

# HOW MANAGEMENT ACCOUNTING SYSTEMS CAN SHAPE INSTITUTIONAL LOGICS

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## **Abstract:**

*This paper tries to respond to the call of several Institutional Theory authors for studying the causal mechanisms for institutional change.*

*We found evidence that suggests professional logics that were in place within the public health sector over the years were challenged by the introduction of management accounting systems. Nevertheless, the power health professionals have within the public health sector maintained professional logics as prevalent comparing with the market logics that were behind the introduction of new public management practices such as management accounting systems. The study also showed how health professionals react to this change, especially how the introduction of activity-based costing enabled a higher level of legitimation of market logics before these professionals. Health professionals questioned their medical practices in a management efficiency point of view and tried to adapt themselves to a different equilibrium of forces between market and professional logics. This study adds value to other previous studies in the health sector.*

*Evidence collected encompasses semi-structured interviews, observations and internal archival data from a public hospital. Directors, physicians, nurses, managers and accountants were among the interviewees. Some complementary documentary sources of public access, such as legislation, newspapers, and websites were also used.*

**Keywords:** *Management Accounting Systems, Institutional Logics; Healthcare, Hospitals*

## **Introduction**

Institutional theory has been studied and developed over the years. One of these developments is the institutional logics perspective. Conversely what historically happened in terms of the dichotomy between the macro and micro field, institutional logics perspective pretends to connect what happens outside the organization with what each individual does. In other words, institutional logics accepts that institutions perform at different levels of analysis and that actors are laid in higher order levels - individual, organizational, field, and societal. The institutional orders, the basics for the institutional logics perspective, are the external environment in which organizations and individuals are supported in such a complex society. Community, profession, religion, the state are some examples of the main pillars of society, according to the institutional logics perspective.

Research studies about institutional logics in the health sector are not developed in Portugal. The existing studies are more related with technical and practical issues. For example, Borges et al. (2010) present technical questions about costing in the hospitals. Another study made in several Portuguese primary healthcare services presents the performance management topic (Silva & Ferreira, 2010).

## **Literature Review**

### **Institutional Logics**

In their work, Thornton et al (2012) aimed to create a textbook that reveals a programmatic statement on the institutional logics perspective that differentiates it from neoinstitutional theory. Additionally their idea was also to summarize and suggest original theory to promote and amplify the metatheory initially proposed by Friedland and Alford (1991). Origins of institutional logics are usually credited to the work of these authors. They captivated the attention of academics because they criticized organizational and neoinstitutional theory as these theories did not consider social context of actors. Friedland and Alford (1991) argue that society and social relations are not the result of the diffusion of material structures, but are also related with culture and the symbolic. Additionally, they

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question network theory, specifically why this theory why people are connected, what they are available to do, and why power and status do not have general consequences (Friedland & Alford, 1991). Empirical work by Haveman and Rao (1997), Thornton and Ocasio (1999), and Scott et al. (2000) were also important bases to create a new approach to institutional analysis, which posited institutional logics as defining the content and meaning of institutions. In the last years institutional logics perspective has been increasingly an interesting topic to research, as confirmed by the contents of management and accounting journals.

### **Institutional Logics and Healthcare**

It is usual to find multiple institutional logics in healthcare organizations. As an example, Broekab et al. (2013) studied institutional logics in health care organizations and found that they difficult the adoption and implementation process of a quality improvement programme. The authors used a longitudinal case study method to understand how the process of adoption and implementation was conducted (Broekab et al., 2013). Scott et al. (2000) argued that dramatic changes occurred in the U. S. healthcare system after World War II. Technological development, service delivery agreements, financing issues, and new organizational principles were incorporated in the 'new' healthcare system. The authors studied institutional logics at the societal level, as the focus were hospitals (Scott et al., 2000). Dunn and Jones (2010) focused their study on medical education and found plural logics related with doctor's profession. In this case, they found logics of science from academia and logics of care from healthcare. These authors discovered that some factors, such as contestation among physicians, or the rise of managed care, were related with the care logic. On the other hand, differentiation in the missions of medical schools is related with the science logic (Dunn and Jones, 2010). Their study contributed in a way that the existence of plural logics was important for different groups and interests were varying over time, creating strong pressures about the way of educating future physicians (Dunn and Jones, 2010). Sonpar et al. (2009) studied the intervention of an institutionally driven essential transformation in a rural public health organization in Canada. The authors of this transformation were managers and physicians supported by the government. The idea was to emphasize on efficiency and wellness in order to improve service and quality of care. However, nurses and support staff questioned this change as it was conducted by market-based logics, which, according to these professionals could put in question ethical issues and their professional interests, since the large-scale layoffs were in place (Sonpar et al., 2009). Reay and Hinings (2005) used a qualitative approach to study healthcare in Canada and developed a theoretical model to understand transformations in mature fields. They highlighted the role of competing institutional logics as part of the process. The authors focused the study how the organizational field was transformed after the radical structural change (Reay and Hinings, 2005). Kitchener (2002) used qualitative analysis to study legitimacy at US academic health centre mergers. The focus was on the field level of these professional organizations. The author presented a model that explained the whole phenomenon: antecedents, processes and consequences (Kitchener, 2002). Novotna (2013) used a qualitative approach to study the consequences of the existence of two different institutional logics in Canada healthcare organizations. These logics were managed care and patient-centered care. The authors found that healthcare services have been pressured to use managerial-based practices focusing on a hard performance culture and this change was conflicting with patient-centered principles originating some inconsistencies to the process (Novotna, 2013). Reay and Hinings (2009) studied the health sector, a field where competing institutional logics were in place for a long time. In their study they identified some mechanisms that helped key actors to manage the conflicts between different logics. The authors showed that is possible that different and competing logics coexist over the time when cooperation between key actors are in place

