Exploring the Benefits of Public-Private Partnerships in Healthcare through a Balanced Scorecard approach: the Case of AVEP Onlus

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Abstract

The paper explores the benefits of partnership between public providers and charities in the hospital sector. Focusing on the illustrative case of partnership between the AVEP charity and the cancer hematology division of a public hospital, we use a Balanced Scorecard approach to assess the extent to which the involvement of the charity in delivering cares and services affects the financial and non-financial performance of the hospital. More specifically, we develop a customized model of BSC that permits to appreciate the benefits of the partnership along four main dimensions (i.e. financial performance, patients' satisfaction, efficiency of internal processes, knowledge and innovations). The results indicate that the partnership determines benefits for the hospital along each of the four dimensions. The implications of the reported benefits of the partnership, as well as the development of a BSC for a wider appreciation of comparative partnerships, are discussed.

Keywords: Public-Private Partnerships, Healthcare, Charity Care, Balanced Scorecard.

1. Introduction and theoretical background

Exploring the issue of Public-Private Partnerships (hereafter PPP) in the healthcare industry is theoretically interesting as it provides the opportunity for public providers to address some issues concerning the best way of buying, delivering and managing the healthcare services. In addition it also allows looking for new tools and ways to reorganize public health services in order to achieve the public spending rationalization. A growing number of studies in management has recently investigated the PPP in the health sector. This literature has mainly concentrated on the reasons that push public providers to consider the opportunity to involve private

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organizations in the management of healthcare services. More specifically, this research has underlined two critical factors: *(i)* the complexity of management in healthcare sector characterized by continuous innovation in the processes of care and treatment, and *(ii)* the lack of financial resources able to cope with the challenges due to the above cited complexity. However, the dominant logic that has emerged is that the lack of resources that local authorities and governments are forced to deal with, has demanded a prioritization. In this sense, the involvement of privately-owned organizations can permit to address the cost and investment challenges, by improving the efficiency and by enhancing the services quality at reduced costs of service provision. Due to these potential benefits and these essential advantages determined by the involvement of private organization in public services, it is essential reviewing the models of management used by the public health supply system to identify a new relationship between the public and private sector. However, it should be noted that different forms of privately owned organizations can be involved in the PPP, namely for profit and not-for profit organization. In this sense, in the healthcare sector a special role is played by charity care being recently involved in public services provision in order to promote a highly competitive social market economy. Following the introduction of reforms packages in the late 1990s, many public–private partnerships have been established, but most of them have focused on specific diseases such as HIV/AIDS, tuberculosis, and malaria. Thus, while joint initiatives between the public sector, non-governmental organizations and the corporate sector are increasing over the time, this interest has pushed the literature to concentrate its attention on these issues, above all in countries such as UK and USA that experienced the PPP in healthcare as former. The issues addressed in this literature mainly concern the effectiveness of the PPP, their benefits, the public interests, the country overview, the partners and the efficiency (Torchia *et al.*, 2013).

First, some articles have focused on PPPs topic in order to understand their effective implementation. Most of them have reported that, when a PPP is implemented, the public providers should continue to play the role of regulator, standard setter, quality monitor, and they should also ensure that users have adequate access to services. This literature also enlightens that a key element for the PPP effectiveness is the legal framework within which they take place. A transparent regulatory framework is a guarantee for both partners and it will optimize the available resources. In fact, the most widespread opinion among scholars in the field is that, despite the worldwide increasing adoption of PPP in healthcare, there are some elements that need to be carefully managed and taken into account such as the role of a partner (and in particular the role of regulation in the public sector), the regulatory framework, the methods of service delivery and the involvement of partners (Barr; 2007; Blanken and Dewulf; 2010; Fischbacher and Beaumont, 2003; Galvin, 2003; Maarse, 2006; Mckee *et al.*, 2006; Saltman, 2003; Samper *et al.*; 2004; Singh and Prakash, 2010).

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A second line of inquiry investigates the benefits of the PPPs. (Barlow and Köbler-Gaiser, 2009; Buse and Waxman, 2001; Field and Peck, 2003; Frenk, 1993; Pappa and Niakas, 2006; Pannarunothai and Mills, 1998; Maarse and Bartholomée, 2006; Sekhri et al., 2011). The partnerships between the public and private sectors in health care are often seen as an innovative way of providing health services. The rationale behind the partnership is that both private and public sectors have unique features that provide a range of benefits in order to establish complementary relationships and synergies. On one side, there is the private world with its resources, management skills and technologies; on the other side, there is the public sector and its desire to protect public interest. This approach is considered particularly beneficial in delivering health services. The trend of cooperation between public and private sector also opens important perspectives to address the problems that could previously seem not easy to solve. This is especially true for those that require more research to develop drugs and vaccines for diseases that especially affect poors (Buse and Waxman, 2001).

A third stream of research has instead focused on the public interest, i.e. on how implement the PPP to achieve the public interest. This is especially true as sometimes there is the problem that a profit issue emerges as primary objective at the expenses of the public interest (Holden, 2009; Holmes et al., 2006; Molinary et al, 1998; Nishtar 2004; Van Doorslaer et al., 2008; Widdus, 2001).

Concerning the country overview, a large part of the literature on public-private partnerships in health care is concerned in describing the characteristics of the market of PPPs in the healthcare industry and the characteristics of the national health services. These studies have mainly focused on the partnership infrastructure projects (such as construction of hospitals) and not on partnership delivery of health services, which is actually the main theme of this article (Allard and Cheng, 2009; Birungi et al., 2001; De Costa and Diwan, 2007; Kümpers et al., 2002; Liaropoulos and Kaitelidou, 1998; Liaropoulos and Tragakes, 1998; Lim, 2004).

An additional line of research has focused on the kind of partners. More specifically, there is consensus among scholars that PPPs involve collaboration between the two structurally different organizations with different strategies and operational objectives. As the selection of partners in a collaborative relationship is critical to avoid unbalanced partnership, most of studies have analyzed the selection criteria and processes of the partner companies (Bazzoli et al., 1997; Raptopoulou, 2009; Zhang, 2005; Zhang et al., 2009).

Last but not least is the research stream that has mainly investigated the effect of PPP on the efficiency. Indeed, the main reason to establish a partnership is the ‘saving’ that can be achieved thanks to the greater innovation and efficiency of the private sector compared to the public one (Barretta and Ruggiero, 2008; Di Matteo, 2000; Smith et al., 2000). Since the beginning, in fact, the phenomenon of the PPP

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has been supported by two important financial advantages: the PPP model determines a reduction of the pressure on public budgets, allowing a greater ability to spend on other priorities, given the use of private capital and a better value for money in the delivery of health services. Other advantages include the ability to benefit from the more refined expertise of the private sector, as well as from its entrepreneurial orientation, that is certainly more geared towards achieving the maximum benefit through the reduced use of resources. Thanks to the collaboration with private profit and non-profit organizations, public services can take advantage of increased efficiency by improving the speed in service delivery and by reducing the costs.

The relationship between the public sector and the charity care has lead to address the need to build synergistic relationships in order to protect the level of satisfaction of the demand for health services that is increasingly threatened by the economic and financial imbalances that are a challenge to the ability and the quality of National Health care Systems.

Over the last two decades, the central and local governments have pushed to involve non-profit organizations in public services to provide better services within budget constraints. Rather than analyzing the possible relationship of charity care with public hospitals, most of literature have investigated the structural changes occurred in the hospital sector (Ferris and Graddy, 1999), the quality differences between nonprofit and for-profit health care providers (Gray, 1986; Reeves and Ford, 2004; Horwitz, 2005), and the role that non-profit organizations play in the delivery of health services (Schlesinger and Gray, 2006; Needleman, 2001; Greaney and Boozang, 2005). More specifically, there are two main theoretical frameworks that have attempted to explain the existence and the behavior of nonprofit organizations in the health sector. The first view looks at non-profit company as the answer to the problems of information asymmetry, because the patient usually cannot know in advance the quality of health care provided, and nonprofit organizations can provide benefits in terms of efficiency. Differently, the second view explores the role of nonprofit organizations as producer of public services, as an alternative to the public sector for the production of health goods and services (Hansmann, 1980)

Notwithstanding the academic growing interests around the topic, literature still lacks of empirical studies that have tried to measure and explain the benefits of partnership between public providers and charities in the hospital sector. Moreover, to the best of our knowledge most of previous research that has tried to identify the benefits of PPP has concentrated on one performance dimension only, while any research has used a multidimensional approach. This research aims to fill these gaps through the analysis of the collaboration between a public Italian hospital - Istituto Nazionale Tumori - IRCCS “Fondazione G.Pascale”- and the A.V.E.P. non-profit organizations. More specifically, focusing on the illustrative case of partnership between a charity and a cancer hematology hospital division, we use a Balanced

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Scorecard approach to assess the extent to which the involvement of the charity in the delivering cares and services affects the hospital financial and non-financial performance. This research has several contributions for the literature on organizational collaborations which has largely focused on the type of "pure" private partners, by neglecting inter-organizational integration action with non-profit organizations. In addition, we also provide a contribution to practitioners, as we develop a customized model of BSC that permits to appreciate the benefits of the partnership along four main dimensions (i.e. financial performance, patients satisfaction, efficiency of internal processes, knowledge and innovations).

