ResearchGate

See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/267034576

Inter-organizational Cooperation in Community Health Organizations: A Competence-Based Perspective

Article *in* International Journal of Health Care Quality Assurance · March 2015

DOI: 10.1108/IJHCQA-07-2014-0081

CITATIONS
8

READS
384

2 authors:

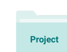
Mário Franco
Universidade da Beira Interior
276 PUBLICATIONS 2,907 CITATIONS

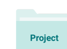
SEE PROFILE

Heiko Haase
Ernst-Abbe-Hochschule Jena
91 PUBLICATIONS 1,648 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:


Cooperation Interorganizational View project


PhD Studies on Absorptive Capacity ans Strategic Alliances Performance in SMEs View project

All content following this page was uploaded by Mário Franco on 05 March 2015.

The user has requested enhancement of the downloaded file.

The current issue and full text archive of this journal is available on Emerald Insight at:
www.emeraldinsight.com/0952-6862.htm

Inter-organizational cooperation in community health organizations

A competence-based perspective

Mário Franco
Department of Management and Economics, CEFAGE-UBI Research Center, University of Beira Interior, Covilhã Portugal, and
Heiko Haase
Department of Business Administration, Center for Innovation and Entrepreneurship, University of Applied Sciences Jena, Jena, Germany

Abstract

Purpose – The purpose of this paper is to examine various aspects related to inter-organizational cooperation and how this phenomenon can be applied to healthcare institutions.

Design/methodology/approach – To fulfil the aim, a qualitative investigation was adopted, focussing on the relationship between public hospital and a higher education institution in Portugal.

Practical implications – The study supports health managers and higher education leaders, and other stakeholders involved inter-organizational cooperation drawing up strategies and understanding inter-organizational cooperation's impact at the regional level.

Originality/value – One contribution is to help fill a gap regarding the empirical research surrounding cooperation between organizations, especially in the health sector, where scientific studies are scarce. It also provides new insights by applying competence-based theory to analyze different approaches to hospital cooperation, which has received scant attention in the health sector.

Keywords Networking, Leadership, Learning, Management, Partnership, Networks

Paper type Case study

Introduction

Today's competitive environment means managers must focus on their central capacities (Trkman and Desouza, 2011; Pires and Machado Neto, 2012). Most managers should therefore participate in cooperative relationships to sustain their principal services (Misener and Doherty, 2012). Fundamental changes in external environments make it is difficult for them to compete alone successfully (Yu and Chen, 2013). By providing managers with internal and external development support and collective synergies (Trkman and Desouza, 2011), inter-organizational cooperation is seen as a strategy to achieve competitive advantages and a vehicle to strengthen an organizations' survival and growth in turbulent environments (Peci, 1999; McSweeney-Feld *et al.*, 2010).

As managers become more dependent on cooperation, it becomes clear this strategy is more than just a vehicle to acquire material, resources or operational logistics (Trkman and Desouza, 2011). Inter-organizational cooperation is seen as a mechanism

The authors thank the anonymous reviewers for their very helpful comments that contributed to the development of this paper. The authors gratefully acknowledge financial support from FCT and FEDER/COMPETE through grant PEst-C/EGE/UI4007/2013.

International Journal of Health Care Quality Assurance
Vol. 28 No. 2, 2015
pp. 193-210
© Emerald Group Publishing Limited
0952-6862
DOI 10.1108/IJHCQA-07-2014-0081

to acquire knowledge-based resources and capacities, and allows joint actions and resource transaction to achieve mutual objectives (Rusko, 2011). Therefore, resource-based theory has been a dominant perspective in inter-organizational cooperation and has been used extensively to explore relationships (Bazzoli *et al.*, 2000). According to this theory, managers are dependent on their task environment for inputs that are essential since managers cannot internally generate all the necessary resources, they collaborate with managers in other organizations to obtain them (Pfeffer and Salancik, 1978). However, in this study we use competence-based theory (Hamel and Prahalad, 1994; Sanchez *et al.*, 1996; Teece *et al.*, 1997; Freiling, 2004) – a promising approach to sustaining competitive advantage and as a dominant theoretical framework to understand inter-organizational cooperation. Compared with the resource-based view, the competence perspective offers new conceptual dimension, which captures more completely the complex and dynamic interplay between assets, resources and competences (Sanchez, 2001).

During the past decade, managers in various industries have increasingly turned to inter-organizational cooperation to enhance their competitive advantage, including service-based industries (Yu and Chen, 2013). In this context, health organizations, as institutions belonging to a market competing for the best healthcare and technological innovation (Franco and Duarte, 2012), are no exception and need to maintain their position in the market while needing to grow. Intensified competition continues to stimulate collaborative arrangements among healthcare managers (Mascia *et al.*, 2012; Peng and Bourne, 2009).

In many countries, mounting health-system threats and pressure and slow financial growth culminate in a situation where managers are forced to increase their efficiency to maintain satisfactory healthcare without sacrificing healthcare quality (Franco and Duarte, 2012). Innovation, with recourse to technological advances, new strategies or new premises, is an important aspect that can increase value and efficiency (Bernardo *et al.*, 2012). Internal growth requires investment in strategic areas, internal re-structuring and reorganization, quality in dealing with the public, developing new treatment methods, modernizing equipment and strengthening internal know-how, etc. All these can be costly and risky as they may not generate immediate returns (Feitosa, 2002). Thus, hospital managers can obtain valuable resources, such as financial, human capital and managerial expertise, through collaboration with other institutes (Bazzoli *et al.*, 2000) and therefore reduce their dependence on external factors. Additionally, costs, resources and skills can be shared among different parties, as can the opportunity to reach the market (Yu and Chen, 2013).

