

Full Length Research Paper

The governance structure and regulation in Tunisian public hospitals

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The objective of this paper is to understand the implementation of new modes and mechanisms of governance under Tunisia health reforms. Data were collected from a survey among a national sample of board members (N = 30). The analysis integrates findings from both the qualitative and quantitative data related to modes and mechanisms of governance. The results indicate a transition of the functions given to the hospital board from a model with professional and autonomous boards towards two different functions. They are a mixture between the tasks of a formal decision body and the behaviour of a body to secure the interests of different stakeholders. The findings suggest also that the board of directors in hospitals must act in a context of uncertainty and ambiguity. Political (contractual incentives and control systems) and cultural requirements and trusting relationships are beneficial to improve the current practices.

Key words: Governance, governance modes, hospital governance, Tunisia.

INTRODUCTION

In recent years, corporate governance has emerged as an important factor of development of the health system for two reasons: (i) the nature and perceived importance of threats to the population health, and (ii) safety and the changing relationships among the various levels of government. In this context, the hospital sector is one of the main areas where such reforms have been introduced as part of a search for greater efficiency in service production. In the centre of these international reforms based on corporate governance models, the hospital boards play a vital role on the edge between the hospital owner and the service providers (Smallman et al., 2010).

In the Tunisian public health system, governance has reflected international trends in New Public Management (NPM). In 1991, the sector was fundamentally reorganized into self-governing enterprises with local hospital boards having the overall responsibility of running the hospitals on behalf of the state as the hospital owner. One main assumption behind the Norwegian Hospital Enterprise Act (2001) was that professional and autonomous boards were the main condition on which the state should build its management of hospitals. Therefore, we raise the question: how is the hospital

boards functioning? This study aims at analysing the role of local hospital boards in the light of the motives behind the Tunisian governance reform.

Subsequently, this paper presents the trends in governing public health systems. When presenting the empirical background to the study, special emphasis was placed on the Norwegian hospital boards' functions defined by the Hospital Enterprise Act (2001). Thereafter the research methods are discussed, and finally the findings of the paper are discussed.

HOSPITAL GOVERNANCE IN TUNISIA

Over the last decades, demographic pressures and economic constraints have resulted in the area of hospital governance receiving considerable attention and debate. Hospitals are the main actors in the health system that consumes significant expenditure and resources. It is generally characterized by the existence of a group of

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actors of contradictory interests (medical professionals and administrators) or two modes of authority: bureaucratic authority and charismatic authority (Chauvinet, 1972). The administrator who is considered as a diplomat remains subject to the requirements of doctors and acts as an intra-organizational mediator (Harrison and Pollitt, 1994; Thompson and Davidson, 1995). In this case, the actions of physicians must be horizontally controlled by operators who hold an equivalent level of expertise and competence. It appears that the direction should have more power of organization and representation of real authority and management. As a result, the organizational change managerial style has become necessary to overcome the divisions between the professionals and administrators. Eeckloo et al. (2002) argued that the purpose of this style is to enable a more integrated approach of supporting and supervising all the hospital activities including clinical performance. In this context, governance is primarily concerned with managing organisational structures, infrastructure, departments and the resourcing of facilities.

In Tunisia, there has been much emphasis on the health service. Hospitals are huge economic entities that consume significant expenditure and resources. In 2010, the total health care expenditure in Tunisia amounted to 6.5% of the Gross Domestic Product (GDP), approximately 9.2 billion dinars. This conjunction with increasing concerns over value for money and the way money is spent has resulted in the area of hospital governance receiving considerable attention and debate (WHO, 2010).

In 1991, the government has implemented major changes in the organisation and the funding of its health services. The central change is that the board of directors is largely elected for the control and coordination of all the services of the hospital and the creation of a new hospital structure called "public health establishment". The public health establishment is health institutions and university-oriented investment, as well as all the public health facilities, missions of medical and paramedical training and scientific research. They are classified into general institutions, versatile and specialized institutions and with financial autonomy and liability.

Management board

Based on the agency theory, the role of the management board is seen mainly to secure the interests of the principal(s) through the activities performed by the top management. It can be regarded as a link between the owner (principal) and the management (the agents) and a means to secure the owners' interests (Pettersen et al., 2012). In the Tunisian hospital sector, a wave of reforms, see restructuring, can be placed within the Principal-agent or agency dilemma logic, since public authorities have searched various mechanisms to align the interests of the agent with those of the principal in order to

increase efficiency.

