Universitat Ramon Llull

DOCTORAL THESIS

Title	**INSIDE THE PHILANTHROPIC VENTURE CAPITAL INVESTMENT MODEL: AN EXPLORATORY COMPARATIVE STUDY**
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DEDICATION

For Giuseppe.

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INTRODUCTION

In recent years, social entrepreneurship has gained increased attention among entrepreneurship scholars. Social entrepreneurship is emerging as an increasingly common approach to meeting social and economic needs. While governments and nonprofit organizations have long organized to meet specific human societal ills, hybrid entities, i.e., Social Enterprises (SEs) have emerged combining elements of a for-profit focus on efficient use of economic resources with a nonprofit focus on social value creation (Austin, Stevenson, and Wei-Skillern, 2006).

The growth of social entrepreneurship over the last decade has been impressive (Roberts and Woods, 2005). Also, "*while SEA rates are dwarfed by TEA rates in factor- and efficiency-driven countries, they are a significant component of entrepreneurship in many innovation-driven countries* (Bosma and Levie, 2010: 51)." As for any growing business, access to appropriate sources of finance is a key factor in an enterprise's development. As reported by the Bank of England (2003) amongst others, SEs face difficulties in finding sources of funds and the inability to get finance might constitute the single biggest barrier to establishing a SE. One the one hand, demand and supply for debt finance is limited due to a cultural risk aversion associated with borrowing which pushes social entrepreneurs in opting for more risk-free and cheaper financing instruments such as grants. Also, as Harding (2007: 12) reports, "*many* [social enterprises] *have tried to gain external finance and failure rates are highest for unsecured loans and government grants. The biggest single reason for failure is the unsuitability of the business for that source of finance.*" On the other hand, there is little evidence of demand for, or supply of, traditional venture capital (VC) or business angel finance due to the difficulty of providing a financial return, ownership issues and the lack of a clear and well defined exit strategy. There is, however, evidence of demand among SEs for some form of "patient" finance, particularly at the start-up or expansion stages, which would enable them to become self-sustainable and, thus, growth to scale, maximizing their social impact.

In an effort to respond to the financing needs of social entrepreneurs as well as the search for efficient solutions to compelling social problems, the philanthropic venture capital (PhVC) funding model has spurred. Names like Acumen Fund, Ashoka, New Schools Venture Fund in the US, and Impetus Trust, Oltre Venture, LGT Venture Philanthropy Fund have been able to

create economically viable SEs that have changed the social conditions of people they are serving.

PhVC was presented as the implementation of VC funding strategies and techniques to the financing of SEs (Letts, Ryan, and Grossman, 1997). Rather than simply being a purveyor of charitable funds for deserving SEs, the PhVC investment model brings the discipline of the VC investment world to the social sector. More specifically, the VC model is based on a set of practices designed to increase the odds of success for start-up investees. On the investor side, these include heavy amount of due diligence to screen new investments, long-term financial commitment to overcome the problem of undercapitalization that cripples start-ups, as well as extensive advice and consulting on how to develop and manage the company. The intrinsic goal of the VC investment process is to build profitable companies from scratch, ultimately making large profits.

The attempt to transfer knowledge, practices, and wisdom across the VC business and the social sectors galvanized both individuals, who made their fortunes thanks to VC financing, and social sector players, willing to make an impact. The PhVC approach and language has penetrated the territory of traditional philanthropy as well as the private sector; it has been the subject of growing media attention and the profile of its early practitioners has risen within the field. Most significantly, several of the largest foundations and venture capitalists (VCs) have begun to experiment with the language and practices of PhVC. As a result, in the period 1993-2007 the annual growth rate of newly created PhVC funds reached 15 percent in the United States and of 22 percent in Europe, gaining increased attention in the professional and in the academic communities.

The main assumption underlying the PhVC's value proposition is that, just like in the business sector, size matters: funding growing organizations is a sign of success and relevance, and creating organizations that go to scale is a legitimate and worthy goal for philanthropic funders. The basic commitments are grounded in the belief that philanthropic funds need to be applied to important social problems and that funders must strive to maximize the social impact of their investment. PhVCs believe sustainability can be the link between growth and social impact maximization: only if SEs become self-financially sufficient, they can focus on their social mission. As such, social impact is implicitly created and maximized in the case the SE is able to grow, become self-sustainable and thereby survive in the long-term.

The SEs backed by philanthropic venture capitalists (PhVCs) are assisted in their efforts to construct and execute strategic plans leading to substantial growth and broad social impact. The accomplishment of the PhVCs' goal is based on two main pillars. First, long-term funding commitment is required to build the capacity of the SE to develop, become sustainable and,

therefore, grow. Second, the mere provision of capital is not enough for sustainability and growth: it must be accompanied by the provision of a high level of PhVCs' strategic and management engagement to the backed SE, critical elements to lasting success.

Notwithstanding, prior research has examined the investment behaviour of profit-maximizing VC firms; scholars have thus called for research to understand the funding mechanisms of PhVCs (Austin et al., 2006). The funding decision rules of PhVCs are unique because of the dual organizational identities of the ventures that they assess. Albert and Whetten (1985) define organizational identity as the shared and collective sense of an organization and states it is typically singular in focus. In the case of SEs, the organizational identity is intrinsically dualistic because it borrows distinctive elements from both the social and commercial sector (Certo and Miller, 2008; Austin et al., 2006; Pharoah and Charities Aid Foundation, 2004). Thus, it is unclear whether PhVCs structure their investment process similarly or differently than traditional profit seeking VCs. Furthermore, since PhVCs are not only fund providers but also strategic advisors of the SEs they back, a key issue is understanding how, besides capital, they can assist SEs in their journey towards sustainability, growth, and ultimately social impact.

Up to date, the present study is the first aiming at understanding the investment process adopted by PhVCs and at comparing it with the traditional VC one. As such, it has implications for both researchers and practitioners. First, this study contributes to the entrepreneurship and VC literatures, and answers to the call for additional research into the investment process of PhVCs (Austin et al., 2006). It aims to open up some avenues of exploration for PhVC theory development and practice by presenting an exploratory comparative analysis of the extent to which elements applicable to VC, which have been more extensively studied, are transferrable to the new PhVC investment model. The exploration opens new insights about PhVC and points to opportunities for further elaboration by researchers in all the phases of the investment process.

Further, the competition for attractive investments is heating up as economies have become more globalized. Also, the current economic crisis has led investors to become more responsible towards the communities they work with, smoothing their pure profit-seeking behaviour and incorporating social responsibility in their strategies, in such a way that society and communities can benefit from having a more civic society. The analysis presented here thus practical implications for fund providers in that it describes the practices used by PhVCs in structuring investments aiming at maximizing the social value of investments. It also provides a guideline for fund seekers, i.e., social entrepreneurs as it specify what PhVCs focus on while backing SEs.

The dissertation is organized as follows. The first chapter presents a discussion around the definition of the term "philanthropic venture capital". Elaborating on the definition of the VC investment model which is based on the existence of severe asymmetric information issues between funders and fundees, a new definition of PhVCs is proposed. As a second step, three clusters of PhVCs are identified based on the legal incorporation of the SEs they back and on the outcome main objective PhVCs pursue.

In the second chapter, a speculation around the theoretical framework of asymmetric information underlying the VC model is run. Based on this, the research question on the PhVC investment model is formulated and a set of propositions analyzing each phase of the investment process are presented.

The third chapter follows with a discussion on the process adopted to identify the population of PhVCs and its description. Thereafter, the methodology used in the dissertation is presented and methodological issues related to it are analyzed.

The fourth and fifth chapter present the results obtained from a set of pilot interviews conducted with leading European and US PhVCs and those based on a survey addressed to the entire population of PhVCs.

Last, the dissertation concludes by reviewing and discussing the results and providing future directions for further research, contributions and conclusions.

CHAPTER 1: **DEFINITIONS**

1.1. INTRODUCTION

Following the diffusion of the PhVC investment approach, the aim of this chapter is twofold. First, to provide a new definition of PhVC elaborated based on the VC literature. As a matter of fact, the commonly used definition of PhVC the application of the VC strategies and techniques to traditional forms of philanthropic financing does not specify what PhVC refers to in terms of investment and of purpose of investment, this chapter aims at providing a more comprehensive definition of the term elaborating on the assumption of the applicability of the VC model. Second, taking into account the debates to be found in the social entrepreneurship literature, clusters of PhVC investors are identified.

The chapter is organized as follows. First, a debate on the current definition of the term PhVC is presented and a new one is formulated based on a review of the traditional VC investment model. Second, clusters of PhVCs are identified based on the type of SEs they back and the outcome of the investment.

1.2. PHILANTHROPIC VENTURE CAPITAL: DEFINITION

After the publishing of the seminal article by Letts et al. (1997), PhVC, also referred to as *venture philanthropy*, has spurred in the US and in Europe. PhVC is a new financing model available for social entrepreneurs that transfers the profit-maximizing VC investment model to foundations' philanthropic financing.

For years, foundations' have played a key role in the process of giving back to society, being linked to the social sector in a pattern of reciprocal dependency (Hansmann, 1987). Starting from the assumption of market and government failures, foundations work to expand the scope of the social sector and to strengthen its functioning (Weisbrod, 1997), channelling philanthropic resources to projects/programs that aims at improving people's life conditions. However, it is widely acknowledged that the goals of those programs receiving financing from

foundations, although valuable and praiseworthy, are barely aggregated up into a meaningful response to any of the major social problems. The reasons are manifold.

First, foundations tend to be project-driven: they prefer to support a particular program or project which addresses a specific social problem. The field has not developed an approach that supports organizational capacity building which, according to Honadle and Howitt (1986), can be defined as the ability of the SE to survive and to successfully apply its skills and resources in order to pursue its goals and satisfy the stakeholders' interest. Project-specific support does not give the organization the flexibility to use funds where the need is greatest, hampering the recipient's ability to both develop long-term solutions to the long-term problems it seeks to address and sustain long-term growth (Larson, 2002; Letts et al., 1997).

Second, project-driven support leads to undercapitalization as each program needs its own funding, making social entrepreneurs to continuously scramble for funds instead of focusing on the achievement of the organization's social missions. Studies by Vidal (1992), Clay (1990), and Cohen, Neff, and Barad (1988) find that debt coverage and operating cost ratios on non-profit sponsored projects are rather low. Porter and Kramer (1999) show that US foundations donate only 5.5 percent of their assets to charities, which is slightly above the legal minimum requirement of 5 percent; the rest is invested in program-related-investments that create financial rather than social returns. The same study also claims that for each one hundred dollars directly donated to a charity, a social benefit of 250 percent of the lost tax revenue in the case of direct giving is obtained. At the same time, it gives a social benefit of only 14 percent of the tax revenue through donations to foundations. The likelihood of social entrepreneurs obtaining new resources and developing new social programs is thereby reduced.

Third, foundations tend to support social projects that can be brought to scale, meaning that they are required to have good prospects of replication beyond the original recipient organization (Locke and Roberson, 1997). However, as Morino (2000) clearly states, although many organizations have succeeded in developing solutions to a particular social problem, their efforts have not been broadly disseminated, adopted or brought to scale. For most donors philanthropy is about deciding which organizations to support and how much money to give them. However, despite the dedication and efforts of those who work in the non-profit sector, the overwhelming majority of the 1.3 million US non-profits are extremely small: 90 percent of their annual budgets are under $500,000 and only 1 percent has budgets greater than $10 million.

Fourth, Walker (2004) shows that foundation's allocation of donations is traditionally based on need rather than on performance. Besides, foundations pay little attention to thinking in strategic terms and measuring the grant recipients' results (Porter and Kramer, 1999). For

funders, success is defined in terms of the size and number of grants awarded; for grantees, it is a function of how many grants one can secure and how large the operating budget can be. Thus, the emphasis is placed upon the act of the transaction with value being defined in terms of that transaction itself and not in terms of what long-term value is generated thanks to the transaction. By evaluating performance in such terms, outstanding results may not be necessarily rewarded, resulting in a lack of stimuli: *"rarely excellent performance is rewarded with an increased flow of philanthropic capital"* (Grossman, 1999: 3), leading to adverse selection issues: those SEs that are more in need of funds more likely will apply for foundations' backing over those that use their resources more efficiently.

Fourth, Billitteri (2000) argues that foundations do not do enough to help grantees in recruiting and training qualified staff members, in improving their computer and accounting systems, or in developing sophisticated tools to track the results of social-service programs. This creates an environment in which employees of SEs develop a risk-adverse behaviour, creating a vicious circle with foundations inclined to place many small rather than a few large bets. The aim becomes minimising downsides, which in turn results in limited scope for the upside, creating a vicious circle for many non-profit organizations, which do not receive the funds they need to develop and implement their programs.

As a result, Letts et al. (1997) proposal of the applicability of the VC model to PhVC is motivated by the fact that foundations share similar challenges as those confronted by VCs: selecting the most worthy recipients of funding, relying on young organizations to implement new ideas, and being accountable to the third parties whose money they are donating. The adoption of the VC model, which contributed to the creation of vast fortunes during the dot.com boom by the provision of capital and strategic advice to start-up firms, could help philanthropists in implementing a creating value agenda (Porter and Kramer, 1999). As such, just as for-profit VCs screen and select new investments, foundations should identify the most socially productive grantees, channelling resources to them. The selection of the best grantees thus leads to more efficient advancement in the state of knowledge which will enable foundations to signal the social value they are creating. By educating and attracting other donors, it is possible to improve social returns on a larger pool of philanthropic funds. Finally, the performance of a non-profit can be magnified by moving the foundation from the role of a mere capital provider to the role of a fully engaged partner. *"The value created in this way extends beyond the impact of one grant: it raises the social impact of the grantee in all that it does and, to the extent that grantees are willing to learn from one another, it can increase the effectiveness of other organizations as well"* (Porter and Kramer, 1999: 124).