The remainder of the paper is organized as follow. Section two describes the method of analysis. Section three illustrates the findings by describing the application of BSC to the case study. Finally, section four discusses the theoretical and practical implications of the study and proposes directions future research.

2. Method

2.1 The Balanced Scorecard approach: a method for evaluating the financial and non-financial performance

The Balanced Scorecard (hereafter BSC) has been theorized by Kaplan and Norton in the early '90s. This is a tool through which the management is able to create a *new management system* that is useful to formulate, communicate and implement company strategies, as well as helps to get strategic feedback and to adapt the formulation of the objectives to the previously defined strategies. In this sense, the BSC has provided the management with a framework for a strategic measurement system that would organize issues, information, and a large number of essential management processes. The role of the BSC is summed up in the words of the authors: ["*...the balanced scorecard is the translation of corporate strategy through a coherent set of measurements that define the long-term objectives and mechanisms to achieve these goals...*"] (Kaplan and Norton, 1996). As a result, while the vision, strategy and methods of resource allocation are indicated by the top management, the implementation, innovation, feedback and learning are issued from the base to the apex of the organization as shown in Figure 1.

In the BSC approach it is relevant to build an organized set of indicators as a prerequisite to have a comprehensive view of the entire business situation: the performance indicators that should not be taken in isolation, but must be connected with each other in order to assess the overall business results. By preserving the central role on economic and financial surveys, BSC is based on the assumption that these measures are indicators that provide ex-post information on the results (Vignati

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and Bruno, 2007). For this reason, BSC is able to produce a more balanced system, that connects the operating performance in the short term with the long-term strategic objectives (Schmidt Bateman et al., 2006) between financial and non-financial measures, between ex-post and trend (driver) indicators, as well as among the perspectives of internal and external performance. It is an instrument able to translate the business strategy by achieving the outcomes classified into four perspectives: economic and financial, customer, internal processes, learning and growth[1]. The BSC is, therefore, a managerial approach that takes into account the available resources and aligns the daily operations with strategic business objectives. In addition, it provides a framework that can be understandable by everyone in the organization.

Fig. 1 The strategic pyramid

[1] In addition to these four perspectives, Epstein and Wisner (2001) envisage adoption of a fifth perspective: the social and environmental perspective, which, in the health sector, is of fundamental importance because it certainly contextualizes the company in the context of reference and focuses institutional system that governs identifying constraints and opportunities.

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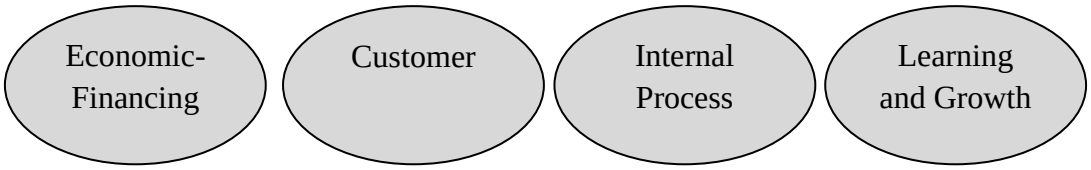

SOURCE: Adapted from Kaplan and Norton 2003

However, one major issue is if and how it is possible to introduce the BSC approach in the public healthcare organizations. Over the last two decades, health care companies have faced an increasing complexity, especially due to the spending cuts that need to keep track of the results of operations in order to respond in an appropriate manner to the health needs of the population. These phenomena imply a stronger commitment from the healthcare organizations towards the changes that are needed for their sustainability, in terms of both efficiency (which translates into a target of a balanced budget), and effectiveness (which translates into an improvement of quality of service). The complexity of managing the dynamics and variability of balance effectiveness/efficiency, have led to research methodologies that allow to direct the health sector according to company standards. The Balanced Scorecard, has immediately appeared an useful model to support strategic control and decision-making[2]. The approach is based on the development of an integrated set of performance measures and is a vehicle through which is possible to: *(i)* identify problems and quantify the objectives that can reasonably be undertaken in a defined time frame; *(ii)* verify the correspondence between obtained and expected results; *(iii)* identify areas that need corrective action; *(iv)* measure the impact of realized activities. In this sense, the use of the Balanced Scorecard in the health care industry is related to the need of tools that allow the communication and the professional involvement in the monitoring of economic dimension by enhancing clinical activity. In this perspective, the choice to use the BSC approach to analyze the case of collaboration in the health care sector is mainly based on the idea that in this industry financial indicators are seen as not very significant, somewhat at odds with the institutional duty to safeguard of health. Differently, BSC is a flexible tool that allows identifying in a clear and direct way the multidimensional benefits of the partnership. In addition, the system of the BSC can be easily spread throughout the organization as its language and its level of detail make it an understandable management tool. In this way, the whole organization can be aware about the

[2] In a comprehensive review, ZELMAN et al (2003) show that the balanced scorecard has been introduced across all areas related to healthcare, both for-profit and not-for-profit, including: hospitals, health care systems, university medical / health departments, long-term care , mental health centers, pharmaceutical care, health insurance companies Not only has the Balanced Scorecard been used for strategic management at the organizational level, but the framework has also been used in the health sector for evaluation of health programs, quality of care and improvement projects, accreditation, clinical pathways, as well as performance measurement across a consortium of hospitals (Zelman et al 2003).

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performance objectives, the critical variables that determine it and the results produced by all the activities and the processes carried out in the hospital. Indeed, the BSC keeps on taking the utmost account of the *economic and financial perspective*, which in health care is translated in the objective of balancing the budget. In healthcare sector, the balance between costs and revenues expresses the most synthetic index that can provide information on the actual ability of management to answer the citizens' demands, which are both funders and users of the National Health Service. Therefore, the financial perspective becomes the synthesis and, at the same time, the essential condition for the demonstration of the organizational ability to deliver an efficient service within budget constraints. However, it is important to note that this perspective is not the only one to take into account. Within the perspective of the *customer/patient*, the BSC introduces the key measures - such as the patient satisfaction – concerning the external feedback on organizations activities. In the healthcare sectors, there should be indicators that measure satisfaction on the services provided as well as the waiting times for hospitalization, or moreover the organizational ability to anticipate the needs of patients by introducing innovative services to public health. The performance measures linked to the perspective of *internal processes* focus instead on the business processes that are expected to have the greatest impact on the patient satisfaction and financial outcomes. While traditional performance measurement systems are designed to improve existing processes, the approach of the BSC, starting with strategies for patient/customer satisfaction comes to the identification of new processes in which the health authority should pursue excellence. Finally, the perspective of *learning and growth* concerns the infrastructures that the healthcare organization should adopt in order to create long-term growth. In this regards there are three main areas: *(i)* medical staff, *(ii)* systems and, *(iii)* organizational procedures. With this in mind, companies need to invest to improve the knowledge and the expertise of the staff as well as the information systems. However, it is relevant ensuring that that organizational procedures are in line with the objectives identified in the other three perspectives.