The Decree-law n°91-1842 underlines that the Board of Directors in the Tunisian public health establishment consists of sixteen members and performs the following functions:

- (i) Creation, deletion and change of the medical and pharmaceutical services.
- (ii) Organization of the various administrative and technical services of the institution.
- (iii) Offers access to loans in accordance with the extreme legislation.
- (iv) Approves the program contracts based on the health card and follows their execution.

The Board of Directors is convened by its presiding member or at the request of half of its members at least once every three months. It also meets at the request of the Ministry of Public Health.

Chief Executive Officer (CEO)

The CEO is appointed by decree on the proposal of the Ministry of Public Health. He is responsible for:

- (i) Ensuring technical, administrative and financial institution.
- (ii) Preparing the work and ensuring the implementation of decisions of the board.
- (iii) Representing the institution from third parties and the courts.
- (iv) Paying the salaries, wages, allowances and benefits of the agents according to the law, and regulating and making orders of revenue and expenditure.
- (vi) Taking all the measures to ensure the recovery of such costs of care and explorations taught in the establishment.
- (vii) Making any proposals to the Board so as to improve the functioning of the institution.

The CEO provides the general conduct of the institution. He has authority over all the staff in accordance with the professional ethics, responsibilities it entails for the administration of care and the professional independence of the practitioner in the exercise of his art.

Medical committee

Under Article 8 of decree-law n°91-1842, in each public health establishment, there is a medical committee composed of all the heads of medical, pharmaceutical and dental services. The medical committee's mission is:

- (i) Setting goals and proceeding with the planning of the annual program of medical research in hospitals.
- (ii) Making an inventory of ongoing studies and following their progress.

- (iii) Ensuring a periodic evaluation of the effectiveness and efficiency of the functioning of the various departments
- (iv) Ensuring the coordination of the educational and training activities in the services of the hospital and ensuring a smooth running of training and retraining.
- (vi) Studying and proposing candidates for scholarships and internships for medical, pharmaceutical, dental and paramedical hospital staff.

Other stakeholders

Other stakeholders include the central government, insurance companies and patients. The central and local governments dictate the regulatory environment, which consequently determines price and budget allocation. The insurance companies which are considered the major client of hospitals have a certain influence on the corporate governance structure (Blank and van Hulst, 2011). In Tunisia, Health Insurance is managed by the National Health Insurance Fund. The social protection system is required and involves the entire population. It differs according to the professional category. Public health organizations offer free services to all the Tunisian citizens and residents. The role of patients in the corporate governance structure will be expressed in these opinions in the perceived quality and the effectiveness of care.

MATERIALS AND METHODS

Data

This research is based on both quantitative and qualitative methods in order to analyse the governance aspects. At the same time, as the empirical data were gathered, the researchers also studied the relevant documents from the government, the Ministry of Health and from hospitals. The research process was somewhat iterative, as explorative interviews were conducted, documents were studied, the survey was done and follow-up interviews were conducted with key decision-makers in 2010.

The survey of 2010 was distributed to all the 30 members of the hospital boards of the Tunisian public hospitals. The survey included questions to map the board structure and composition, relationship with management responsibilities, activities, and accountability. Furthermore, both board members and managers were included to have somewhat a broad approach towards the perceived roles of the board (Table 1).

Methods

This study's empirical approach is to construct a governance index that contributes to an understanding of how the Tunisian public hospitals operate. Principals' components analysis (PCA) is a multivariate statistical approach

that essentially transforms a set of correlated variables into a set of uncorrelated ones, termed components. The uncorrelated components are linear combinations of the original variables. PCA has in practice been used to reduce the dimensionality problems and transform interdependent coordinates, significant and independent ones. This index is calculated according to the methodology of Nagar and Basu (2002).

Governance index is estimated as the weighted average of the principals' components (PCs), where the weights are the eigen values of the correlation matrix knowing that:

$$\lambda_1 = var(PC_1), \lambda_2 = var(PC_2), \dots, \lambda_n = var(PC_n)$$

Thus, the governance index is:

$$GI = \frac{\sum_{i=1}^n \lambda_i PC_n}{\sum_{i=1}^n \lambda_i}$$

In a nutshell, the estimator of the GI is computed as the weighted sum of the principals' components, where weights are equal to variances of successive principal components. Finally, we normalise the GI value by the following procedure:

$$GI = \frac{GI - \min(GI)}{\max(GI) - \min(GI)}$$

RESULTS AND DISCUSSION

Here, the findings from the survey study (N = 30) and the interviews are presented and analysed. The weight of the principals' components and the Governance index are shown in Table 2.