Health service managers worldwide are increasing their cooperation within their institutional environments (Mascia *et al.*, 2012). In these circumstances, despite recognizing inter-organizational cooperation in healthcare contexts, there are few theoretical or empirical studies (Franco and Duarte, 2012). Except for Lehoux *et al.* (2003), few studies analyze inter-organizational cooperation in service-based industries, particularly collaboration between health organizations (Yu and Chen, 2013). How collaborative arrangements improve community health organizations remains unanswered. Prior studies have not reached a consensus regarding collaborative relationships between hospitals and higher education institutions. Owing to insufficient studies on cooperation between hospitals and university healthcare training, our main contribution is to fill gaps in the research. The aim is to determine the motives that lead to hospital-university cooperation, the benefits drawn from that cooperation and its limits. We reveal how inter-organizational cooperation is an important mechanism for community health organizations and its role in regional development. To achieve this purpose, based on a qualitative investigation, we studied cooperative relationships between Portugal's

Cova da Beira Hospitals (CHCB) and the University of Beira Interior, Faculty of Health Sciences (FCS-UBI).

Theoretical background

Inter-organizational cooperation

Different definitions and different forms, such as strategic alliances, partnerships or networks are found (Parmigiani and Rivera-Santos, 2011). However, inter-organizational relationships are understood to be network-like arrangements based on relational communications that require a reciprocal exchange of resources (Parmigiani and Rivera-Santos, 2011; Powell, 1990). According to the resource-based perspective (Barney, 1991, 2001), only those resources that are valuable, rare, impossible to imitate perfectly and not substitutable, lead to a competitive advantage (Wernerfelt, 1984; Barney, 1991). Resources include "all assets, capabilities, organizational processes, firm attributes, information, and knowledge" (Daft, 1983, p. 23). Competence-based theory (Hamel and Prahalad, 1994; Sanchez *et al.*, 1996; Teece *et al.*, 1997; Freiling, 2004) became a perspective independent from resource-based views. Organization-specific competences do not necessarily refer to internal resources; its logic acknowledges open boundaries (Madhok, 2002); i.e., sustaining competitive advantages often rests on organization network/cooperation and blending capabilities with partner organizations (Lorenzobi and Lipparini, 1999). Therefore, competence-based theory takes a competitive advantage relational view (Dyer and Singh, 1998).

Cooperation in administration studies have developed consistently from the 1980s (Nhoria and Eccles, 1992). Since then, managers have become aware that their operations are more efficient when they are connected through a cooperative relationship, creating interdependence with other individuals and/or organizations. Inter-organizational cooperation benefits have been widely documented in the literature, including increased environmental adaptations (Uzzi, 1997), creating competitive advantage (McEvily and Zaheer, 1999), access to critical resources (Gulati, 1999), expanded market power (Thorelli, 1986), cost sharing (Hagedoorn, 1993), risk reduction (Ohmae, 1989) and improved flexibility (Powell *et al.*, 1996). Grandori and Soda (1995) also made important points about cooperative relationships, demonstrating that it is possible to identify economic and social aspects that are fundamental variables influencing these relationships. Castells (2000) states that in the last two decades, transformations have occurred in social relationships. This change forms the social vision cooperation, where Castells (2000) demonstrates that society is characterized by the structure that seeks connections, constructs information on individual and developing cultural characteristics, which is repeated and re-organized in the various sub-connections. Building strong ties between member organizations can reduce monitoring and integration costs. Besides, cooperative relationships facilitate rapid and accurate transfer of critical information that improves cost-efficiency (Lega, 2005; Rosko and Proença, 2005).

According to Marchi and Wittmann (2007), the relationship between cooperating organizations is a decisive factor for the union's success as it determines cooperative functioning. Good internal connections between agents can improve the information flow and promote strong cohesion between partners. That cohesion can diminish the risks associated with transactions, facilitate trust and promote cooperation. Bernardo *et al.* (2012) argue that cooperative relationships attain a critical mass, reach new markets, balance each partner's special resources and gain new competences through organizational learning. According to Salge and Vera (2009) and Bernardo *et al.* (2012), cooperation allows greater specialization in interconnected institutions, which

transfers knowledge and increases diversity. For Peci (1999), managers that choose to cooperate should be prepared for significant changes in business management. Managers have to learn to speak about trust, since partnership is the main characteristic.

Several studies on transaction cost theory identified trusting relationships as the key factor in determining inter-organizational cooperation (Mjoen and Tallman, 1997). Heide and John (1990) argue that trust can replace or supplement control mechanisms to guarantee mutually beneficial exchanges. Previous research also shows that when there is trust, the relationship is better able to oppose environmental uncertainties, volatility and cope with organizational changes (Zaheer and Venkatraman, 1995). Additionally, trust can improve communication between partners and thus increase information flow, which has a positive impact on inter-organizational cooperation (Zaheer *et al.*, 1998).

Cooperation within healthcare institutions

Over time, an increasingly saturated market has been seen in health organizations and healthcare provision, which lead to adopting different positions so that organizations can survive, maintain operations and achieve user satisfaction. Generally, much organizational development can be attributed to these changes. As access to critical resources is threatened and new challenges are presented to health service providers, managers seek to increase their advantages and reduce their uncertainty about the environment by banding together (Mascia *et al.*, 2012; Peng and Bourne, 2009). Since the early 1990s, several reforms have been introduced into Portuguese healthcare to stimulate competition among hospitals. These reforms significantly reduced hospital stay and thereby increased the interdependence between hospitals and other institutions. Technological progress, market integration and improved service quality also feature. These factors have forced healthcare organizations to concentrate their efforts on specializing, improving care quality and training and also banking on differentiation and research through innovation in services and/or in their organizational environment's internal and external processes. With a constantly ageing population, society faces problems, particularly resource shortages to ensure a good quality of life for everyone from a social and health view point. Therefore, evolving organizational formats lead to organizations coming closer together with strengthened relationships. Staff connected by cooperative relationships work together continually rather than sporadically (Brass and Marlene, 1993; Franco and Duarte, 2012).

Reorganized health services and new social policies intensify the need for innovative and differentiated responses. Consequently, health sector managers and policy-makers are considering new organizational forms (Franco and Duarte, 2012) such as cooperation, aiming to provide services to the elderly in particular (Franco and Duarte, 2012). These inter-organizational forms are characterized by an easy relationship between organizations, structured to attain long-term objectives, which could not be achieved by a single organization. In a study conducted within Taiwanese hospitals, Chu and Chiang (2013) found hospital managers involved in inter-organizational relationships while retaining their autonomy could improve their efficiency. Cooperation between organizations has been on the academic agenda for many years (Franco and Duarte, 2012), but gained attention as organizations become complex, international and generally more diversified. Franco and Duarte (2012) point out that to complete their highly complex and often inter-related tasks, health service mangers seek partners who can advise, provide information and support. Managers entering into inter-organizational cooperation to gain economies of scale and scope, enhance acquisition and retain key resources,

expand their revenue and services, increase their influence and improve their market position (Zuckerman and D'Aunno, 1990).