The essential point is that the system of BSC performance measurement should make the relationships between the different perspectives clear in order to manage and consolidate them. This means that the organizational strategy should be based on a number of assumptions characterized by cause-effect relationships. For example, the indicator of a balanced budget may be included in the economic and financial perspective and the driver of the measure can be found in the expansion of the number of outpatient service and hospital admissions, resulting in a patient/user satisfaction. Therefore, to improve the satisfaction we need to act on reducing waiting lists and being on-time in service. Similarly, with regard to the perspective of internal processes, the healthcare organization must achieve excellence in the quality of service delivery, which can only be achieved by training and improving the staff skills (learning and growth perspective). Therefore, the BSC must make the chain of

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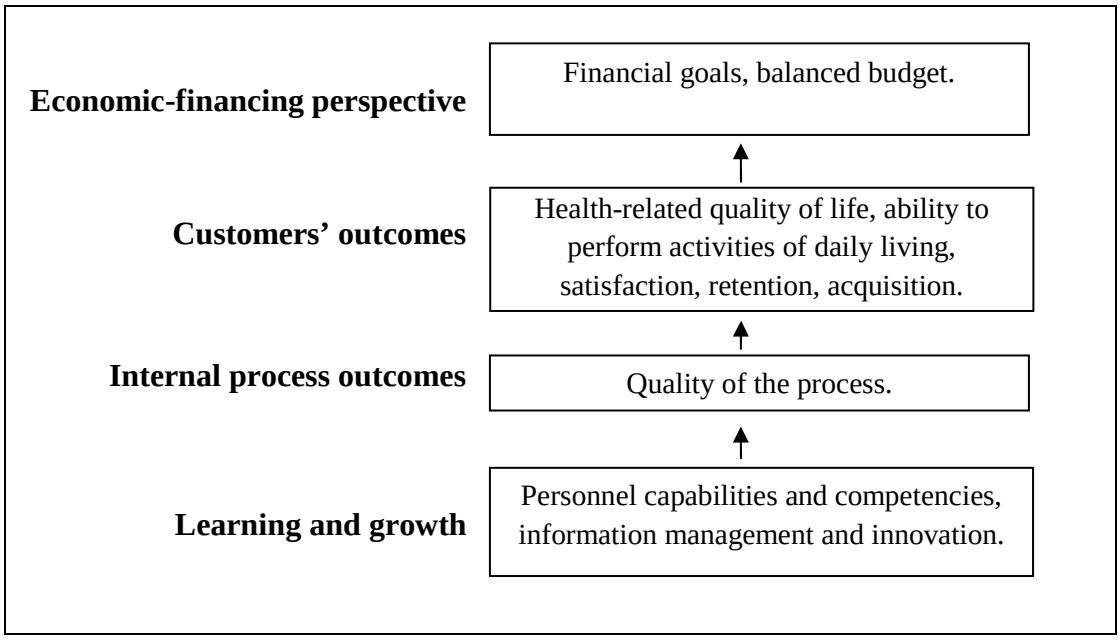
cause-effect relationships that exist between the measurement results and the drivers of the performance of the same results explicit (Figure 2). In this sense, Figure 2 shows that designing the performance measures should be an integral part of the entire strategic planning process because a well-designed system of measures gives aid in communicating the organization's goals and the strategies for obtaining those goals, in motivating actions that are congruent with these goals and strategies, and in giving feedback and guidance about the progress toward these goals (Chow et al., 1998). Since each healthcare organization has a unique set of circumstances, its objectives and strategies should be developed with these unique circumstances taken into consideration. While illustrative Balanced Scorecard provided in this article can be a useful reference to understand a collaboration case between a public hospital department[3] and a charity care, each health organization should develop its own scorecard involving all members of the organization to ensure increased understanding of both the strategy adopted and the needed actions.

Figure 2. The cause-effect relationships



SOURCE: Adapted from Kaplan and Norton (1996).

2.2 The Institutional setting

Non-profit organizations have historically played a critical role in the financing and delivery of health care services. For example in the United States the first hospital (i.e. the Pennsylvania Hospital) was founded in 1751 as a nonprofit facility and

[3] The BSC finds its ideal location in the strategic unity of reference of the health organization, that is *management department*.

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continues to operate as such today. Nowadays, about 60% of community hospitals, all community health centers, almost 30% of nursing homes, and about 17% of home health care agencies are nonprofit organizations[4]. A significant development in recent years has shown the leadership that they have acquired with Charity organizations in the field of health and health care, due to their ability to protect the level of satisfaction of the demand for services that are increasingly threatened by the financial turmoil. Also in Italy, the phenomenon of Non-profit organizations has recently experienced a tremendous growth, both quantitatively and qualitatively. This has also given an increasingly significant contribution to the growth and the development of the health system and the social health, at both national and local level. In addition to the Charity care rooted in the Italian system for years, several "legal forms" of a non-profit organization are born in the last few years. Therefore, it is a recent tendency to consolidate the productive role of non-profit organization and the structural change in the relationship between public and charitable sector. Furthermore, in recent years the importance of the phenomenon under consideration has attracted the attention of the banking system which is creating banks aimed specifically at non-profit organizations. The Non-profit organizations that carry out their activities in the health sector are especially concentrated in the North of the country and are well laid out. However, in the South of the country, they are limited in numbers and present a smaller in size and a more informal structure. By analyzing the contribution of Non-profit organizations in the health sector, the following non-profit Charity are some of the most important one in the Italian context.

AIL[5] (*Associazione Italiana contro le leucemie-linfomi e mieloma*) is an Italian "Onlus"[6] constituted in Rome on April 8th 1969. It received official recognition by a Presidential Decree on September 19th 1975 (no. 481). The fundamental role of AIL is the activity carried out in harmony with the main centers of hematology, both at university and in hospitals in order to improve the quality of life and to help them at first hand in their fight against the disease. Its mission is to: (1) promote and support research; (2) improve patients and their families' quality of life and provide direct assistance to patients in their struggle against blood diseases; (3) raise awareness of blood disease issues. Some of the projects that the association undertakes are: - *research financing* through the GIMEMA (Italian Group for Adult Hematologic Diseases), a non-profit cooperative group, consisting of more than 140 centers of Hematology that is present throughout the national territory; - *organizing service of care and hospitalization home* to prevent admission to hospital so that all patients can be treated in their own home with the help of family and friends; - *making schools and game rooms in hospital* that enable children and teens to keep in touch with the outside world while continuing their regular program of study without

[4] The results of various studies on these indicators can be found in the Press Release, Reports, and Nonprofit Results sections of the Alliance web site www.nonprofithealthcare.org.
[5] http://www.ail.it/.
[6] Socially active non-profit organization.

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neglecting the game in its various forms (recreation, exploration and construction); - *support training and update* doctors, biologists, nurses and laboratory technicians through the provision of scholarships, professional services and employment contracts; - *working together at the costs* for the operation of centers of hematology and stem cell transplantation by creating and restoring surgeries, outpatient, inpatient wards purchasing equipment, expensive drugs and supplies.

AIRC[7] (*Associazione Italiana per la Ricerca sul Cancro*) is a private non-profit organization, founded in 1965. From the outset, AIRC has been committed to fostering cancer research in Italy, and has gradually expanded to include 17 Regional Committees and 1.462.179 members. The activity of the AIRC is to raise and disburse funds for the advancement of cancer research and keep the public up to date on the latest news in this field. Fundraising takes place in two forms: 50% through national and local events designed for the general public and the business community, and 50% through letters requesting support. Every year the raised funds are allocated to research projects and study grants deemed particularly worthwhile by AIRC's Scientific Committee made up of oncology experts throughout Italy, who review and select applications with the help of more than 600 European and American researchers. In 1977 AIRC set up the *Fondazione Italiana per la Ricerca sul Cancro* (FIRC), recognized as a non-profit association in 1980, for the specific purpose of receiving bequests, legacies and gifts. Legally separate from, but complementary to the AIRC, the role of the foundation is to develop an asset base that ensures the future of research. More specifically, AIRC is committed to: (1) funding research carried out at university labs, hospitals, and scientific institutions, (2) completing the education of young researchers in Italy and abroad by offering grants for further study, (3) informing the public and raising awareness of progress in cancer research.

Fondazione ANT Italia Onlus[8] (ANT Foundation Italy) is one of the free leading private organizations in Italy, which provides assistance to cancer patients and organizes activities for cancer prevention. ANT provides free social-health assistance at home to tumor sufferers and, depending on the resources available in the local area, runs free of charge cancer prevention initiatives. The foundation, with its Head Office in Bologna, operates nationwide through over 100 local groups, known as ANT Delegations, which are responsible for coordinating fundraising at local level. The activities of the association include: (1) *home assistance,* ANT offers specialized care provided by 400 healthcare professionals, including doctors, nurses, psychologists, nutritionists, physiotherapists, social-health workers, pharmacists and other employees, who are able to provide patients with round the clock care, 365 days of the year; (2) *prevention,* it is committed to cancer prevention with free services available to diagnose early signs of skin cancer, thyroid tumors, and breast

[7] http://www.airc.it/?istituzionale=true.
[8] http://www.ant.it/#.

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and gynecological *neoplasia;* (3) *training,* ANT organizes scientific courses and events to provide healthcare workers with their required annual training credits; (4) *research*, the ANT Foundation's Department for Research and Scientific Development makes great use of a variety of clinical experience, to ensure that the level of care, not only medically but also in terms of overall wellbeing, is always optimized.

A.L.I.Ce. Italia Onlus[9] (*Associazione per la Lotta all'Ictus Cerebrale*) is a Federation of Regional Associations whose members are 19 Italian regions. Its free and voluntary association of non-profit, formed by people affected by strokes, family members, physicians, caregivers, rehabilitation and volunteers. The activities of the members are based on volunteering and funding that are derived primarily from the contributions of members and the public. A.L.I.Ce. Italia Onlus aims to: (1) *disseminate information* on the curability of the disease, (2) *create a link between patients, families, physicians and health care professionals* involved with the disease in order to facilitate maximum functional recovery, (3) *facilitate information* for the timely recognition of symptoms such as conditions that favor the onset of the disease (4) *urge those involved in health planning* permitting them to set up specialized centers for the prevention, diagnosis, treatment and rehabilitation of people affected by stroke and implement concrete screening projects.