Following Letts et al. (1997)'s discussion, the embracement of the PhVC approach in the financing of social sector players was particularly marked with the dot.com boom of the late nineties, when it began to be discussed mainly in US professional philanthropic circles (Edelson, 2004; Morino and Shore, 2004; Gose, 2003; Ryan, 2001; Morino Institute, 2000; Tuan and Emerson, 2000; Emerson, Wachowicz, and Chun, 2000; Porter andKramer, 1999). Also, in an article by Greenfeld, Blackman, Fulton, Jackson, and McLaughlin (2000: 48) published in the *Time* magazine, the authors explain that "*many of today's tech millionaires and billionaires are applying to philanthropy the lessons they have learned as entrepreneurs. One solution has been the founding of philanthropic venture capital funds which use the same aggressive methods as VC firms, whose money typically comes with technological expertise and experience at running lean, efficient organizations. This new breed of philanthropist scrutinizes each charitable cause like a potential business investment, seeking maximum return in terms of social impact.*"

Nevertheless, three main critiques can be moved on to Letts et al. (1997)'s definition of PhVC. First, as it focuses just on one specific type of philanthropic financier, i.e., foundations, their definition might preclude other entities to be considered as PhVCs. This is quite limitative and inaccurate as entities other than foundations adopt VC practices and operate in the PhVC field. Second, it does not identify the PhVC's value proposition which determines the object of the PhVC's investment, making it difficult to understand which is the target organization supported by PhVCs. And, third, this lack of preciseness creates a gap for what concerns the consequences associated with deciding to invest in that particular type of organization.

More recently, John (2006) has shifted the focus of the PhVC's definition from the type of financier to the identification of the VC's characteristics that are indeed applied to PhVC. Six key elements are thus identified: high engagement, multi-year support, determination of the most appropriate financing instrument, non-financial support, organizational capacity building, and performance measurement (John, 2006). Despite addressing the first critique, this definition does not appear to be able to respond to the second and third ones.

In order to elaborate a more precise definition of PhVC addressing all the three critiques, first an overview of the definition of VC is conducted following the assumption underlying Letts et al. (1997). Second, the object of PhVC's investment is identified; and third, a definition of PhVC will be proposed adjusting that of VC to take into account the object of PhVC's investment and the environment where PhVCs operates.

Based on the VC literature, VCs have evolved as a set of specialized firms that focus on financing the entrepreneurial firms characterized by a high level of uncertainty and information asymmetries. Alternative to bank financing, the VC approach typically supports firms with little or no track-record which are prevented from obtaining bank financing until their balance sheet

reflects substantial tangible assets that might be pledged as collateral. Gompers and Lerner (1999), Amit, Brander, and Zott (1998), Wright and Robbie (1996), and Gupta and Sapienza (1992) amongst others define VC as follows:

Definition 1: *Venture capital is an intermediated investment model focusing on the financing of ventures with the potential for high growth. Due the potential proclivity for asymmetric information between funders and fundees, the venture capital model provides financial and non-financial capital with the aim of maximizing the financial return on the investment.*

Figure 1.2.1 depicts the VC investment model. Investors in the VC fund, called limited partners, provide money to the fund itself which are invested in a pre-selected venture. Thanks to the financial and non-financial resources, namely advice and engagement, to the organization, this is supposed to become profitable (in the figure the possibility is indicated by dashed lines) and in some cases extremely profitable. At the exit stage, profits, if any, are redistributed to the limited partners.

Figure 1.2.1: The venture capital model.
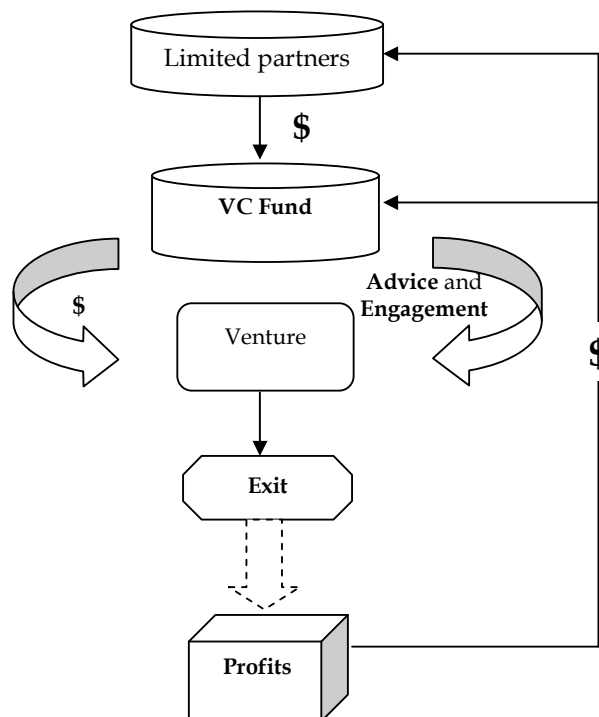
Source: Elaboration by the author.

Gompers and Lerner (2001) present the VC investment process as being composed of three different stages:

1.1. Fundraising;

1.2. Investing;

1.3. Exiting.

Within the investing phase Tyebjee and Bruno (1984) further identify four phases:

1.2.a. Deal origination;

1.2.b. Deal screening and evaluation;

1.2.c. Deal structuring;

1.2.d. Post-investment activities.

Figure 1.2.2 depicts the Gompers and Lerner (2001) model integrated with Tyebjee and Bruno (1984).

Figure 1.2.2: The venture capital investment process.
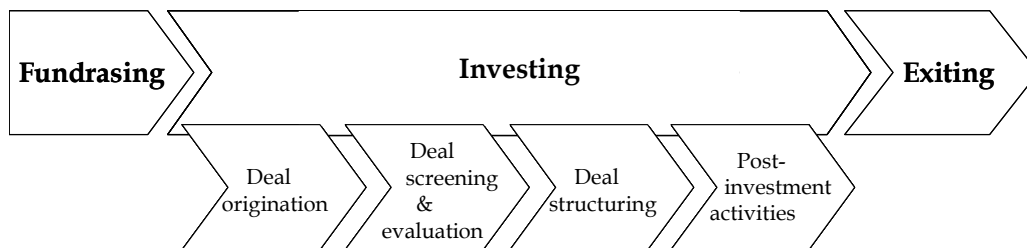
Source: Elaboration by the author.

If moving now the focus of the discussion on the value proposition of PhVCs which consists of creating and maximizing social value. Whitman (2008), among others, provides the following definition of social value: "*Values are beliefs about what is considered intrinsically important and serve as a guide for proper action* […] *social values describe what you're trying to accomplish* (Whitman, 2008: 419)." Being PhVC an investment model, social values are conveyed by investing in SEs; SEs are a particular type of organizations whose pivotal driver is the creation of social rather than economic value (Austin et al., 2006). Based on Mair and Martí (2006), SEs are initiatives that catalyze social transformation and/or addresses social needs. In SEs, the separation between social and economic value makes the creation of economic value a necessary but not sufficient condition of existence (for a more comprehensive discussion on this

issue cfr. chapter 1.3). A consequence arising from investing in SEs is the that by doing so, PhVCs need the ability to operate in the same environment as that surrounding their object of investment: being both PhVC's and SEs' the primary objective the creation of social value, this impacts PhVCs' activity as it requires them to pursue social value as primary objective.

Combining Definition 1 with Letts et al. (1997)'s definition, the PhVC's object of investment, and the consequences associated with operating in a social environment, the following definition of PhVC is proposed:

> **Definition 2:** *Philanthropic venture capital is the application of the venture capital investment model to the financing of social enterprises with a potential for a high social impact. Due the potential proclivity for asymmetric information between funders and fundees, the philanthropic venture capital investment model provides financial and non-financial capital with the primary objective of maximizing the social impact of the investment.*

Figure 1.2.3 depicts the PhVC investment model. Investors in the PhVC fund provide capital to the fund itself which then will be reinvested in high-potential social impact SEs. Together with financial backing, the PhVCs provides SEs a series of non-financial services, namely advice and a high level of engagement in the management of the organization. These two aspects are assumed to be key factors towards sustainability, growth and social value creation.

At the exit event, two types of return might be obtained. First, if the backed SEs has become sustainable and has been able to maximize its social impact, this will be transferred to society which will directly benefit form the SEs services and activity and indirectly investors. Second, the achievement of a level of self-sustainability by the SEs might enable the creation of some financial returns. However, two levels of analysis need to be considered at this point. The first level of analysis takes into account the legal form of the backed SE: if the SEs is a non-profit organization the *non-distribution constraint* presented by Hansmann (1980) applies. More specifically, the *non-distribution constraint* states that non-profit organizations are not barred from making a profit; on the contrary, they "*are barred from re-distributing net earnings, if any, to individuals who exercise control over it, such as members, officers, directors, or trustees.* (Hansmann, 1980: 838)": non-profit SEs must therefore reinvest within the organization any earnings created. On the contrary, if the SEs is a for-profit entity, then any generated profit can be redistributed to investors, namely PhVCs. At this point, the second level of analysis must be conducted taking into account the legal form of the PhVC fund. Again, PhVCs might be non-profit or for-profit. In

the case of a non-profit PhVC fund, financial returns created by backed SEs are redistributed within the fund itself; in the case of a for-profit PhVCs, they are instead given back to investors.

Comparing Figure 1.2.3 with Figure 1.2.2 presented at the beginning of the chapter, it is easy to see that in the PhVC approach social impact is a means to improve society: society represents the target of PhVC, while profits are the target of VC.

Figure 1.2.3: The philanthropic venture capital model.
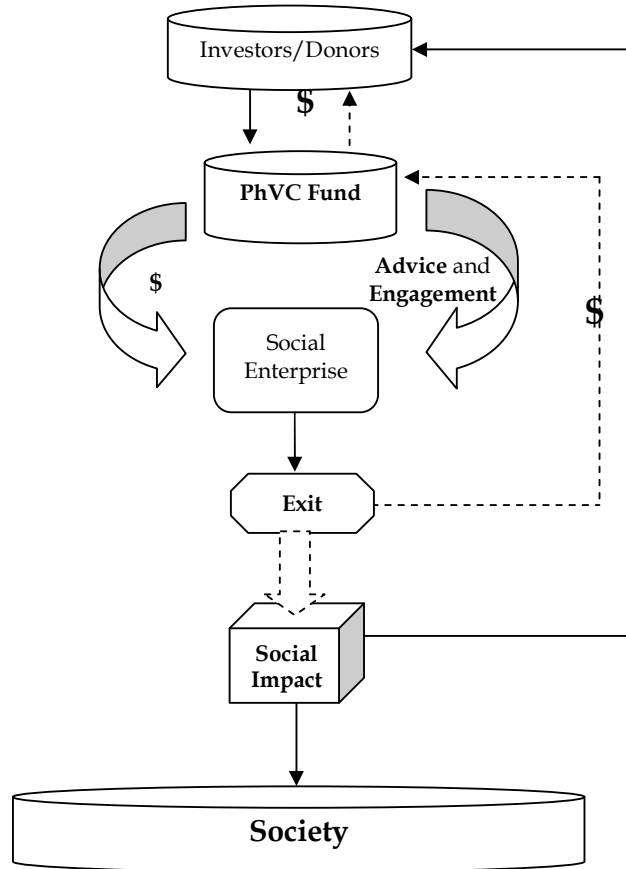
Source: Elaboration by the author.

1.3. CLUSTERING PHILANTHROPIC VENTURE CAPITALISTS BY OBJECT OF INVESTMENT

The next step consists of understanding whether SEs undertaking different organizational forms, which according to the literature are associated to different organizational outcomes, are financed by different categories of PhVCs.

Social entrepreneurship has its core foundation in the field of entrepreneurship and unites traditional views of opportunity exploitation with social objectives. However, despite number of studies have investigated under which conditions social entrepreneurship emerges and which are its peculiar characteristics, so far the definition remains quite fuzzy. The major issue consists of understanding the boundaries of traditional and social entrepreneurship. The shared term *entrepreneurship* implies common aspects: both traditional entrepreneurs and social entrepreneurs identify new opportunities in the environment and then seek resources to pursue them. Since Schumpeter and Opie (1934), traditional entrepreneurship has involved the identification, evaluation, and exploitation of breakthrough opportunities aiming at creating economic value and, consequently, personal or shareholder wealth. Entrepreneurs report not only pursuing personal wealth and profits, but also advancing the interests and welfare of their employees and customers as, for example, when employment is created and employees benefit from working for an economically viable organization. In traditional entrepreneurship, thus, the creation of economic value is seen as a synonymous of social value as the exploitation of business opportunities leading to economic profitability are per-se a source of social change. On the contrary, social entrepreneurship focuses on the identification of innovative approaches and opportunities to address basic, long-standing needs such as providing food, water, shelter, education, and medical services to those members of society who are in need, resulting in social change, social wealth, and social impact. As such, the quest for social impact implies social entrepreneurs making a distinction between economic and social values who then decide to focus their priorities on social ones. Furthermore, as reported by Harding (2007: 4) "*any surplus or profit, is recycled for the benefits of the activity, rather than for shareholders or directors*". However, the "*theoretical underpinnings* [of social entrepreneurship] *have not been adequately explored, and the need for contributions to theory and practice are pressing* (Austin et al., 2006: 1)."

Acknowledging the lack of a unique definition of social entrepreneurship, the aim of this piece of work goes beyond that and seeks instead to understand the organizational environment where social entrepreneurship can be found. Emerson and Twersky (1996) integrate the premise of frame-breaking and social innovation with an organizational perspective, identifying SEs as both non-profit and for-profit.

Non-profit social entrepreneurship represents the phenomenon of applying into non-profit organizations business expertise, entrepreneurial and market-based skills as when non-profit organizations that produce goods and services (also called "operating" non-profits) develop innovative approaches to earn income (Lasprogata and Cotton, 2003; Thompson, 2002; Grimm and Robert, 2000; Reis, 1999; Boschee, 1995). By bringing into the non-profit a for-profit mentality, the former have started to sell what they used to provide for free. Nevertheless, being non-profit SEs still private producers of public goods (Weisbrod, 1975) like traditional non-profits, their primary role consists of supplying to society a set of products and/or services aiming at improving life conditions. Also, since being non-profits, they are subject to the *non-distribution constraint* (Hansmann, 1980) presented at the end of chapter 1.2. The assumption underlying this discussion thus is that market orientation and earned income/profits are a means that SEs can exploit to deliver more social value for the money they spend and for the services/products they provide. The application of business practices to non-profit organizations can increase their efficiency and thus have a higher social impact *ceteris paribus* (Zietlow, 2001; Sagawa and Segal, 2000; Dees, 1998; Warwick, 1997; Boschee, 1995; Drucker, 1989).

