

Governance Structures for IT in the Health Care Industry

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INTRODUCTION

The pressures for the health care industry are well known and very similar in all developed countries (i.e., altering population, shortage of resources for staff and from taxpayers, higher sensitivity of the population for health issues, new and emerging diseases, etc.). Underdeveloped countries experience different problems, but they have the advantage of learning from the lessons and actions that developed countries underwent perhaps decades ago. On the other hand, many solutions also exist, but they all make the environment even more difficult to manage (i.e., possibilities of networking, booming medical and health-related research and knowledge produced by it, alternative caretaking solutions, new and expensive treatments and medicines, promises of biotechnology, etc.).

From the public authorities' points of view, the solution might be easy—outsource as much as you can out of this mess. Usually, the first services to go are marginal operational activities, such as laundry, cleaning, and catering services. It is easy to add information systems to this list, but we believe this is often done without a careful enough consideration. Outsourcing is often seen as a trendy, obvious, and easy solution, which has been supported by financial facts on the short run. Many examples show that even in the case of operational information systems, outsourcing can become a costly option, not to mention lost possibilities for organizational learning and competitive positioning through mastering of information technology.

BACKGROUND

We have found the following reasons for the late adoption of modern information technology in the health care sector (Suomi, 2000):

- Fragmented industry structure
- Considerable national differences in processes
- Strong professional culture of medical care personnel

- One-sided education
- Handcrafting traditions
- Weak customers
- Hierarchical organization structures

ICT and governance structures meet in two ways. On one side, ICT enables new governance structures for the health care industry. On the other, it is an object in need of governing. As both sectors offer a multitude of new possibilities, innovations are called for in the industry (Christensen, Bohmer, & Kenagy, 2000).

IT governance thinking matures in organizations as any other discipline. Van Grembergen, De Haes, and Guldentops (2003) have defined the following stages in their IT Governance Maturity Model:

- Non-existent
- Initial/ad-hoc
- Repeatable but intuitive
- Defined process
- Managed and measurable
- Optimized

Needless to say, in the health care industry, IT Governance thinking is non-existent or initial/ad hoc in the best situation.

THE MEANING OF ICT GOVERNANCE STRUCTURE IN HEALTH CARE

IT is an old acronym for information technology. Nowadays, it is replaced often with the term ICT, referring to information and communication technology. This emphasizes the communication services that are developing very quickly, such as the Internet and mobile services. The letter *C* is often upgraded to the second dimension: alongside communication it can refer to contents. IT or ICT governance is defined (IT Governance Institute, 2001) as follows:

IT governance is the responsibility of the board of directors and executive management. It is an integral

part of enterprise governance and consists of the leadership and organizational structures and processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives.

For many, there is a temptation to understand governance as just a synonym for management. This is an oversimplification. Management is a goal-oriented activity, whereas governance is often given from the outside, and organizations just have to live with it. This is not to say that all governance structures would be beyond management control; management can influence most governance structures, at least in the long run. The long run is a key term in many aspects. We talk about structures that are semi-permanent and not changed very frequently. Structure is a term closer to architecture than to infrastructure; governance structures are architectural terms and are then implemented into infrastructures through different organizational forms. The terms *organization form* and *governance structure* are not synonyms. Organizational forms are more formal and touch upon one organization, whereas governance structures are found in a richer selection of forms and organize themselves over a number of organizations. Table 1 summarizes our discussion.

Governance structures are present in almost any human decision-making situation. In Table 2, we have a collection of key aspects of governance structure issues in health care.

FUTURE TRENDS

One of the biggest changes in the industry is that information related to health, sickness and medicines is not scarce. Internet is a rich source of such information, at

different levels of expertise and at different languages. The gap between what information is available and what a health-care professional should know is growing very fast (Weaver 2002). This will shift the power balance between health professionals and patients: increasingly often the patients are the best experts on their disease. Different electronic forums or Virtual Communities (Rheingold 1993) related to health are born on the Internet. They have different services and values to offer to the healthy ones and to the chronic and acute sick (Utbul, 2000). Similarly, the interaction between the patients and health care professionals is going to change: electronic means are going to take share from face-to-face meetings (Cain, Sarasohn-Kahn & Wayne 2000; Gibson 2003).

For organizing patient flows through the health care system modern ICT offers many possibilities. Should patient data be all the time available anywhere though electronic means, would the Healthcare Supply Chains be much more effective (More & McGrath 2001). Effectiveness means that patients are taken care of in the best and most effective places, be they public or private, and of right level of expertise. As patient data can be electronically cumulated into huge databases, these databases can be used for different statistical, research and other purposes. This calls for care and proper legislation giving the principles.

Managing and building governance structures for ICT in health care organizations is not that much different from other organizations. Even in health care organizations, the scope and status of information resource management has to be decided. Issues such as sourcing decisions, charging arrangements, data privacy, and security issues all deserve their attention. There are certain problems that need to be solved in this area:

Table 1. Comparison of terms management, organizational form, and governance structure

	Management	Organizational Form	Governance Structure
Time perspective	Short	Medium	Long
Focus	Action	Internal organization	Inter-organizational structures
Management Control	In action	Easy	Difficult
Metaphor	Communication channels	Infrastructure	Architecture
Character	Concrete	Formal	Abstract

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