These are just examples of some charity care available on the Italian territory. Others are emerging and spreading throughout the territory.

2.3 The case study

The A.V.E.P. Onlus (*Associazione Volontari Ematologia Pascale*) is a voluntary association recognized since 2009 that aims to raise funds in order to support programs to improve the organization and structure of the Department of Hematology of the "Fondazione Pascale" in Naples. The AVEP was born thanks to the will of its President and Founder, Dr. Francesco Orefice, who was personally affected by the disease and thus decided to supply activities and volunteers to the hospital, in particular to the cancer ward. Thus, with the support of Dr. Ferdinando Frigeri, Medical Director and Head SS "Molecular Hematology Laboratory specialist", A.V.E.P. Onlus was founded through a convention with the Department of Hematology of the Fondazione Pascale. It represents one of the earliest cases of collaboration between a charity and a public authority. The primary objective of A.V.E.P. Onlus is to fund continuous and constant home care, specific to patients with hematologic disorders treated at the department.

[9] http://www.aliceitalia.org/.

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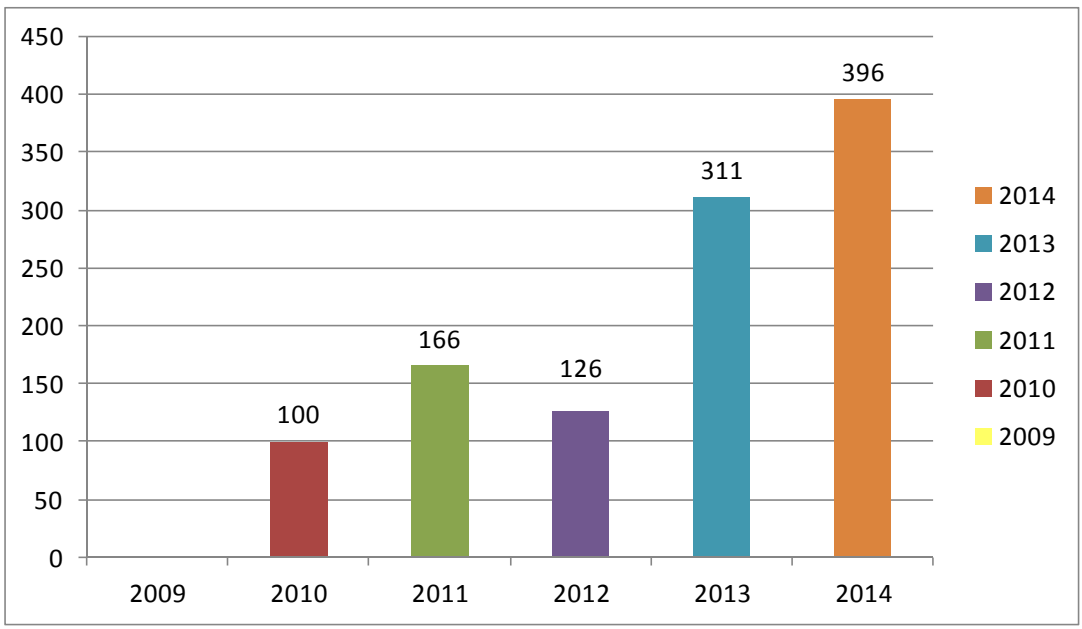
« *The home care allows patients to be monitored in their own home thus safeguarding their personal needs, ensuring the proximity of family members and a much better quality of life* »,

These are the words of the President of the charity. In fact, AVEP mainly provides home care to the patients of the Pascale through multi-professional teams (i.e. doctors, nurses, psychologists) staffed at the hospital. They assist the patients at home thus maintaining a constant contact with the hospital where the patient is cared for his/her hematologic disease. The work of these teams has to be implemented with a number of medical procedures, nursing, psycho-social rehabilitation and welfare benefits to the patient during the various stages of the disease. The A.V.E.P. Onlus, through its home care services, aims to decrease the patients' length of stay making available beds for new patients. Yet, the President of the charity states that:

« *The evolution of home care has allowed, among other things, to bring forward the release of patients who performed an intensive chemotherapy to spend time at home, the critical period of risk of infection or bleeding, or to continue therapy started in the ward* ».

Even in this case there are scheduled programs of visit by the team responsible (doctors of the department) of treatments and tests for checking constantly and closely the clinical condition of the patient at their home. Once the critical phase has passed (with restoration of normal platelets and white and red blood cells) and the cycle of therapy has been completed at home, the patient may return to the center of hematology to continue his or her course of treatment.

Figure 3. Number of Home Care Interventions



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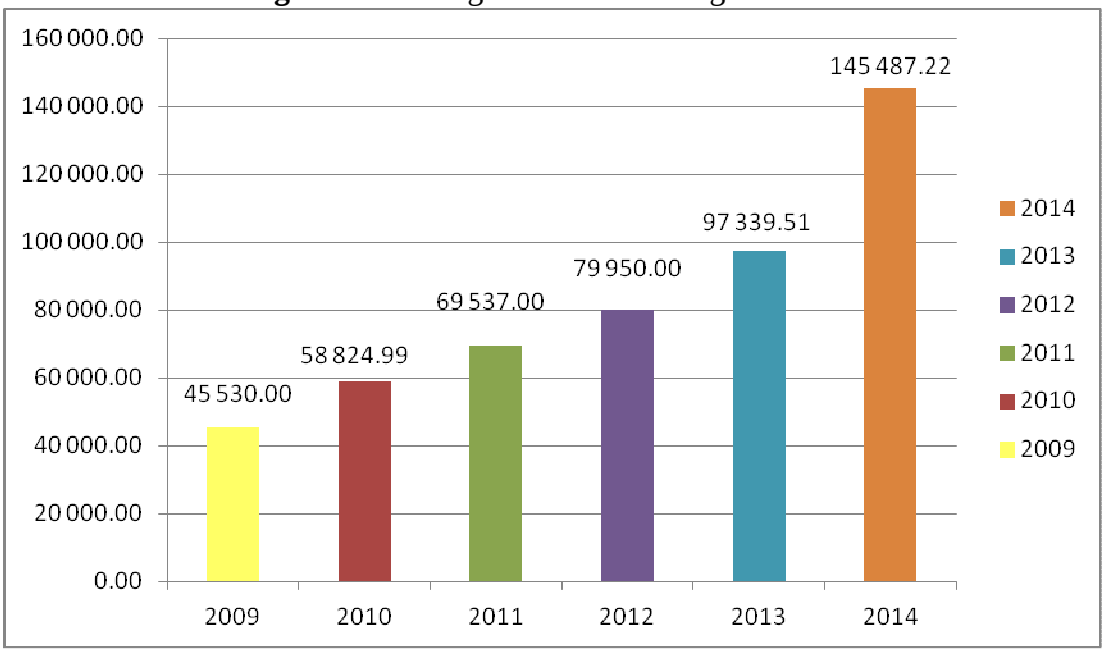
In addition to the home care which is the main purpose of the association, a range of services in support of the patients and their families are also offered. They include: *(1)* adaptation of the infrastructure of the department, *(2)* purchase of scientific equipment (used to internal research laboratory that operates the exclusive use of the department of hematology), *(3)* purchase of drugs for patients that are treated in the department, *(4)* purchase of color TV 32' in all rooms of the hospital department with SKY subscriptions, in order to ease the recovery. Moreover, besides these activities, the Onlus also funds a psychological service to both patients and their family members. Thereby the AVEP efforts are mainly directed to improve the patients' life quality.

Concerning the funding, the two main channels that the association uses to raise funds are: *(1)* a yearly social event called "*Party for Life*" thanks to which the Onlus usually gather funds from a range that varies from € 50.000 to € 70.000 (coming from both participation fee payment and sponsors)[10], *(2)* spontaneous donations ranging from 50 cents to 1.000 Euros. One of the strengths of A.V.E.P. is to follow a total transparency policy on both fundraising and total expenditures.

Figure 4. Funding Distribution along the time*



***** Total funding: € 496,668.72 , Total use: € 391,420.48

[10] The sponsors play a crucial role for two reasons: first, because they increase collection's A.V.E.P. capacity (you consider that 50% of the annual event is the collection of donations for the work of the sponsors). The second is to represent an element of guarantee of the seriousness of this project. Having a sponsor as the Coca-Cola brand, for example, it means you have received from this great company a certificate of reliability of the project, a guarantee element.