For-profit social entrepreneurship can happen as social-purpose commercial ventures (Dees and Anderson, 2003; Emerson and Twersky, 1996) blending social and economic motives in the way that Emerson and Twersky (1996) describe as *double-bottom line*; also, it can join social, economic, and environmental values as presented by (Elkington, 1994), namely *triple-bottom line*. Typical examples of social-purpose commercial ventures are Café Direct and the Grameen Bank. One of the main critiques of for-profit SEs relates to the risks of conflict between pursuing profit and serving a social and/or environmental purpose. The issue is not new at all: centuries ago (Smith, 1776: 478) made the following observation about business people, "*I have never known much good done by those who affected to trade for the public good. It is affection, indeed, not very common among merchants, and very few words need be employed in dissuading them from it.*" Embedded in the contract failure theory, Hansmann (1980) also shows that non-profits enter the market precisely to mitigate the profit incentive and ensure that social value is not sacrificed or exploited for the non-profit producers. This is confirmed by Weisbrod (1998) who states "*Nonprofits that pursue revenue in the same ways that private firms do are likely to emulate those firms, and by becoming more like them may undermine the fundamental justification for their own special social and economic role* (Weisbrod, 1998: 9)."

In a recent article by Townsend and Hart (2008) it is argued that the non-profit or for-profit choice for social entrepreneurs is contingent upon the specific norms the entrepreneur perceives in the institutional environment related to resource acquisition, stakeholder

alignment, and legitimacy attainment. While received theory typically assumes social institutions reduce uncertainty for decision-makers (Dimaggio, 1997; Dimaggio and Powell, 1983), for social entrepreneurs forming new ventures, conflicting institutional norms may actually increase the perceived ambiguity in the choice of organizational form. However, the outcome of for-profit SEs is the same as that characterizing non-profit SEs, i.e., the focus on social value. Given the choice of the for-profit structure for-profit SEs must also pay close attention to the creation of economic value (Dees and Anderson, 2003). Seelos and Mair (2005a, b) combine a social purpose with a for-profit mindset as an effective means to cater to largely unsatisfied social needs, especially as traditional social sector activities often are considered inefficient, ineffective, and unresponsive (Dees, Economy, and Emerson, 2001). Also, Dees and Anderson (2003) claim that the profit motive, if properly channelled has the potential to encourage efficacy, efficiency and innovation.

Table 1.3.1 illustrates the organizational forms of SEs, namely non-profit and for-profit, and their outcome focus, i.e., social, environmental, and economic. Whereas non-profit SEs may also pay attention to the creation of economic value in their social value creating activities, their primary role still consists of being private producers of public goods (Weisbrod, 1975). For non-profits, social and environmental values (which can be considered as a specific type of social value) are alternative values: it can pursue social values without pursuing environmental and vice versa. No danger that environmental issues will be exploited for economic reasons because the non-distribution constraint "*the* [non-profit] *organization's legal commitment* [requires it] *to devote its entire earnings to the production of services* (Hansmann, 1980: 844).

For-profit SEs, as just discussed, have a double- or triple-bottom line approach to the creation of value, with social and environmental values being the primary purpose of the organization. Note that in this case social and economic values are not alternative: the creation of environmental values combined with economic values does not make an organization a for-profit SEs. Examples of this type are business operating in the green-tech sector whose mission is to obtain high economic return by the exploitation of environmental issues. Consequently, only if environmental values are integrated by social values, the organization can be considered a for-profit SE.

Table 1.3.1: Social enterprises by organizational form and outcome focus.

		SE organizational form	
		Non-profit	For-profit
Outcome focus	Social	•	
	Double- or triple-bottom line		•

Source: Elaboration by the author.

Following definition 2, and more specifically, the discussion on the object of PhVC's investments, it is possible to identify clusters of PhVCs depending on the organizational forms of the backed SEs. In fact, the raison d'être of both PhVCs and SEs is creating and maximizing social impact and the investment in SEs is a means for PhVCs to pursue it. However, just like the classification of SEs presented in Table 1.3.1 includes both non-profit and for-profit SEs creating a range of social, financial and/or environmental values, the PhVCs community consists of an array of investors lying in the *Investment Plane* presented by Emerson (2000). At one extreme of Figure 1.3.1 there are those PhVCs whose financial contribution strictly seeks no financial returns and thus attempt to obtain and maximize the social and/or environmental return on investment. At the other extreme, lie those investors whose raison d'être is the maximization of financial value, i.e., traditional VCs, that cannot be categorized as PhVCs. In the middle, investors blending social, financial, and environmental returns can be found. The key issue in this case is that financial value is a means towards the attainment of social impact, not an end: social value creation is the goal to which financial and environmental return is subject to.

Figure 1.3.1: The *Investment Plane*: a traditional perception of social and financial return on investment.
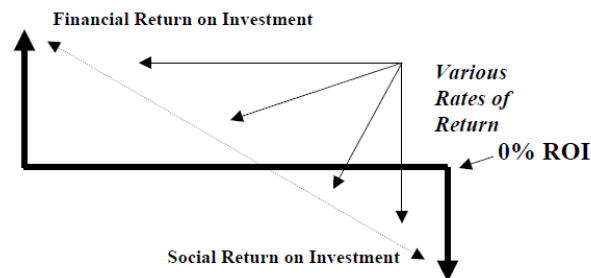
Source: Emerson (2000:14).

By combining the organizational form of SEs with the type of PhVCs, three distinct categories of PhVC's investment models can be here thus identified:

1. *Pure highly-engaged philanthropy*: within this category are those PhVCs that invest only in non-profits and, thus, seek a pure social return on their investment. The financial support might range from grant to equity, although this depends on the legal environment where PhVCs operate which is country specific. The organizational form of the PhVC fund is non-profit as is the case of the SEs they support and being subject to the non-distribution constraint, the economic value they create is reinvested in the fund itself;

2. *Social venture capital*: these PhVCs invest only in for-profit SEs and, thus, are for-profit themselves. They have two to three thresholds: the creation and maximization of social return is accompanied by financial and/or environmental returns. Also, not being subject to the non-distribution constraint, economic value, in the form of profits, is delivered back to investors in the fund;

3. *Hybrid philanthropy*: their portfolio includes both non-profit and for-profit SEs; their objective is, thus, mixed. On the one hand, the portion of the portfolio including non-profit has only the social threshold, while the portion including for-profit SEs will seek to blend social, financial, and/or environmental returns. The legal form that hybrid philanthropists undertake reflect the mixed composition of their portfolio: they can either be non-profit or for-profit and the decision will be based on the type of SEs that is mainly represented in the PhVCs' portfolio.

It is worth clarifying that, just like SEs are different from socially responsible businesses and purely profit-motivated firms operating in the social sector (Dees and Anderson, 2003), PhVCs are different from socially responsible investors and profit-motivated investors operating in the social sector. As socially responsible businesses achieve commercial success in ways that respect ethical values, people, communities, and the environment, socially responsible investors behave as prescribed by Irvine (1987) and their main objective is the creation of economic value. Also, purely profit-motivated firms operating in the social sector cannot be considered as SEs, entering the social sector in search for profits, such as green-tech companies. In the same way, those VCs entering in the social sector to increase profitability through diversification do not qualify as PhVCs. To this respect, one example is Kleiner Perkins, who is famous for their investments in companies like Amazon and Google, and who are boosting their involvement in green investments. In February 2006, the Prize for Green Innovation fund for $100 million was created specifically for green investing. In addition, the Nobel Prize winner Al Gore joined the firm in 2007 and the fund has also sponsored legislation to benefit investing in renewable energy sources. However, this new Kleiner Perkins fund cannot be categorized as a PhVC fund since, through the investment in green companies, its main objective is still the attainment of typical VC returns, ranging from 20 to 25 percent a year.

1.4. CONCLUSIONS

By reviewing the definition of PhVC proposed by Letts et al. (1997) as the application of the VC model to traditional forms of philanthropic financing, and transposing the VC definition to PhVC, a new and more precise definition of the term has been formulated. VC scholars have

proposed definitions of the VC model embedded into an asymmetric information theoretical framework. VCs are thus experts in mitigating the asymmetric information issues that characterize nascent ventures while seeking external financing. Elaborating on this, the PhVC investment model can be identified as an intermediated investment in SEs with a potential for a high social impact. However, since asymmetric information between funders and fundees exists, PhVCs provide capital and non-financial services to backed organizations with the aim of maximizing the social impact of the investment.

The second part of the chapter focused on the identification of PhVCs clusters considering the organizational form of backed SEs and the associated outcome focus. Three clusters were thereby coined: pre highly-engaged philanthropists, social VCs, and hybrid philanthropists. To this respect, following the discussion, the discriminate questions that a PhVCs must positively answer in order to fully qualify as PhVCs are the following:

Can the model presented in

1. Figure 1.2.3 be applied?

2. Is the primary objective of the PhVC fund the creation and maximization of social impact?

3. If the policy of the PhVC fund is to invest in for-profit SEs and two investment options (A and B) are available and A is expected to create a higher social value than the alternative option B, while expecting to perform worse in terms of economic indicators. Would the PhVC fund invest in company A despite the worse economic performance?

CHAPTER 2: **RESEARCH QUESTION AND PROPOSITIONS**

2.1. INTRODUCTION

The definition proposed by Letts et al. (1997) presents the PhVC investment model as the application of the practices characterizing the profit-seeking VC approach. Since the VC model has been presented as an investment approach that dues its competitive advantage to the ability to diminish asymmetric information between the VC investor and the investee firm, PhVC are defined as specialized investment firms that deal with the existence of asymmetric information while backing SEs.

The aim of this chapter is twofold. First, to formulate the research question of the dissertation. Second, the analysis of the research question will lead to presenting a set of propositions.

2.2. RESEARCH QUESTION

In order to formulate the research question to be investigated, the discussion around the definition of PhVC presented in chapter 1.2 is taken into account and analyzed. Based on Letts et al. (1997), the PhVC investment model consists of the application of the VC one as presented by Gompers and Lerner (2001) as well as Tyebjee and Bruno (1984) in the social sector. The assumption underlying that definition is that PhVC face the same theoretical issues as VCs and these are implicitly applied to the PhVC process as well, making each phase of the VC and PhVC investment models the same.

For what concerns VC, scholars have argued that the most important issue characterizing VC's activity is the significant level of information asymmetries between principal, i.e., the VCs, and agent, i.e., the entrepreneur (Amit et al., 1998; MacIntosh, 1994; Amit, Glosten, and Muller, 1993; Sahlman, 1990) as "*the entrepreneur's ability to combine tangible and intangible assets in news ways and to deploy them to meet customer needs in a manner that could not be easily imitates […] may be known to the entrepreneur, but unknown to the VCs* (Amit, Glosten, and Muller, 1990: 1233).

Building on a formal model of VC investment activity, Amit et al. (1998) show that VCs are principals who become skilled at selecting good projects in environments with hidden

information and are good at monitoring and advising agents who might otherwise be vulnerable to moral hazard problems. Thanks to their abilities in reducing informational asymmetries, VCs can solve the problems related to appropriability and reliability of the information provided by the venture in markets with imperfect information. This enables them to have a competitive advantage and, thus, to obtain superior returns.

More particularly, asymmetric information arises from the separation of ownership and control as prescribed by Jensen and Meckling (1976). This can take the form of "hidden information" or "hidden action." In the first case, "hidden information" leads to adverse selection and typically takes place before the investments is realized. In this case, the agent/entrepreneur tends to have better knowledge about the venture being good or bad than does the principal/VCs that finances it. In order to increase the probability of obtaining VC financing, the agent/entrepreneur might be motivated to misrepresent the likelihood of success of the venture. Because of the principal/VCs' bounded rationality, they might not be able to discern the quality of a company before the investment takes place. As a result, low quality entrepreneurial projects dominate the market and the market "selects" adversely, preventing potentially good-quality entrepreneurial projects from being funded (Chan, 1983; Yuk, 1983).

In the case of "hidden action," the VC investor might not be able to observe whether the entrepreneur is working hard to help the company grow or whether he is planning to "take the money and run," leading to opportunistic behaviour, i.e., moral hazard which agency theory is based on (Jensen and Meckling, 1976). Agency theory suggests that the greater the information advantage possessed by inside members, the greater the danger that they pursue self-interested outcomes which the principal will fail to detect. Furthermore, the greater the conflict, the greater the incentive to act opportunistically. This leads VCs in setting up contractual provisions aimed at minimizing the probability of opportunistic behaviour and conflict of interest on the side of the entrepreneur.

In the case of social entrepreneurs, non-transparent or emerging formal markets like PhVC is, lead to adverse selection between the social entrepreneur and the PhVCs. As such, the need for funds might induce the social entrepreneur to misrepresent to the PhVCs the likelihood of social success of the SE. The same happens with traditional entrepreneurs. And as it happens with traditional VCs, PhVCs might not be able to estimate the effective social impact of the applying SEs.

Concerning the post-investment phase, recently Van Slyke and Newman (2006) present the non-financial services provided by PhVCs as stewardship behaviour rather than a mechanism to protect the investment. With its roots in sociology and psychology, stewardship theory (Davis, Schoorman, and Donaldson, 1997; Donaldson and Davis, 1991; Muth and

Donaldson, 1998; Fox and Hamilton, 1994) characterizes human beings as having higher-order needs for self-esteem, self-actualization, growth, achievement and affiliation. Stewardship theory is centred on service rather than on control and begins with the willingness to be accountable for some larger body than the self. It also suggests that managers make effective decisions to the extent that their interests are aligned with those of the firm. Effectiveness can be obtained through empowerment. This is in contrast to agency theory's characterization of human beings as opportunistic, inherently untrustworthy, and focused on a narrow pursuit of financial gains. As a result, while adverse selection issues can characterize the pre-investment phase of both VC and PhVC, moral hazard could be less powerful in explaining the PhVC investment behaviour.

Following the divergences both at a conceptual and operational level, the expectation arising from the discussion is that PhVCs should structure their investment model differently from VCs, meaning the latter cannot be the straight application of the former. Considering the environment is different, the output of the process is also different, and consequently, it could be the case that so is the process itself. The following research question is, thus, formulated:

Research Question: *How does the asymmetric information characterizing the venture capital investment model shape the philanthropic venture capital investment model?*

The aim of this research is thereby to investigate how asymmetric information shapes the PhVC investment model. Taking into account the key issue of the object of investment, the current research is interested in analyzing those phases of the investment model that involve the creation of a relationship between the fund and the investee company. If taking into account the Gompers and Lerner (2001) model as depicted in Figure 1.2.2, the discussion implies a focus on the *investing* and *harvesting* phases of the investment process as the *fundraising* phase sees the VCs and the LPs as players, not the SE. Figure 2.2.1 depicts the steps investigated in this piece of work.