Hospitals can obtain valuable resources, such as financial and human capital, and managerial expertise, through collaboration with other organizations (Bazzoli *et al.*, 2000) and therefore reduce their dependence on external factors. Education or technology graduates, personal and organizational knowledge and skills, investment in public policies, in coordinated actions defining their individual and collective action in the health sector, are factors leading to cooperative arrangements. Following a competence-based perspective (Hamel and Prahalad, 1994; Teece *et al.*, 1997; Freiling, 2004), such relationships give hospital managers a competitive advantage. Previous research indicates that such collaborations aimed at facilitating information flow, improving competences and other resources are prerequisites for achieving high quality care (Jenkinson *et al.*, 2002; Ommen *et al.*, 2007).

Creating inter-organizational cooperation is clearly a matter related to collective security and institutional survival, more than attaining better economic performance (Song, 1995). This demonstrates two important aspects in the health sector; i.e., resource shortage and sharing competences can be among the main reasons why managers cooperate. Franco and Barbeira (2009) and Franco and Duarte (2012) examined the relationship between organizations and its impact on knowledge and competency sharing, namely in hospital and higher education organizations, but there is a need for deeper knowledge about this relationship between these organizations with particular characteristics. Relationships between hospitals and other institutions, such as universities, therefore, appear to be determined by both an information and a relational dimension with both contributing equally to their success (Ommen *et al.*, 2007).

Methods

We adopted a qualitative research approach, which is the most appropriate way to investigate inter-organizational cooperation. Qualitative research is exploratory; i.e., encouraging actors to think freely about some topic. This approach has subjective aspects and reaches motivations that are not explicit, or even conscious, spontaneously (Yin, 2009). This method is used when the intention is to perceive and understand a question and open it up to interpretation. It is inductive research; i.e., the researcher develops concepts, ideas and understandings from data patterns, rather than collecting data to confirm pre-conceived theories, hypotheses and models (Cavalcante and Dantas, 2006). Qualitative approach should use case study methods (Patton, 1990; Yin, 2009), which offers a suitable mechanism for exploring, in depth, areas that have little well-developed theory and this value has been demonstrated in the social sciences, particularly in relation to cooperation between organizations linked to the health sector. Historical case studies are an effective mechanism for developing theory (Eisenhardt, 1989).

Case selection

The two organizations selected for this study were Cova da Beira Hospitals (CHCB) and the Faculty of Health Sciences at the University of Beira Interior (FCS-UBI), both situated in Portugal. Two hospitals (Covilhã and Fundão) and the Department of Psychiatry and Mental Health form CHCB. They are university hospitals, built on land belonging to the FCS-UBI designed to initiate cooperation, which is the study's target. In turn, FCS-UBI was born from the need for a qualitative leap in developing human resources in health domains, which motivated the government to approve two more

medical faculties in Portugal. From the outset, however, it was established that project applications would have to present major alterations to the medical curriculum, thereby allowing medical teaching to be renewed in the country. According to this ruling, University of Beira Interior managers accepted this challenge and proposed an innovative project for a degree in medicine, a project that was approved by the council of ministers resolution no. 140/98, 4th December. This proposed developing innovative training models, marked by high quality scientific, pedagogical and practical standards, where articulation within healthcare provision would be ensured by a different and innovative organizational model. Cooperation was therefore created between two organizations. The way CHCB and FCS-UBI managers created this partnership became unique in the region, since through its influence and reputation, it has implications for students in the health institution and in their personal and academic preparation.

Data-collection

Considering our objectives, the data collection process involved interviews, questionnaires, reviewing published histories and internal organizational reports. Multiple data sources and the subsequent ability to examine case studies provide triangulation (Bryman and Bell, 2003). As stated by Yin (2009), adopting various sources is relevant, as it increases case study construct validity and reliability. Face-to-face, in-depth interviews were conducted with two informants from the organizations involved in developing and managing inter-organizational cooperation. A semi-structured interview guide (Minichiello *et al.*, 2008) helped participants reflect on the history, benefits and challenges following the CHCB and FCS-UBI partnership. This standard semi-structured questionnaire covered the research objectives. It acted only as an interview guide and was not directly administered to the respondents. Interviews were digitally recorded and transcribed. They covered organizational cooperation, what influenced its activities, its overall impact and governance. The interviews took place over two-months (May to June 2012) and lasted around 90 minutes. A questionnaire was distributed to FCS-UBI students to understand how the FCS-CHCB cooperation contributes to student experience, particularly their learning and the course's evolution. Various questions related to inter-organizational cooperation to determine, among other aspects, student knowledge about this cooperative relationship and about CHCB and their opinion on the benefits. The questionnaire was sent to 829 students on the FCS medicine course and 86 responses were obtained.

Data organization and analysis

To study the motives, benefits and relationships following inter-organizational cooperation (case study), we:

(1) Established personal contact with staff in selected organizations (face-to-face and telephone). Contact was made with those in charge and with the respective administrators to arrange interviews and distribute the questionnaires to FCS-UBI students in 2012.

(2) Interviewed the CHCB and FCS-UBI Presidents.

(3) Made questionnaires available online through a survey site open to FCS medical students. These were publicized by faculty staff and by e-mail contact.

(4) Analyzed data using content analysis (Bardin, 2004) and the historical case analysis technique (Superfine, 2009).

Case study findings

Interviews with organization heads

We intended to assess the motives, benefits and limits for each institution involved in cooperation between the FCS-UBI and CHCB. We collected data and opinions from those involved in this process in both organizations.