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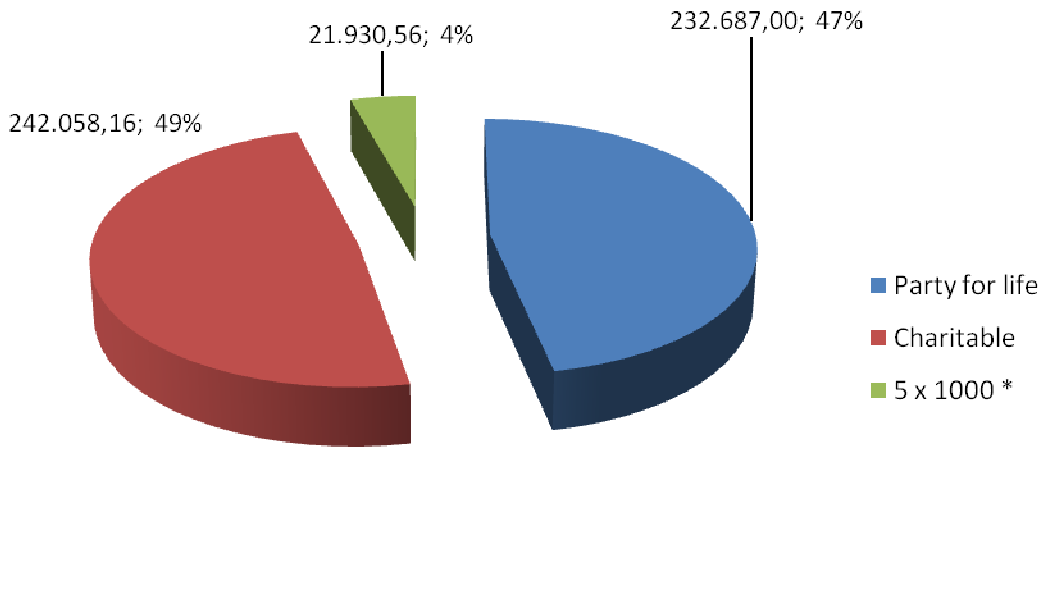
Figure 5. Fundraising



* The Italian taxpayer can choose to allocate a portion of taxes (0.5%) to sole cause, a share of taxes which has to be paid to the state anyway. The cause of solidarity can be realized by (and 5 for thousand allocated) to Onlus, social associations, foundations and other recognized associations working in the field of non-profit, scientific research bodies, universities and health care, social activities of the City of residence, amateur sports associations.

3. Findings

To appreciate the benefits of the partnership between the AVEP Non-profit organization and the Department of Hematology of the IRCCS (*Istituto di Ricovero e Cura a Carattere Speciale*) Fondazione Pascale in Naples, in terms of both financial and non-financial performance, we have developed a Balance Scorecard. Before building the BSC it was necessary to understand the organizational mission and vision in relation to the organizational responsibilities of the collaboration. Thus, the first step to build the BSC has been the definition of the objectives, i.e. the key performance activities (KPAs) within the perspectives. The choice of these areas is a central aspect of the balanced scorecard since they foster to explore in detail all the facets of the performance. The second step has been the identification of the group of KPAs within the perspectives. As mentioned above, Norton and Kaplan identified four perspectives linked by relations cause - effect, represented by the: *(i) Financial perspective* whose KPA depend on the results in the *(ii) Customer perspective*, which contains the customer value proposition, made possible by the performance within the activities key *(iii) Internal business perspective*. At the base of the causal tree

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there is *(iv) Innovation and Learning perspective* that determines the objectives related to IT and Human capital and organizational development which make possible the expected results in Internal perspective. The logical process of development of the BSC passes from the identification of KPA to the identification of the indicators that are used to measure the degree of achievement of objectives, and to monitor driver performance related. The Key performance indicators (KPIs) should be based on a balanced criterion, consistent with the multidimensionality of the scorecard. The BSC is based on logic of causality both in the relationship between activities, and at the level of the indicator system. Returning to the process of building the BSC to analyze the case of co-operation in this study, within the economic and financial perspective, the only KPA that has been identified is the *(a) trend of revenue* (see Table 1). This is because the main objective of the health organizations is not to make profits for shareholders but it is to effectively and efficiently spend the money made available by the public authority. In this case, the activities related to trend of revenue highlight the benefits created by fundraising A.V.E.P. Onlus, concerning the hospital hematology department. The most common measure of this objective is the rate of increase of health services provided. This value is visible through the KPIs chosen as the (1) DRG Total value[11] expressed in monetary form, (2) number of patients treated yearly, (3) number of admissions to the department and (4) mean DRG value per patient (Mean DRG total value per year/Admissions). These indicators are a possible formalization of the trend of revenues. In recent years, the strategic importance of the relationship with the patient/client has grown significantly for healthcare organizations. Within the customer perspective, they have been identified some key performance activities to measure the patient satisfaction because these measures provide feedback about the performance of the services provided by A.V.E.P. Onlus compared to the classical hematology activities in the department of the foundation. The tool used to identify the patient satisfaction was an anonymous questionnaire that was administered to the patient and has been completed prior to discharge. In particular, the key activities considered are: *(b) the satisfaction of users of home care service*, whose indicators are: (5) level of satisfaction on staff professionalism and expertise, (6) level of satisfaction on the opportunity to be assisted by the hospital department staff and (7) overall perception of the utility of the free home care service. The second key activities considered within the customer perspective is *(c) the Patient Satisfaction on department Services*, whose indicator is represented by (8) the level of satisfaction on services provided by AVEP in the department (i.e. TV, Sky subscription, furniture). Within the perspective of internal processes, activities and indicators are

[11] The term “DRG” (Diagnosis-Related Group) means the remuneration system for the hospitals' care activities. The interventions are not paid according to the length of stay, but according "health services," based on a preset estimate of the cost. It is a system that allows you to economically quantify the absorption of resources committed for all patients discharged from a hospital and then allows you to remunerate each episode of hospitalization.

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chosen in the aim to show how the A.V.E.P. Onlus has led to the identification of entirely new processes compared to those already existing in the hematology department. More specifically, we have identified two main key performance activities: *(d)* measures relating to the *quality* of the process and *(e)* degree of *productivity and internal efficiency.* Focusing the attention on the measures of the quality of the process, we have identified a number of indicators relating to the provision of completely new services in respect to those consolidated in the department. These supporting services (9) provided by the A.V.E.P. are home care, secretarial services, equipment, consumption goods (e.g. drugs for patients), Sky subscription and psychological assistance. AS for the operational measures and the area of productivity and internal efficiency, we have identified four specific indicators: (10) number of death in the department, (11) beds occupancy rate, (12) average length of stay, (13) average number of re-admissions. The choice to focus on these indicators was mainly driven by the aim to understand the ability of home care to affect the internal efficiency of the department. Finally, the fourth and final perspective, i.e. the innovation and learning perspective, is proposed to develop goals and measures that build capacity for learning and growth of the department. Two main activities are identified. The former concerns (f) *the innovative processes.* In this activity we have considered the following indicators: (14) investments in research and (15) investments in IT systems. In other words, those who work at the level of operational management process require feedback information on their service since having a good information system is the basic requirement for staff to really contribute to the improvement of the service process. The second objective considered is to assess (g) the *organizational climate* of the department. An indicator is (16) the overall satisfaction of the staff involved in the AVEP home care program. This is because the measurement of employee satisfaction is considered a driver for other measures such as the staff retention and productivity, and thus it enables the assessment of active participation of the medical and nursing personnel in order to improve performance.