(Reay and Hinings, 2009). Goodrick and Reay (2011) studied historically U.S pharmacists from 1852 to the present and found that professional work reflects several institutional logics. They exhibited that cooperation and competition among different institutional logics influence professionals' logics and work (Goodrick & Reay, 2011). Arndt and Bigelow (2006) studied the American Hospital Association and one of its publications and dedicated their research on the creation of the efficiency logic. They realised that the focus on efficiency prognosticate several issues that affected how hospitals were managed and health policy as well, such as the supposition that hospitals should perform as businesses (Arndt & Bigelow, 2006).

### **Methodology**

This paper studies the influence of management accounting systems on institutional logics in the hospital. So our main research questions are: How management accounting systems influence institution logics in the hospital? What are the causal mechanisms of institutional change?

Our study was developed through a qualitative research approach, as qualitative studies can explain fundamental and practical problems associated with how management accounting is used and changed in different contexts (Vaivio, 2007). This research, based on a descriptive case study, since the aim is to obtain a holistic, systemic and integrated knowledge about the research (Ryan, et al., 2002; Scapens, 1990). Case studies are considered adequate when 'how?' and 'why?' research questions are utilized, when there is no control of behavioural events, and also when there is a focus on contemporary events (Yin, 2009). So, in our study the case study method in an interpretive approach to date was utilized.

We used the 'pattern model of explanation' (Kaplan, 1964), since "the particular social system being studied and its context provided the basis for an explanation. It is the relations between various parts of the system and the system's own relationship with the larger system of which it is part which serve to explain the system" (Ryan et al., 2002, p. 147). The study followed the main steps proposed by Scapens (1990; 2008), Ryan et al. (2002) and Yin (2009) when conducting case studies: i) preparation; 2) collecting evidence; iii) assessing evidence, and iv) identifying and explaining patterns.

### **Access and data collection**

The case study was conducted in one of the largest Portuguese hospitals, the second largest of Porto city: *Hospital Geral de Santo António* (HGSA-CHP) This hospital was selected to participate in the pilot phase of ABC implementation promoted by the Portuguese Ministry of Health during 2007. A total of 39 semi-structured interviews were conducted, all tape-recorded and transcribed in the period from January 2009 to October 2013. All interviews were authorized and conducted in person. Confidentiality of interviewees was guaranteed and so no interviewee was identified in this study. A total of 34 different professionals were interviewed including the head of the MIS, the chief officer of information systems, the two professionals from the ABC implementation team, members of the ABC monitoring team, the president of the board of directors, other members of the board of directors, members of management board of different departments. The first interviewees were the chief officer of MIS that supervises the management information produced to support decision-making process of the Board of Directors and the two professionals from the CHP-HGSA implementation team. Before these initial interviews, the Financial Administrator was contacted in order to give the necessary support and authorization for the research study in the hospital. Some additional interviews were made to different professionals from other public health institutions, as well as to the former Ministry of Health, in the Government, when the ABC pilot project was initiated. Professionals from other hospitals that implemented ABC, as from Northern Region Health Administration were interviewed in order to triangulate and validate evidence (Lukka & Modell, 2010; Modell, 2005; Yin, 2009).

### **Research methods**

Interviews were tape-recorded and transcribed. Interview material was coded using webQDA, a qualitative analysis software that allows the treatment of texts and images, even from audio sources. We tried to ensure the reliability of our findings by triangulating among the various social actors interviewed and archival materials examined, and gathering data until a point of evidentiary saturation was attained (Strauss & Corbin, 1998).