FCS-CHCB cooperation – motives and benefits

The motives that lead to forming cooperative relationships between organizations are various and analysis is subjective, but there seems to be consensus around aspects associated with increased competitive advantage, sharing knowledge and resources and reducing investment costs. According to Bernardo *et al.* (2012), cooperation is a partnership between two organizations linked by similar or complementary activities that decide to share their resources to attain a common objective. It is also defined as any formal agreement between two or more organizations aiming for joint cooperation who share advantages and risks. Concerning the cooperative relationship in CHCB-FCS, the FCS President agrees with this idea, stating that:

> […] the existence of this collaboration is crucial. Less and less, we, as institutions, manage to survive on our own. So it is increasingly necessary to look outside. This allows maximization of each institution's resources, the creation of new synergies, often the creation of new ideas, and therefore generating new potential. Without a shadow of a doubt, it isn't something that can merely be considered important, it is crucial, and I think that without this type of interaction, institutions end up stagnating.

Among the benefits commonly drawn from cooperation between health institutions is effectively using investment and increased specialization (Bravo *et al.*, 2012), sharing medical information and healthcare services (Bernardo *et al.*, 2012), making it possible to provide more services to the population generally and the elderly in particular (Franco and Duarte, 2012) and also possibly accessing additional resources through collective purchase and staff agreements. Chu and Chiang (2013) underline these issues and the financial cooperation in hospitals, stating that this strategy can reduce costs and increase medical technology by sharing information. The CHCB President stresses that "a public hospital doesn't seek profit, since its shareholder is the State," but admits that the financial aspect has some weight in seeking cooperative relationships: "we look for financial balance, at the same time continuing to invest in new solutions," giving us to understand that for the interviewee, despite not being the main reason for creating the cooperation, the financial benefits it brings exist and should be taken into consideration. The CHCB interviewee confirms some service quality benefits derived from the FCS-CHCB cooperation. He states that cooperation:

> […] allows development in the field of service provision, which means the hospital can have more areas of activity and greater benefits from the point of view of production […] the population benefits because in recent years it has been possible to bring more health professionals to the region, an aspect in which the existence here of the FCS has a fundamental role, both in quantity and quality, because there's more, and because people with more specialization came here, some with academic distinctions. This means we can provide the population with more and better services.

In turn, the FCS President claims that:

> […] cooperation has allowed CHCB and FCS to help each other mutually, principally in areas such as teaching and research and this represents an incentive to scientific research, requiring permanent and constant up-dating and instigating new challenges.

This interviewee also points out that an identical situation is observed in similar partnerships abroad: "this also happens with hospitals abroad, and we visited some of them, where new Medicine Faculties or Health Science Faculties were created." When sharing staff and competences, the hospital director states this is:

> […] a very close relationship, which is reflected not just in teaching, because we have lecturers with clinical origins who come to give classes or tutorials or seminars or participate in our teaching in terms of skills and technical matters and decisions here in the faculty, but we also have our own lecturers who collaborate in clinical terms with the hospital, in appointments, in nursing, in the day hospital, in surgery, etc.

Reiterating that it is "an extremely close partnership." Also highlighted are the joint initiatives, "with many of them involving interaction between the institutions, and many others are directed at the community, because it is essential to contribute to the community. Additionally, we have partnerships that concern the internationalization of both institutions." For example, CHCB has a partnership with the Sanitary Standards Agency in Andalusia (Spain) accrediting competences and a protocol with Siemens for technology development. The FCS managers have formed partnerships in projects in the health domain with the Military-Technical Institute (Luanda, Angola) and the University of Extremadura (Badajoz, Spain). The CHCB President also emphasizes the benefits for FCS lecturers:

> […] this relationship allows lecturers to participate in an area, in this case teaching, to which we are always motivated, to continuously improve knowledge, from the need to keep up to date, to be able to share our knowledge with other very differentiated specialists and in this way enter a process of synergy through teamwork and also an emotional gain, from the atmosphere experienced.

In this connection, the FCS leader also agrees with the idea that:

> […] the bonus lies more in the human domain and in the results of research rather than in the financial sphere, due to being public institutions whose objective is not profit.

The CHCB President agrees that financial aspects are not among the main reasons for cooperation between public hospitals:

> […] in the financial aspect, there are also advantages. They bring more guarantees in processes of hiring and payments, and new perspectives for investment projects with guaranteed return.

And that cooperation:

> […] allowed development in the area of service provision, meaning that the hospital could have more areas of activity and greater benefit from the point of view of production.

The CHCB President also highlights cooperation for the region's economic development, saying that it:

> […] allowed the development and growth of the region's health institutions, which brings advantages of an economic order.

So it can be argued that, despite the consensus between the two interviewees/partners that the financial question is secondary, there seem to be some economic-financial advantages obtained from the cooperation, namely research and for the region where the institutions are located, in this case Beira Interior. Both interviewees agree with the literature underlining aspects such as sharing resources, human or other, the possibility of

new research projects and improved service quality provided and the conditions offered to professionals at both CHCB and FCS. As emphasized by the FCS President:

> […] this collaboration also brings benefits to lecturers, in that collaborators from both institutions can access libraries and other services, which each institution offers to the people involved in this joint articulation.

FCS-CHCB cooperation limits

According to Song (1995), two cooperation structures have been developed in the hospital sector: contractual cooperation, where there is no particular administrative structure and joint societies with a well-defined administrative assembly. The former is widely adopted in cooperation between hospitals and doctors, whereas the latter prevails in cooperation between two or more organizations. The CHCB-FCS cooperation project is a contractual relationship which, as the CHCB President reveals:

> […] began formally in 2000, with publication of the articulation protocol signed by the two institutions and validated by the government. However, it had begun earlier, since the whole FCS development process was accompanied by CHCB.

And refers to the region where the hospital is located, which according to the FCS leader is part of what was defined many years ago as the Health Outstation of the University of Beira Interior. Therefore, constructing the FCS building in the same geographical area an idea developed a long time ago by UBI managers and later with local authority and CHCB managers. The hospital leader also stressed the link between FCS and health organizations, including CHCB and the nearest hospitals and some health centers in the region:

> […] this being a Faculty of Health Sciences, that besides Medicine covers Pharmaceutical Sciences, Optometry, Bio-medical Sciences, all of them courses in the area of health sciences, it is crucial that besides the links we have with other faculties and institutions, we also liaise with health institutions. From that point of view, our links to hospitals and health institutions are crucial and this ends up providing a bonus for the institutions themselves, for us, for our students and lecturers.

