clegg, 2019; Reay and Hinings, 2005, 2009; Scott *et al*., 2000). In a context of financial crisis, the scarcity of resources induced organizations to direct their efforts to the accomplishment of the demands from the external constituencies on whom they depend to achieve those resources (Battilana *et al*., 2015; Battilana and Lee, 2014). In health care organizations, this could be translated into increased risk of prioritizing customer's demands, namely, the state and other entities responsible for funding over the beneficiaries' needs, that is, the patients.

4.3. Institutional logics and emotions

Institutional logics are "the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality" (Thornton and Ocasio, 1999: 804). They establish a link between agency and institutions, therefore, providing meaning to a particular organizational field (Ezzamel *et al*., 2012; Friedland and Alford, 1991; Reay and Hinings, 2009; Scott *et al*. 2000; Thornton and Ocasio, 2008, 1999; Thornton *et al*., 2012).

As Thornton and Ocasio (2008: 103) highlight, "interests, identities, values, and assumptions of individuals and organizations are embedded within prevailing institutional logics". However, organization's reality incorporates institutional complexity due to incompatible prescriptions from multiple institutional logics (Greenwood *et al*., 2010; Greenwood *et al*., 2011; Lounsbury, 2007; Pache and Santos, 2013; Thornton and Ocasio, 2008). Such institutional complexity potentiates the occurrence of conflicts, since actors follow the demands imposed by different logics (Battilana and Dorado, 2010; Fan and Zietsma, 2017; Mair *et al.*, 2015; Thornton and Ocasio, 2008). These contradictions may also provide institutional actors with cultural resources for institutional change (Thornton and Ocasio, 2008; Thornton *et al*., 2012). Thence, institutional logics can both constrain and enable institutional change.

Researchers have been interested in the presence of multiple logics at the field level, studying fields in transition from one dominant logic to another (e.g., Gawer and Phillips, 2013; Greenwood *et al*., 2002; Lounsbury, 2002; Major and Clegg, 2019; Thornton, 2002; Rao *et al*., 2003); and, within a field, studying contradictions between two or more logics (e.g. Battilana and Dorado, 2010; Chen and O'Mahony, 2006; Dunn and Jones, 2010; Lounsbury, 2007; Pache and Santos, 2010; Reay and Hinings, 2005, 2009). Yet, the co-existence of multiple logics and the process through which actors deal with increased complexity remains an under-examined issue (Fan and Zietsma, 2017).

Furthermore, human behaviour is not only shaped by rational choices, being also influenced by the emotional processes that are inherent to human relationships (Creed *et al*., 2014; Voronov and Vince, 2012; Voronov and Weber, 2016). Nonetheless, institutional theory research has not paid significant research attention in understanding how people experience the institutional arrangements (for exceptions see Creed *et al*., 2014; Fan and Zietsma, 2017; Toubiana and Zietsma, 2017; Voronov and Vince, 2012; Voronov and Weber, 2016; Wright *et al*., 2017), what they feel about the practices and rules that guide their lives, in short, what are the emotions that are triggered or affected by the institutions (Lok *et al*., 2017).

Regarding the institutional logics, they also incorporate emotions (Voronov, 2014). Toubiana and Zietsma (2017) pointed that despite the emergence of a growing number of studies on the different logics within organizations, none has examined the role emotions play in this process. In that sense, in their paper, Toubiana and Zietsma (2017), show how institutional logics have different emotional registers, i.e., rules for the legitimate use of emotions within a logic. According to Toubiana and Zietsma (2017: 944) "logics carry with them expectations about how specific emotions can be used or expressed in specific circumstances", being that the emotional register of a logic does not necessarily involve a particular set of emotions. Voronov and Weber (2016) argue that, in addition to expressing emotions in institutional appropriate ways (which they term as actorhood), institutions drive peoples to care and desire for institutional ideals, through an emotive process, the institution's ethos. "Logics prescribe norms and beliefs (what should be done), whereas ethos prescribes the moral and transcendent ideals for why these norms are desirable" (Voronov and Weber, 2016: 461). Voronov and Weber (2017) go further suggesting the connection between ethos and institutional logics, since ethos organizes the emotional registers of different logics, allowing these emotional registers of logics to overlap.

Health care organizations are an example of hybrid organizations, which have to combine multiple and conflicting logics (Battilana and Dorado, 2010; Scott *et al*., 2000). Hospitals

operate under an institutional complexity situation, facing prescriptions from various logics: for example, the users' logic, the medical care logic (medical professionalism logic), the economic efficiency logic (business logic), and, the health care policy logic (Miller and French, 2016; Reay and Hinings, 2005, 2009; Scott, *et al*., 2000; Thornton and Ocasio, 2008). These multiple logics give rise to tensions due to the competing demands from multiple stakeholders. The main interested on hospitals functioning are the ones for whom health care services are provided, the patients. Who is ill has a selfish point of view, because wants to receive the best medical service that ensures the recovery of their health, notwithstanding the inherent cost. For doctors, their logic is to provide the best medical acts that they are able to each patient, acting in accordance with a logic of medical professionalism that emphasizes the quality of care and autonomy (Dunn and Jones, 2010; Reay and Hinings, 2005; 2009; van den Broek *et al*., 2014). The ambition of hospital managers is to maximize the use of hospital resources at the lowest cost possible. They are guided by a business logic, thus emphasizing the efficiency (van den Broek *et al*., 2014; Reay and Hinings, 2009). Their view is not humanized with each patient situation, driving their efforts for the overall hospital performance. The logic of politicians embraces more than an individual or organizational remit. The political actions are at a broader view, seeking the health sector as a whole and the impact of their decisions on a wider context. Political discourse proclaims the individual, focus on the organizational, but seeks the global. Since the 1980s, with the introduction of market mechanisms, the health sector has been governed based on the central values of efficiency and effectiveness in service delivery being, therefore, closer to the business logic (Reay and Hinings, 2005; Scott *et al*., 2000).

These multiple institutional logics have distinct emotional registers that might be contradictory. Therefore, health care organizations face additional challenges, since the emotional dimension needs to be addressed in order to understand hybrid organizations (Toubiana *et al*., 2017). Fan and Zietsma (2017) paved the way to this understanding by presenting a process model of a new logic construction in which emotions act as process facilitators. They find that when emotions are positive the new shared logic is promoted, being weakened when the emotions are negative. But if a new shared logic is not constructed, how do members of organizations choose between different logics? Thus, we were intrigued to know whether the emotional competence (ability to experience and display emotions that are deemed appropriate) of the actors embedded in our research setting influenced their management of the complexity.

Even though the health sector is, historically dominated by a professional and care logic, a business logic has been expanding (e.g. Gadolin, 2018; Reay and Hinings, 2005, 2009; Scott *et al*., 2000). In our research setting, the attempt to implement ABC is in line with the spread of this logic. The concepts inherent to ABC like cost objects, activities and cost drivers embrace a new cost accounting logic, the cost management (Gosselin, 2007). This perspective has been disseminated by accounting researchers like Kaplan and Porter (2011) who advocate for the potentiality of ABC to conciliate apparent divergent goals, quality *versus* efficiency and costs, therefore, addressing two competing institutional logics, care and business logics:

> "We are struck by the sheer size of the opportunity to reduce the cost of health care delivery with no sacrifice in outcomes. Accurate measurement of costs and outcomes is the previously hidden secret for solving the health care cost crisis." (Kaplan and Porter, 2011: 18).

The co-existence of these distinct logics occurs in a context in which actors also have different identities: e.g. health care professionals and managers. While hospitals need to pursue the care logic promoted by the medical staff, they also need to think in costs, as resources are not unlimited. Yet, if hospitals' managers' decisions were based solely in a business logic, it would raise criticism and resistance by the actors who associate this organization to a professional entity and expect it to act primarily within this role. Kraatz and Block (2008: 248) summarizes this situations arguing that "organizational actions appear to be *co-produced* by multiple identities and/or *co-evaluated* by multiple audiences".

Notwithstanding organizations have adopted strategies to adapt themselves to this complexity (Kraatz and Block, 2008), we were intrigued to understand if actors' responses in Hospital X were the same. According to Smith and Tracey (2016: 460), "institutional theorists conceptualize hybridization as a structural response to complexity (…) [while] paradox theory stresses dynamic and agentic responses to complex tensions". Nevertheless, Smith and Tracey (2016: 461), also alert for "[r]elatedly, both lenses [institutional complexity and paradox theory] often focus on the nature of the tensions but offer less insight into how organizational members *differentially* experience them". Therefore, in order to provide additional insights on how actors respond to the demands imposed by different logics, we follow Smith and Tracey (2016) suggestion, by taking together institutional complexity and paradox theory, therefore, potentiating the complementarity of both theoretical lenses.

4.4. The paradox perspective

Research on hybrids and institutional logics coexist without interacting with each other (Smith and Lewis, 2011). Paradox theory can be the bridge between these theories. As Smith and Lewis (2011: 397) argue, in order for organizational leaders to effectively manage those tensions, and "fully leveraging their potential, however, requires efforts to identify commonalities and create integration through which paradox proponents may connect, interact, and build from each other's understandings".

Organizational researchers have been examining management and organizational paradoxes since late 1980s (Hargrave and Van de Ven, 2017). Paradox research portrays contradictions in organizations, such as the paradox between structure and agency (cf. Garud *et al*., 2007), tensions between private and social missions in hybrid organizations (cf. Battilana and Dorado, 2010; Pache and Santos, 2013; Sharma and Bansal, 2017) and contradictory institutional logics (Kraatz and Block, 2008).

According to Lewis (2000: 760), a paradox can be defined as "contradictory yet interrelated elements – elements that seem logical in isolation but absurd and irrational when appearing simultaneously". Unlike previous organizational literature that depicted tensions in organizations as independent oppositions, paradox lenses views contradictions as interdependent (Smith *et al*., 2017). This underlying assumption of paradox theory reveals some differences compared to how institutional theorists see institutional complexity. Institutional complexity focuses on the incompatibilities of logics and on the strategies that organizations can adopt to manage and minimize conflicts, making concessions, choosing prescriptions from one or the other logic, or trying to accommodate both logics. On the other hand, paradox scholars depict not only the complexity nature of the elements, but also its interdependence. "Contradictions emphasize the differential, oppositional nature of elements, while independence captures the synergies, integration, and mutual constitution that persist over time" (Smith and Tracey, 2016: 458). According to paradox literature, those tensions are characterized by insoluble opposing poles, meaning that organizational leaders do not have to choose between them. Organizations can productively manage competing alternatives, which can lead to a positive effect on organizational outcomes (Calabretta *et al*., 2017; Hargrave and Van de Ven, 2017; Huq *et al*., 2017; Lewis, 2000; Sharma and Bansal, 2017; Smith and Lewis, 2011; Smith, 2014).

Beyond the interdependency, persistency of tensions over time constitutes another feature of paradox theory (Smith and Tracey, 2016; Smith and Lewis, 2011). Engaging in one pole

causes a reaction at the other pole, triggering cycles over time (Smith, 2014). Embracing competing demands, accepting paradoxes over time, can foster 'virtuous cycles', enabling long-term sustainability. Alternatively, when organizations fail to engage in paradoxical tensions, this causes 'vicious cycles' (Calabretta *et al*., 2017; Smith and Tracey, 2016). Tensions derived by contradictions, e.g. between institutional logics, can enable institutional change (Lewis, 2000), but they can also reinforce institutions inhibiting change (Cunha *et al*., 2018; Lewis, 2000; Sparr, 2018). Actors' initial defensive actions, for instance, choosing one of the two opposing poles, reduces anxiety and promotes an initial apparent order. However, eventually it may intensify opposition and result in a suboptimal outcome (Calabretta *et al*., 2017; Lewis, 2000; Sharma and Bansal, 2017; Smith and Tracey, 2016).