Figure 2.2.1: Phases of the investment process under investigation.
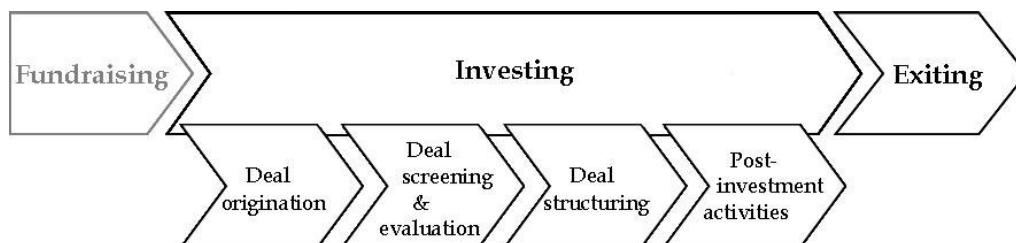
Source: Elaboration by the author.

In the following chapters a set of hypotheses on the investing and exiting phase of PhVC investment is presented, based on the practices adopted by VCs.

2.3. PROPOSITIONS: INVESTING

2.3.1. Deal Origination

Before the investment takes place, VCs focus their attention in avoiding the selection of *lemons*. Elaborating on information literature, Chan (1983) emphasizes the role of VCs in mitigating the adverse selection problem in the market for entrepreneurial capital and shows that adverse selection derives from the absence of any informed VCs: firms are priced at their average quality instead of their true value. However, the presence of informed VC investors alleviates this issue, increasing the informational efficiency of market and redistributing wealth from the owners of bad firms to those of good ones.

Considering that entrepreneurial actions are unobserved by VCs, Chan (1983) argues that the risk for adverse selection can be minimized through a search strategy of deals, which enables VCs to learn about the quality of the entrepreneurs and of their venture. Amit, Muller, and Cockburn (1999) consider the role of different mechanisms for matching entrepreneurs and VCs in mitigating adverse-selection problems: entrepreneurs may passively "shop around" or VCs may actively seek attractive investment opportunities. The same findings are obtained by earlier studies on VC by Tyebjee and Bruno (1984), which is survey based, as well as Sweeting (1991), which instead is a qualitative and case-study research.

Passively, VCs either receive unsolicited proposals from entrepreneurs or through a referral process. Based on observations made in the early to mid-1980s, Tyebjee and Bruno (1984) find that unsolicited proposals from the entrepreneur typically generate from cold calls and the usual response from VCs is to request a business plan. Referrals also originate from the VCs' business network made up of personal acquaintance, consultants, prior/existing investees (Sweeting, 1991). However, as shown by Chan (1983), passive methods of deal origination are more subject to adverse selection issues as, with VCs only passively receiving investment proposals, entrepreneurs are more likely to undertake projects offering low returns. Being aware of this, VCs have positive information costs and might not be willing to participate in the VC market, having the option of investing their funds in other low return projects. Also, passively received proposals might not get funding in case the VC does not have funds available for investment when the proposal is received.

On the other hand, proactive methods of deal origination help VCs minimize adverse selection. Proactively, Sweeting (1991) reports that the most widely used criteria by VCs are the search for new deals through their network of contacts or ventures held in the existing portfolio; origination through referrals from other VCs, while used, appears to be of lower importance. In such a way, VCs are able to receive good potential deals as they become more informed thanks to the role played by the referrer: at this stage VCs usually know much more about the quality of the source by which the deal is referred than about the quality of the referred deal itself. Most of the referrers are reluctant to recommend an entrepreneur to a VCs unless they are confident that the entrepreneur is a good candidate for VC. VCs are, thus, assuming that the quality of the source of the deal, which they know, can be a proxy for the quality of the deal, which is unknown.

However, while the early study by Tyebjee and Bruno (1984) concludes that proactive behaviour by VCs in seeking out deals was not a widely adopted means of deal origination, Sweeting (1991) shows that a decade after VCs appear to have become more proactive, with VCs mainly using referrals from ventures already held in the portfolio, or by contacting other entities, such as consultants, personal acquaintance, and participation to conferences. In addition, Steier and Greenwood (1995) report that social endorsement takes precedence over the technical merit of a business plan in attracting VC financing. It might be the case that the divergence in Tyebjee and Bruno (1984) and Sweeting (1991) reflects the fact that the former study was conducted at the early stages of the VC industry. This is confirmed by Wright and Robbie (1998) who remark that the shift towards more proactive behaviours implies for VCs both an increase of costs and greater technical as well as financial skills, which may not be possessed by certain segments of the VC market and which may not be present in a young field.

Table 2.3.1 and Table 2.3.2 summarize the sources, variables and ranking attributed by VCs to passive and proactive methods of deal origination respectively.

Table 2.3.1: Source, variable, and ranking of VC passive methods of deal origination.

Source	Variable	Ranking	
		Tyebjee and Bruno (1984)	*Sweeting (1991)*
Entrepreneur		1	1
Referrals	Business network	2	2

Source: Elaboration by the author.

Table 2.3.2: Source, variable, and ranking of VC proactive methods of deal origination.

Source	Variable	*Ranking* *Tyebjee and Bruno (1984)*
Referrals	Network of venture capitalists	-
	Ventures in the existing portfolio	-
	Proactive contact of other entities	1

Source: Elaboration by the author.

Transposing the above arguments to the PhVC field, given the high level of adverse selection that passive methods of deal origination involve, the expectation is that Sweeting (1991)'s findings in terms of frequency of use of proactive methods hold in PhVC, leading to Proposition 1:

Proposition 1: *The higher the perception of adverse selection, the higher the use of proactive methods of deal origination by philanthropic venture capitalists.*

2.3.2. *Deal Screening and Evaluation*

In the traditional principal-agent relationship, the principal cannot completely observe and verify the skills of the agent. This holds for VCs who might not able to distinguish, a priori, between a bad or good entrepreneur. As Sahlman (1990) presents, entrepreneurs face a temptation to deliberately overstate the performance of their venture. Although the failure rate of new ventures is high, entrepreneurs frequently over-project their venture's performance because VCs' investments, while discounted, are directly related to these projections. Since entrepreneurs are motivated to acquire as much funding as possible (both for the venture and as a positive signal to the market) and under the most favourable terms, the short-term reward of a large initial investment creates a temptation to manipulate information given to the VCs (Bowden, 1994). This leads to adverse selection in the sense discussed in chapter 1.3.1.

Jensen and Meckling (1976) explain that agency problems can be decreased if an optimal contract between the principal and the agent is determined. However, to formulate such an optimal contract, the approach advocates that the principal needs to conduct a pre-investment collection of information followed by a screening of the agent so that both agency and adverse selection problems can be decreased and a better contract can be negotiated.

Amit et al. (1993) point to the fact that the managerial track record of the entrepreneur and his or her familiarity with the product and the sector may provide some hints as to the future success of the venture. This is confirmed by Reid, Terry, and Smith (1997) who show that

VCs attempt to manage the adverse selection risks involved in their activity through the selection of the most profitable ventures among a large number of proposals through a two-stage evaluation due diligence. This includes an initial screening of the venture followed by a detailed evaluation of the pre-selected deal aiming at identifying signals to overcome the asymmetric information surrounding a deal (Busenitz, Fiet, and Moesel, 2005; Wright and Robbie, 1998). The entrepreneur "*must convincingly reveal the value of their venture to potential investors in order to obtain financial support* (Prasad, Bruton, and Vozikis, 2000: 168)." The more positive a venture's signals, the more likely it is that VCs can reduce the time and money invested in the due diligence process (Harvey and Lusch, 1995).

In the absence of perfect information, VCs need to look at various indicators to understand what future outcomes are likely to be. Previous studies on the VC decision making process (Zacharakis and Shepherd, 2005; MacMillan, Zemann, and SubbaNarasimha, 1987; MacMillan, Siegel, and Narasimha, 1985) show that adverse selection is limited through an extensive due diligence process focusing on five dimensions that are summarized in Table 2.3.3:

1. Human capital;

2. Activity of the organization;

3. External environment;

4. Assessment of the deal;

5. Potential.

Table 2.3.3: Dimensions and variables used by VCs to select deals.

Dimension	Variable	Ranking	
		Macmillan et al. (1985)	Kaplan and Stromberg (2001)
Human capital	Entrepreneur and management team	1	2
Activity of the organization	Product	2	-
	Business strategy	-	4
	Technology	-	7
	Customer adoption	-	5
External environment	Market growth	3	1
	Market size	4	1
	Market competition	5	6
Assessment of the deal	Deal terms	6	3
	Fit in the VCs portfolio	-	9
Potential	Potential expected financial return	7	8

Source: Elaboration by the author.

The focus on *human capital* involves an extensive evaluation of the agent that, by definition, causes adverse selection issues. Knowledge specificity creates a division of labour between entrepreneurs and VCs that can enhance the value of the venture. Entrepreneurs are alert to unexploited opportunities and have working knowledge about combining intangible and tangible resources to exploit these opportunities in a novel fashion and specialize in the day-to-day development of the new business activities (MacMillan, Kulow, and Khoylian, 1989). Biglaiser (1993) shows that in an environment characterized by adverse selection, even a middlemen can reduce the inefficiencies associated with it thanks to the experience they have accumulated. To this respect, Choo and Trotman (1991) explain that experience is a good proxy for expertise. However, as Gorman and Sahlman (1989) ascribe, due to a lack of an efficient replacement on the downside, market knowledge specificity can also be the cause of the failure of the venture when adverse selection is severe. Also, Stuart and Abetti (1990), MacMillan et al. (1985), as well as Smart (1999) suggest that VCs typically focus their attention on the personality and experience of the entrepreneur and the management team of the venture as key factors that contributes to the success of the venture. These findings are also consistent with the resource-based view, according to which resources that are valuable, costly to imitate, and non-substitutable become core competencies serve as a means to attain a competitive advantage.

Also, evidence that over time VCs have changed their behaviour while selecting new entrepreneurial projects is found. According to MacMillan et al. (1985), VCs ranked the entrepreneur and management as the most important variable in the screening phase, followed by product, market, deal terms, and expected financial return. In the study by Kaplan and Strömberg (2001) conducted almost fifteen years later, VCs ranked market size as the most important variable, followed by the entrepreneur, deal terms, business strategy, customer adoption, technology, potential expected financial return, and last, fit in the portfolio. Product is not mentioned in Kaplan and Strömberg (2001). The change in the ranking attributed to the entrepreneur as screening variable is a signal that, in an underdeveloped field like VC was in the early eighties, it is an internal factor to the venture, i.e., the entrepreneur, which determines whether the VCs will invest. Using MacMillan et al. (1985)'s words: "*There is no question that irrespective of the horse (product), horse race (market), or odds (financial criteria) it is the jockey (entrepreneur) who fundamentally determines whether the venture capitalist will place a bet at all* (MacMillan et al., 1985: 128)." Once the field becomes more mature, the focus moves from internal factor to an external one, namely the market.

However, MacMillan et al. (1985) and Kaplan and Strömberg (2001)'s results can be also explained taking into account Shepherd (1999) who argues that survey-based research has significant limitations on account of their retrospective nature as well as on the biases and

errors inherent in self-reporting. More specifically VCs would tend to overstate the least important criteria and understate those that are most important and Zacharakis and Meyer (1998) further argue that VCs are poor at introspecting about their own decision process.

At the *organizational activity* level, MacMillan et al. (1985) as well as Kaplan and Strömberg (2001) show that business strategy, product or service, technology, and customer adoption are considered of key importance by VCs in terms of portfolio screen. More specifically, Ireland and Hitt (2005) explain that leaders must enable their organizations to exploit the technology in the market. As such, Zacharakis and Shepherd (2005) show that the quality of the human capital dimension and the organizational activity level are complementary resources.

At the *external environment* level, MacMillan et al. (1985) identify market competition and market growth as key screening factors. Hrebiniak and Joyce (1985) further argues that the external resource dependence and other environmental influences, together with leadership's role in competitive positioning affect performance. If then combining human capital and organizational activity, while studies by Goslin and Barge (1996) suggest that entrepreneur and management team is more important than the characteristics of the product or of the market, MacMillan et al. (1987) identify only two criteria as consistent predictors of venture performance: the degree of initial competitive insulation and the degree of market acceptance of the product. The characteristics of the venture team do not emerge as predictors of performance. In explaining these results, MacMillan et al. (1987) consider all the venture characteristics simultaneously, bundling characteristics of the product and market with characteristics of the entrepreneurial team, and argue that the management team's characteristics are necessary but not sufficient for success. Rather, it is the market that ultimately determines the venture's survival. This is confirmed by Zacharakis and Shepherd (2005) who find that VCs place greater emphasis on the entrepreneur in environments in environments that have a greater number of competitors and where, thus, asymmetric information is more severe.

Kaplan and Strömberg (2001), Quindlen (2000), Rea (1989), and Timmons and Bygrave (1986) report that the *assessment of the deal* mainly takes into account variables like *deal terms* as well as *fit of the new investment in the VCs' portfolio*. On the one hand, given that VCs seek to maximize financial return, they will likely focus on the price of the deal as a mechanism to decrease agency and adverse selection issues: if the agent is willing to accept a lower valuation, this can be interpreted by the principal as a signal that the entrepreneur possesses additional information about the venture and that this reveals that the venture is a lemons. On the other

hand, thanks to the knowledge accumulated through the companies already in the portfolio, VCs are able to better understand the quality of a new potential entrant in the portfolio.

Last, MacMillan et al. (1985) suggest that the dimension *potential*, measured by financial indicator, e.g., required rate of return, is taken into account in the selection phase of VC investments.