On the relationship between FCS and CHCB, the President of FCS-UBI states it is:

> […] a very special relationship, not only due to the proximity, but also from the fact that the people who have been in charge of the projects, from both the faculty and the hospital, have almost always been in harmony. Everyone that has been in charge has been in the Commission for Establishing the Faculty or linked to consultants and share the idea of the faculty's educational project.

Another essential aspect is the staff exchange between FCS and CHCB, emphasized by the FCS President. He underlines foreign student and clinicians roles at CHCB:

> […] through the Faculty, since some of them will do work placement in the hospital, with our own lecturers but not just that, we manage to extend the scope, and so some clinicians who come to do work placement in the hospital can certainly benefit from part of the work placement here (in FCS), namely in our research centre for health sciences.

The FCS President also mentioned the Beira Interior Health Outstation, which connects the region's main hospital units and health centers, explaining that its main objective is:

> […] conceptualization of the whole Beira Interior area, because only in this way will there be a health outstation, with all those involved in this region, as well as all its hospital institutions and main health centres, which already liaise with the faculty.

And explaining that the region thereby acquires:

> […] dynamics that will maximize the possibility of making the region more attractive for young doctors who may come here, and creating capacities for certain hospital departments, because this will imply the redistribution of certain hospital units.

The hospital leader states:

> […] from the point of view of the design and organization of health institutions supporting the University, from the outset it was established that this faculty would liaise with CHCB, with its hospitals.

The FCS role in the Beira Interior Health Outstation project is also underlined, since it:

> […] has great interest in this overall articulation of the region's three main hospital units, and we will try to do some fine-tuning with the three centres, so as to obtain a research network that goes further than we have done so far, allowing studies of a wider scope to be carried out.

The two interviewees define the cooperative relationship between CHCB and FCS as a mutual dependence. The hospital president mentions "a relationship of interdependence" and supports his opinion referring to aspects such as the "FCS needing health professionals from CHCB for clinical teaching to function" and from the CHCB view point, aspects such as the various advantages it derives from the cooperation underlying FCS dependency, namely advantages for health employees:

> […] because it forces them to prepare better, to study the subject, and in fact constant updating, which leads to extending their scientific abilities.

Advantages related to the hospital's image:

> […] from the fact of being linked to teaching, which is generally taken into account by users and which ends up bringing benefits, namely in terms of competition.

And also the research aspect "which is carried out in the hospital area, and at the same time allows development of areas of hospital service provision." The FCS President mentions FCS's dependence on CHCB and other health institutions it is linked to, stating that:

> […] the Faculty of Medicine depends on the health institutions. We need somewhere to place our students, so for the faculty it's essential. In that connection, I can say the faculty has a high degree of dependence not only on this hospital but on all the ones it's linked to, and also the health centres. We've placed some of our students in hospitals in the region, particularly in CHCB, and that's important. So we accept this dependence.

He also agrees there is dependence on the CHCB side, stating:

> […] that was also studied and is seen in practice, because from the moment there were students, that gives the hospital great dynamics, and it was from that moment CHCB began to have more service meetings, more global hospital meetings, there's an incentive for scientific research, requiring permanent and constant updating and instigation of new challenges.

Bernardo *et al.* (2012) state that cooperation with other institutions promotes collaboration between certain departments or units regarding information and communication technology, or sharing medical information and services.

Motives for FCS-CHCB cooperation

We conclude that approximately three quarters of students claim to have intermediate/satisfactory knowledge of the cooperation's limits, with only one respondent revealing

very weak knowledge. So we have institutional cooperation with well-defined boundaries and wide spread collaborators. Concerning the motives that stimulate cooperation between CHCB and FCS, students gave various opinions (Tables I-III).

We observe that almost all students understand the main motive for cooperating; i.e., improving teaching through articulation with medical practice. Increased scientific research was also understood by medical students as a main motive stimulating cooperation between the two institutions and this is pointed out in the literature as a dominant reason for creating cooperation between organizations (Bernardo *et al.*, 2012). These authors highlight that innovation can increase both value and efficiency. It can include technological advancements, new strategies, organizational structures, premises, processes and partnerships. Another important point is the need for hospital premises near the faculty, to train healthcare students. This can be supported by (Trkman and Desouza, 2011, p. 11) "trust between organizations that are geographically close to one another is greater than between distant organizations and strong bonds lead to greater knowledge transfer."

Gender	*n*	%
Female	64	74
Male	22	26
Age		
18-20	25	29
21-23	41	48
24-26	13	15
27-29	5	6
$\geqslant 30$	2	2
Year of study		
1st year	13	15
2nd year	12	14
3rd year	9	11
4th year	15	17
5th year	20	23
Work placement	17	20
Master	–	–
PhD	–	–
Academic achievement		
Very weak	–	–
Weak	2	2
Average	33	38
Good	35	41
Very good	16	19
Excellent	–	–

Table I. Student characteristics

Knowledge	*n*	%
Very weak	1	1
Weak	13	15
Intermediate	30	35
Some	35	41
High	9	11
Total	86	100

Table II. FCS-CHCB cooperation – knowledge levels

Cooperation characteristics

Table IV shows evidence obtained concerning CHCB characteristics that stimulate FCS student experience.

We conclude that the main CHCB characteristic that influences FCS student respondents is the hospital's proximity to FCS. The two most relevant points among students concern health professional quality at CHCB and its infrastructure. Also, in relation to the CHCB-FCS cooperation's main benefits/advantages, the following table shows the results obtained.