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Table 1. The Balanced Scorecard

Perspective		Key performance activities		Key performance indicators	BEFORE*	AFTER°	Δ %
Financial Perspective	A	Trend of Revenues	1	DRG total value	4.385.996,82	6.528.083,92	48,84%
			2	Number of patients by year	228,00	311,00	36,40%
			3	Number of admissions	703,00	704,00	0,14%
			4	Mean DRG total value by year/Admissions	6.237,64	9.287,88	48,90%
Customer Perspective	B	Patient Satisfaction on Home Care Service	5	Level of satisfaction with staff professionalism and expertise (1-5 scale)			
			6	Level of satisfaction with the opportunity to be assisted by the hospital department staff (1-5 scale)			
			7	Overall perception of the utility of the free home care service (yes/no)			
	C	Patient Satisfaction On Department Services	8	Level of satisfaction with the services provided by AVEP at the department (TV, Sky subscription, furniture) (1-5 scale)		YES	
Internal Business Perspective	D	Quality	9	Support Services (Tot. €)	**0,00**	**110.702,35**	
				Home Care		*66.200,00*	
				Secretarial	*0,00*	*9.000,00*	
				Equipment (TV/showcases/furniture)	*0,00*	*5.551,00*	
				Consumption Goods (drugs and equipment for indigent patients)	*0,00*	*925,60*	
				Sky subscription	*0,00*	*12.650,75*	
				Psychological Assistance	*0,00*	*16.375,00*	
	E	Productivity and Internal Efficiency	10	Number of death at the department	29,00	7,00	-75,86%
			11	Beds occupancy rate (%)	78%	90%	12,02%
			12	Average length of the stay	7,33	8,44	15,17%
			13	Average number of re-admissions	3,08	2,26	-26,58%
Innovation & Learning Perspective	F	Innovative Processes	14	Investments in research – 2 research fellowships (€)	0,00	17.439,12	
			15	Investments in IT systems (€)	0,00	6.996,37	
	G	Organizational Climate	16	Overall satisfaction of the staff involved in the AVEP home care program (1-5 scale)			

*2007-2008
° 2013-2014

3.1 Financial Perspective

The advantages of the AVEP partnership for the financial performance of the department are enormous. This is because the association manages patients with a low value DRG at their own home, by financing the provision of home care, and allowing the department to treat patients with higher DRG so as to improve the DRG total value (see Figure 6). Since the DRG is the value that a region provides to the hospital for each specific patients, the hospital has the advantage of having higher repayments. In terms of costs, they also increase according to the principle of proportionality between costs and revenues but in a less than proportional way, providing an even greater advantage for the department. Therefore, by the home care

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program funded by the association, it is possible to treat more patients and allow a greater number of hospitalizations (see Figure 7). In fact, these values are increased respectively by 36.40% and 0.14%. As a result, since the medical personnel of the department is only concerned with treating patients with high DRG, the total value is increased by 48.84% (see Figure 6).

Figure 6. Total value of DRG

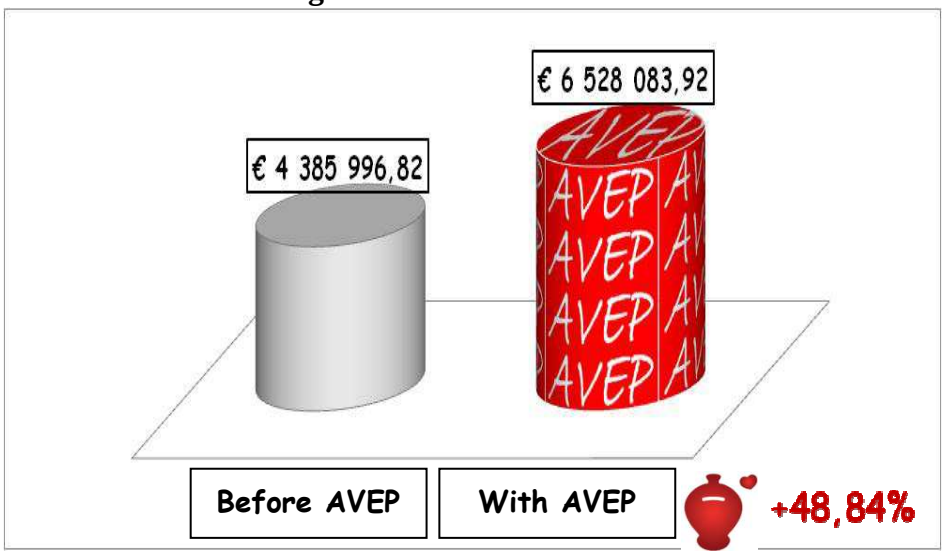

Figure 7. Number of yearly treated patients

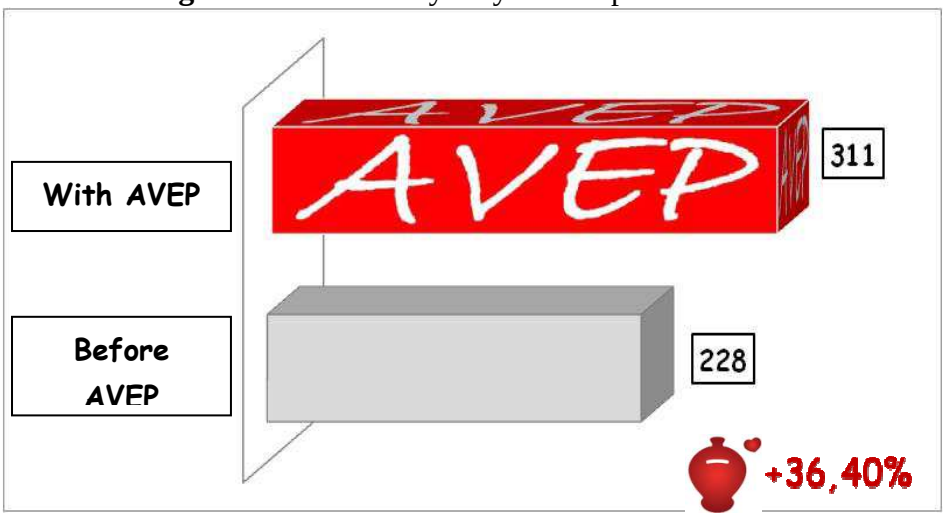

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Figure 8. Average value of DRG / number of admissions

3.2 Customer Perspective

Regarding the *Customer Perspective*, the survey on the patient satisfaction about the services offered at the department is currently underway. Thereby, at the time it is not possible to know the data on this first activity (i.e. the *level of satisfaction of users of home care services)* due to technical and administrative reasons. Regarding to the second activity, it was possible to focus on a sample of patients[12]. Concerning the TV service, the 70,59% of patients surveyed were very satisfied with the TV service; the remaining 23,53% said they were fairly satisfied and 2,94% said they were not very satisfied as well as 2,94% of those surveyed were dissatisfied (see Figure 9). Concerning the Sky subscription, the 52,94% of respondents were very satisfied with this service that include calcium, films, documentaries and other television programs. 14,71% of respondents claimed to be quite satisfied, 2,94% of respondents claimed to be not very satisfied and 5,88% of respondents were dissatisfied, while 23,52% of respondents claimed to be indifferent to the service. These services were not offered prior to the partnership with AVEP Onlus, hence the satisfaction level has been computed with respect only to the 2013-2014 (see Figure 10). The last question of the questionnaire asks the patient to give any tips about what the association AVEP could still do. The results are reported in Table 2.

Figure 9. Users' satisfaction with the TV service

[12] A number of 34 patients admitted in department.

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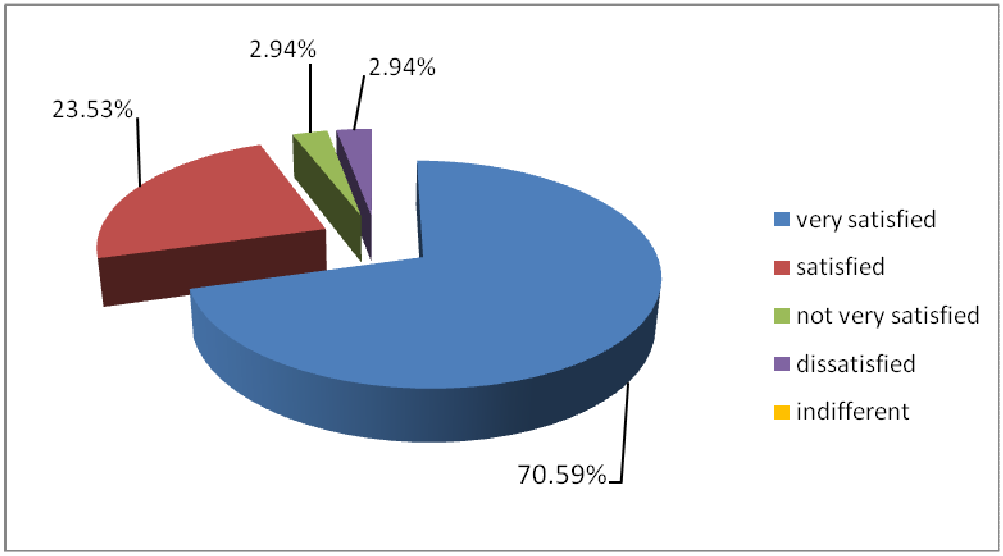