Shifting the focus on PhVC, Austin et al. (2006) argue that differences in the markets and motivations for financial and human capital attached to social and commercial ventures imply distinct resource mobilization techniques for these different types of ventures. However, the results of this study indicate that the resource mobilization process of commercial and social entrepreneurs shows many similar patterns in terms of the assembly of managers. This finding leads to the expectation that in PhVCs like VCs the social entrepreneur is the key factor considered in the screening phase. However, since PhVCs invest in SEs funded by visionary, innovative, and change-maker social entrepreneurs, the expectation is that they behave as presented by MacMillan et al. (1985) rather than by Kaplan and Strömberg (2001). Furthermore, as social entrepreneurs are assumed to be the engines of social change, PhVCs invest in the person as a way to maximize social impact. This discussion leads to Proposition 2:

> **Proposition 2:** *The higher the perception of adverse selection by philanthropic venture capitalists, the higher the importance of the human capital in the screening phase.*

2.3.3. *Deal Structuring*

Once the venture has been evaluated as viable, the deal is closed only if the VCs and the entrepreneur are able to structure a mutually acceptable investment agreement (Tyebjee and Bruno, 1984). From the perspective of the VCs, the agreement serves to structure the financing in such a way that her own interest is protected against the opportunistic behaviour of the entrepreneur, while simultaneously enhancing the likelihood that the new venture will succeed. Large academic literature on traditional financial contracting typically refers to a situation in which an investor negotiates with an entrepreneur over the financing of a company. Much of the theoretical literature has been concerned with the staged process by which project information is revealed and venture financing is obtained. Questions related to this area have been explored in the firm formation and labour economics literature (Allen, 1985; Kihlstrom and Laffont, 1979).

In the VC area Cooper and Carleton (1979) focus on the project continuation decision and on debt optimality based on Jensen and Meckling (1976). Chan, Siegel, and Thakor (1990) present an agency model where two contracting parties have the skills to control production but one party's skill is unknown to both at contracting time. Interim information reveals this skill to both and is used to determine who controls second period production, justifying the bundling by VCs. Furthermore, Admati and Pfleidere (1994) determine that a constant fractional holding of equity sends an incentive compatible signal to the market regarding the quality of the venture. Sahlman (1991) conjectures that preferred stock may serve to shift more risk away from VCs to entrepreneurs, suggesting that greater risk might have the effect of "smoking out" lower quality ventures and giving the entrepreneur an incentive to perform well. Also, Trester (1998) finds that preferred equity allows the VCs to receive some positive return because without foreclosure the entrepreneur is not pushed into behaving opportunistically. However, as presented by Cooper and Carleton (1979), debt would seem to perform a similar function.

Fama and Jensen (1983a) offer a general rationale for exploring potential agency problems between social entrepreneurs and funds providers, suggesting that many of the agency-related costs associated with debt financing may be applied to SEs as well. Arguably, the most prominent difference between traditional and non-profit debt financing is that in the US the Internal Revenue Code prevents non-profits from structuring bond covenants in which cash is used to collateralize the debt. As a consequence, Wedig, Hassan, and Morrisey (1996) suggest that there is an asset substitution effect on cash: it may either be invested in risky projects or consumed by management and employees outright, making moral hazard issues even more severe. Also, Wedig, Sloan, Hassan, and Morrisey (1988) find indirect evidence that leverage decisions have impact on SEs bankruptcy due to the high cost of debt for SEs. Furthermore, convertible debt, which might be able to address potential moral hazard issues arising in the post-investment phase, is barred for non-profits due to the non-distribution constraint mentioned in chapter 1.3. John (2007) shows that in Europe, the most used instrument by PhVCs while financing SEs is grants. This finding suggests that informational asymmetries in the form of moral hazard are not perceived as relevant as in VC: donations do not involve alienable residual claims and all net cash flows are transferred to outputs (i.e., services provided by SEs) rather than to donors (i.e., funds providers). Fama and Jensen (1983a) thus argue that the absence of residual claims avoids the donor-residual claimant agency problem: residual nets cash flows are indeed allocated but there are no specific residual claimants with alienable property rights in net cash flows. Furthermore, no evidence of use of preferred stock vs. common stock is found, while Kingston and Bolton (2004) mention quasi-equity as a financial instrument developed to invest in those SEs which debt financing is "*inappropriate or too onerous.* […] *Quasi-equity shares the risk and reward of the investment between*

the investor and the investee by allowing the investor to take a share of future revenue streams (Cheng, 2008: 2)." Taking the discussion into account, Proposition 3 is thereby formulated:

Proposition 3: *The lower the perception of potential post-investment moral hazard by philanthropic venture capitalists, the higher the use of grant financing.*

The price of the deal, "*namely the equity relinquished to the investor* (Tyebjee and Bruno, 1984: 1051)" is the output of a valuation process conducted by the VCs. It aims at establishing a fair price to be paid contingent with the level of risk perceived by the investor. The process also identifies the required return on the investment as well as the estimate (future) cash flows and profit potential. Valuation in VC is characterized by a high level of asymmetric information as start-up companies often do not have historical accounting data. The company valuation performed by VCs takes into account the projections presented by the entrepreneur in the business plan and the accounting data that are available. However, as Sahlman (1990) explains, entrepreneurs may disclose only what they deem necessary in order to get the funding: they may deliberately or inadvertently withhold important information or give a biased view of important facts.

According to standard corporate finance theory, the return an investor seeks on an investment is a function of the non-diversifiable risk of the investment: the higher the risk, the higher the required return. In particular, the most used equity valuation method, i.e., the capital asset pricing model (Sharpe, 1964) states that the required return is positively related to the long-term risk free interest rate and to the difference between the expected return of the stock market and the risk free rate.

However, traditional company valuation methods, e.g., the discounted free cash flow (DCF) (Copeland and Weston, 1983) and the dividend discount model (DDM) (Brigham and Gordon, 1968) which the CAPM is embedded in, are rarely used for valuing potential VC investments. On the one hand, the DCF approach based on the forecast of future streams of cash flows might lead to high expected errors in the forecasts due to the highly uncertain environment of a start-up. On the other hand, the DDM might be difficult to apply as rarely early stage investments ever pay out (significant) dividends.

Indeed, most companies are cash constrained when requiring funds to VCs in order to finance future expansion. The expected increase in value of the venture is thus not reflected in a cash flow or dividend stream in the short term, but it is hoped that a significantly higher value will be placed on the company at the time of the exit of the VCs. Abel, Dixit, Eberly, and Pindyck (1996) show that options theory offers a more suitable approach for valuating high uncertain and fast-growing enterprises. The reasons are twofold. First, investing in such a

company creates the opportunity to invest further (if needed) at a later date and to benefit from its future growth. The investor is not forced to further investments in the same company but can wait until new information reveals its true fair value. The fact that a further investment is a right of the investor and not an obligation gives the investor a valuable option on the value of the company. Second, investments in company-specific knowledge may result in future cash flows that wither far exceed initial outlays or total loss, either of which is difficult to predict.

Manigart, Wright, Robbie, Desbrières, and De Waele (1997) as well as Wright and Robbie (1996) find that VC projects are typically valued by applying one or more valuation methods to the financing and accounting information typically contained in the business plan submitted to the VCs by the management of the investee. By surveying VCs in four European countries, Manigart et al. (1997) find that most importance is attached to price earnings multiples valuation methods, whilst least importance is attributed to asset value methods as the liquidation and replacement value of the assets is neither a theoretically correct valuation method, nor a method that has a large appeal for this type of investment. Also, valuation increases the contractual efficiency of accounting information.

Taking into account that valuation models used by profit-seeking VCs aim at estimating a fair price to be paid for retaining an equity stake in the backed venture, in PhVC investments two distinctions must be considered. First, in the case of investments in non-profit SEs, valuation procedures cannot be applied due to the non-distribution constraint. Second, in the case of for-profit SEs for which equity is indeed present, multiples, cash flow based or asset value based models might be hard to be used. Multiples method imply the presence of a comparable venture for which price is established by capital markets. However, "[...] *the culture of* [traditional capital markets] *is very different from the culture of social enterprises. There are few or no companies with a primarily ethical remit, and indeed corporate social responsibility issues are afforded a lower priority* [...] *The investors in these markets are primarily profit driven, and have little interest in ethical concerns* (Hartzell, 2007: 7)." Also, Hartzell (2007) points out that "*there are still many hurdles to overcome before an effective ethical exchange can be created* (Hartzell, 2007: 26)." At the same time, cash flow and asset value based valuation methods can be difficult to be applied as most of SEs are cash constrained with negative cash flows and their assets are mainly donations.

As such, for firms within rich information environments, accounting information appears to fulfil a predominantly confirmatory role, being it more useful in making economic decisions. On the contrary, firms operating in weak information environments lack the channels to effectively communicate valuation-relevant information by any means. A recent study by Van Slyke and Newman (2006) present PhVCs as stewards of the SEs they back rather than self-interest seeking actors. Commenting on a case study of a PhVCs developing strategies in

community redevelopment, Van Slyke and Newman (2006: 360) claim: "*[...] support services are an important component of* [the PhVCs'] *stewardship.*" Arising from Proposition 3 and the higher expected use of non-equity financing, it might be thereby conjectured that in PhVC it is more relevant stewardship-related-accounting information than valuation accounting information, meaning that PhVCs will tend to have specific need valuations rather than corporate valuation. As a result, Proposition 4 is presented:

> **Proposition 4:** *The higher the stewardship by philanthropic venture capitalists, the lower the use of valuation models.*

Arising from a the high level of stewardship, it might be also the case that PhVCs prefer less elaborated governance structures characterized by a lower use of bundling provisions than done in VC. As Williamson (1979) argues, governance mechanisms emerge to protect parties to economic exchanges from unforeseen events or opportunistic actions which can adversely affect their economic well being. Williamson (1979) hypothesizes a positive relationship between the risk of opportunistic behaviour and the use of elaborate governance structures. Barney, Busenitz, Fiet, and Moesel (1989) shows that in VC, the level of risk associated with a new venture can be affected by decisions made by managers in the new venture; if agents are tied financially to their venture, to some extent, they are reducing the agency risk that would otherwise be borne by the VCs. Also, since the knowledge held by the entrepreneur is specific to the individuals and a VCs is unlikely to locate another entrepreneur with the skills necessary to support the same opportunity, contractual provisions are set in such a way that it is more costly for the entrepreneur to leave and vesting is one of the strongest as it is a form of time-contingent compensation. According to vesting clauses, contracted payments of equity shares to an entrepreneur are often vested over time, or paid out only after the entrepreneur has remained with the firm for a specified time period. If the entrepreneur quits or is fired from the firm prematurely, unvested shares are not paid to the entrepreneur; however the entrepreneur keeps any shares already vested. Kaplan and Stromberg (2004) show that vesting is extensively used in VC contracts in association with the risks of general uncertainty, asymmetric information, project complexity, and potential hold-up between the VCs attributed to them in the screening phase (Kaplan and Strömberg, 2001; MacMillan et al., 1985).

However, if stewardship prevails over potential post-investment moral hazard issues in PhVC, then the notion of management prerogatives disappears as everyone involved in an organization is active towards bringing value to the organization itself. Stewardship is the willingness to hold power without using reward and punishment and directive authority to get

things done. This demands a choice for service with partnership and empowerment as basic governance strategies. This discussion thus leads to Proposition 5:

Proposition 5: *The lower the perception of moral hazard by philanthropic venture capitalists, the lower the use of entrepreneur's binding contractual provisions.*

Chemla, Habib, and Ljungqvist (2007) show that in a dynamic moral hazard setting, renegotiation clauses, namely anti-dilution protection, can ensure that the contract parties make efficient ex-ante investments in the venture by constraining renegotiation. Anti-dilution serves at offsetting the dilutive effect of the issue of cheaper shares. In the absence of this clause, renegotiation intended to achieve the necessary changes in the parties' stakes, may distort the parties' shares of the firm's payoff, thereby distorting their ex-ante investment. Also, Nöldeke and Schmidt (1995) consider that a contract granting the option to impose a specific trade at a fixed price can solve the hold-up problem arising when relation-specific investment makes a party vulnerable to opportunism on the part of the investment partner (Grossman and Hart, 1986). Pre-emptive rights allow existing shareholders to purchase a new offering of shares before any other investors or before the general public and maximize shareholder wealth as it offers the option of picking the least costly method for raising additional financing (Bhagat, 1983). On the other hand, management welfare maximization holds that management will use the passage of the amendment to maximize their own welfare, sometimes to the detriment of shareholders; hence, the amendment decreases shareholder wealth. On the other hand, liquidation preferences are set up in such a way that, in the event that the company is liquidated, the VCs will receive a certain amount of the proceeds before any other shareholder.

Drag-along and tag-along rights refer to a specific cluster of renegotiation clauses in which any holder intending to sell its shareholding have to right to require any other shareholder to sell their shares at the same time and price as the holder. This right enables the VC, which is typically the holder of the right, to deliver 100 percent of the firm to a third party acquirer and deny the parties the ability to increase their share of the payoff by threatening to hold out on a value-increasing trade sale. Tag along rights enable the holder to force any other shareholders to sale shares on a pro rata basis (and at the same price) as a selling shareholder. Thus, the holder denies the parties the ability to increase their share of the payoff by threatening to sell their stake to a trade buyer who would decrease the value of the firm, or by preceding the other parties in selling their stake to a trade buyer who will increase the value of the firm. Typically, tag-along rights are a form of put options, whereby a party can put his stake to a trade buyer or to the public market.

Following the discussion on PhVC that led to the formulation of the previous hypothesis, Proposition 6 is specified:

Proposition 6: *The lower the perception of moral hazard by philanthropic venture capitalists, the lower the use of renegotiation clauses.*

2.3.4. Post-Investment Activities

In an effort to explain why VCs implement post-investment activities as well as their typologies much of the work of VC scholars has been focused on agency theory. On the one hand, VCs actively monitor the progresses of the ventures they back in such a way that corrective activities can be implemented if signals of a bad performance are received; on the other hand, VCs also cooperate with these firms on a strategic and managerial level in order to contribute with the entrepreneur towards the maximization of the organization's performance. Monitoring and cooperative behaviours are here, thus, reviewed.

2.3.4.a. Monitoring

Barney et al. (1989) and Sapienza, Korsgaard, Goulet, and Hoogendam (2000) show that the higher the level of business and agency risk, the higher the level of formal monitoring by the VC. Formal monitoring is typically excercised by VCs through sitting on the board of the backed company and having voting power during formal meetings. This result is consistent with Eisenhardt (1989), Fama and Jensen (1983b), Jensen and Meckling (1976) based on which the board is a mechanism employed by outside owners to detect and correct agency problems. Lerner (1995) also finds that the VCs' representation on the boards is stronger when the need for oversight is greater, i.e., when the agency risk is perceived as severe.