In hybrid organizations, with competing institutional logics, complexity persists over time, forcing managers to deal, simultaneously, with interwoven requests. Beyond the managers' engagement on paradox, Huq *et al*. (2017) highlight the role of professionals, since paradox arises and becomes salient at different levels of analysis (Jarzabkowski and Lê, 2017; Schad *et al*., 2018; Smith, 2014; Smith and Lewis, 2011; Smith *et al*., 2017). In this respect, Smith and Tracey (2016: 461) alert for the gap in both paradox and institutional complexity theories as both lack explanations about how organizational members differentially experience those tensions. Smith and Tracey suggest the combination of both lenses, in order to provide complementary insights. While institutional theory assumes that tensions are institutionally derived, for paradox theory tensions can be local and specific (Smith and Tracey, 2016) and linked to individual capabilities (Schad *et al*., 2018). On the other side, applying institutional complexity to paradox lens, can led to a focus on the external sources of tensions which paradox theory often neglects (Hargrave and Van de Ven, 2017; Schad *et al*., 2018). Moreover, power relations can influence these tensions (Hargrave and Van de Ven, 2017; Huq *et al*., 2017; Schad *et al*., 2018). As Clegg *et al*. (2002: 490) pointed out, "[c]ontradiction is not only a direct or indirect result of a turbulent environment. Organizations are fields of power where fights for distinction and domination often allow (and even foster) contradictory views of the organization's future co-existing in a single entity". Therefore, despite paradox theory recognition of the equal importance of both sides of tension's poles, the reality is that there is an imbalance, and a tension's pole can become more powerful than the other (Clegg *et al*., 2002; Schad *et al*., 2018).

In hospitals, tensions arise due to distinct institutional logics, experienced by the different groups of actors. Focusing on the professional/care and the business logics, the main tension that arises is the quality of patient care versus the inherent cost, which is a tension that persists

over time. These logics are contradictory, because increasing the quality of treatments implies more resources, which are expensive. The implementation of a business logic in a hospital affects the way patients are treated, and conversely, the care logic depends on the availability of resources, so both logics are interdependent. Moreover, according to the paradox theory, both poles are equally important and must be balanced. However, there is a fluctuation between the primacy of each of the poles, given the political, economic and social context. The prescription of activity-based costing in the health care sector falls within this paradox.

In hospitals, managerial influence over professional work is admittedly limited; therefore, status, hierarchy and power are factors that affect professionals' engagement with the paradox (Huq *et al*., 2017). With regard to health professionals, there is a clear functional hierarchy, with doctors at the top, followed by nurses and other health professionals (Huq *et al*., 2017). This hierarchy and inherent status also takes place within each professional category. For example, among doctors there is a status distinction based on professional experience and recognized technical competency among peers. When tensions occur among different health professionals, for example doctors and managers, the literature demonstrates that the power of the first group tends to unbalance one of the poles in their favour, therefore constraining managers' ability to change their mode of action (cf. Reay and Hinings, 2005).

4.5. Activity-based costing (ABC) in hospitals

The "Relevance lost" (Johnson and Kaplan, 1987) that weakened the management accounting field since early eighties, gave rise to a "Relevance regained" (Johnson, 1992). ABC creation (*ibid*) it is founded on this reform movement, being considered as one of the most important innovations in management accounting (Gosselin, 2007). Traditional full costing has been criticized for its arbitrariness in cost allocation by ABC promoters, who claim that this new technology fills this gap (Cooper, 1990a; Cooper and Kaplan, 1992; Cooper and Kaplan, 1987).

ABC allegedly allows unit costs to be more accurate, emphasizing marginal contribution analysis and thus better managing activities and costs (Gosselin, 2007; Jones and Dugdale, 2002). Moreover, it is said to help managers to understand cost hierarchies, providing more accurate information for managers (cf. Argyris and Kaplan, 1994; Jones and Dugdale, 2002; Lukka and Granlund, 2002; Major and Hopper, 2005). The underlying ABC rationality is that indirect costs are allocated to significant activities (through resource cost drivers) in which the

resources are consumed. Subsequently, these costs are *attributed* to cost objects through imputed causal relations based upon volume and non-volume related activity cost drivers (Cooper, 1990a,b).

Notwithstanding the above, the initial enthusiasm was overcomed by the increasing number of ABC dropouts. To the advantages associated to ABC a number of concerns started being raised (Armstrong, 2002; Jones and Dugdale, 2002; Kaplan and Anderson, 2007; Kennedy and Bull, 2000; Major and Hopper, 2005; Hopper and Major, 2007), namely that: it is difficult and complex to implement (Gosselin, 2007; Major and Hopper, 2005); its implementation is excessively costly (Malmi, 1997; Udpa, 1996); and, causes workers resistance, as they perceive ABC as a threat to their autonomy and job security, as well as representing additional administrative work (Argyris and Kaplan, 1994; Major and Hopper, 2005; Malmi, 1997). Even in relation to its added value comparing to traditional costing systems, some authors also suggest that ABC merely refines conventional overhead costing (Armstrong, 2002), being its usefulness restricted by the existence of specific conditions (for example, Noreen (1991) argues that all costs must be strictly proportional to the inherent cost driver).

With regard to the health sector, the implementation of ABC also entails additional challenges due to the underline complexity of health care organizations (Arnaboldi and Lapsley, 2005; Popesko, 2013; Kaplan and Porter, 2011). Literature reports that clinical costing is highly demanding (Yereli, 2009), and this is one of the reasons why it is not generalized to most health care providers.

Hospitals complexity derives not only of the expectations of different stakeholders, but also of the complexity of the services it provides (Kaplan and Porter, 2011; Mateus, 2010; Popesko, 2013). The level of production has a great degree of uncertainty (Llewellyn and Northcott, 2005), with a lack of standardized medical practice (Kaplan and Porter, 2011), which is also subjected to social factors and to a monopsonist public financier (Ferreira *et al*., 2010).

Traditional cost accounting systems do not encompass this complexity. Cost centres incorporate greater diversity of costs than activities. Therefore, being the activities the costing elements instead of cost centres, grants a greater homogeneity of the costs that are pooled.

The main benefit of implementing ABC would be reducing costs by the visibility, and therefore the management capacity, which is granted to the activities and associated costs at a more disaggregated level. This would buck the trend of costs increase, and enhancing hospital efficiency (Cardinaels *et al*., 2004; Chapman and Kern, 2010; Popesko *et al*., 2015; Kaplan and Porter, 2011).

Despite the above, the perceived difficulty and cost of implementing ABC, led to the disinterest and partial abandonment of using the technology in health care settings (Lawson, 2005). Contrary to what the initial success might have predicted, ABC implementation on health care organizations has been confined to individual units of hospitals (Popesko and Novák, 2011), namely, in surgery services (Baratti *et al*., 2010; Cinquini *et al*., 2009; Kaptanoglu and Akıncı, 2015; Yereli, 2009); in hospital's departments and services (Jericó and Castilho, 2010; Ramsey IV, 1994; Popesko *et al*., 2015; Ridderstolpe *et al*., 2002); and, in hospital laboratories (Chan, 1993; Gujral *et al*., 2010).

ABC it is not a guarantor of the accuracy in indirect costs allocation to products, incorporating estimates and subjective judgement (Armstrong, 2002; Jones and Dugdale, 2002; Major and Hopper, 2005). Indeed, the heterogeneity of the hospital production implies that the activity costs are, and as Larsen and Skjoldborg (2004: 301) argue, "crude averages", remaining the need of estimation, which may give rise to reservations about ABC's relevance.

But other obstacles interposed to the ABC implementation, following the path of other management and costing initiatives in health care, namely resistance from health professionals (Northcott and Llewellyn, 2003; Major and Clegg, 2019). Clinicians' resistance to management accounting initiatives has been the subject of a number of research publications (e.g. Abernethy and Stoelwinder, 1995; Doolin, 2004; Jacobs, 1995; Major *et al*., 2018). Moreover, the impact of the introduction of managerial initiatives on the thoughts and actions of health professionals has not been uniform. Existing studies, with contradictory results, advocate the hybridization of doctors with the business logic, or on the opposite side, argue for the independence of clinical practice (Gebreiter, 2017).

However, in recent years ABC[47] has been recaptured and advocated as an effective management technology in health care organizations (Campanale *et al*., 2014; Chapman *et al*., 2013, 2016; Chapman and Kern, 2010; Demeere *et al*., 2009; Kaplan, 2014; Kaplan and Witkowski, 2014; Kaplan and Porter, 2011; Lin *et al*., 2007; McBain *et al*., 2016; Popesko, 2013). Such interest might be explained by the fact that health care costs have been increasing and that beyond such trend is the lack of knowledge of how much it costs to deliver patient care and the outcomes that are achieved.

The replacement of traditional costing, which offers aggregated information by ABC, therefore, privileges health care performance emphasizing scrutiny by policy-makers, hospital

[47] When referring to ABC, we also include time-driven activity-based costing (TDABC), which is an attempt of refining and, at the same time, simplifying ABC. In TDABC time equations are used to estimate time spent on activities, hence replacing the need to periodically surveying employees.

managers and general public. Ippolito *et al*. (2016) and Kaplan and Porter (2011) stresses that health systems cannot focus on cost reduction, but on patient value creation (dependent on the specificity and complexity of each patient' clinical situation), for which traditional cost accounting systems are not suitable.

4.6. Research methods and the research site

4.6.1. Rationale and sources of data

In order to get a wide and comprehensive picture of the ABC implementation in Hospital X, this study adopts case-study as the research strategy. Adopting such method allowed us to formulate 'why' and 'how' research questions, which as Abernethy *et al*. (2007: 823) argue have "the potential to offer fruitful insides into both the design and use of accountability and control systems in the context of health". Furthermore, case-based research is a valuable tool when conducting studies that draw on paradox perspective: "[i]f we are to take paradoxes seriously, we need to develop these and other methods to explore paradoxical tensions, their management, and their impact" (Smith and Lewis, 2011: 397).

Twenty-one semi-structured interviews were conducted with members of the Board of Directors of Hospital X, its managers and medical staff (doctors and nurses in management positions, as service directors and chief nurse) as well as, with, academics and a member of the international consulting firm hired by the hospital for the ABC implementation project. In total, interviews amounted to 12,4 hours, being tape-recorded and then transcribed verbatim (for the only interview that was not tape-recorded, extensive notes were taken during the interview). Interviews were conducted in two periods: from December 2014 until August 2016, and subsequently on April 2018 (see appendix VI). In the first round interviews focused on changes in the hospital's management accounting, namely, on the implementation of ABC. Interviews were designed to help us understand the perspectives of relevant internal stakeholders on how they dealt with contradictory institutional logics associated with the adoption of ABC in the hospital. In concrete, interviews covered the actors' perceptions related to the elements that potentiated or inhibited the acceptance of ABC as a management and cost accounting technology. Our research focused on the criticisms, difficulties and problems that have arisen either in the implementation or in operation of ABC, verifying the results and practical application in the day-to-day hospital' operations. On the second period,

interviews were refined in order to confirm prevailing evidence and collect additional (detailed) data in the context of the theoretical lens adopted for the study.

In order to allow data triangulation, interviews were supplemented with secondary sources (archival documents). The archival analysis included official documents from Hospital X (e.g. annual reports from 2003 to 2017; '*contrato-programa*' – that is the contract between the hospital and the MoH, covering the periods of 2013-2015 and 2017-2019, business plans from 2013 to 2016; and internal information bulletins) government studies on the financial sustainability of the Portuguese NHS and on hospitals' restructuration; reports from the Portuguese and the European Observatory on Health Systems and Policies; Audit Court reports; laws governing the Portuguese health sector since the 1970s; news disclosed in the press; and, information from the websites of the Hospital X, the government and regulators. These documents provided important contextual information, helping us not only to get a better knowledge of the hospital and the health care field as well as, to understand how actors' activities (practices) and statements reflected different logics and emotional registers. "Because paradox persists, methods that track phenomena over time are particular suited to study them. Paradoxes are puzzling; therefore, approaching them from diverse angles will be helpful to understand how the clash of interpretations may explain their metamorphosis over time" (Cunha *et al*., 2018: 19).