Table V shows that the most consensual aspect among students regarding the cooperation's benefits/advantages for them as medical students was the direct contact with CHCB patients. The least relevant aspect was access to CHCB

Table III. Motives stimulating CHCB – FCS cooperation (multiple responses are possible)

Motive	*n*	%
Greater benefits from existing courses	49	57.0
Higher level of research/innovation	71	86.2
Improving the quality of teaching, seeking better articulation with medical practice	84	97.7
Exchanging knowledge and qualified staff	64	74.4
Greater prestige for both institutions	38	44.2
Exchanging services, premises and staff	40	46.5
Monetary gains	19	22.1
The need for a hospital close to the Faculty to train students in healthcare	72	83.7
Possibility to create a Medicine course in Covilhã	60	69.8
Regional policy	15	17.4

Table IV. Student experience (multiple answers possible)

Characteristics	*n*	%
Proximity to FCS at UBI	80	93.0
Service quality provided to users	31	36.0
Health professionals – quality	54	62.8
Specialities offered	28	32.6
Infrastructure quality	56	65.1
Equipment available at the hospital	31	36.0

Table V. Advantages in CHCB-FCS cooperation

	Importance (%)				
Advantages	1	2	3	4	5
Greater proximity between students and doctors	1.2	4.7	10.5	29.1	54.7
Access to laboratories and other CHCB facilities	2.3	7.0	32.6	32.6	25.6
Work placement in CHCB	1.2	2.4	5.9	25.9	64.7
Interaction with health professionals in CHCB	0	2.3	9.3	33.7	54.7
Direct contact with patients in CHCB	1.2	0	5.8	19.8	73.3
Better theoretical and practical training	1.2	2.4	10.6	29.4	56.5

Note: Likert scale: 1 – "of little relevance" to 5 – "very relevant"

laboratories and facilities, demonstrating that most interest is patients rather than the premises.

Conclusions

Inter-organizational cooperation is recognized as a mechanism to overcome resource shortage without losing organizational control and flexibility, and without incurring a significant investment and costs. Therefore, bearing in mind the current research and technological development, organizations must update constantly to maintain performance and service provision. So building inter-organizational cooperative relationships can be a suitable strategy to increase competitiveness. Health and higher education organizations are no exception and with their increased complexity, internationalization and diversity, cooperation becomes prominent. This inter-organizational relationship can fulfil increasingly complex tasks and increase healthcare services for an ageing population with marked needs. Indeed, cooperation is especially important in the health sector, where economics and social responsibility pressures are present.

Our main objective was to explore, qualitatively, cooperation between CHCB and FCS-UBI to determine the motives leading to their relationship, its limits and the benefits for people involved and the region in which they are situated. To achieve these objectives, we also examined student knowledge concerning inter-organizational cooperation to see if there was a relationship between cooperation and student experience. Our results show a positive relation between the hospital and FCS, which is consistent with the well-documented phenomenon. We find that the benefits brought about by two health organizations have been great. Creating FCS in the same environment as CHCB was defined at the end of the 90s, thereby forming a health outstation at UBI. The CHCB is located in a region where highly-qualified medical staff are scarce and recruitment is difficult. The great need for some specialities and a doctor shortage nationally is a problem with added impact in inland Portugal. However, owing to technical conditions and the institution's facilities, together with the cooperative relationship with the Faculty of Health Sciences, this situation has been felt less intensely in CHCB.

According to Bravo *et al.* (2012), high performing hospital cooperation is one where there are good human relationships among patients and staff, with high-level premises and where increased staff professionalism is sought, without neglecting their working conditions and rights. Besides those advantages, sharing knowledge, competences and experiences among professionals (doctors, health professionals and managers) increases service quality, innovation spread and adopting new clinical practices. Cooperation at this level can also lead to acquiring a high reputation that is attractive.

The CHCB is also a nuclear hospital at the University of Beira Interior. The link to the faculty implies direct responsibility for training students, medical graduates and in post-graduate teaching. This hospital has many professionals carrying out functions and teaching at FCS, which implies working hours devoted to this activity. Regarding cooperation limits, this is based on a formal relationship, since each organization maintains its independence and its administrative organs. The CHCB-FCS cooperative relationship benefits concern mainly sharing human resources, namely the clinical staff at CHCB who take on lecturing duties at FCS and students at the faculty who have work placements in the hospital. Based on empirical evidence, the cooperation between CHCB and FCS also brought benefits to the region where the two organizations are

situated, particularly economic development, due to the many students attracted to the region by FCS at UBI. Medical specialities in the region also increased following this cooperation, representing a higher health service levels to the population. We found that student perceptions are satisfactory and agree with what was defined by institution leaders as its main objectives. It is therefore an example of successful inter-organizational cooperation. Although our results cannot determine all the potential obstacles/difficulties faced by health organizations in the current climate, they imply that health and higher education institutions should be prepared to look for and form cooperative relationships to overcome restrictions.

Theoretical and practical implications

One theoretical contribution from our study is to help fill an obvious gap regarding the empirical research into cooperation between health sector organizations, where scientific studies are scarce. Most studies examine cooperation in a manufacturing context. We provide evidence of inter-organizational cooperation within the service sector. Our research demonstrates how hospital managers can cooperate with a higher education staff. It provides new insights by applying competence-based theory to analyzing hospital cooperation, which has received scant attention in the health sector. In practical terms, the study provides support for healthcare managers, higher education leaders and other stakeholders involved in inter-organizational cooperation, in drawing up strategies and understanding inter-organizational cooperation at the regional level. We also form a benchmark for organizations in general concerning inter-organizational cooperation as a mechanism for their competitiveness.

Limitations and suggestions for future research

Our study has limitations, such as focussing on a single case; i.e., cooperation between CHCB and FCS-UBI. We suggest that future research should study other cooperative relationships between hospitals and higher education, to enable comparisons and enhance scientific study in this area. From the methodological viewpoint, although this shows how the cooperation studied here influenced CHCB, one obvious limitation is that a questionnaire was sent to University of Beira Interior Faculty of Medicine students, without following the same procedure with CHCB employees. This limitation was caused by bureaucratic matters, which to some extent prevented surveying hospital employees/collaborators. We tried to obtain clinician opinions who simultaneously teach at FCS, but they were unwilling to answer a questionnaire. We suggest that possible scientific investigations into cooperation in the health context should be more wide-ranging methodologically, with more representative samples and involving all collaborators in all the organizations involved in inter-organizational relationship. Despite these limitations, we consider that our results and conclusions form a valuable contribution, by deepening a little-explored subject – cooperation among health organizations, understanding objectives at its conception and the principal benefits for managers.