MacMillan et al. (1989) asked VCs to rate their amount of involvement in various post-investment activities. They rated serving as a sounding board to management the highest. Rosenstein, Bruno, Bygrave, and Taylor (1993) used the same classification scheme for activities, but looked at the issue from the viewpoint of the entrepreneur. They asked CEOs of venture-capital backed firms to rate the usefulness of VC activities. Of 17 post-investment activities, serving as a sounding board was considered most useful.

Sapienza and Korsgaard (1996) used a slightly different scheme to classify VCs' activities: their importance and effectiveness are examined from the perspective of both the entrepreneur

and the VCs. The main finding is that serving as sounding board is rated as the most important activity throughout. This was also the activity where VCs were judged most effective, with a mean effectiveness score above eight on a 10 point scale.

Additionally, Gompers (1995) demonstrates that staging the total amount of committed capital is one of the most important formal monitoring tools used by VCs to minimize the present value of agency costs: staging of capital infusions allows venture capitalists to gather information and monitor the progress of firms, maintaining the option to periodically abandon projects. Sahlman (1990) argues that through staging VCs encourage entrepreneurs both to perform and to reveal accurate information: staged financing provides VCs with a real option which can be exercised or abandoned over time as the uncertainty about the firm is reduced. VCs are concerned that entrepreneurs' private benefits from certain investments or strategies may not be perfectly correlated with shareholders' return. Because monitoring is costly and cannot be performed continuously, the VCs will periodically check the project's status and preserve the option to abandon. The duration of funding and hence the intensity of monitoring should be negatively related to expected agency costs. Agency costs increase as the tangibility of assets declines, the share of growth options in firm value rises, and asset specificity grows.

The advantage of staged financing is pointed out in Neher (1999) who shows that as human capital is gradually transformed to physical capital, the venture increases the value of its collateral, hence makes outside financing more affordable. Staging should coincide with significant economic developments in the enterprise. Wang and Zhou (2004) also argue that with the flexibility of staged financing, many projects, which may otherwise be abandoned under upfront financing, become profitable and show that the efficiency of staged financing approaches the first best for highly promising firms. However, Wang and Zhou (2004) also show that staged financing is not always dominant over upfront financing in terms of social welfare. When the project does not look very promising, staged financing is inferior to upfront financing. The reason is that VCs may under invest in a project in the early stages when the project does not look very promising, which may cause a viable project to fail and result in a loss of social welfare.

Last, formal monitoring can be implemented by requiring investees to periodically inform investors about their performance. Reporting is thus a monitoring instrument of collecting information for investors through which information asymmetries can be decreased and corrective actions, if necessary, can be implemented (Eisenhardt, 1989; Jensen and Meckling, 1976).

Stewardship theory recognises a range of non-financial motives for managerial behaviour that include the need for achievement and recognition, the intrinsic satisfaction of successful

performance, respect for authority and the work ethic. These concepts are well supported in the organizational literature (Argyris, 1990; Herzberg, 1971; McClelland, 1961). Managers are viewed as interested in achieving high performance and capable of using a high level of discretion to act for the benefit of shareholders and the external environment, which in the case of PhVC is society (Donaldson and Davis, 1991). They are essentially good stewards of corporate assets, loyal to the company, pursuing a higher purpose than profit and managers are driven by a sense of duty toward the organization and society which induce them to engage also in course of actions that may be seen as personally unrewarding (Etzioni, 1961). The assumption that managers have a wide range of motives and behaviours beyond self-interest is the rationale for arguing that goal conflict may not be inherent in the separation of ownership from control. Using the stewardship model, insider dominated boards are favoured for their depth of knowledge, access to current operating information, technical expertise and commitment to the firm. Stewardship theory predicts that shareholders can expect to maximise their returns when the organization structure facilitates effective control by the management.

Based on this, formal monitoring, either through board seat, stage financing, or formal reports, is no end in itself, but in a teleological sense means of information procurement for decision-making of stewards, i.e., PhVCs, such that social entrepreneurs can better improve the organizational strategy towards his current social mission. Taking stewardship theory into account and contrasting VC results obtained from an agency theory perspective, PhVCs are indeed expected to formally monitoring the SEs they back through board seat, stage financing as well as reporting, for a sense of duty toward the organization and ultimately society. However, to fulfil this sense of duty PhVCs might implement monitoring activities on an informal level, which are expected to be more important than formal ones. Based on this discussion, the following proposition is thus formulated:

Proposition 7: *The higher the stewardship offered by philanthropic venture capitalists, the higher the importance of informal monitoring.*

2.3.4.b. Cooperation

The perspective presented so far assumes that VCs and entrepreneur have unequal power where a principle seeks control of an agent's behaviour (Cable and Shane, 1997). Jensen and Meckling (1976) argue that after selling a portion of the ownership in their companies entrepreneurs bear only a fraction of the direct costs of their actions. This may reduce managerial incentive to work toward long-term profit rather than short-term gain. VCs, thus,

need to implement value added activities that although being privately costly, benefit the company, increasing its value. However, scholars have argued that agency theory can be applied if there is an interest divergence between actors when decision making authority is delegated (Eisenhardt, 1989). As such, while agency theory can appear to be able in explaining the VCs-entrepreneur relationship in the pre-investment phase, after the VCs has decided to invest in the new venture, the VCs and entrepreneur's goals tend to become aligned as both focus on venture success. Thus, agency theory can be less capable of explaining the relationship between the two actors.

As a result, a bunch of VC scholars have tried to reframe VCs' value added by taking into account a procedural justice view(Sapienza and Korsgaard, 1996; Korsgaard, Schweiger, andSapienza, 1995), the prisoner-dilemma approach (Cable and Shane, 1997), or stewardship theory (Arthurs and Busenitz, 2003). Independently from the theoretical basis that might be chosen to explain why VCs add value, the common factor underlying them is that cooperation rather than competition between the VCs and the entrepreneur needs to be taken into account for the successful post-investment performance of the backed venture.

MacMillan et al. (1989) identify three specific levels in which VCs become cooperative with the entrepreneurs they back. VCs can be cooperative at the *strategic* level by serving as sounding board and by collaborating with the entrepreneur in the formulation of the venture's business strategy. Also, VCs collaborate on a *supportive* level, i.e., in monitoring financial and operating performance and, as Hellmann and Puri (2002), Kaplan and Strömberg (2001), Gorman and Sahlman (1989) as well as Timmons and Bygrave (1986) document, in playing a significant role for the professionalization of the firms, fostering the development of human resources in start-ups, both at the top and bottom levels of the organization. Last, VCs assist the backed companies on a *networking* level aiming at assisting them in finding alternative sources of funds (Gorman and Sahlman, 1989; MacMillan et al., 1989). To this respect, Wright and Lockett (2003), Brander, Amit, and Antweiler (2002), Lerner (1994a), Bygrave (1988) and Bygrave (1987) show that syndication in VC is a response to the need of sharing or accessing information in the selection and management of investments: involving other VCs provides a second, and third, and fourth option on the investment opportunity, which limits adverse selection problems. Also, Sorenson and Stuart (2001) argues that syndication is a powerful way to extend the geographical and industry investment scope of VC firms, creating a dense inter-firm network which allows for information dissemination across geographic and industry boundaries, thus decreasing adverse selection issues.

MacMillan et al. (1989) results are consistent with Gorman and Sahlman (1989) and Sapienza and Timmons (1989) and supported by a later study by Rosenstein et al. (1993) for

what concerns role identification, while they diverge in terms of role importance. On the one hand, while Rosenstein et al. (1993), MacMillan et al. (1989), and Sapienza and Timmons (1989) all find that the most important value-added activities provided by the VCs consist of strategic involvement, MacMillan et al. (1989) finds that supportive roles are more important than networking roles. However, MacMillan et al. (1989) is based on the VCs' own assessment of the extent of their involvement, while both Rosenstein et al. (1993) and Sapienza and Timmons (1989) base their analysis on a dyadic study of VCs-entrepreneurs perception of importance.

Table 2.3.4: Post-investment cooperative involvement in VC deals – Ranking.

	Ranking		
	Rosenstein et al. (1993)	Macmillan et al. (1989)	Sapienza and Timmons (1989)
Strategic roles	1	1	1
Supportive roles	2	3	2
Networking roles	3	2	3

Source: Elaboration by the author.

Empirically, by surveying a sample of European funds, John (2007) finds out that PhVCs stewards SEs offering them a wide range of services through a variety of delivery channels. Strategy consulting constitutes the most popular service provided to SEs, followed by support in strengthening board governance and financial management/accounting. John (2007) also reveals that PhVCs actively deliver their support through their own staff or board members, but given the diversity of skills required and the relatively small staff numbers found within PhVC funds, other channels for delivery are sought. Partnerships with professional service firms that offer pro-bono services to PhVCs are an attractive, long-term solution. John (2007) shows that PhVCs do offer SEs the access to their network, but he does not mention syndication practices. However, in a previous paper John (2006) identifies co-financing as important characteristics of PhVC funds.

By combining stewardship theory with the results obtained by VC scholars, the expectation is that if the argument by Van Slyke and Newman (2006) is valid, PhVCs should implement strategic, supportive, and networking roles. This leads to the following propositions:

Proposition 8: *The higher the stewardship offered by philanthropic venture capitalists, the higher the importance of strategic roles.*

Proposition 9: *The higher the stewardship offered by philanthropic venture capitalists, the higher the importance of supportive roles.*

Proposition 10: *The higher the stewardship offered by philanthropic venture capitalists, the higher the importance of networking roles.*

2.4. PROPOSITIONS: EXITING

For their *raison d'être*, VCs must turn illiquid stakes in private companies into realized returns. Typically, VCs invest in entrepreneurial firms for 5–10 years prior to an exit event (Sahlman, 1990) and the duration is interpreted as a signal of reduced informational asymmetries between the seller (in this case the VCs) and the buyer. Cumming and MacIntosh (2001) find a positive relationship between the degree of adverse selection and the duration of VCs' investment: the longer the investment period, the better VCs are able to mitigate adverse selection issues and the better the quality signal. No research investigating the duration of the PhVCs' engagement in the backed SEs exists. The expectation is that the positive relationship between the duration of the investment and the quality of the investment identified by VC scholars hold in PhVCs, which implies a negative relationship between the length of the investment period and the perception for adverse selection. The following proposition is thereby formulated:

Proposition 11: *The lower the perception of adverse selection by philanthropic venture capitalists, the longer the duration of the investment.*

Cochrane (2005) as well as Cumming and MacIntosh (2003) and Wright and Robbie (1998) identify the following exit methods adopted in VC investments: initial public offering (IPO), acquisition, buyback, and secondary sale.

Cumming and Johan (2008) argue that when VCs are better able to mitigate the information asymmetries and agency costs faced by new owners, they will be more likely to have a successful exit outcome. Sahlman (1990) and Gompers and Lerner (1999), amongst other scholars, recognize IPOs as the most successful exit route for successful entrepreneurial firms backed by VCs. Since IPOs involve a large number of diverse shareholders, many of which do not have time, inclination, or expertise to carry out due diligence on the quality of the firm going public, they are characterized by the highest level of information asymmetries. As well, there is the agency problem of running a publicly listed firm whereby managerial interests diverge from that of the firm's owners. Hence, only the very best firms that are able to overcome these problems of information asymmetries faced by new shareholders end up listing on a stock exchange. To this respect, VCs play a certification role supporting Lerner (1994b),

Megginson and Weiss (1991) as well as Barry, Muscarella, Peavy, and Vetsuypens (1990). Further, it is more expensive to go public than to exit via other vehicles due to the obligatory legal, financial, and other professional advisors required to initiate the process, the transaction costs of preparing a prospectus, and the underpricing of IPOs, not to mention the ongoing costs of reporting requirements for publicly listed firms (Ritter, 2003; Ritter, 1987).On the hand, the exit strategy characterized by the least degree of information asymmetries is a buyback, in which the entrepreneur and/or managers repurchase the shares held by the VCs (Cumming and MacIntosh, 2001). Buybacks are followed by acquisitions and secondary sales respectively. Cumming and MacIntosh (2001) also show that the shorter the duration of the investment, the more likely is a buyback. However, as stated in Cumming and MacIntosh (2003) buybacks are an inferior form of exit reserved for cases in which the investment is a "living dead" or "lifestyle" company that satisfies the entrepreneur's desire for profit but has virtually no home run potential. Although buybacks do not suffer from problems of informational asymmetry, they put a large strain on the firm's and/or entrepreneur's cash resources, and thus almost by definition will not involve companies with high valuations.

Table 2.4.1 summarizes VC exit strategies by their involved degree of adverse selection and use, where 1 indicates the lowest level of adverse selection or use, and 4 the maximum.

Table 2.4.1: Exit strategies in VC – Rank by level of adverse selection and use.

Exit strategy	Adverse selection (Rank)	Use (Rank)
Buyback	1	1
Acquisition	2	4
Secondary sale	3	3
IPO	4	2

Source: Elaboration by the author.

Hartzell (2007) argues that existing capital markets are unsuitable for SEs for two main reasons. First, the culture of these markets is very different from that of SEs. There are few or no companies with a primarily ethical remit and indeed corporate social responsibility issues are afforded a lower priority; also, investors are primarily profit driven and a listing on these markets will give existing social investors little comfort and may even undermine their confidence in the social nature of the company. Second, in many cases the purpose of listing for an entrepreneur or VCs to be able to realise the gains they have built up through their early stage investment. They would hope to achieve a significant profit on their initial investment through this offering, and this will be of far greater concern than the future shape and direction of the company.