Figure 10. Users' satisfaction about the subscription "Sky" service

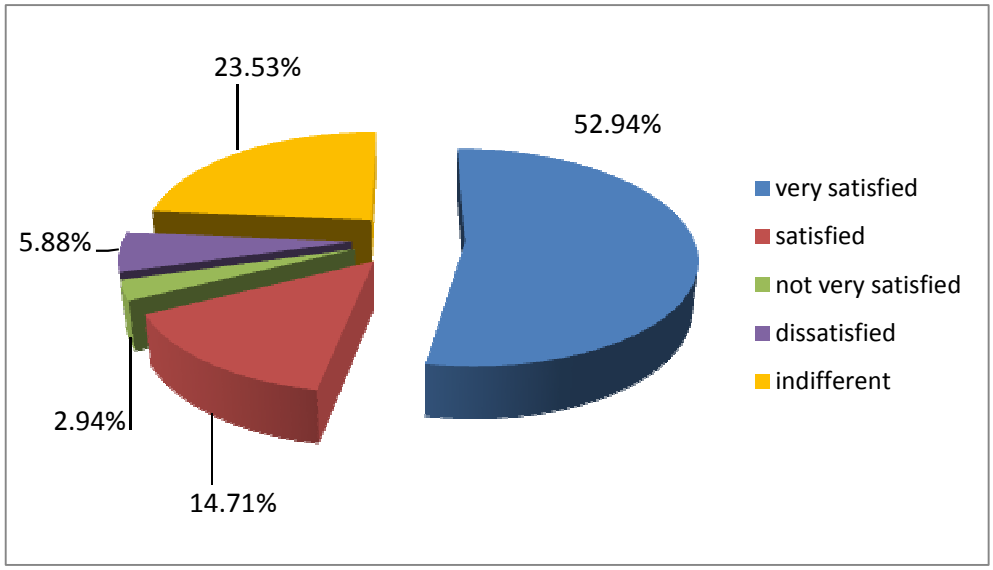

Table 2. What can improve the AVEP Onlus: suggestions of patients

Type of comment	%
blower fan	5,88%
computer	2,94%
uncomfortable washbasin	5,88%
more paintings and drawings in the rooms	2,94%
a fixed support in the bathroom	5,88%
new lights in the rooms	2,94%
Wi-fi	8,82%
new pillows and blankets	2,94%
No suggestion	61,76%

3.3 Internal Business Perspective

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Concerning the *Internal Business Perspective*, we report a high commitment to the quality of care and services provided by the association. More specifically, as for the supporting services we report the following expenses for six items: Home care: 66.200,00 €, Secretarial services: 9.000,00 €, Various equipment: 5.551,00 €, Consumption goods: 925,60 €, SKY subscriptions: 12.650,75 € and Psychological support 16.375,00 €. These indicators represent the commitment to quality of care carried out by the association. They show in complete transparency the large number of services offered by AVEP Onlus as well as the related cost and expenses to provide these services. It is worth noting that these services were not provided before the birth of AVEP and therefore the cost items for the 2007-2008 are equal to 0. In the 2013-2014, the most important cost is represented by the home assistance that is equivalent to 707 interventions. Funding for these activities is represented entirely by fundraising.

Concerning instead the operational measures: we report that the rate of bed occupancy rose from 78% in 2007-2008 to 90% in 2013-2014, with an increase of + 12.02%. This is one of the most important benefits that directly affect the productivity and the efficiency of the department. In this respect, the service is delivered directly to the patient's home. As a result, beds at the hospital are freed more easily in the ward so that there is the option to further treatment of chemotherapy if needed. There has been an increase in the average of hospital stay of + 15.17% since given the increased availability of beds in the ward, it has increased the average length of a hospital stay.

Finally, one relevant aspect of the efficiency of the department is the reduction in the average number of readmissions with a variation of - 26.58% (see Figure 11). This is a relevant issue as through the home care program patients do not need to come back to the hospital to be in a position to deal with a new chemotherapy treatment (use of specific drugs, transfusions of blood and platelets, etc.). Thus, they aren’t hospitalized for more days because this process is done directly at the patient's home. In this way the number of repeated hospitalizations is reduced.

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Figure10. Number of deaths at the department

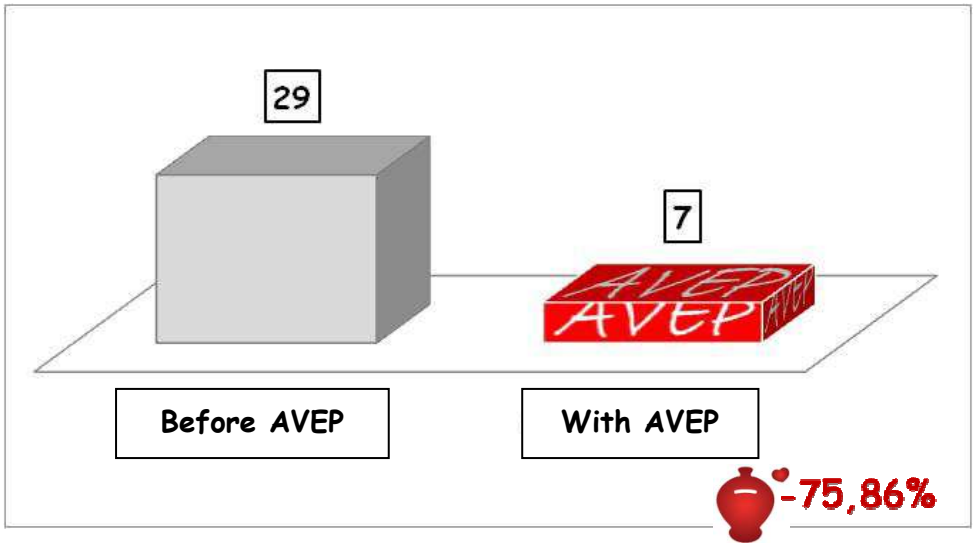
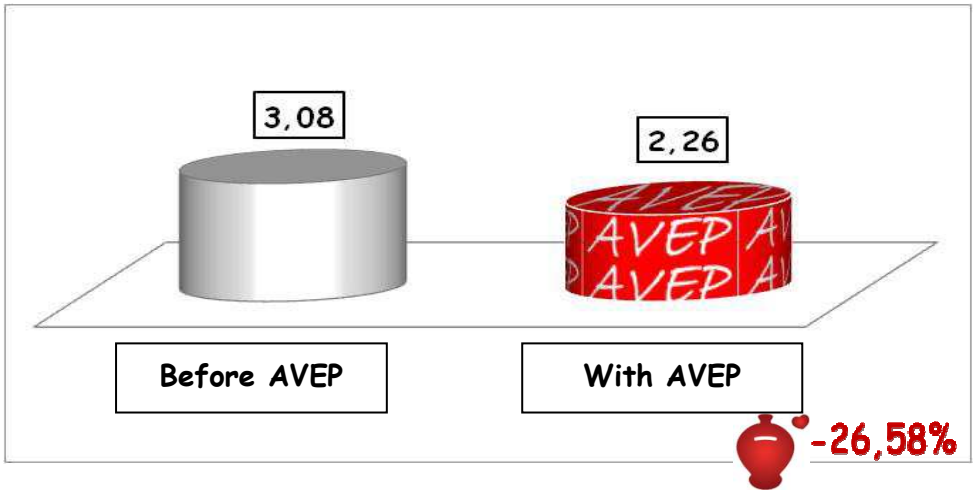


Figure 11. Average number of readmissions



3.4 Innovation & Learning Perspective

Concerning the innovative processes, we report that the investments in research are euro 17.439,12 and that the investments in information systems are equal to euro 6.996,37. These indicators reflect the commitment of the association to invest in research and information systems. Prior to the participation of AVEP, the investment in these assets was equal to 0, as shown in the Table 1.

With reference to the organizational climate within the department, we report data on the satisfaction of the staff involved in the home care service. With particular reference to the category of nurses, the results of the survey show how the home care program of AVEP Onlus contributed to improve the professional satisfaction, the

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relationships with colleagues and the relationship with service users (see Figures 12, 13 and 14). An aspect that should be further deepened concerns precisely the organizational climate within the department. Actually, a considerable number of nurses' claims that the home care program did not at all improve relations among colleagues and it is also a source of frictions and disputes because of prevalence of the economic issue on the solidarity objective.