4.6.2. Data analysis

When we started this case study, it was clear to us that the implementation of ABC underpinned the existence of conflicting institutional logics. As we collected and analysed the data, it became increasingly dense and complex, which led us to include the institutional complexity and the hybrids lens. Iterating through data and theory, led us to consider the introduction of paradox theory. Actors in hospital organizations face, daily, conflicting demands from distinct logics; this is particularly evident in what concerns care and business logics, which as we argued before are contradictory, yet interdependent, with tensions persisting over time. This led us to question whether management accounting change associated with the introduction of ABC, influenced or were influenced by the way actors experienced these tensions.

We started by organizing data, tracking events as they occurred. This allowed us to gain insight into the field and organizational contexts, and to understand how actors responded to

events. Such understanding was paramount as "for effectively depicting paradox requires detailing its context and multiple dimensions, as well as providing a dynamic view of tensions, defenses, and their management" (Lewis, 2000: 773). As we proceeded with the data analysis, we categorized data so that first-order themes emerged (cf. Gioia *et al*., 2012). Throughout our data analysis process, we proceeded iteratively between the data, the emerging themes and our theoretical framework, ultimately aggregating the existing categories into second-order themes and then into broader aggregate dimensions (*ibid*).

Our data analysis resulted into four aggregate dimensions: (i) *context variables and boundary conditions*; (ii) *paradoxical tensions between care and business logics*; (iii) *experimenting contradictions*; and, (iv) *managing paradoxical tensions*. The first category concerns the exogenous organizational conditions that influence hospitals' organization and responses to existing tensions while the second highlights the tensions that affect managers and professionals in a hospital setting on a daily basis. The last two categories regard to how professionals and hospital managers differentially perceive and react to the coexistence of distinct logics in their daily routine (see Table I).

Table 1 – Summary of categories with illustrations

Categories	**Illustrations**
Context variables and boundary conditions	"In the year 2012, the external environment was a strong threat to the good functioning of the health institutions due to the size of the cuts in their funding, due to the economic and financial crisis. (...) Considering that the current scenario of economic/financial conditioning will continue in 2013, only an increase in efficiency may enable [Hospital X] to continue to maintain its level of activity. There is thus a need to reduce still existing wastage and rationalize processes to prevent constraints from being felt in key areas." (Hospital X, 2012). "It is true that the NHS suffers, and has always suffered from some underfunding, and therefore the process of contracting with hospitals is somewhat affected, or is greatly affected by it. If there is no value to finance hospitals that is recognized by all as sufficient to meet the requirements of the system... there will always be an embarrassment to contracting... prices are determined [by the Central Health Care System Administration (ACSS) a departmental agency of the MoH accountable for the management of financial resources of the NHS]... and afterwards, because we also do not have the capacity to negotiate with all the institutions, all the production that they would eventually have the ability to do... and because

	we have an obligation to maintain some equity in the distribution of funds... it is not having a hospital that is very well, and the rest are very bad... is to try to get all hospitals to improve response times, to reduce the number of patients on the waiting list, to improve their standard patient costs, to all walk towards a positive or zero EBITDA... so our obligation here is also to ensure that there is some, or that there is a lot equity in the distribution of resources across all the region…" (Member of Board of Directors at Regional Health Administration of *Lisboa e Vale do Tejo*, a departmental agency of the MoH accountable for the regional implementation of national health policy objectives and for coordinating all levels of health care).
Paradoxical tensions between care and business logics	"For most professionals, the notion that they have is about what they want and what their need is and therefore, they have no idea about the implications that this has in the organization. I do not know if it is because they do not realize it or if it is a matter of priorities. I cannot tell this, but sometimes there is some difficulty explaining why it is not possible, because there is a limit here that we have to guarantee... we have a budget to meet, which does not extend to all... there is much the question: why does the doctor from the other side have and I have not?" (Hospital manager 3). "We [doctors] realize that their [hospital managers] language is only numbers… only… they just want to have a good result on the Excel lists that they have to send to the MoH… as long as they have there a good result, they just do not care. If this [e.g., introduction of a new technology] was important, if it represented a technical advance, they do not care… more patients die… patience!" (Doctor 5, Service Director). "…it is not easy because doctors are very dissatisfied... things have to be done for yesterday... as you know the management it is not like this... the management of a hospital is done in a programmed way..." (Chief nurse, previous member of hospital Board of Directors).
Experimenting contradictions	"[The management functions currently performed by the doctors] are very few, they are adequate to the little information they give us... if they gave us more information and maybe more support, we should be more involved in management functions. Unfortunately, the Hospital [X], and I think most hospitals, live in survivable conditions, that is, I do not have enough human resources for the clinical activity, so I make a routine diagnosis just like my other colleagues and besides it, I still have to pretend that I do management ... I do poor management because I am essentially extinguishing fires." (Doctor 3, Service Director).

	"Health has costs and we have to try to contain them without losing quality (...) but I say again, first [clinical] results, then results with quality and satisfaction of the users and then the financial part..." (Doctor 1, Service Director). "Every year the budget is made, but it depends on its execution mainly from doctors, doctors and nurses, but mainly from doctors. Being the ones who have the decision about consumptions, about treatments, treating a patient with more or less exams, with more analysis... it is relevant and almost obligatory that they get involved in management and that they have the notion of what it costs as well." (Hospital manager 2).
Managing paradoxical tensions	"[ABC] it is a tool, or an important information [sic] to then go to (…) an economic-financial analysis of our [health care] activity. I want a new equipment... with this I will reduce in two days the length of stay in the hospital... or I want a new medicine and with it I will reduce the number of infections and with that I will reduce the length of stay and so on... (…) I think it is a tool to take that further step..." (Doctor 1, Service Director). "I still do not have the results [of the ABC implementation] in my possession today. I prefer to have good information late than to have none, or to have it and to be completely wrong... so I prefer to use sensitivity if you want... the 'I think that'... that is a good working tool, 'I think that'. In the absence of this information we have to use the 'I think that', because life goes on..." (Hospital manager 1).

4.6.3. The research site

Hospital X is a multidisciplinary cancer centre which provides health services in the field of oncology since 1923, date of its creation. Initially it was directed to the area of cancer research, being under dependence of the Ministry of Education until 1987 when it integrated the MoH. Currently, its mission is more comprehensive providing health services in the field of oncology, with activities in the areas of research, education, prevention, diagnosis, treatment, rehabilitation and long-term care. Located in Lisbon, its area of operation covers about four million inhabitants and is the only institution in its geographic area of influence with the possibility of treating pediatric oncological patients.

Hospital X became a public enterprise entity in 2005, following the corporatization of Portuguese public hospitals, with legal personality, administrative, financial and patrimonial

autonomy and entrepreneurial nature. Similarly to other NHS hospitals, it is paid by the state for the provision of health services through a '*contrato-programa*', signed with the MoH. (through the ACSS, that is the departmental agency of MoH in-charge of the management of the financial resources of the NHS, and the RHA accountable for the Lisbon region). The contract sets the contracted production, qualitative and quantitative targets and inherent timing, ways and means to pursue it, namely investment, indicators for assessing the performance and level of users' satisfaction and other obligations of the parties. The financing model is essentially prospective, but after the year of 2013, it also includes a comprehensive financing, which establishes a comprehensive price[48] per treated patient per month in some oncological diseases, namely, breast cancer, uterine cancer and colon and rectum cancer.

The signed contract only relates to the beneficiaries of the NHS, not considering the services provided to beneficiaries from the autonomous regions of *Madeira* and *Açores*, from private subsystems, and from any other legal or contractual liable third parties. The direct payment from public health subsystems to hospitals was suspended after 2010, and therefore, the '*contrato-programa*' now includes funds for hospital reimbursement for providing those services. There is, therefore, a situation of "almost monopsony", where the income from the contract with the NHS has a weigh close to 92% of the total operating income (Hospital X, 2015). A direct implication of this budgetary dependence is the increased concern of the hospital Board of Directors regarding the way prices for contracted health care services, are formed by MoH.

The health care services provided are: inpatient services; surgical and non-surgical ambulatory services; outpatient encounters; emergency; day care hospital; home care; and nursing home. In addition to the identified production lines it is also contracted specific programs such as medical assistance abroad; technical assistance; incentives to transplants; training and research; and, medicines assigned to outpatient or regional oncological registration. Hospital X is organized into three business areas (see organization chart in appendix V): (i) the clinical area, organized according to a matrix structure, based on process management by pathologies; (ii) the education and research areas; and, (iii) the logistical support area. The matrix structure of the clinical area, results from the intersection between the clinics (multidisciplinary groups for pathology) with the activity of the services. The services and functional units are responsible for the operational management, and in them lies the direct care services and related support activities. At the intermediate level of

[48] This price represents the average cost for treating each patient, encompassing the set of clinical instruments and medication, according to previously defined clinical standards and therapeutic protocols.

management, are the departments in charge of coordinating and integrating the activities and resources of services and functional units. Lastly, the strategic level of management is responsibility of the Board of Directors.

4.7. The empirical study

4.7.1. Activity-based costing adoption at the Hospital X

Hospital X was one of the hospitals that integrated the second phase of a national project carried out by the Portuguese MoH to implement ABC in public hospitals (to this respect see Major and Clegg, 2019). The decision to embark on the project was made at a meeting of the hospital's Board of Directors on 19th February 2008, Initially, the project had the support of top managers, with an executive member of the Board of Directors the sponsor; and as Director, a hospital manager responsible for the Planning, Analysis, and Management Control Service. The Director of the project had been the Health Minister's financial and fiscal advisor, in 2005, when the possibility of developing a project for ABC implementation in Portuguese hospitals began to be considered. In 2008, when this manager moved to Hospital X, it coincided with the phase of choosing the pilot hospitals for the ABC project. Therefore, efforts were made to include this hospital as one of the pilots, which was confirmed.

The implementation of the ABC project in Hospital X followed a common model to the hospitals involved in the initial pilot project, with the funding from the ACSS and the support of an international consulting team. This methodology consisted on the initial distribution of costs by the activities. The information about these costs was collected from the cost accounting information system, using the costs that were allocated to each cost centre. The next phase counted on the collaboration of doctors and nurses to identify the main activities that the hospital performs, mapping the full treatment of a patient with a given medical condition. In this stage, an extensive work of measuring the time spent on each previously identified activity was developed. Finally, and in collaboration with the consulting project team, the cost objects were defined and a computer system was programed to operationalize the ABC project.

The project had, in theory, an undeniable interest for the top management level of the hospital since it could support them through the process of negotiation of the '*contrato-programa*'. The recognition of all activities that are performed and identification of their costs, would

provide hospital top management with additional arguments for the process of negotiation with ACSS. By knowing the actual costs of health services provided, the Board of Directors was, in theory, enabled to negotiate the volume of production and the prices at which the hospital is reimbursed by the MoH.

The ABC implementation at Hospital X, was also intended to promote a common language among actors with distinct identities, such as doctors and managers.

> "The ABC methodology (…) provides a new vision and, a unique professional and multidisciplinary involvement, achieved by the approximation of the clinical language to the management language. This common language it is a facilitator of the decision-making process and sharing of data, information and knowledge, blurring the *status quo* that for decades was installed between the clinical and the organizational practices that moved between 'walls', due to the lack of knowledge of the terms and concepts used in each of these scientific areas" (Harfouche *et al*., 2017: 767).

Beyond the standardization of clinical concepts, it was expected that the implementation of ABC, would make costs understandable to other professionals than managers, enabling them to understand the cost drivers and reduce inefficiencies. It was expected that the implementation of ABC would allow the redefinition of procedures, making possible a better allocation of resources, to decide between insourcing and outsourcing of hospital services, and have the information to decide on the implementation of new clinical techniques according to the inherent cost. Therefore, beyond promoting the quality of the decision-making process, by basing it in structural financial information, the ABC project entailed an additional ambitious target. The ultimate goal was to increase the efficiency of resources by clinicians, focusing on the activities' analysis.