In addition to interviews other qualitative research methods were used. The observation research method, considered essential by several recognized researchers, was used during the research process. Mason (2002) refers that "observation in a fieldwork setting can feel a more intensely personal and intimate endeavour than conducting interviews..." (Mason, 2002, p. 87). Observation was used as a complement of all interviews in different moments of the study enabling researchers to find out how things really work or happen (Flick, 2006). In other situations observation was also importantly used, such as in a working meeting with the consulting company and the hospital supporting team (February 2009) in ACSS headquarters, in Lisbon, and also during the session where final results of ABC implementation were presented (July 2009) in HGSA headquarters, in Porto.

Our data set contains also archival documents, composed of legislation, internal documents and public documents. Legislation is composed by Portuguese Laws from the Parliament, Decree-Laws and other legislative documents from the Government. Internal documents were from several different sources, such as production and costing reports, and activities' plans from different departments of the hospital. Public documents included activities' plans from the Ministry of Health and from Regional Health Administrations, program contracts between the Ministry of Health and the hospital under study. National newspapers articles concerning health care (from the period 2009-2013) and online resources were also used during the time of the study, since a very large portion of information is available in the Internet. For example, websites from different organizations were accessed, such as Portuguese Ministry of Health, Portuguese Central Administration of the Health System (*ACSS*), Northern Health Region Administration (*ARS Norte*), Order of Portuguese Doctors, Order of Portuguese Nurses, World Health Organization, just to mention a few.

### **Empirical Study**

In the Hospital Regulation made in the 1960's (Decree-Law 48357/68), there was already information, in the article 35, about management of hospitals. In the preamble of the same regulation was written "the administration of hospitals became a task for professionals with careful preparation and proper status. The hospital management, essential infrastructure of all medical action, should developed, according to economic techniques, but subordinate to social and human objectives (Campos, 2003).

### **HGSA-CHP hospital: Context and Institutional Logics**

HGSA-CHP (*Hospital Geral de Santo António – Centro Hospitalar do Porto*) is a central and university hospital that "aims at excellence in all activities in a global and integrated perspective of health", according to what is referred about the mission in its website (CHP, 2013). As the other NHS public hospitals HGSA-CHP provides healthcare to improve patients and population health. Additionally, this is a university hospital, which facilitates the "contribution for the development of science and health technology" (CHP, 2013). The CHP, which is the main institution and is composed presently by four hospitals, *Hospital Geral de Santo António*, *Maternidade Júlio Dinis*, *Hospital Maria Pia* and *Hospital Joaquim Urbano*. All these units cover a part of Porto city and are references for several municipalities from the northern region.

Comparing our study with a very similar one in terms of sector (health), we identified Scott et al. (2000). Although initial similarities, conclusions are opposite. These authors presented the dramatic changes that have happened in healthcare systems in the San Francisco Bay Area during the past half-century. These changes are related with demographic and socioeconomic trends in that area, and also with shifts in regulatory systems and policies at national, state and local levels. Also changes in the belief systems were analysed. For this analysis, the authors used different theoretical lens, such as strategic management, organizational ecology, and institutional theory. And also used both quantitative and qualitative methods. They realized that the professional dominance in healthcare was changing over the years until managed care be in place. In our case, as we have a different context, the change from a professional dominance to a managed care did not occur. Nevertheless these two logics co-exist and the competition between them is constant. Our evidence shows that health professional logics are still dominant comparing to a more and more important role of the market logics.

### **Market logics**

"Hospitals should be managed by managers", said one of the members of the board of directors. The same interviewee said that technical (medical) component should not be mixed with management component. To clarify this point of view, the manager exemplified:

*Notice, the decision to take a drug or other medicine is a clinical decision indeed but when the result is exactly the same with different costs, no longer should be a clinical decision but it should be a management decision, and that does not happen in our country yet. It still costs a lot to get into that philosophy.*

Besides the fact that managers think management should be seriously taken into account into the hospital decisions, they admit that reality still is a little different, since doctors prevailed their professional logics.

The changes that recognisably occurred in other countries from a professional logic to a market logic (see, for example, Samuel et al., 2005; Scott et al., 2000) seem to be very difficult to happen in Portugal:

*I think this is inevitable [to change to a market logic], because all of us want our children to have access to health care, and will no longer be the same as we have today because there is no money. Unfortunately we will be pushed for this change because there will be no money, and because of that more cuts will be in place. All ordinary citizens will be penalized.*

A manager from Central Agency of Health affirmed:

*Although all the cost cuts, and the efficiency philosophy in the Health Ministry, physicians always have the last word. If they decide to treat the patient, even with very high costs, the patient will be treated.*

Patient-centered care seems to be essentially a result of pressure from corporative behaviour of doctors – Order of Doctors with all the rules, medical procedures, best practices, World Health Organization with guidelines, etc.