At the same time, stock exchanges work as an intermediary between fund seekers and fund providers where seekers offer equity stakes which is traded on the market. The demand for and supply of equity in turn determines the price to be paid for it which then follows auction mechanisms. Arising from Proposition 3 is the expectation of PhVCs using grant financing rather than equity. By definition, a grant cannot be the object of an auction or cannot be traded on an existing formal stock exchange. Also, even in the case of PhVCs backing SEs using equity instruments, this equity cannot be efficiently traded on traditional capital markets: the lack of a consensus of social performance and risk measurement tools makes price determination harder, and thus, investment decisions as well. As a consequence, the actual non-existence of a social formal capital market makes IPOs not feasible exits for PhVCs' investments. In an effort to divest in such a way that adverse selection issues among present and future funders/owners of the SE are minimized, if IPOs are not feasible, then it could be the case that secondary sales rather than IPOs allow for that minimization (cfr. Table 2.4.1). Also, it could be the case that the lower degree of perceived adverse selection leads PhVCs to highly use this type of exit route from their investments which could be interpreted as a signal provided to other investors on the quality of the project being divested. This would differentiate PhVCs from VCs, which according to Table 2.4.1 are seldom used. The following proposition is thus formulated:

Proposition 12: *The lower the perception of adverse selection by philanthropic venture capitalists, the higher the use of secondary sale as exit route.*

2.5. CONCLUSIONS

Building on asymmetric information and stewardship theory in this chapter a set of proposition concerning the PhVC investment model have been formulated. Summarizing the discussion, while the pre-investment and exit phases have been presented within asymmetric information theory, the post-investment ones have been motivated around stewardship theory. Table 2.5.1 summarizes the propositions and the relationship between the issue they refer to and the theoretical framework in which they have been embedded in.

Table 2.5.1: Summary of propositions and relationship with theoretical issues.

Investment phase	Proposition	Issue	Theoretical framework	Expected relationship
Deal origination	1	Proactive methods	Adverse selection	+
Deal screening and evaluation	2	Human capital	Adverse selection	+
Deal structuring	3	Grant financing	Moral hazard	-
	4	Valuation	Stewardship	-
	5	Entrepreneur binding provisions	Moral hazard	+
	6	Renegotiation clauses	Moral hazard	+
Post-investment	9	Monitoring: informal monitoring	Stewardship	+
	10	Cooperation: strategic roles	Stewardship	+
	11	Cooperation: supportive roles	Stewardship	+
	12	Cooperation: networking roles	Stewardship	+
Exit	13	Holding period of investment	Adverse selection	-
	14	Secondary sale	Adverse selection	-

CHAPTER 3:   METHODOLOGY AND DATA

3.1.   INTRODUCTION

This chapter proposes the methodology used to address the propositions presented in the previous one to understand how asymmetric information theory can explain the investment process of PhVCs.

The chapter is organized as follows. First, the process followed to identify the target PhVCs population is described. Second, demographics of the target population in terms of legal structure, nationality, year of creation, and money managed by PhVCs are presented. Last, the methodologies used in this research are commented and methodological issues surrounding them are discussed.

3.2.   IDENTIFICATION OF THE POPULATION

The data collection process started with the definition of the geographical regions to be considered for the research. As such, Europe and the United States (US) were considered as they were characterized by the highest presence of PhVCs.

As a second step, in terms of sampling frame process, the existence of regional PhVC associations was checked. For what concerns Europe, the European Venture Philanthropy Association (EVPA) was identified. EVPA was established in 2004 and gathers individuals as well as organisations interested in or practising PhVC. EVPA has three membership categories (European Venture Philanthropy Association, 2009):

1. *Full membership*, open to organizations or individuals whose primary activity is PhVC;

2. *Associate membership*, open to organizations or individuals with an interest in PhVC, but for whom it is not their primary activity. Associate members include business schools, traditional foundations, as well as private equity and VC firms;

3. *Honorary membership,* offered at the discretion of the EVPA board to those individuals or organizations that the board believes can provide valuable insight and/or assistance in helping the EVPA achieve its mission and goals.

Annually, EVPA publishes a directory including a list of all members and a description of their activity. In this research, the 2008-09 directory was used (EVPA, 2008) and following the discussion on the characteristics required to be considered as PhVCs presented in chapter 1, only EVPA full members are considered.

As concerns the US, no counterpart to EVPA was found. However, the National Venture Capital Association (NVCA), which represents the US VC industry, lists a series of American PhVCs, defined as "*organizations that work in the venture philanthropy arena* (NVCA, 2008)" in a sub-section of its web pages (NVCA, 2008).

Third, following the procedure presented by Groves (2004), to make sure that the target population does have a convenient sampling frame that matches it such that undercoverage error and coverage bias, i.e., elements of the target population that are missing from the frame, are minimized, additional identification steps were conducted. Figure 3.2.1 depicts, on a general level, the process of correction for coverage error.

Figure 3.2.1: Coverage of the target population by a frame.
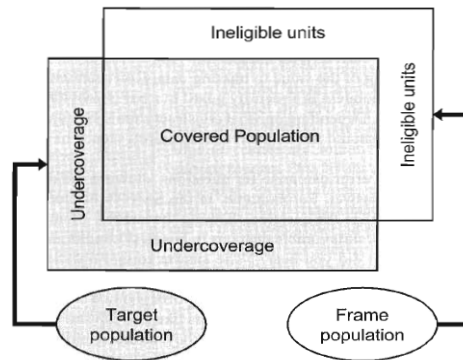
Source: Groves (2004: 54).

European PhVCs identified through EVPA were thereby integrated with a list of organizations reported by John (2006) while US PhVCs was integrated with a list of organizations provided by Morino Institute (2000). However, given that both John (2006) and Morino Institute (2000) present a list of organizations "*highly engaged in social enterprises*" including consultancy firms, a correction for ineligible units, i.e., elements that are not members of the target population but might be members of the frame population, was required. As a result, their list was compared with the information provided by the organization itself on its web pages to check whether it effectively fulfils the above mentioned requirements.

Furthermore, a screening of the members of the board of directors of the PhVCs funds identified by the above mentioned sources was done. Last, other sources including newspapers articles and web pages were consulted. The list of European and US PhVCs funds identified is presented in Appendix 1.

3.3. TARGET POPULATION

The process presented in the previous paragraph led to the identification of a population of 74 PhVCs, of which 38 in Europe and 36 in the US. A demographic description of the sampling frame population in terms of legal structure, location, year of creation of the fund, and Assets Under Management (AUM) is here thereby presented.

Table 3.3.1 classifies PhVCs according to their legal structure. Based on this, PhVCs are mainly foundations and public charities with the former legal structure being the mostly used.

Table 3.3.1: Population of PhVC funds by legal structure.

	Number	*% over population*
Foundation	29	39.2%
Public charity	28	37.8%
Donor-advised fund	4	5.4%
Trust	1	1.4%
Other	2	2.7%
Total non-profit	*64*	*86.5%*
For-profit	9	12.2%
N/A	1	1.4%
Total	*74*	*100.0%*

Generally speaking, exempt charitable organizations are classified as either *private foundation* or *public charity*. Organizations are considered public charities if they:

- Are churches, hospitals, qualified medical research organizations affiliated with hospitals, schools, colleges and universities; or

- Have an active program of fundraising and receive contributions from many sources, including the general public, governmental agencies, corporations, private foundations or other public charities; or

- Receive income from the conduct of activities in furtherance of the organization's exempt purposes; or

- Actively function in a supporting relationship to one or more existing public charities.

A public charity must get at least one third of its support from gifts, grants and fees, and not more than one third of its income from investments.

Foundations, in contrast, typically have a single major source of funding, usually gifts from one family or corporation; foundation's primary activity consists of making donations to other charitable organizations and to individuals (European Foundation Center, 2010).

Furthermore, 5.4 percent of the identified PhVC funds undertake the legal structure of a donor-advised fund. Typically, in a donor-advised fund, the donor contributes cash or assets to a public charity that sponsors and sets up the fund. The minimum contributions can be as small as $10,000 and the donor receives up to three tax benefits from making the donation: an immediate tax deduction, the avoidance of capital gains taxes if the gift is appreciated property, and a reduction of the gross estate by the amount of the excluded assets. The public charity does all the legal, philanthropic and accounting work, allowing the donor to focus on grant-making functions.

However, considering that the decision of undertaking one particular type of legal structure might be influenced by factors related to the legal environment where the fund operates, or to the nature of its donor/s rather than to the core activity of the entity, the legal structures mentioned so far have been grouped into a single one taking into account the non-distribution constraint (Hansmann, 1980). Two sub-categories of PhVCs were thereby created: *Non-profit* and *For-profit*. 63 PhVCs amounting to 85 percent of the sampling frame population result to into it, meaning that, independently of the particular legal structure PhVCs indeed undertake, profits are reinvested into the fund itself rather than re-distributed. 9 PhVCs, representing 12 percent of the population, were identified as for-profit. In just one case the identification of the legal form of the PhVC fund was not possible due to a lack of publicly available information.

Table 3.3.2 lists PhVCs by nationality which is established according to the location of the PhVCs' headquarters.

Table 3.3.2: Population of PhVC funds by nationality.

	Number	*% over population*
Continental Europe	20	27.0%
UK	15	20.3%
Eastern Europe	3	4.1%
Total Europe	*38*	*51.4%*
US	36	48.6%
Total	*74*	*100.0%*

Table 3.3.3 shows PhVCs by year of creation and reveals that the majority of funds are relatively young: 59 percent were created in the time period 2000-2008, providing empirical support to the claim that PhVCs started to emerge mainly after the burst of dot.com bubble.

Table 3.3.3: Population of PhVC funds by year of creation.

	Number	*% over population*
1980 - 1990	4	5.4%
1991 - 1999	26	35.1%
Total 1980 - 1999	*30*	*40.5%*
2000 - 2004	30	40.5%
2005 - 2008	14	18.9%
Total 2000 - 2008	*44*	*59.5%*
Total 1980-2008	*74*	*100.0%*

To grasp how much money is involved in the PhVC industry, a look at their *Assets Under Management* (AUM) is given. Based on this measure, 28 percent of PhVCs, the relative majority, manage up to 10 million US dollars. However, given the high number of missing data, no conclusions about this measure can be drawn.

Table 3.3.4: Population of PhVC funds by Assets Under Management (AUM).

AUM	*Number*	*% over population*
0 - 10 M $	21	28.4%
10.1 M - 100 M $	18	24.3%
More than 100 M $	5	6.8%
N/A	30	40.5%
Total	*74*	*100.0%*

3.4. METHODOLOGY

In order to decide which research methodology to use in this piece of work Gill and Johnson (1991) was taken into account while explaining that in an ongoing developing market, theory can be the outcome of research. Being the PhVC movement a recent phenomenon, a qualitative and inductive research approach was considered the most appropriate. The epistemological stance of interpretivism was considered suitable for this study, particularly considering the developing nature of the PhVC field and its relative newness both in Europe and in the US.

After the identification of the strategies adopted by VCs to manage asymmetric information and the formulation of a set of propositions concerning PhVC (cfr. chapter 2.3 and

2.4), the validity of the constructs used in the research was checked through a series of semi-structured interviews aiming at determining the PhVCs' understanding of the constructs and to adjust the latter taking into account peculiar variables considered in their investment model that reflect their specific value proposition (as opposed to that of VCs). Interviews were conducted with seven PhVCs through March, 2008 and May, 2008. Of the seven interviewed PhVCs, four were located in the US and three in Europe. The transcription of interviews is presented available upon request. It is worthy to remark that, given that some of the interviewed PhVCs preferred not to be recorded, notes were taken. Notes and registrations were then reordered and integrated with additional information and documents provided by PhVCs.

Results from the interviews were then taken into account for the development of a questionnaire which was sent to the entire population of PhVC funds. On the other hand, interviews were also analyzed through content analysis, a methodology that reliably develops measures to interpret textual material (Krippendorff, 2004) and it has long been used in VC studies (cfr, amongst others Smart, 1999; Zacharakis, Meyer, and DeCastro, 1999; Hisrich and Jankowicz, 1990; Ruhnka and Young, 1987;). Content analysis enables the researcher to include large amounts of textual information and systematically identify its properties by detecting the more important structures of its communication content. The content analysis software NVivo, version 8.0, facilitated the coding of variables within the focused dimensions of each phase of the PhVC investment process. Content analysis results will be presented in the next chapter and will be followed by results from the survey. The aggregation of data collected from these sources would ensure both triangulation, minimising bias from the author or from the methodology used, and construct validity (Saunders, Lewis, and Thornhill, 2007).

For what concerns the survey, which is presented in Appendix 3, the quality of the questions was established following Presser and Blair (1994), and more specifically having as expert professor W. Saris, one of the leading expert in the survey research field in Europe (Saris and Gallhofer, 2007; Van der Veld, Saris, and Gallhofer, 2000). Additionally, as Zacharakis and Meyer (1998) note, "*it is notoriously difficult to secure VCs participation in academic research* (Zacharakis and Meyer, 1998: 697)": the response rate to the survey was thus tried to be maximized by implementing the following strategies. First, a network of contacts was developed by:

- The interviews; and

- Participation to a workshop on *Social impact assessment* organized by EVPA (July, 2008) in Barcelona which was attended by 26 participants belonging to the European PhVC industry; and

- Participation to the EVPA annual conference held in September, 2008 in Frankfurt which was attended by 330 delegates from Europe, US and China;

- Contact with the EVPA Trustees;

- If not being able to have a contact through one of the previous sources, this was indentified via the web-page of the PhVCs.

Second, a personalized email outlining the purpose of the study, time commitment, and a cover letter was sent to the top management of the PhVC fund with instructions on how to reply. An example of email sent is presented in Appendix 2. Third, after the first email, overall three reminders were sent out by email to complete the web version of the survey. After the first reminder, non-respondents were contacted by phone to obtain a commitment to fill it. Thereafter, non-respondents were solicited by sending them the survey by fax. Last, a paper copy of the questionnaire was sent by mail to the PhVCs' headquarters.

3.5. CONTENT ANALYSIS

3.5.1. Sample

In order to identify the peculiar variables considered by PhVCs in their investment process as opposed to those used by VCs and identified by the VC literature, seven semi-structured interviews were conducted with European and US PhVCs, representing almost 10 percent of the target population. However, given that two of the interviewed PhVCs explicitly asked not to be recorded, overall five interviews could be content analyzed. In this section, a brief description of the interviewed sample is presented. Accordingly, 4 out of 5 content analyzed interviewees were located in the US, and the remaining one in the UK, with 2 created in 1998, 1 in 2001, 1 in 2005, and 1 in 2006. The average portfolio includes 73 percent of non-profit SEs and 27 percent of for-profit SEs, with two of the interviewees backing 100 percent of non-profit SEs, and the remaining three backing a mix of non-profit and for-profit SEs.

To this respect, based on the discussion presented in chapter 1.3, two of the interviewed PhVCs were categorized as pure highly-engaged philanthropists, and the remaining ones as hybrid philanthropists.