In fact, with the ABC implementation there was some cases of processes improvement by the identification and correction of inefficiencies. For example, within the immunohemotherapy service, activities that were not recognized and therefore not funded were identified. ABC helped to understand that the cost of blood in Hospital X represents 1,2% of the hospital budget, but, that if all costs are accounted for, this cost would increase to 4-5% (Brilhante *et al*., 2014). The calculation of these costs, also promoted the adoption of different strategies. The determination of the blood components' costs allowed that the blood 'cultures of apheresis' (multicomponent) was privileged in relation to the blood cultures collection of whole blood. The blood cultures of apheresis despite incorporating higher total costs, allows

the achievement of lower unit costs, since with this technique it is possible to obtain a greater number of components. Furthermore, with this multicomponent blood culture it is possible to provide a more diversified range of products tailored to the patients' needs (Hospital X, 2009).

Furthermore, as result of activity analysis another benefit of ABC was the calculation of the cost of breast cancer. This pathology began to be financed by a comprehensive price, hence it was necessary to confirm whether the price established by ACSS covered the actual costs incurred by the Hospital X, in the diagnosis and treatment of this disease. In the case of cancer diseases, this new financing system (comprehensive prices) was applied to three types of pathology: (i) breast cancer; (ii) colon and rectum; and (iii) cervix. Breast cancer is the most common type of cancer, affecting 12,4% of women, being that the probability of dying from this type of cancer is 2,6%[49]. In addition, the option for breast cancer was also because it had the highest number of patients eligible for the new funding program. Consequently, in 2014 the actual cost of these patients was calculated using the ABC methodology. From the results of the study it was verified that there was a differential in relation to the ACSS financing (Harfouche *et al*., 2017). The value attributed to the hospital per patient-month was 929,08€, regardless of the stage of the disease and consequent consumption of resources. ABC costing stratified patients by disease stages and included analysis of actual costs per patient and per month, including all clinical actions performed. This analysis showed a difference between the actual costs and the amount financed in a total negative deviation of 1.4 million euros. This maladjustment is positive in the initial stages of disease development (415,23€) and negative in the most advanced stage of disease development (1.062,79€) (Harfouche *et al*., 2017: 766). This asymmetry between actual costs and funding may also explain why patients in later stages of the disease are forwarded from private to public hospitals.

> "If private hospitals keep patients that are predominantly surgical, they are the cheap ones, and if we get patients who do chemotherapy and radiotherapy it is very expensive (...) we get the most complex patients that nobody wants, because financially they are not interesting. If they [private hospitals] decide to treat a patient like these [in a later stage of disease development], the insurance

[49] Probabilities calculated in the period of 2012-2014, according to the American Cancer Society (https://cancerstatisticscenter.cancer.org/?_ga=2.114648007.1120121445.1539779424-520793922.1539779424#!/, accessed in 17th October, 2018).

> company, the patient himself has no money to pay (...) and they say to the patients: 'your treatment it is very expensive, go there to the Hospital X, because there you will not pay anything'. And here they will have access to the same kind of treatment, in a bit uglier 'hotel'..." (Doctor 3, Service Director)

Despite the enthusiasm by some doctors with management responsibilities, when the Director of the project moved to another hospital, the project was abandoned. The enthusiasm for the project by the Board of Directors was not the expected, with ABC not being a priority. As mentioned by the then Director of the project, "the reason for this disinterest was due the ABC not to have been imperative [mandatory] by the supervisory entities [ACSS]".

Hospitals' Board of Directors do not give priority to funding negotiation. The process of negotiation for the contract, is in reality an imposition of activity levels (hospital's production) and prices set by the MoH according to the available financing resources to be distributed among health providers, like hospitals. Hospitals' activity and inherent financing are centrally controlled by the MoH, mirroring the effects of the Portuguese crisis. As a former Health Minister explained,

> "…one-third of hospital managers are chosen politically. And I do not get my hands on fire for political choices. What I am told is that managers have little room for manoeuvre. As the MoH has no financial resources, the Health Minister himself... this is also reflected in the central direction of the ministry. The ministry ends up looking for control and management in sight. Almost cash management" (Diário de Notícias, 2018).

There is no decentralization in managerial decision-making, being concentrated on the higher level. On the other hand, clinical decisions are relegated exclusively to the medical staff. As a hospital administrator admitted, the negotiation of the activity of hospital services (production) in the '*contrato-programa*' is very limited.

> "Negotiations are difficult because often times, the budget it is already predefined for the Hospital [X] and for the others [hospitals]... and that does not follow much the production..." (Hospital manager 6).

These tensions felt in hospitals are also a reflection of budgetary constraints, which are not commensurate with the increase in health costs. Public hospitals have the burden of the public service, providing medical services tendentially free-of-charge.

> "The ministry it is always putting pressure on us because of rising costs and we have patients 'coming through the door' and we have to treat them... and we have the inherent cost increases, costs of medicines, innovations and equipment, and everything..." (Hospital manager 7).

Moreover, hospital financing does not reflect the real activity performed in the provision of health care. Paradoxically, the perception at the intermediate level (managers and doctors) is that there are no restrictions on material resources. In order to fill under-budget situations, there is the 'injection' of reinforcement of budgetary funds, not provided for in the '*contrato-programa*'.

> "The amounts that we have been receiving are not the same as what we have contractualized, in the positive sense because we have been receiving more... now these reinforcements, unfortunately in the last two years have come more at the end of the year. It is better than nothing, but for the management of the day-to-day and to face everything it has implications that are not good" (Hospital manager 7).

For example, and as a Service Director explained, one of the biggest parcels of the cancer treatment costs concerns the medicines, but,

> "…we never lacked medicines, we never lacked money to buy medicines... if you want here in the Hospital [X] the main consequence of the economic crisis was the increased bureaucracy..." (Doctor 4, Service Director).

If the production of a hospital exceeds the volume agreed, despite the penalties that are planned, the hospital needs to be reimbursed by those expenses. For instance, the hospital cannot deny the treatment of breast cancers if the number of patients exceeds the volume contracted. Thus, for example, in 2014 the '*contrato-programa*' suffered two extraordinary addenda, corresponding to an additional 8.3 million euros of funding (Hospital X, 2014).

Within Hospital X several changes conditioned the ABC implementation process and how the actors perceived its relevance. Upstream, at the strategic and political level, there was the abandonment of this project. According to the ABC project mentor at ACSS level, it became necessary to provide a costing database to verify if there were significant cost differences from one hospital to another and compare with the prices that were practiced. Thus, the choice of the pilot hospitals to integrate the ABC project was aimed at covering the clinical activity carried out at national level.

> "What was the main goal was that ACSS and Regional Health Administrations could get awareness of the real cost of hospitals, in order to be able to better mould prices (…) we could use that information to set prices [in contracts] and penalize or benefit those [hospitals] who were being impaired by the prices previously defined. My current idea is that it was a good theoretical exercise" (Former Director-Coordinator for Health Services Contracting & Funding at ACSS and coordinator of the Health Contractual project since 2005 in the Office of the Health Secretary of State).

The unbearable costs involved in hiring the consultancy firm, the lack of ambition in the objectives initially outlined and the lack of results, led to the abandonment of the project by ACSS.

Yet at Hospital X, the project continued with the calculation of costs for the breast cancer disease in order to compare it with the 'comprehensive cost'. However, also in this hospital the project was eventually abandoned. As mentioned, the project was followed by an external consultancy firm, with high costs involved. With the end of the financing by ACSS, Hospital X had to financial support the project, recurring to hospital's own funds. However, the situation has changed with the deterioration of the financial situation of the hospital that since 2015 began to feel in a more accentuated way the effects of the economic crisis that affected the country (Hospital X, 2015, 2016, 2017). Moreover, at beginning of the year of 2016, with the transition of the director of the ABC project (a hospital manager) to other hospital, falls the last impetus of this project in Hospital X. As a result, Hospital X maintains its prevailing cost accounting system[50] with the limitations associated with traditional costing, which according to an ex-director of the ACSS, still remain despite efforts to eradicate arbitrariness.

> "We are observing the risk of returning to an old time where any existing accounting data, its approaching to reality it is a mere… it is something that does not exist, it does not portray reality, and we return to a logic were the reality it is portrayed by cash flows, financial budget… this is too dangerous, too dangerous for the management of organizations. We are going to start to see, in practice, an

[50] ACSS demands that public hospitals produce costs at a departamental level (that is, by cost centre). A costing manual has been prepared in order to standardize cost centres and allocation bases at a national level. Despite the existence of the manual, hospital's cost accounting is regarded as unreliable, with the assignment of indirect costs remaining an arbitrary exercise. Furthermore, hospitals are neither able to calculate costs per patient nor per DRG (see Major and Clegg, 2019).

> accumulation of debt to suppliers without any control by the Board of Directors. Nowadays, who is looking at the hospital accounting, it is not seeing the reality" (Former Director-Coordinator for Health Services Contracting & Funding at ACSS and coordinator of the Health Contractual project since 2005 in the Office of the Health Secretary of State).

4.7.2. Doctors and managers' reactions to activity-based costing

Hospitals are characterized by two main logics: care and business logics. Care logic focus on "well-being, social outcome, support and quality of life as key sources of legitimacy" (Toubiana and Zietsma, 2017: 926). Medical staff (doctors and nurses) is driven by this logic, having emotions associated with this institutional logic, which they are expected to demonstrate. These actors are expected to take care of patients, providing the best care resources available. Moreover, it is also presumed that their technical skills are complemented by the expression of care and empathy in decision-making (*ibid*).

> "This work is spectacular because it is like this: it is two in one... we earn [salary] to survive, but then there is also the other side where we help others... there are few jobs that have this... in double... it is fantastic..." (Doctor 5, Service Director).

Despite that, medical staff also needs to have a dispassionate reasoning for decision making, therefore controlling their emotions (Toubiana and Zietsma, 2017). Like many other professions where the technical skills need to be extremely accurate, emotions are often restrained and contained. In a fatal disease like cancer, every day doctors have to decide when to continue medical treatment, or stop and let the patient die, because there is no cure or additional life expectancy.

> "…we often have to tell the patients: 'look we have no more treatments to offer you, your illness is incurable... we just can give you all possible comfort'. Once a patient told me: 'no, you cannot tell me this'... 'I do have to tell you this because, all we are going to do from here on, is to give you comfort, it is no longer to treat your illness'" (Doctor 1, Service Director).

These health professionals hold to a particular pole of existing tensions between distinct logics. Their source of legitimacy is the outcomes and effectiveness of prescribed treatments.

> "Health has costs and we have to try to contain them without losing quality (...) but I say again, first results, then results with quality and satisfaction of the users, and then the financial part..." (Doctor 1, Service Director).

> "…of course, nowadays they [doctors] already have some concerns about costs, but it is not their priority. The priority for them is 'what were my results?' (...) the increased life expectancy… and unfortunately in an integrated way, I am not able to give them that information... I can say that in fact we had these increased life expectancies, in those types of cancer... I cannot say that because patients had this specific treatment, they had that increased life expectancy" (Hospital manager 7).

When doctors and nurses face an innovation associated to a different logic, the business logic, like ABC, we would expect that they would ignore or even belittle its relevance. Notwithstanding their resistance to administrative work (Llewellyn, 2001), most of them showed a lot of interest and enthusiasm by this management initiative. For doctors, ABC implementation was perceived as a tool for providing information that they had interest in knowing for the development of their technical activity. For instance, for the doctor responsible for the Immunohemotherapy and Blood Donors Service, the ABC project allowed the demonstration of the economic viability of the blood collection activity, rather than being purchased externally from the Portuguese Institute of Blood and Transplantation.

Notwithstanding the above, these advantages perceived by medical staff, were not necessarily directly related to the business logic. For example, when asking a doctor, the relevance to its activity in knowing the inherent costs, he proclaimed that,

> "It depends on the management model, that is, if it is completely centralized where we have no control at all, I do not care about it. If there is any discussion of budgets and action plans with services, then it is extremely important…" (Doctor 3, Service Director).

Another doctor went even further, arguing that,

> "For the majority of doctors, and for surgeons a little more, for most, it is the intervention, the treatment, the result of what is done... the

> cost is not a concern... it never was... it will start to be, I think" (Doctor 1, Service Director).