References

Bardin, L. (2004), *Content Analysis*, 3rd ed., Editions 70, Lisbon.

Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.

Barney, J. (2001), "Is the resource-based 'view' a useful perspective for strategic management research? Yes", *The Academy of Management Review*, Vol. 26 No. 1, pp. 41-56.

Bazzoli, G.J., Chan, B., Shortell, S.M. and D'Aunno, T. (2000), "The financial performance of hospitals belongings to health networks and system", *Inquiry*, Vol. 37 No. 3, pp. 234-252.

Bernardo, M., Valls, J. and Casadesus, M. (2012), "Strategic alliances: an analysis of Catalan hospitals", *Revista Panam Salud Publica*, Vol. 31 No. 1, pp. 40-47.

Brass, D. and Marlene, E. (1993), "Potential power and power use: an investigation of structure and behavior", *Academy of Management Journal*, Vol. 36 No. 3, pp. 441-470.

Bravo, G., Squazzoni, F. and Boero, R. (2012), "Trust and partner selection in social networks: an experimentally grounded model", *Social Networks*, Vol. 34 No. 4, pp. 481-492.

Bryman, A. and Bell, E. (2003), *Business Research Methods*, Oxford University Press, Oxford.

Castells, M. (2000), *The Rise of the Network Society*, Blackwell Publishers Inc., Cambridge, MA.

Cavalcante, V. and Dantas, M. (2006), *Pesquisa qualitativa e pesquisa quantitativa*, Universidade Federal de Pernambuco, Recife.

Chu, H.-L. and Chiang, C.-Y. (2013), "The effects of strategic hospital alliances on hospital efficiency", *The Service Industries Journal*, Vol. 33 No. 6, pp. 624-635.

Daft, R. (1983), *Organization Theory and Design*, West Publishing, New York, NY.

Dyer, J.H. and Singh, H. (1998), "The relational view. Cooperative strategy and sources of interorganizational competitive advantage", *Academy of Management Review*, Vol. 23 No. 4, pp. 660-679.

Eisenhardt, K. (1989), "Building theory from case study research", *Academy of Management Review*, Vol. 14 No. 4, pp. 532-550.

Feitosa, M.M. (2002), *Acordos de cooperação entre empresas e o efeito rede*, Universidade de Coimbra, Coimbra.

Franco, M. and Barbeira, M. (2009), "Sistema de gestão do conhecimento como fomentador de redes estratégicas interorganizacionais", *Revista Ibero-Americana de Estratégia*, Vol. 8 No. 2, pp. 5-25.

Franco, M. and Duarte, P. (2012), "Continuous healthcare units as inter-organizational networks: a phenomenological study", *Transylvanian Review of Administrative Sciences*, No. 37, E/2012, pp. 55-79.

Freiling, J. (2004), "A competence-based theory of the firm", *Management Revue*, Vol. 15 No. 1, pp. 27-51.

Grandori, A. and Soda, G. (1995), "Inter-firm network: antecedents, mechanisms and forms", *Organizations Studies*, Vol. 16 No. 2, pp. 183-214.

Gulati, R. (1999), "Network location and learning: the influence of network resources and firm capabilities on alliance formation", *Strategic Management Journal*, Vol. 20 No. 5, pp. 397-420.

Hagedoorn, J. (1993), "Strategic technology alliances and modes of cooperation in high technology industries", in Grabher, G. (Ed.), *The Embedded Firm: On the Socioeconomics of Industrial Networks*, Routledge, London, pp. 116-137.

Hamel, G. and Prahalad, C.K. (1994), *Competing For the Future*, HBS Press, Boston, MA.

Heide, J. and John, G. (1990), "Alliances in industrial purchasing: the determinants of joint action in buyer-supplier relationships", *Journal of Marketing Research*, Vol. 27 No. 1, pp. 24-36.

Jenkinson, C., Coulter, A., Bruster, S., Richards, N. and Chandola, T. (2002), "Patients' experiences and satisfaction with health care: results of a questionnaire study of specific aspects of care", *Quality & Safety in Health Care*, Vol. 11 No. 4, pp. 335-339.

Lega, L. (2005), "Strategies for multi-hospital networks: a framework", *Health Services Management Research*, Vol. 18 No. 2, pp. 86-99.

Lehoux, P., Pineault, R., Richard, L. St., Arnaud, G., Law, S. and Rosendal, H. (2003), "Issues in quality of hightech home care: sources of information and staff training in quebec primary care organizations and relationships with hospitals", *International Journal of Health Care Quality Assurance*, Vol. 16 No. 1, pp. 37-46.

Lorenzobi, G. and Lipparini, A. (1999), "The leveraging of interfirm relationships as a distinctive organizational capability", *Strategic Management Journal*, Vol. 20 No. 4, pp. 317-338.

McEvily, B. and Zaheer, A. (1999), "Bridging ties: a source of firm heterogeneity in competitive capabilities", *Strategic Management Journal*, Vol. 20 No. 12, pp. 1133-1156.

Mcsweeney-Feld, M.E., Discenza, S. and De Feis, G.L. (2010), "Strategic alliances & customer impact: a case study of community hospitals", *Journal of Business & Economics Research*, Vol. 8 No. 9, pp. 13-21.

Madhok, A. (2002), "Reassessing the fundamentals and beyond: ronald coase, the transaction cost and resource-based theories of the firm and the institutional structure of production", *Strategic Management Journal*, Vol. 23 No. 6, pp. 535-550.

Marchi, J.J. and Wittmann, M.L. (2007), *Relevância Dos Factores Sociocomportamentais De Atores Envolvidos Em Redes Estratégicas*, Santa Cruz do Sul, São Paulo.

Mascia, D., Di Vincenzo, F. and Cicchetti, A. (2012), "Dynamic analysis of interhospital collaboration and competition: empirical evidence from an Italian regional health system", *Health Policy*, Vol. 105 Nos 2-3, pp. 273-281.