Figure 12. Professional satisfaction

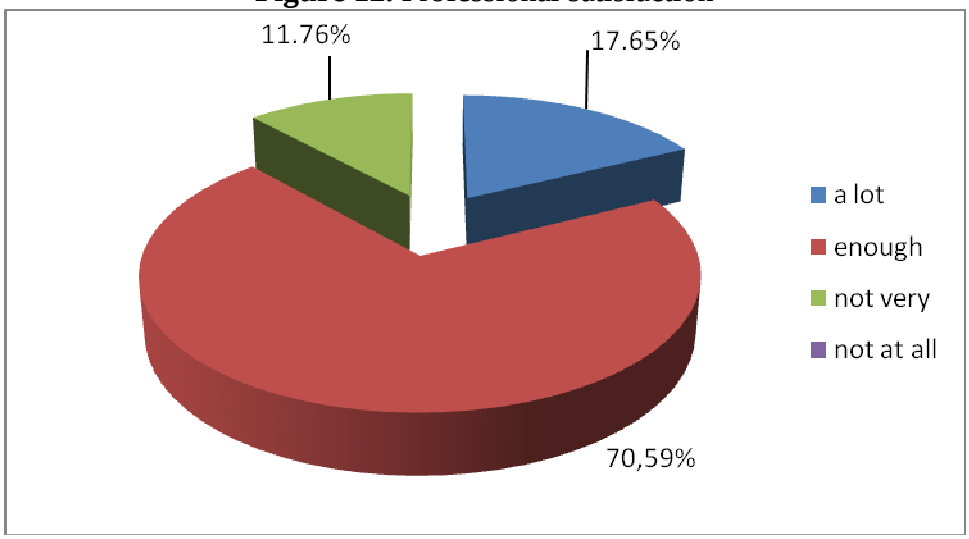

Figure 13. Relationships with colleagues

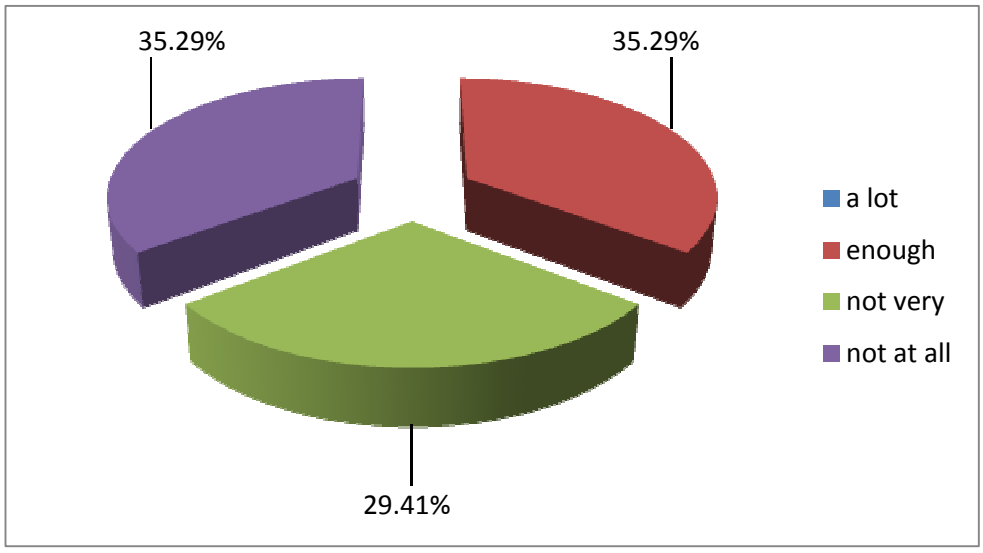

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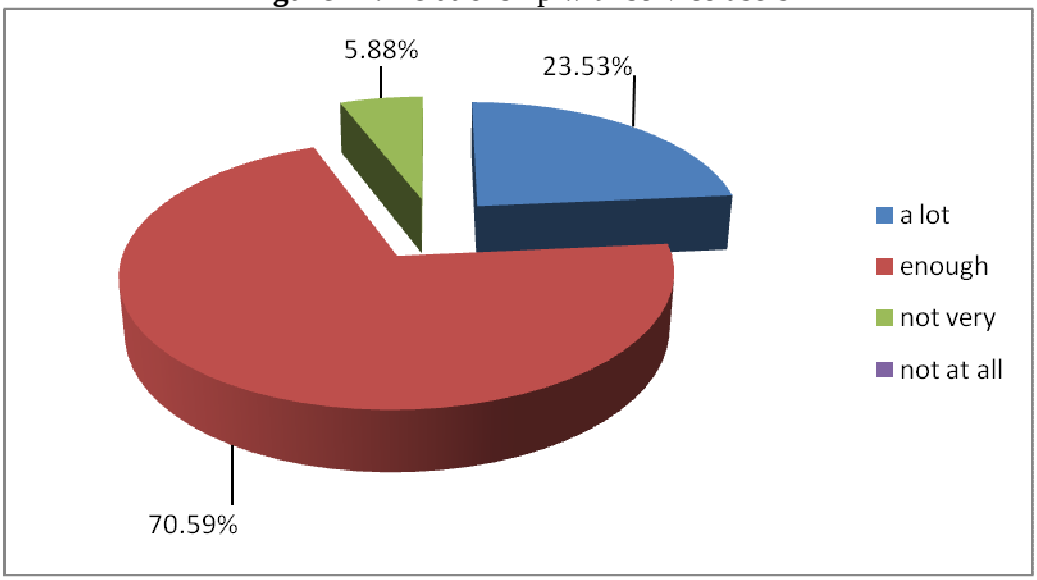
Figure 14. Relationship with service users



4. Discussion and conclusion

This paper has explored the issue of the private-public partnership in the Italian health sector focusing on BSC as a tool for measuring financial and non-financial performance. The BSC approach has been applied to the Department of Hematology of the Fondazione Pascale in Naples. When applied to the Health care, it generally adopts the four traditional perspectives suggested by Kaplan and Norton: 1) financial perspective, 2) customer perspective, 3) internal business perspective, 4) knowledge and learning perspective. This methodology has maximized the information provided by the system and has denoted relevant vitality and flexibility. Thereby, it has fostered to identify the impact of AVEP Onlus on the Department of Hematology of the Fondazione Pascale in Naples, and the ways in which these results are achieved. Overall, the association provides two types of benefits to the department: the former involves the operational efficiency and the internal processes; the latter is related to the margin/revenue and the economic/financial perspective. Thanks to the home care program of AVEP Onlus, the Pascale Institute earns a higher margin compared to the results obtained without the AVEP. This is because the performances with added value are lower since the services with a lower DRG[13] are delivered from the

[13] It comes to performance that is usually provided in the post-administration of chemotherapy, during the return of the patient to the hospital. The benefits provided during the phases of return to the hospital after a cycle of chemotherapy have very low value DRG. This value is not lost because

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structure through AVEP's program[14]. In addition, the hematology department increases its internal efficiency because it can make better use of beds (20 in all). This program allows to assist a greater number of new patients and to care of other patients at their own home. As a result, the department's production capacity increases because it is possible to care about 24-25 patients by week. With regard to the department's profitability, the greater the value of AVEP's fund-raising, the greater the ability to provide home care, and therefore the greater the impact on the profitability of the department.

As suggested by the survey, clients/patients are generally satisfied with the services offered by AVEP Onlus. Nevertheless, those who enter the health home care program funded by AVEP, whom hardly know the association, do not fully appreciate its utility. The staff, both medical and nursing, has no reason to directly promote the activity carried out by the association because it seems to be a demand for compensation rather than a form of free service. This is a major limitation, in the sense that it cannot fully measure the level of satisfaction of the user who is the real beneficiary of the service. On the other hand, in relation to the learning and growth perspective, it is clear the positive impact of investments in research and information's systems that before the agreement with the association were virtually missing. With regard to the organizational climate of the department, people act in the interest of the organization in which they work in, only if they have motivations that drive them to do so. Therefore, motivation and empowerment are essential factors in building and maintaining an ideal organizational climate, which can stimulate the personnel's spirit of initiative. The survey found that employees involved in home care services are generally satisfied. The limitation of this type of survey is that the doctors and nurses attendance to the home care program is on a voluntary bases and the association funds their work bearing all costs of this activity. This means that employees involved in the home care service may have been inclined to respond positively to the questionnaire about the degree of satisfaction but in fact the organizational climate within the department could not be improved

patients with low-DRGs are cared for in their own homes, and therefore the cost of these types of services, even if provided in the patient's home, is recovered because what is billed is the bed at home.

[14] This means that AVEP pay the person undertaking the work (doctors and nurses) outside of the hospital, but the service's cost is always paid by the hospital.

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because of misunderstandings and deviations about persons who will actually provide the home care service, for the revision of the joint staff shift, for the guarantee of fairness in the allocation of time slots. This is an aspect that should be investigated further.

Today, the research on public and private partnerships in the health sector are moving into a phase of diffusion after a preliminary period of experimentation. However, at this time their development appears to be influenced by legal logics rather than logics that underpin the strategic effectiveness. For this reason, many studies do not yet provide a single view on the advantages of the partnership in terms of economic-financial and non-financial performance. This is even truer for studies on Charity Care, which have mainly focused on the characteristics of the non-profit sector, on the role in health care, and on their legal exemption status. Therefore, future studies should analyze the Charity in a collaborative environment in which new forms of the relationship between the public and private sectors emerge to provide effective solutions for creating and supporting the alignment objectives of the strategic collaboration between the parties.

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