Therefore, professionals' curiosity about ABC implementation was not because they felt compelled by managers to integrate a business logic. The interest by some of the doctors in management positions (as service directors) was due to the perception that ABC could be advantageous to them in the pursuit of their own interests and in maintaining their predominant logic, the care logic.

> "I think that most of us [doctors] are available to do innovative projects as long as we see that this can somehow be translated into an improvement for the institution and especially for the patient. There is critical mass to do that... what is missing is to have a strategy that values this..." (Doctor 2, Service Director).

Moreover, despite the existing paradox between distinct logics, some professionals were able to identify communalities between two apparent contradictory poles. Doctors are constrained by the strongly internalized institutional norms pertaining to duties and obligations of this profession. This was the case of Wright *et al*. (2017) study, which shows how emergency department physicians reacted emotionally when they felt that other specialists treated patients as a low-priority unit of work. We have noted, however, that these reactions also occur in opposite situations, when additional health care, exams and treatments are provided and do not bring added value for the patient's health.

> "Many colleagues think that the lives of others serve to make money and not to solve... I think it is a terrible business... I think that with the will to make money they do the worst atrocities to people: they operate when it is not needed, they do dysthanasia when it is not necessary, hyper-diagnose... how do you hiper-diagnose a guy in his 90s? Do you think that this makes sense? They do not have tomatoes to make decisions. They just want money... and this frightens me. I, in my point of view, if we have an elderly man in charge, I want him to have the best quality of life. I do not want to subject him to examinations and to things that are known to not have a great result. I think ethics is lost, and that scares me, it impresses me…" (Doctor 5, Service Director).

Thus, when there is no equity in allocating doctors' time and resources among the various patients, and since resources are not unlimited, this also implies an inefficient expenditure, which according to the business logic must be eliminated.

> "Ten mammograms are performed in the normal course of a patient. Maybe it is not necessary so many. International rules, and standards, and consensus say that only eight or six are needed, so why are we doing ten? (…) You are doing the double than others [doctors], for what? Do you have better results? do you diagnose before? do you have any of these things? If not, please stop, it is forbidden... but the patient wants... he wants, but the system does not pay, so he should go to a private hospital..." (Doctor 1, Service Director).

According to an internal newsletter of Hospital X (2009), the main benefits with the ABC implementation were essentially clinical and resulted of the involvement and active participation of health professionals in management decisions. Therefore, by promoting an organizational culture of best practices, eliminating process's inefficiencies, there was the intention of changing existing institutional logics. The centralization of the organizational model around the therapeutic circuit of the patient reveals a major concern on the social mission. The inherent hybridity of the hospital' organization is used as a development platform for enhancing the business form by focusing on the social form. ABC implementation worked as a facilitator and promoter of this proto-cooperation. Therefore, for doctors the ABC was seen as a tool that could conciliate both care and business logics. By linking clinical activity to the results of treatments performed, it would be easier to communicate with hospital managers. In addition, it would be a way to compare resource consumption costs with clinical and financial outcomes obtained, not only with other hospital' services, but also with other doctors from the same speciality belonging to other hospitals.

> "There is here a cool opportunity to try to measure activity in a way, other than the number of patients treated, number of surgeries per doctor… because the complexity of the act it is always very difficult to introduce. I cannot compare the surgeries that are done here with the ones made at the Beja Hospital (not wanting to calumniate the Beja Hospital), the patients are more complex. The DRGs themselves recognize a little this. The DRGs have to do with the comorbidities[51]

[51] Presence or association of two or more diseases in the same patient.

> of the patients – if it is hypertensive, diabetic… truly, it does not have to do with the type of surgery that is more complex...” (Doctor 3, Service Director).
>
> “I think it [ABC] has a lot of interest... first it lets us to know what are we doing or the cost of what we are doing and the cost comes from our taxes, therefore it influences our pocket. It allows, if done in several hospitals, to compare costs in various hospitals and to see why it costs so much here... although this aspect of cost should not, in my point of view, be the first priority. First results, and then, in terms of equal results, who does the same results with the lowest costs.” (Doctor 1, Service Director).
>
> “I was interested in knowing exactly what the value of the blood component was. There are published price lists [established by the ACSS]... in my opinion, they are not real prices, they are political prices and I wanted to have the notion, first – if that was the case or not... and I also thought it was important to have a calculus model that translates reality, because from the moment I think they are political prices, the calculation models are very debatable, so I found it interesting to have a calculation model that could somehow be used by all hospitals so we could compare ourselves...” (Doctor 2, Service Director).

In this field doctors maintain the higher status since they have the prerogative to choose the medical treatment. The costing system based in activities, has the potentiality to provide greater transparency to the patients’ treatment flux. If ABC implementation had not been discontinued it would have enabled the comparison between doctors’ activity and even between hospitals, exposing the activities that incorporated the patients’ clinical treatment. Literature on ABC highlights the resistance from actors’ derived by this power imbalance. In our research field, medical staff have not perceived this tension. Moreover, and as a doctor has explained, despite doctors have lost some of their power over the years, due to the more informed patients who want to be co-participants in their treatments; in the area of oncology this change of social relations has not been so evident.

> "I think the doctors lost some of their power, perhaps even exaggerated (...) [doctors had a] more powerful position, more of a paternalistic relationship with the patients, a situation which I also lived (...) nowadays I think doctors lost power, because they did not want to get into the management... I think the patients have gained autonomy, although, mainly this area of oncology it is an area where patients have some difficulty in exercising their rights... but, the change is drastic..." (Doctor 1, Service Director).

Despite the interest towards ABC by some doctors, this enthusiasm was limited to the perspective that ABC was of help in their clinical practice and that there was no increase in administrative work than treating patients. They rely on hospital managers to support them and to assure the performance of administrative activities. This also denotes their feeling of superiority and status among other actors in the hospital.

> "Overall, they are lousy [hospital managers], and I explain why. I would like to see a hospital manager who could help me with the bureaucratic tasks because I have tasks that interest me much more than bureaucracy... but no, they do not know the dynamics of the service functioning, they are not inside, they are not following, and if they are, they are waiting for us to explain how it is, they do not come here to live [the day-to-day of the service]" (Doctor 5, Service Director).

> "I think managers do not bother, minimally, in understanding how hospital work... managers come with preconceived, predetermined ideas of what hospitals are, and it has nothing to do with it (…) I think that managers should be partners on patients' treatment, but in fact, things are completely separate. I think it is a shame because, in fact, we cannot understand ourselves and, above all, I think we cannot... I do not think we can work in the same direction..." (Doctor 2, Service Director).

In hospitals, nurses are the professionals in which doctors delegate most of administrative work, for the daily administration of the service. Often times, they are the intermediate between professionals and managers. This also implies that they also experience in a more visible way the paradox between logics.

> "When they [doctors] go to congresses and come with news, this often makes us to spend [clinical consumption] material that was not foreseen to spend (…) therefore, the change in therapeutic strategy because it has been discussed [in the congress] that, for example a prosthesis is better than the other, or that one treatment is better than the other, leads to different expenditures in terms of clinical consumption material. This is not always easy to justify and we shouldn't be blamed because we are caught in two crossed fireworks. Managers on the one hand say that this was not planned for the year, so they do not have [clinical consumption] material to provide us. Doctors say that now, the [clinical consumption] material that should be used is this, so we have to have material to give them" (Chief nurse, previous member of hospital Board of Directors).

These tensions felt by the doctors also have a reflection on their feelings towards the members of the hospital's Board of Directors. Hospital top management inertia or inability to make decisions is associated with political and individual interests.

> "The hospital Board of Directors, I think they normally (I see it here) are in the positions only to achieve their goals, they will do this or that because it will give them notoriety and the means to achieve it (...) and I think, clearly, that the goals of whom is in charge, have nothing to do with the purposes of organizations..." (Doctor 5, Service Director).

On the hospital managers' side, their focus is on the business logic. Their main goal is to achieve the best results with the available financial resources. However, in this setting, business logic conflicts with care logic, which can result in daily tensions that affect actors' reactions and performance.

> "We have a patient in the Intensive Care Unit (ICU) for eight months, and we need lots of beds in the ICU, which are too few for our needs. Who is going to tell them [doctors] that the patient cannot or should not be treated?... we cannot! There are no arguments that we can have for... the decision is of the doctor, or the service director. There is no cost that can withstand with it..." (Hospital manager 4).

In practice, hospital managers are mostly concerned on responding to the demands on performance indicators, controlling and monitoring the activity of the service. According to a hospital manager, his day-to-day work it is occupied with managing the medical services,

namely, "the management of human resources, materials, equipment, production analysis and costs". The Financial Director and Chief Accountant also recognizes that ABC was not a priority, given the lack of time:

> "We have a series of obligations: to answer to the MoH, budgeting, cost reporting … [we need to prepare] several reports all of which end up absorbing us a lot (...) perhaps we have to spend more time to respond to external entities than to look inward. This coupled with the fact that each time we have less technical human resources with some know-how, explains why activities like this [ABC] are considered as secondary" (Hospital manager 2).

Theoretically, the implementation of ABC, should have been accepted and implemented by hospital managers, given their predominant logic. The ABC implementation would endow managers with information on costs that the prevailing traditional cost accounting system did not provide.

> "What the [traditional] cost accounting gives us, is only an average cost (...) ABC or other systems that can give us a more refined cost on DRGs, on costs of patients, on costs of a pathology... I think it [ABC] is relevant and almost mandatory" (Hospital manager 2).

But the daily reality of hospital's managers is to respond to information demands from the MoH and its agencies, therefore, lacking time to dedicate themselves to new projects.

> "I think it is a problem that we have in Portugal... every year there are changes and therefore, there is no time. We are still digesting what we proposed ourselves in one year and in the year after they [the MoH] are already demanding from us another different thing and there is never an analysis to what is going well or bad, what are the advantages and the drawbacks" (Hospital manager 7).

Moreover, the identification of the activities performed during the patient's flowchart and its associated costs was a work developed directly by the project team with the service professionals, leaving managers with little or no intervention in the ABC implementation process. These limitations resulted in an alienation of ABC operation by the hospital managers.

4.8. Discussion and conclusions

On our empirical setting, there was two main actors with distinct identities, driven by competing institutional logics: professionals or doctors, whose main logic is the care logic; and, hospital managers, with the business logic. ABC implementation was promoted as a tool to overcome the paradox and inherent existing tensions between those logics. The ABC implementation had the aim to foment a common language, enabling professionals to understand the cost behaviour by making activities more visible. In fact, there were occasional cases where activity analysis allowed for a change in procedures and/or efficient management of resources. The most significant results were found in the costing process of the breast cancer pathology, with a deficit in state funding of around 1.4 million euros. However, we cannot conclude that due to the implementation of ABC there was an acceptance of the paradox between the different logics by the different actors.

MoH and its agencies have not recognized the benefit from ABC to overcome the paradox between conflicting logics, prevailing the weight of the cost of the project which determined its abandonment. ACSS main goal was to verify if the political tariffs that were used under the contracts with hospitals, were closer to the real costs. After having this database, they lost interest in continuing the project.

Hospital Board of Directors also have not found a way to overcome existing paradox between care and business logics through ABC. Board of Directors have a very limited capacity to negotiate funding with the MoH. The financial resources to be distributed among hospitals are dependent on the available financial resources and on efficiency targets. Thus, on the one hand, the Board of Directors has no capacity to determine the hospital production level and to change prices for the reimbursement under the contract with the MOH. On the other hand, this possible sub-financing by the MoH is supplemented with budgetary reinforcements, therefore, lacking incentives to introduce efficiency strategies through costing systems to reduce costs and become more efficient.

Regarding doctors, the interest in ABC by some of them was related to their perception that ABC, by exposing activities and costs, is connected to something that health professionals really care about, clinical results. Unlike other methodologies whose focus is on business logic and financial results, health professionals who showed enthusiasm for the project expected that it would enable them to account for the outcomes of medical care, allowing for comparison of clinical results with other services in the same hospital and homologous services in other hospitals. In addition, they had the idea that it would facilitate their

communication and argumentation with hospital managers by complementing the clinical information with financial arguments. ABC was seen as a common language that would allow doctors to make their practice more visible, not just to managers, but to their peer counterparts as well. Thus, with the ABC implementation, doctors balanced the poles of the tension between care and business logics, which would allow them to achieve a better outcome.