The changes will happen, according to this member of board of directors, but with problems:

*That will change even the worst possible way. Look, let's put things around, we now have a deficit of some million euros, have a limited budget, we do not have the same attitude to accept any patient with an open door. Patients must be referred to our hospital, which means that their freedom of choice has to be conditioned in fact. We should not receive patients here, only because they decided to come to the hospital, we only should receive patients from our area otherwise we should have financing for that.*

### **Professional logics**

Doctors and nurses are the most influential professions in a hospital. These medical professionals use their professional logic as the prevailing institutional logic.

The managers' logics and the doctors' logics are competing all the time. This is a very important dichotomy, since doctors are much better paid than managers are. A comment from the responsible of the management accounting area was:

*The salary payslip of a doctor has an infinite number of bonuses lines.*

Some health professionals think about themselves as very special people. A nurse said:

*In fact, and obviously this is always medicine, including physicians and nurses, I think also the nurses, we always think a bit about ourselves as gods, since we can save patients and such, and then we also think we deserve different things because of this our capability.*

Over the time, there was a big change, either in terms of the relative importance of management. A nurse referred:

*And ... and what was good, and I think it was, was we worked very well as a team in the provision of care. But then when it came to management, one group treated only nurses, the other group treated only physicians; managers did not existed for us. This happened until the change to entrepreneurial management in the hospitals. At that time, for us, managers were some funny people we almost did not know them.*

### **Discussion and Conclusion**

This study provides evidence that several and competing logics are in place within the hospital. Market logics, especially associated to NPM recent developments in the Portuguese public sector are very strong in pressuring actors to perform in a certain way. Efficiency is one of the most important outputs of this pressure. Hospitals and other Portuguese public organisations are questioned about their cost efficiency in a day-by-day basis, since financial resources are less and less available. Public National Budget are restricting different areas, especially education and health, pillars of a modern and fruitful society. Even though the pressure from international organisations, such as International Monetary Fund, European Union (just to mention the most important ones) are leading Portuguese Government to make cuts in costs of different Ministries. These costing cuts within the Health Ministry has led hospitals and other public sector organizations to restructure their activities and processes in order to save money and be more efficient. Even at the organizational level, some important events occurred. Some small public hospitals were merged with larger ones. One of the most important goals of the Government was to diminish costs at the management level (less board of directors, less intermediate managers, etc.). Another objective was to put small and most of times not so well managed hospitals in contact with larger and more sensitive to management concepts. These larger hospitals were the first ones to change from a retrospective management type to a prospective management type during the first incursion of the Portuguese Government in the NPM philosophy, when entrepreneurialization occur during 2001. Hospitals have seen changes the way they were paid for their production, from a pre-defined value to an agreed level of health activities. If they do not accomplish what they agree, they are not paid. This way of managing organisations has impacts not only at the organisation level, but also at the individual level, since the behaviour and actions of staff contribute to the achievement of the agreed performance of hospitals.

However, market logics are not the only ones present in the hospital. For example, a Nurse Director blamed the bureaucratic system of the state for the fact they could not hire experienced young nurses that made the internship in the hospital. A public tender was always needed to hire new nurses.

*There are a lot of restrictions to hire and dismiss nurses. If we want to hire nurses, for example, we cannot do it without open a public tender. In this way we can loose some candidates that made the internship within the hospital and had already absorbed the organisation culture.*

Reay and Hinings (2009) discovered the coexistence of several logics for a long period of time. They argued that it is possible to manage competing logics through the development of collaborative relationships. The mechanisms presented in their study can be used successfully by physicians and managers to do the required work. However only one of the four mechanisms interviewees mentioned. It was the case of differentiation of medical from other RHA decisions that was mentioned by one of the members of the board of directors. However, the interviewee recognized the difficulty of implementing it, especially in a context in which a physician's decision prevails.

We found evidence that suggests professional logics that were in place within the public health sector over the years were challenged by the introduction of NPM practices. Nevertheless the power health professionals have within the public health sector maintained professional logics as prevalent comparing with the market logics that were behind the introduction of NPM practices such as management accounting systems. The study also showed how health professionals react to this change, especially how the introduction of activity-based costing enabled a higher level of legitimation of market logics before these professionals. Health professionals questioned their medical practices in a management efficiency point of view and tried to adapt themselves to a different equilibrium of forces between market and professional logics.

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