Minichiello, V., Aroni, R. and Hays, T. (2008), *In-depth Interviewing*, 3rd ed., Pearson/Prentice Hall, Sydney.

Misener, K. and Doherty, A. (2012), "Understanding capacity through the processes and outcomes of interorganizational relationships in nonprofit community sport organizations", *Sport Management Review*, Vol. 16 No. 2, pp. 135-147.

Mjoen, H. and Tallman, S. (1997), "Control and performance in international joint ventures", *Organization Sciences*, Vol. 8 No. 3, pp. 257-274.

Nhoria, N. and Eccles, R.G. (1992), *Networks and Organizations: Structure, Form and Action*, Harvard Business School Press, Boston, MA.

Ohmae, K. (1989), "The global logic of strategic alliance", *Harvard Business Review*, Vol. 89 No. 2, pp. 143-154.

Ommen, O., Ullrich, B., Janßen, C. and Pfaff, H. (2007), "The ambulatory – stationary interface in medical health care. Problems, model of explanation, and possible solutions", *Medizinische Klinik*, Vol. 102 No. 11, pp. 913-917.

Parmigiani, A. and Rivera-Santos, M. (2011), "Clearing a path through the forest: a meta-review of interorganizational relationships", *Journal of Management*, Vol. 37 No. 4, pp. 1108-1136.

Patton, M.Q. (1990), *Qualitative Evaluation and Research Methods*, Sage Publications, London.

Peci, A. (1999), Emergência e Proliferação de Redes Organizacionais: Marcando Mudanças No Mundo Dos Negócios, *23rd Encontro Nacional da ANPAD*, Curso de Mestrado em Administração Pública da EBAP/FGV.

Peng, T.-J. and Bourne, M. (2009), "The coexistence of competition and cooperation between networks: implications from two Taiwanese healthcare networks", *British Journal of Management*, Vol. 20 No. 3, pp. 377-400.

Pfeffer, J. and Salancik, G.R. (1978), *The External Control of Organizations: A Resource Dependence Perspective*, Stanford University Press, Stanford, CA.

Pires, E.R. and Machado Neto, A.J. (2012), "Redes de cooperação como alternativa para o desenvolvimento local: a indústria calçadista francana", *Revista Eletrônica de Administração*, Vol. 11 No. 2, pp. 1-13.

Powell, W.W. (1990), "Neither market nor hierarchy: network forms of organization", *Research in Organizational Behavior*, Vol. 12 No. 1, pp. 295-336.

Powell, W.W., Koput, K.W. and Smith-Doerr, L. (1996), "Interorganizational collaboration and the locus of innovation networks of learning in biotechnology", *Administrative Science Quarterly*, Vol. 41 No. 1, pp. 116-145.

Rosko, M.D. and Proença, J. (2005), "Impact of networks and system use on hospital industry", *Health Care Management Review*, Vol. 30 No. 1, pp. 69-79.

Rusko, R. (2011), "Exploring the concept of coopetition: a typology for the strategic moves of the finnish forest industry", *Industrial Marketing Management*, Vol. 40 No. 2, pp. 311-320.

Salge, T.O. and Vera, A. (2009), "Does innovation matter in the public sector: a service-user perspective", *13th Annual Conference of the International Research Society for Public Management (IRSPM), Copenhagen, April.*

Sanchez, R. (2001), "Building blocks for strategy theory: resources, dynamic capabilities and competences", in Volberda, H. and Elfring, T. (Eds), *Rethinking strategy*, Sage, London, pp. 143-157.

Sanchez, R., Heene, A. and Thomas, H. (1996), "Towards the theory and practice of competence-based competition", in Sanchez, R., Heene, R. and Thomas, H. (Eds), *Dynamics of Competence-Based Competition*, Pergamon, Oxford, pp. 1-25.

Song, Y.I.L. (1995), "Strategic alliances in the hospital industry: a fusion of institutional and resource dependence views", *Academy of Management Journal*, Vol. 38 No. 3, pp. 271-275.

Superfine, B.M. (2009), "The evolving role of the courts in educational policy: the tension between judicial, scientific, and democratic decision making in Kitzmiller V. Dover", *American Educational Research Journal*, Vol. 46 No. 2, pp. 898-923.

Teece, D.J., Pisano, G. and Shuen, A. (1997), "Dynamic capabilities and strategic management", *Strategic Management Journal*, Vol. 18 No. 7, pp. 509-533.

Thorelli, H.B. (1986), "Between markets and hierarchies", *Strategic Management Journal*, Vol. 7 No. 1, pp. 37-51.

Trkman, P. and Desouza, K.C. (2011), "Knowledge risks in organizational networks: an exploratory framework", *Journal of Strategic Information Systems*, Vol. 21 No. 1, pp. 1-17.

Uzzi, B. (1997), "Social structure and competition in interfirm networks: the paradox of embeddedness", *Administrative Science Quarterly*, Vol. 42 No. 1, pp. 35-67.

Wernerfelt, B. (1984), "A resource-based view of the firm", *Strategy Management Journal*, Vol. 5 No. 2, pp. 171-180.

Yin, R.K. (2009), *Case Study Research: Design and Methods*, Sage Publications, Thousand Oaks, CA.

Yu, S.-H. and Chen, M.-Y. (2013), "Performance impacts of interorganizational cooperation: a transaction cost perspective", *The Service Industries Journal*, Vol. 33 Nos 13/14, pp. 1223-1241.

Zaheer, A. and Venkatraman, N. (1995), "Relational governance as an interorganizational strategy: an empirical test of the role of trust in economic exchange", *Strategic Management Journal*, Vol. 16 No. 5, pp. 373-392.

Zaheer, A., McEvilvy, B. and Perone, V. (1998), "Does trust matter? Exploring the effects on international and interpersonal trust on performance", *Organization Science*, Vol. 9 No. 2, pp. 141-153.

Zuckerman, H.S. and D'Aunno, T.A. (1990), "Hospital alliances: cooperative strategy in a competitive environment", *Health Care Management Review*, Vol. 9 No. 1, pp. 21-30.

Corresponding author
Professor Mário Franco can be contacted at: mfranco@ubi.pt

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**

View publication stats