Medical professionals from health settings are daily exposed to negative emotions, such as the manifestation of pain by patients, having to detain an emotional equanimity to deal with it. On the other hand, the emotions associated with their identity and main logic, the care logic, provide a greater emotional investment on the part of the doctors. This may explain the enormous enthusiasm in the implementation of the ABC by some doctors and the total lack of interest by others. Their emotional competences influence, in this way, the way paradoxes get salient to them and the strategies that are adopted to deal with this complexity.

Doctors have revealed that they feel little supported by management. Hospital managers are seen as entities aliened to hospital reality, centred in their world of numbers. Unlike doctors who saw ABC as a way to resolve this contradiction, hospital administrators did not perceive the existence of this conflict with doctors, rejecting the need to improve collaboration and/or communication. Moreover, although hospital managers perceive the theoretical existence of a paradox between different logics, their feeling of powerlessness limited their capacity for enthusiasm and involvement in the process of implementing ABC. In Portugal, hospital managers effectively do not have power for decision-making. The choice of treatments is of doctors' responsibility. The budget for services of the various clinical areas of hospitals, is centrally decided by the hospital Board of Directors. Worsening this feeling, managers felt excluded from the project because they were not actively involved. Thus, managers continued to emphasize one of the poles of the paradox (the business logic).

The ability to manage interdependent contradictions that persist over time is connected with the actors' power to make strategic decisions. As Clegg *et al*. (2002: 487) argue "[t]he role of paradox is to keep the organization on its toes, in a state of continuous awareness of its own contradictions. (…) While juxtaposing opposites helps people realize the tensions inherent in choices it does not aid decision". However, we add that despite the awareness of contradictions, the acceptance of paradox is influenced by the power that actors have to effectively make those decisions.

Our study contributes to the literature in many ways. This research addresses the gap identified by Battilana *et al*. (2015), who calls for the need for future research to explore how different types of hybrid organizations, such as hospitals, respond to the tensions to which

they are subjected. We contribute to institutional complexity research by exploring how organizational members guided by distinct logics, experience the tensions that arise and that characterize the complexity of these organizations. In particular, we argue that the emotional characteristics of different groups of actors influence their response to the existence of conflicting logics.

Second, our study advances understanding of the paradox research by extending the applicability of this theoretical lens (Smith and Lewis, 2011). When analysing how different actors with different identities manage paradoxes, we have concluded that more than status distinctions (as pointed out by Huq *et al*., 2017), it is their power to affect decision-making, that influences their engagement with both poles of a tension.

Finally, this research also has relevant contributions to literature on ABC, by demonstrating its applicability in health care settings also advancing the potentiality of this technique in bridging tensions between competing logics. Recently academic researchers have renewed their interest on ABC in health care settings, by advocating its ability to measure cost and compare cost (business logic) with outcomes (quality/care logic), improving the value of the health care delivered. In our case, neither the MoH, the Board of Directors and hospital managers were able to reconcile the different logics. Only doctors were able to see the potentiality of ABC to bridge the tensions between conflicting logics. Therefore, our research also acknowledges that the paradox resulting from competing logics may be overcomed by ABC however, this only happens in certain situations, depending on the interests, power and emotional competences of the different actors.

CHAPTER V – CONCLUSIONS

5.1. Summary of the thesis

The health sector in Portugal has undergone major developments in the last four decades in an attempt to avoid the untenable rising of the health care costs. The demands for greater transparency in public money spending and the increasing expenditure in the public health care sector, has pushed for the adoption of management accounting tools and raised the importance of available and reliable cost information.

Chapter two traces this evolution of reforms on Portuguese NHS, focusing on legislative measures concerning hospitals' financing system and management accounting techniques regarding hospitals' costing. Health at any cost gave rise to a more cost-conscious approach, and therefore, new mechanisms were installed allowing greater transparency in hospitals activity by increasing the scrutiny of clinical decisions (Conrad and Uslu, 2011).

Portuguese NHS faced successive changes in order to bring it closer to the rules of the private sector. These government initiatives were in line with a business logic, which came to become preponderant in the sector especially after the 2000s. This movement towards business-oriented approaches involved a process of divergent change in the public health care sector. As Scott *et al*. (2000: 61) argue "[i]n short, across several critical dimensions, such as new types of social actors, changing relations among actors, new logics governing action, and shifting boundaries, the field of organizations providing health care is in transition – a transition of such a nature as to suggest that we are observing an instance of profound institutional change". However, the introduction of a business logic in the NHS is not straightforward, because as Arnaboldi and Lapsley (2004) argue "the underlying complexity of the public sector organizations undermine the simple transfer of ideas and practices from private to public sector". Underlying this business logic was the need to contain health care costs, making imperative the accurate costing information from hospitals, because as Kaplan and Porter (2011: 4) argue "what is not measured cannot be managed or improved". However, from the analysis carried out, we can verify that the implemented measures did not follow a coherent and integrated political strategy, being ruled by contradictory demands. This is in accordance with what is advocated by Abernethy *et al*. (2007: 823) in which "'rational behavior' is not always observed in health studies".

As regards the Portuguese NHS, we see, for example, that the creation of hospital centres underlies the idea that most health costs are fixed, so centralizing the units would entail a reduction of these costs because they would be divided by a larger volume of production. However, the organizational structures of hospitals were not changed, there was no reorganization, and costs did not fall. Moreover, if it was true that the majority of costs in health care are fixed, health costs would not be always increasing, as Kaplan and Porter (2011) and Kaplan and Witkowski (2014) argue. In fact, we find that if, on the one hand, a series of legislative changes were aimed at decentralization (e.g. creation of responsibility centres, addressed in the case study of chapter three); others were implemented in the opposite direction, towards centralized control. This centralized control implied a loss of autonomy and decision-making capacity on the part of the hospitals' Boards of Directors, resulting in a demotivation for the application of cost containment measures, which in the long run may become the cost-generating factor that MoH was trying to avoid.

This dichotomy was found in other reforms initiatives. In Portugal the demand for development of management accounting tools has become more acute with the need to have information as a basis for calculating diagnosis-related group (DRG) prices, through which similar treatments that consume similar levels of resources are aggregated. The introduction of a contracted-based approach with DRG and case mix accounting had underlined the need to improve cost efficiency, but above all, to grant the equitable distribution of health care resources between health organizations. Once more, contract prices between MoH and hospitals are political tariffs, not transposing the reality of costs. The contracted activity volume is also conditioned to the available financial resources. Thus, fairness and the motivation to introduce more cost-effective procedures are not guaranteed.

The second case study (chapter three) relates to the implementation of a responsibility centre in a cardiothoracic surgery service (CSS) in a Portuguese public hospital. In the path of decentralization policies, and as mentioned above, it was envisaged in Portuguese legislation the internal organization of hospitals in responsibility centres. In addition to ensuring that the contractual system between MoH and hospitals was transposed to the internal organization of hospitals through the services, this measure was intended to make accountable the main custodians of costs in hospitals, the doctors. For doctors, the responsibility centre was promoted as a way to grant management autonomy, combined with the possibility of obtaining incentives of a financial nature, according to the results achieved. This regulatory initiative did not have transposition into hospitals' reality. The CSS service was an almost isolated example, constituting a case of particular interest since the initiative to create this

responsibility centre came from a doctor. This doctor initiated a change, which would have transformed the institutions in which he was embedded. He was moved by personal interest and had the power to manage the resources and other actors towards the intended change, thus, constituting an institutional entrepreneur. Despite the enabling conditions, that previous academic literature on institutional entrepreneurship identified, in our case study we found that there was also issues of power. Therefore, our investigation contributes to accounting and organizational literatures, by first highlighting the need to include power dynamics on the process of institutional entrepreneurship when implementing accounting change.

CSS responsibility centre became a mechanism that granted power to the CSS director, the institutional entrepreneur. With the worsening of the economic crisis, the hospital Board of Directors lost interest because they did not want to dispense the scarce decision-making power they still had. Also, despite having legally established the existence of the responsibility centres, the state did not promote its implementation. Within the hospital itself, resistance also began to be more evident. The responsibility centre became object of resistance and lost its power. By showing the change of power relations, which first enabled and then constrained the transformation of the CSS into a responsibility centre, our research also extends literature regarding the responsibility centres, by shedding light on the need to include power issues.

Exogenous contingencies, that is contradictions originated in the external environment to the organization influenced the circuits of power. The escalating costs on the health sector, pressured the state to adopt management tools that would enable the rationalization of financial resources. Curiously, it was a financial crisis that also dictated the abandonment of these new accounting practices. In our case, the economic crisis had an impact on the health decentralization policies that were being implemented. With the impetus for centralized control, the state no longer needed to have a control tool such as the responsibility centres. This centralization and the consequent loss of autonomy and decision-making ability on the part of the hospital Boards of Directors have dictated their lack of interest and passivity in relation to the development of this new organizational structure. It was thus observed, a change of interests and consequent relations of power between the main actors involved. Therefore, our findings highlight the relevance of considering the impact of the political and the economic institutional contexts on organizational practices that seek to change accounting within organizations.

The fourth chapter it is a case study regarding the implementation of activity-based costing (ABC) in a health care setting. As in the previous case, the influence of exogenous

contingencies in the process of implementing this new technology, was also verified. The legislative initiatives promoted the implementation of contractual mechanisms between the state and hospitals. Thus, it was vital to gauge health costs in order to establish prices to be applied in the contracting of services. This pressure of the business logic over the care logic has, however, become counterproductive as it has induced demotivation discouraging the change of health practices. Thus, the lack of respect for the existing paradox, giving priority to one of the two poles of tension, provoked the creation of vicious cycles.

Regarding the internal reality of the organization, we verified that although the ABC project was discontinued in the remaining pilot hospitals, it continued to be developed in the hospital under study for an additional period until it was also suspended. In Hospital X, although ACSS funding was terminated, the hospital was able to bear these costs for a little longer, but it was one of the reasons for ending this project.

Research on ABC implementation in health care settings has pointed out several causes for the non-generalization of its application, being restricted to specific cases. Among these causes is the complexity and high costs involved in the implementation of this technology. Furthermore, ABC implies the dedication of many hours of work by professionals who already have their time very conditioned. On the other hand, it also causes workers resistance as they associate ABC as an instrument for loosing autonomy, by the additional control of their activity, as well as representing additional administrative work. According to the literature related to the implementation of ABC in hospitals, this resistance is more pronounced on the part of the doctors, connected to their professional logic, care logic, characterized by a functional autonomy. Moreover, doctors usually have disinterest for administrative, management tasks. Our study, however, presented contradictory findings to academic research on this subject. In fact, the greatest enthusiasm for this project was not felt by the managers, but by the doctors with management functions (e.g. service directors). For doctors, following an ABC approach became a tool to account for the outcomes of medical care, allowing comparisons between clinical practices. ABC provided a common language between managers and doctors, by the transparency that it is given to the activities. ABC was, thus, used as a tool to balance the tensions between care and business logics, therefore, overcoming paradox.

Regarding managers, their inability to negotiate the contracted prices and volume of health care activity, has caused that their priorities were redirected towards responding to requests for information (e.g. performance indicators) required by MoH in order to secure the

necessary financial resources. Management accounting tools are relegated to the background, not being used to manage.

At the strategic and political level, MoH and its agencies also abandoned the project, because of the unbearable costs with its maintenance. Their priority was to get awareness of the real cost of hospitals, in order to better shape prices. After having an initial database with this information, the project lost interest, not being given priority to the need to bridge the care and business logics, as these tensions do not have an immediate impact on hospitals' financing.

Hospital Board of Directors limited decision-making, namely, with regard to their capacity to negotiate hospital's production and prices set by the MoH, also diminished their interest on ABC. Moreover, they have no incentives to introduce efficiency strategies through costing systems to reduce costs and become more efficient. Therefore, the Board of Directors also have not recognized ABC as a technique that could overcome the tensions between care and business logics.