From the row of Table 2, we observe the low governance index (0.526) in the Tunisian public hospitals. This result is due to the board of directors' malfunctions and the absence of real financial and administrative autonomy. However, it is noted that the decision of the Board is based on standardized management information which is not a means of control of reflexion and of problem solving in hospitals. On a financial level, majority of the hospitals do not have capital budgets and signed program contracts with the central government. Consequently, the allocation of equipment is based on the relationships with the heads of hospital services and the ministry of the public health, but not according to hospital needs. On an administrative level, and contrary to the provisions of the regulatory reform, the hospital remains subject to guardianship orders.

The study also shows that the members of the board hold a traditional coordination function oriented towards supervision and general policy. These involve the Board of Directors' meetings based on standardized management

Table 1. Interview statistics.

Interview n°	Year	Member
1	2009	Members of hospital board (8)
2	2009	Hospital managers (10)
3	2009	Director of finance of a hospital (7)
4	2009	Physicians and nurses (5)

Table 2. Relative weights of dimensions and indicators of GI.

Dimensions	Weight indicators (%)	Weight dimensions (%)
	7.307	
	8.87	
	5.566	
	3.689	
	3.483	
Operating of board	Transparency	
		2.824
		11.819
		5.827
	5.603	
	Accountability	
	2.699	
	0.163	
	4.087	
	Autonomy	
	6.612	
	2.861	
	0.586	
	1.773	
	0.166	
	0.124	
	5.98	
Information system		16.908
		4.667
		4.126
		0.48
	0.525	
	0.428	
	0.151	
	1.12	
	0.49	
Control activities		10.095
		0.065
		0.002
		0.096
	0	
	0.27	
Management control		8.639
		0.487
		2.236
	0.481	

Table 2. Contd.

	0.31	
	0.063	
	3.262	
Regulatory environment	0.005	7.691
	0.445	
	0.676	
% total variance		67.633
$\overline{GI} = 0.526$		

information which is not a means of control, of thinking and of problem solving. Yet, due to the increase in scale and the growing complexity, the board becomes more and more out of touch with what is really going on within the organization.

According to Eeckloo et al. (2002), a clearer demarcation of the governance structures would contribute to a more transparent decision-making process. However, operational decisions must be taken by management, while the hospital board must be entrusted with all the tasks of a supervisory nature. The board must ensure a balanced consideration of the interests of all the stakeholders concerned in the organization.

The results of the study also showed some dissatisfaction on the part of the supervisory boards. The main objections concern the information systems and the management control. However, the information systems in majority of hospitals are largely unsuited to the needs of the computerization policy in the health sector. Most hospital information systems for essentially administrative management of patients and staff, computerization of patient records, medical imaging, operating theaters and wards, are insufficient. In addition, knowledge of cost method derived from industrial accounting is difficult to apply to the activities of the hospital. Indirect costs are paramount and therefore it is difficult to make use of the cost centre method. Under these conditions, it is difficult to establish a suitable hospital cost accounting and management control.

Conclusion

This paper investigates the construction of a governance index using the method of Principals’ components analysis according to the methodology of Nagar and Basu (2002). The contribution of this research lies in illuminating both the complexity of modes and mechanisms of governance in the Tunisian public hospitals. The relevance of this topic is justified by the regulatory environment and the economic and social requirements, raising the paradox of economic performance in hospitals.

The research has shown empirically that the Tunisian hospital governance system can be seen as a system in transition. The gaining of financial autonomy and legal personality from the hospital is still largely eroded by overlaps in the governance structures and vagueness in the allocation of competences. The research has also identified some learning objectives in terms of promoting resources to implement the following:

- Informational and cultural implications are reflected in the implementation of strategic dashboards and looking for a stakeholder cooperation of the hospital and massive introduction of new technologies of information and communication.
- Review and development of indicators of hospital management through the establishment of a “baseline” of hospital management and coordination of the criteria of good hospital management, that is, transparency, periodic inspection and repeated use, etc.
- Professionals with the Ministry of Public Health should encourage the role players in hospitals to undergo training to develop their skills:

- (i) General training is oriented towards the following four areas: quality management, risk management, financial management and evaluation of professional practices.
- (ii) Specific training on the implementation of the hospital reforms and the development of approaches and tools for the operation of the business segments, that is, New Public Management, management of human resources, etc.

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