Thus, despite the various actors were aware of the existence of the paradox existing between opposing logics; their recognition of ABC as a way to overcome the paradox was influenced by the interests, power and the emotional competencies that the different actors had to make strategic decisions in that regard.

5.2. Theoretical and practical contributions

Theoretically, the present investigation contributes to existing literature at several levels. First, our investigation illustrated how 'circuits of power' framework (Clegg, 1989) can shed light on the process of institutional change, thus, contributing to institutional theory by explicitly integrating the theme of power in institutional analysis.

Our case study (chapter three) focuses on the process of change, rather than the outcomes (Burns, 2000; Collier, 2001; Covaleski *et al.*, 1993), highlighting the strategies that the institutional entrepreneurs adopt when pursuing accounting change. Previous research has focused on conditions that increase the possibility of institutional change. We contribute to institutional entrepreneurship literature, demonstrating how those enabling conditions can be managed towards the intended institutional change. The powerful pressure of existing institutions towards stability was superseded by the institutional entrepreneur who engaged in various strategies within the episodic, system integration and social integration circuits of the

'circuits of power' framework, which initially allowed him to mobilize resources and other actors for the desired change. Therefore, we also contribute to institutional entrepreneurship literature, by theorizing it within a framework of power, answering the calls for making power more explicit (Lawrence, 2008; Levy and Scully, 2007).

Organizational change was also enacted due to exogenous contradictions, illustrating that institutions may change, and institutional entrepreneurship takes place if exogenous environmental contingencies have the power to influence them. Responsibility centre creation was used as enabler for empowerment the organizational actors. However, the deterioration of Portugal economic situation and the economic measures that were designed, imposed a number of restrictions, leading to the emergence of new interests and conflicting expectations on the part of actors. The institutional entrepreneur did not respond effectively to these events not developing new strategies in order to pursue his goals. The responsibility centre turned out to be a source of uncertainty, object of resistance, and therefore it lost its power. Therefore, we also contribute to literature by showing how exogenous environmental contingencies affect the way power circulates within 'circuits of power' framework, potentiating or inhibiting the accounting change.

On our case study from chapter four, we have analysed the tensions that coexist between contradictory institutional logics in a hybrid organization. In doing so, we respond to calls for greater attention to the change of management accounting practices in hybrid organizations, from a multiple institutional logics perspective (van den Broek *et al*., 2014).

Our focus was upon a set of actors that usually are not regarded in both paradox and institutional complexity theories, when analysing change. Institutional complexity theory highlight how actors that are not managers are/are not able to accommodate the business logic within their everyday work (e.g. Gadolin, 2018; Llewellyn, 2001). In paradox theory, the focus is on managers (Huq *et al*., 2017), ignoring other members of organizations (e.g. doctors). Therefore, we contribute to both institutional complexity and paradox theories by addressing the nature of the tensions that arise in hybrid organizations, understanding how different organizational' members differently experience the assumptions of competing logics and how they balanced their interests, identities, values and emotions, to cope or resist to the prescriptions of different logics.

Finally, this research also has relevant contributions to literature on ABC by demonstrating its applicability in health care settings, reinforcing the conclusions of academics who recently renewed their interest on this technology (Campanale *et al*., 2014; Chapman *et al*., 2013, 2016; Chapman and Kern, 2010; Demeere *et al*., 2009; Kaplan, 2014; Kaplan and Witkowski,

2014; Kaplan and Porter, 2011; Lin *et al*., 2007; McBain *et al*., 2016; Popesko, 2013). These academics ground on arguments that ABC is able to connect cost concerns with quality issues associated with the health care services (cf. Kaplan and Porter, 2011; Kaplan and Witkowski, 2014; Chapman and Kern, 2010). With our investigation we were able to contribute to ABC literature by demonstrating that this technique indeed has the potentiality to link cost concerns or the business logic with quality issues, i.e., care logic. However, this ability of ABC to mediate competing demands from logics that are contradictory yet interdependent, i.e. that constitute a paradox, is not straightforward, being dependent on the interests, power and emotional competences of the different actors.

As regards the practical contributions, our investigation also presents some contributions for practitioners.

First the research shows how politicians and hospital Board of Directors can improve and develop best management and cost accounting practices in hospitals and in the health sector. When analysing the historical evolution of the Portuguese NHS, in particular the legislative measures that were implemented over the years in the scope of hospital financing, we were able to establish links and understand the impacts of these measures on the evolution of accounting changes. The processes of management accounting change should be understood in a context characterized by great complexity, were it should be considered the exogenous political and economic events, conflicting institutional logics, different interests and power dynamics between the different actors in the field.

Furthermore, this research also highlights how responsibility centres can be successfully implemented in the hospital organization. These organic frameworks are implemented by managers who promote decentralization and inherent accountability, in order to achieve greater efficiency and effectiveness. Although it has been used in the private sector for a long time (Vonasek, 2011), health care setting embraces additional challenges due to the complexity that characterizes this field. In this sense, our researched showed that responsibility centres implementation must accommodate a focus on power relations. By showing the relation between the different powers that circulate through the 'circuits of power' framework, it allowed us to highlight how changing power relations hindered the entrepreneurial initiative to implement a responsibility centre.

Our last practical contribution concerns to the implementation of ABC in hospitals. Despite doctors normally resist to most management accounting initiatives, ABC has the potential to introduce cost accounting and the business logic into their clinical decisions. To accomplish this, doctors need to be persuaded and enlightened about ABC's ability to reconcile seemingly

divergent goals, quality *versus* efficiency and costs, therefore bridging the tensions between conflicting logics.

Moreover, our investigation demonstrates that the implementation of ABC in hospitals, cannot be isolated from issues such as the interests, power and emotional competences of the different actors.

5.3. Limitations of the study and suggestions for future research

In this thesis we are aware of the existence of some limitations. The first one derives from the fact that our analysis on the institutional change process conducted by an institutional entrepreneur, results from a single case study. Clegg's (1989) 'circuits of power' framework has not extensively been empirically tested by institutional entrepreneurship literature. We have addressed this risk of lacking statistical generalisability (Yin, 2009, 2014), by incorporating a strong theoretical foundation and a theoretically supported extensive analysis. Notwithstanding the above, further research should explicitly address the role of power in changing management accounting practices, namely, by framing the divergent institutional change processes within 'circuits of power' framework.

Secondly, our work demonstrates the advantages of integrating two different theoretical lenses, institutional complexity and paradox theories by demonstrating the ability of ABC technology to overcome the tensions that arise due to demands from conflicting institutional logics. However, we recognise that additional theoretical work is still required in order to demonstrate how paradox theory can be the bridge between distinct, but interdependent logics that persist over time.

Another suggestion for further research which emerges from this thesis concerns the analysis of hybrids organizations were more than two logics co-exist. This was the case of our study in chapter four, were multiple logics are in scene. Despite our focus has been on the tensions between care and business logics, we have also addressed the users'/patients' and the health care policy logics and how they have influenced the process of implementing ABC. However, more research is needed to clarify how actors accommodate prescriptions of more than two logics, in other settings and by using different analytical frameworks, thereby refining insights from this study.

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Decree-law n.º 158. D.R. I Series. 133 (2009-07-13) 4375-4384 – Approves the SNC and revokes POC.

Decree-Law n.º 233. D.R. I-A Series. 249 (2005-12-29) 7323-7333 – Transforms SA hospitals into EPE hospitals.

Decree-Law n.º 188. D.R. I-A Series. 191 (2003-08-20) 5219-5230 – Regulates the articles 9.º and 11.º of the legal system of hospital management, approved by Law n.º 27/2002, of 8th November.

Decree-law n.º 60. D.R. I-A Series. 77 (2003-04-01) 2118-2127 – Creates the primary health care network.

Decree Law n.º 185. D.R. I-A Series. 191 (2002-08-20) 5852-5859 – Regulates health partnerships, under private management and financing.

Decree-Law n.º 39. D.R. I-A Series. 48 (2002-02-26) 1623-1625 – Approves the new legal regime of hospital management.

Decree-Law n.º 374. D.R. I-A Series. 219 (1999-09-18) 6489-6493 – Creates the responsibility centres integrated in NHS hospitals.

Decree-Law n.º 232. D.R. I-A Series. 203 (1997-09-03) 4594-4638 – Approves the POCP.

Decree-Law n.º 11. D.R. I-A Series. 12 (1993-01-15) 129-134 – NHS Status.

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Law n.º 55-A. D.R. I Series. 253 (2010-12-31) 6122-(2)-6122-(322) – Law of the State budget for 2011.

Law n.º 27. D.R. I-A Series. 258 (2002-10-08) 7150-7154 – Approves the new legal regime of hospital management and process the first amendment to Law n.º 48/90, of 24th August.

Law n.º 48. D.R. I Series. 195 (1990-08-24) 3452-3459 – Law on the Fundamental Principles of Health.

Law n.º 8 D.R. I Series. 43 (1990-02-20) 685-687 – Basis Law on Public Accounting.

Law n.º 56 D.R. I Series. 214 (1979-09-15) 2357-2363 – National Health Service Law.

Normative Order n.º 46 D.R. I-B Series. 182 (1997-08-08) 4137-4138 – Establishes the guidelines for the establishment and operation of the health services monitoring agencies in the RHAs.

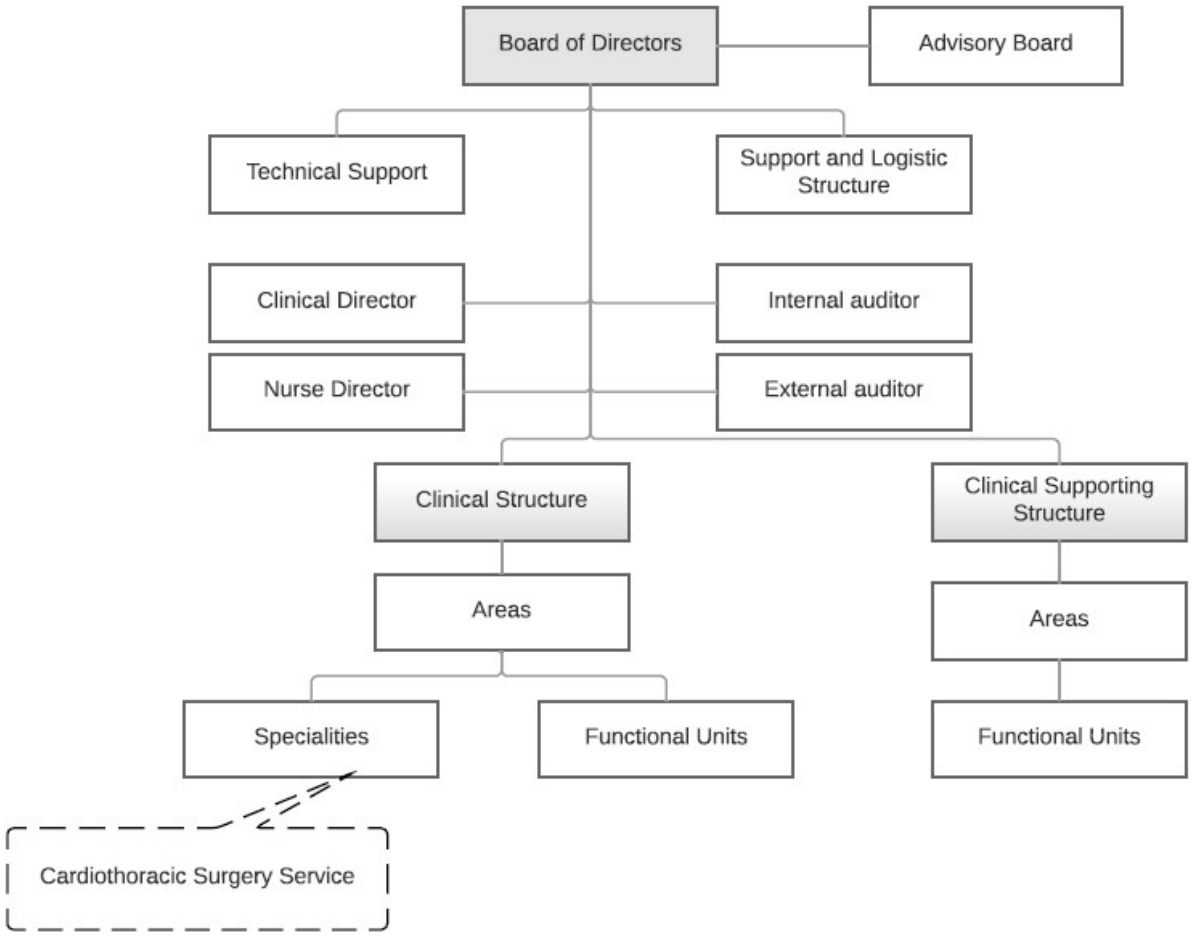
Ordinance n.º 898 D.R. I-B Series. 225 (2000-09-28) 5250-5314 – Approves the POCMS.

APPENDICES

Appendix I – Description of the interviews carried out regarding management accounting change in Portuguese NHS

Number	Date	Meeting attendants	Duration (hours)	Place
1	23rd March 2013	Academic at Nova School of Business & Economics	---	*Email correspondence*
2	24th March 2013	Academic at National School of Public Health	---	*Email correspondence*
3	19th April 2013	Member of the *José de Mello Saúde* Hospital Board of Directors and Former Health Secretary	1,25	*José de Mello Saúde*
4	10th May 2013	Chairmen of the *Garcia da Horta* Board of Directors	0,75	*Garcia da Horta* Hospital
5	12th December 2014	Health care management academic and previous Member of Board of Directors at *Leiria* Hospital Centre	0,42	*Católica* University
6	12th February 2015	Member of the CHLC Board of Directors	0,93	*São José* Hospital
7	30rd September 2015	Health care management academic	0,83	*Escola Nacional de Saúde Pública*
8	20th November 2015	External consultant to the World Health Organization, President of the Portuguese Association of Hospital Managers and previous member of ACSS Board of Directors	0,63	Nova School of Business & Economics
9	10th August 2016	President CHO Board of Directors, former Director of Planning, Analysis and Management Control Service	0,67	West Lisbon Hospital Centre (CHO) Board of Directors installations
10	3rd April 2018	Member of Board of Directors at Regional Health Administration of *Lisboa e Vale do Tejo*	0,62	Regional Health Administration of *Lisboa e Vale do Tejo*

Appendix II – CHLC organizational structure



Source: CHLC annual report (2011, p. 14, adapted).

Appendix III – Description of the interviews carried out at CHLC

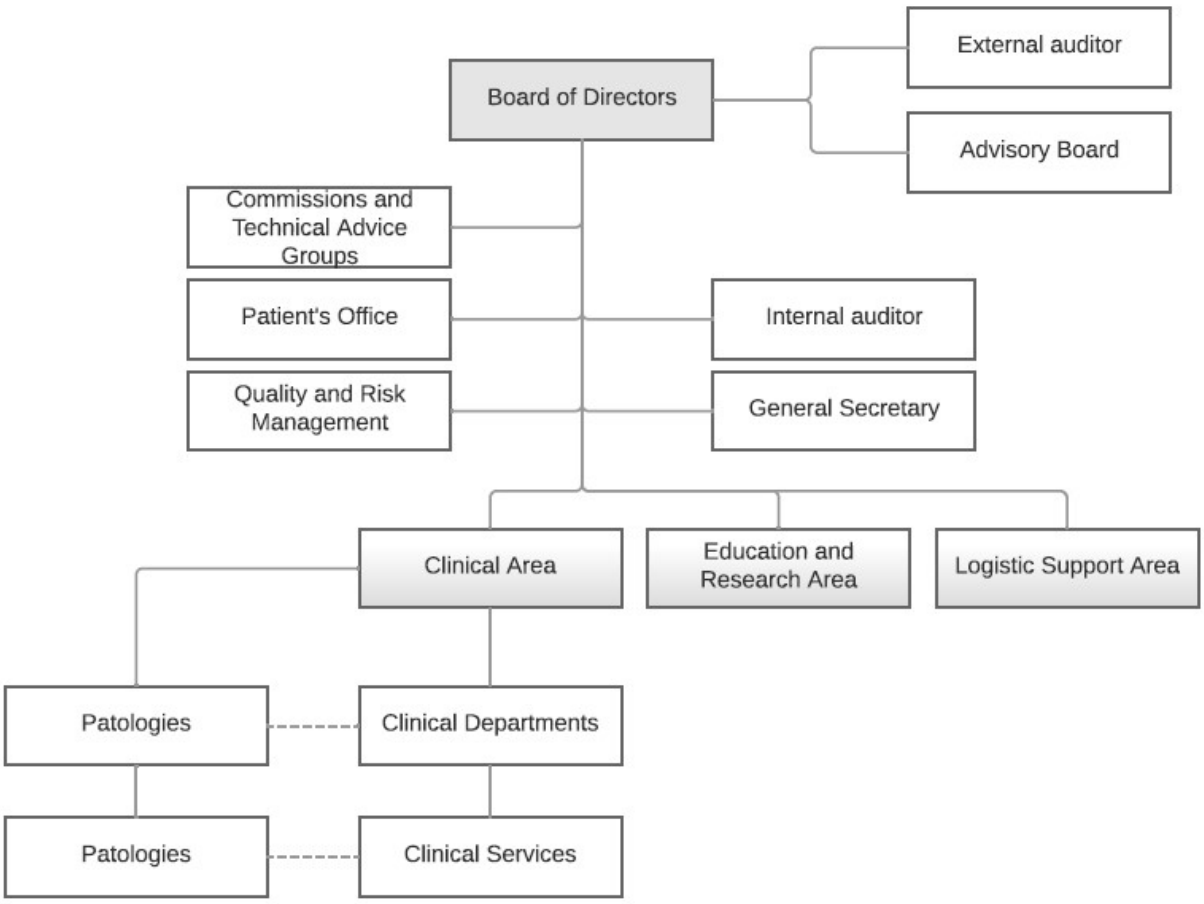
Number	Date	Meeting attendants	Duration (hours)	Place
1	20th September 2010	CSS Director	1,5	*Santa Marta* Hospital
2	11th October 2010	Nurse (Chief of the Office of Quality and Records)	1	*Santa Marta* Hospital
3	11th October 2010	Nurse	0,1	*Santa Marta* Hospital
4	11th October 2010	Administrative* (Secretariat)	1,5	*Santa Marta* Hospital
5	11th October 2010	Administrative* (Secretariat)	1,2	*Santa Marta* Hospital
6	12th October 2010	Doctor (Office of research and data)	0,5	*Santa Marta* Hospital
7	12th October 2010	Department manager (Hospital manager)	0,7	*Santa Marta* Hospital
8	12th October 2010	Doctor* (Intensive care unit)	1	*Santa Marta* Hospital
9	13th October 2010	Chief Nurse	2,3	*Santa Marta* Hospital
10	14th October 2010	Doctor (Head of the ward and outpatient visits)	0,8	*Santa Marta* Hospital
11	14th October 2010	Nurse** (Nursing consultation)	1	*Santa Marta* Hospital
12	15th October 2010	Administrative* (Secretariat)	2	*Santa Marta* Hospital
13	15th October 2010	Nurse** (Chief Nurse)	1	*Santa Marta* Hospital
14	18th November 2010	CSS Director	0,2	*Santa Marta* Hospital
15	18th January 2011	Director of Financial Management and Accounting Area of CHLC	0,3	*São José* Hospital
16	28th March 2012	CSS Director	0,4	*Santa Marta Hospital*
17	23rd March 2013	Academic at Nova School of Business & Economics	---	*Email correspondence*
18	24th March 2013	Academic at National School of Public Health	---	*Email correspondence*
19	25th March 2013	*Coimbra* CSS Director	0,6	*Telephonic interview*
20	19th April 2013	Member of the *José de Mello Saúde* Hospital Board of Directors and Former Health Secretary	1,25	*José de Mello Saúde*
21	10th May 2013	Chairmen of the *Garcia da Horta* Board of Directors	0,75	*Garcia da Horta* Hospital
22	12th February 2015	Member of the CHLC Board of Directors	0,93	*São José* Hospital

* The interviewee did not allow tape-recording. ** Audio file damaged.

Appendix IV – Performance indicators used by the CSS

The performance indicators used by the CSS are: surgical production (number of major surgeries, total number of major surgeries, adult surgeries, pediatric and adult thoracic surgeries, pediatric and adult cardiac transplants, lung transplants and implantation of pacemakers), production of medical consultation (thoracic consultation, cardiac and nursing consultation), academic production (PhDs concluded, articles published in scientific journals and publications in books), complexity (case-mix index and adults EuroSCORE, which is the table of risk used by the CSS), patients' average age, the rate of surgical emergencies (which gives an idea of the complexity of the cases), resources (total internal doctors specialists, internal heads of service specialists, doctors, nurses, hours of emergency unit, cardiopneumology technicians, perfusionists, pacemaker technicians, operating assistants, overtime and absence forecasts), installed capacity (total beds, bedding of the insulation unit, bedding of the pediatric unit, bedding of the intermediate unit, bedding of the nursery, operating units, number of hours per week on the operating units, number of days of consultation), costs (clinical consumables, pharmaceuticals products, human resources, direct costs, indirect costs, total costs and indirect costs *versus* total costs), facilities, equipment, performance indicators (average delay, occupancy rate, patients treated per bed over the year, mortality rate, child mortality rate, mortality rate observed in regarding the one expected by the risk score, complication rate, the average time in days of each unit, occupancy rate, number of surgeries by an independent surgeon , direct cost per patient operated, medical consumables cost per patient operated, cost of medication per patient operated and rate of satisfaction of users), inefficiency index (cancellation rate, readmission rate, rate of return to block in urgent operation, number of days of absence of employees and complaining rate of users).

Appendix V – Hospital X organizational structure



Source: Hospital X organogram (2014: 18, adapted).

Appendix VI – Description of the interviews carried out at Hospital X

Number	Date	Meeting attendants	Duration (hours)	Place
1	12th December 2014	Health care management academic and previous Member of Board of Directors at *Leiria* Hospital Centre	0,42	*Católica* University
2	30rd September 2015	Health care management academic	0,83	*Escola Nacional de Saúde Pública*
3	20th November 2015	Representative from the consultancy firm	0,58	Consultancy firm
4	20th November 2015	External consultant to the World Health Organization, President of the Portuguese Association of Hospital Managers and previous member of ACSS Board of Directors	0,63	Nova School of Business & Economics
5	16th March 2016	Doctor 1, Service Director	0,5	Hospital X
6	16th March 2016	Doctor 2, Service Director	0,9	Hospital X
7	16th March 2016	Doctor 3, Service Director	0,55	Hospital X
8	21st March 2016	Hospital manager 1	0,75	Hospital X
9	23rd March 2016	Hospital manager 2	0,7	Hospital X
10	23rd March 2016	Hospital manager 3	0,38	Hospital X
11	23rd March 2016	Chief nurse 1, previous member of Board of Directors	0,65	Hospital X
12	30th March 2016	Hospital manager 4	0,38	Hospital X
13	30th March 2016	Doctor 4, Service Director	0,45	Hospital X
14	30th March 2016	Hospital manager 5	0,05	Hospital X
15	1st April 2016	Hospital manager 6	0,5	Hospital X
16	10th August 2016	President CHO Board of Directors, former Director of Planning, Analysis and Management Control Service*	0,67	West Lisbon Hospital Centre (CHO) Board of Directors installations
17	2nd April 2018	Chief nurse 1, previous member of Board of Directors	0,83	Hospital X
18	3rd April 2018	Member of Board of Directors at Regional Health Administration of *Lisboa e Vale do Tejo*	0,62	Regional Health Administration of *Lisboa e Vale do Tejo*
19	19th April 2018	Doctor 5, Service Director	0,97	Hospital X
20	19th April 2018	Doctor 1, Service Director	0,63	Hospital X
21	19th April 2018	Hospital manager 7	0,82	Hospital X

* The interviewee did not allow tape-recording.