Table 3.5.1 list the mean and median number of portfolio organizations held by interviewed PhVCs in terms of stage of development of backed SEs and shows that they focus on supporting expansion SEs. However, in terms of SD, the number of expansion stage SEs is characterized by the highest SD, indicating the existence of a high dispersion of data, meaning

that the number of expansion SEs highly varies from fund to fund.

Table 3.5.1: Average composition of interviewed PhVCs.

	Mean	Median	SD
Early-stage	5.00	5.00	4.82
Expansion stage	10.83	9.00	9.77
Maturity stage	1.17	1.00	1.83

3.5.2. *Coding Scheme*

In content analysis, concept operationalization implies the construction of a *coding scheme* including a set of measures in a codebook. In it, dimensions that are used for a given measure must be exhaustive and mutually exclusive (Neuendorf, 2002). The coding scheme presented in Appendix 4 lists the categories and variables identified through the content analysis of pilot interviews; it also shows how references to each category and variable are calculated. To this respect, methodologically, first the number of references to each variable was quantified through the software Nvivo 8.0. Second, the procedure followed by Meyskens (2009) was used. As such, the number of references associated to each variable was used to determine the absolute number of references to the dimension they refer to, which was computed as sum of all the references of the variables making up the category. Third, this sum was used to estimate the use of each dimension in relative terms.

3.5.3. *Reliability*

The open coding of the interviews led to the development of variables in the categories of each of the phases of the investment process presented in Figure 2.2.1.

Additionally, as Neuendorf (2002) notes "given that a goal of content analysis is to identify and record relatively objective (or at least intersubjective) characteristics of messages, reliability is paramount. Without the establishment of reliability, content analysis measures are useless (Neuendorf, 2002: 141)", a set of measures have been thereby considered to assess the overall reliability of the dimensions and variables identified through content analysis, whose assumption is that explicitly and accepted concept definitions control assignment of content to particular categories by coders. Generally speaking, the notion of reliability consists of understanding if it is not possible trust the measures such that any analysis that uses that measure can be trusted: the measurement instruments applied to observations must be highly consistent over time, place, and circumstances. Reliability in content analysis is defined as agreement among coders about categorizing content (Krippendorff, 2004); specific issues in

content analysis reliability thus involve the definition of concepts and their operationalization in a content analysis code sheet which will needs to be evaluated by different coders. In such a way, dimensions control assignment of content such that content coding is determined by the concept definitions.

Three steps are required when addressing reliability issues in content analysis. First, dimensions and variables that are necessary to the study must be identified. Second, coders need to be trained to apply those dimensions and variables to the content of interest. Third, the process ends with through coders reliability tests that quantify how well the concept definitions have controlled the assignment of content to appropriate analytic categories.

After coding the five interviews led with PhVCs, two additional coders were asked to perform the coding task, with three overall coders including the author of the research conducting the analysis. Coders other than the author required a three hour training session to enable them to familiarize with the content being analyzed. As Riffe (2005) explains the aim of training sessions is not to pre-code material but to increase the coders' comfort level with the content being analyzed.

The inter-coder reliability was thus estimated using two indicators. First, the simplest coder reliability test, i.e., the overall percentage of inter-coder agreement, was considered. Based on Riffe (2005), the minimum standard acceptable level of agreement for reliability is 80 percent. The estimation of the inter-coder percentage of agreement was done using the software Nvivo 8.0 which, after the first inter-coding phase, gave a value of 99.9 percent.

Second, as simple agreement might over-inflate reliability because the chances of accidentally agreeing increase as the number of coders decreases, Cohen's (1960) kappa was included in the analysis. Cohen's (1960) kappa assumes nominal-level data and has a range from 0.00 (agreement at chance level) to 1.00 (perfect agreement). Accordingly, a result of 74 percent was obtained.

3.6. SURVEY

3.6.1. Response Rate

The survey was opened on October, 6th and closed on December, 14th. Overall, 40 complete surveys were received which corresponds to a 54 percent response rate. This has been calculated as follows:

$$Response\_rate = \frac{Number\_completed\_surveys}{Number\_sample\_units}$$

Based on the Council of American Research Organization (CASRO), on the American Association for Public Opinion Research (American Association for Public Opinion Research, 2008), and on Lynn, Beerten, Laih, and Martin (2001) surveys can be considered complete if the respondent is cooperative and at least 80 percent of the questions have been reliably and validly answered.

The calculation of the response rate employed the Simple Interactive Statistical Analysis (SISA) (SISA, 2010) tool, created by CASRO, AAPOR, and Lynn et al. (2001). Appendix 5 shows the relative output. The SISA response rate output first provides confidence intervals for four main response categories that make up the four main proportions of all sampled cases, providing guide on the expected value of the response rate in the case the design is repeated under a similar situation. According to the American Association for Public Opinion Research (2008) response categories are the followings:

1. Complete and partial responses;

2. Refusals;

3. Unknown responses, indicating the impossibility of determining the eligibility of respondents;

4. Responses for which the ineligibility could be determined.

SISA also provides the following rates:

- *Co-operation rate*, i.e., the number of completed interviews in the number of contacted eligible respondents. In the case of the ISER cooperation rate an estimate is considered of the number of contacted eligible persons in the unknown category, in the case of the AAPOR cooperation rate unknowns are not considered;

- *Contact rate* which measures the number of eligible persons which were contacted. ISER considers the number of contacted possibly eligible unknowns; AAPOR does not consider unknowns;

- *Refusal rate* which gives the proportion of eligible respondents who refused to give an interview. This is the least important rate.

Accordingly, a response rate of 54 percent was obtained. In order to establish whether this response rate can be considered as acceptable, a comparison with VC studies conducted using survey methodology is run. Table 3.6.1 lists the response rate obtained in VC studies cited in this piece of work and used, amongst others, as a reference for the identification of the variables proposed in the survey. If compared with these studies, the result obtained in this research is in line with the top response rate of VC studies, which range from 68 percent

(MacMillan et al., 1985), 58percent (Wright and Robbie, 1996), as well as (Amit et al., 1998). The main limitation indeed is not the response rate itself, rather is the number of responses, which will prevent the use of regression analysis or other statistical methodologies such as factor analysis.

Table 3.6.1: Summary of VC survey-based studies cited in this research.

Authors	Title/Journal	Year	Objective	Number of sampling frame units	Location of surveyed VCs	Reponse rate
Sapienza, H., and Timmons, J.A.	The Roles of Venture Capitalists in New Ventures: What Determines Their Importance? Academy of Management.	1989	Understanding how much and when VCs' involvement is most useful.	51 VCs and entrepreneur dyads	United States - East Coast	85%
Amit, R., Brander, J., Zott, C.	Why Do Venture Capital Firms Exist? Theory and Canadian Evidence. *Journal of Business Venturing*, 13 (6), 441-446	1998	VCs emerge as they develop specialized abilities in selecting and monitoring entrepreneurial projects.	Over 100	Canada	Between 56% and 74%
MacMillan, I.C., Siebel, R., and Narasimha, P.N.S.	Criteria Used by Venture Capitalists to Evaluate New Venture Proposals. *Journal of Business Venturing*, 1 (1), 119-128.	1985	Identification of the most important criteria used by VCs while funding new ventures.	150	United States	68%
Wright, M., and Robbie, K.	Venture Capitalists and Unquoted Equity Investment Appraisal. *Accounting and Business Research*, 26 (2), 153-168.	1996	Valuation and assessment of potential investments.	114	UK	58%
Scarlata, M.R.	*Inside the Philanthropic Venture Capital Investment Model: An Exploratory Comparative Study*	*2010*	*PhVCs' investment process.*	*74*	*United States and Europe*	*54%*
Gorman, M. and Sahlman, W.A.	What do venture capital do?. *Journal of Business Venturing*, 4 (4), 231-248.	1989	Relationship between VCs and their portfolio companies.	100	United States	49%
Manigart, S., Lockett, A., Meuleman, M., Wright, M., *et al*.	Venture capitalists' decision to syndicate. *Entrepreneurship: Theory and Practice*, 30 (2), 131-153.	2006	Motives on syndication in Continental Europe.	719	Europe	44%

Authors	Title	Year	Objective	Number of sampling frame units	Location of surveyed VCs	Reponse rate
Manigart, S., Wright, M., and Robbie, K.	Venture capitalists' appraisal of investment projects: an empirical European study. *Entrepreneurship: Theory and Practice,* 21 (4), 29-43.	1997	Valuation process used by European VCs.	UK = 144 F = 33 HL = 58 BE = 28 Average = 66	Europe	UK = 58% F = 24% HL = 41% BE = 50% Average = 43%
Sapienza, H.J., Manigart, S., Vermeir, W.	Venture capitalist governance and value added in four countries. *Journal of Business Venturing*, 11 (6), 439-469.	1996	Governance effort expended by VCs and the roles by which they add value to their portfolio companies.	UK = 177 F = 172 NL = 93 Average = 147		UK = 43% F = 25% NL = 40% Average = 36%
Elango, B., Fried, V.H., Hisrich, R.D., Polonchek, A.	How Venture Capital Firms Differ. *Journal of Business Venturing,* 10(2), 157-179.	1995	Differences between VCs in terms of venture stage of interest, amount of assistance provided by the VC, VC firm size, and geographic region.	491	United States	30%
Rosenstein, J., Bruno, A., Bygrave, W., and Taylor, N.	The CEO, Venture Capitalists, and the Board. *Journal of Business Venturing,* 8(2), 99.	1993	Understanding the VCs' involvement in the board of the ventures they back.	836	United States	26%
Tyebjee, T. T. and Bruno, A. V.	A model of venture capitalist investment activity. *Management Science*, 30 (9), 1051-1066.	1984	Exploratory study on deal origination and deal screening phases.	156	United States	26%
Fried, V., Bruton, G., and Hisrich, R.	Strategy and the Board of Directors in Venture Capital-Backed Firms. Journal of Business Venturing, 13(6), 493.	1998	Active involvement of VCs in boards of directors and strategy formulation.	383	United States	18%
MacMillan, I.C., Kulow, D.M., and Khoylian, R.	Venture capitalists' involvement in their investments: extent and performance. *Journal of Business Venturing,* 4 (1), 27-47.	1989	Degree of VCs' involvement in backed ventures.	350	United States	18%

3.6.2. Respondent Sample

To analyze the respondent sample, first the profile of the person that materially responded to the survey was analyzed. Figure 3.6.1 depicts the percentage of respondents by professional profile within the PhVC fund. As such, responses were mainly received from the CEO or the investment manager of the PhVC fund. The *Other* category includes positions like investment analyst, development manager and assistant to the PhVC fund's CEO.

Figure 3.6.1: Profile of respondents.
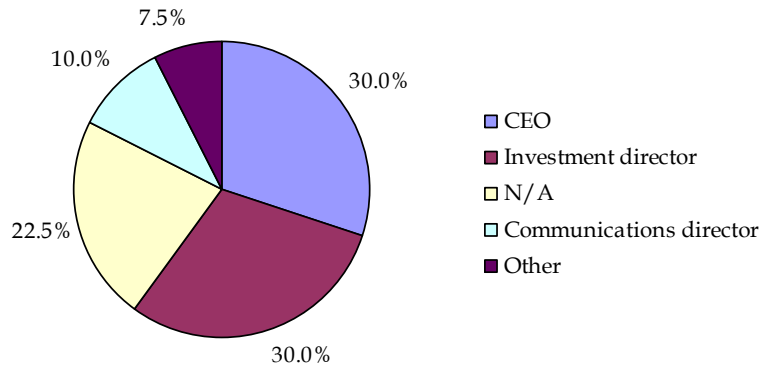
Second, respondent PhVCs were classified based on the legal structure. Results are reported in Table 3.6.2.

Table 3.6.2: Number of respondent PhVC funds by legal structure.

	Population		Sample		% over respondent sample	Response rate within category
	Number	%	Number	% over population		
Foundation	29	39.2%	17	23.0%	42.5%	58.6%
Public charity	28	37.8%	9	12.2%	22.5%	32.1%
Donor-advised fund	4	5.4%	4	5.4%	10.0%	100.0%
Trust	1	1.4%	1	1.4%	2.5%	100.0%
Other	2	2.7%	2	2.7%	5.0%	100.0%
Total non-profit	*64*	*86.5%*	*33*	*44.6%*	*82.5%*	*51.6%*
For-profit	9	12.2%	7	9.5%	17.5%	77.8%
N/A	1	1.4%	-	-	-	-
Total	*74*	*100.0%*	*40*	*54.1%*	*100.0%*	*54.1%*

Accordingly, 42.5 percent of respondent PhVCs are foundations while 20 percent are public charities. With respect to the population, 58.6 percent of PhVCs undertaking the

foundation form replied to the survey, while 32 percent of those being public charities. All donor advised funds, trusts, and funds falling into the "other" category replied to the survey.

As done in chapter 3.2, the previously mentioned legal structures are now grouped into the single *Non-profit* one, reflecting the *non-distribution constraint* (Hansmann, 1980). 82.5 percent of respondent PhVCs fall within this category, equivalent to a 52 percent response rate over the *Non-profit* population. Among the for-profit category, 17.5 percent of respondents (78 percent of for-profit population PhVCs) participated to the survey. The same pattern was found for what concerns the population (cfr. Table 3.3.1).

Next, respondents were classified according to their nationality. 55 percent of the sample belongs to Europe vs. 45 percent to the US. Within Europe, 32.5 percent of PhVCs are from Continental Europe, 20 percent from UK, and 2.5 percent from Eastern Europe respectively. With respect to the population the percentage of respondents amount to 65 percent with respect to those funds located in Continental Europe responded, 33 percent of those located in Eastern Europe, 53 percent of those in UK, and 50 percent of those in the US. These results show that respondents follow the same pattern of the population (cfr. Table 3.3.2).

Table 3.6.3 presents the year of creation of respondent PhVC funds.

Table 3.6.3: Number of respondent PhVC funds by year of creation.

	Population		*Sample*		*% over respondent sample*	*Response rate within category*
	Number	*%*	*Number*	*% over population*		
1980 - 1990	2	2.7%	2	2.7%	5.0%	100.0%
1991 - 1999	26	35.1%	10	13.5%	25.0%	38.5%
Total 1980 - 1999	*28*	*37.8%*	*12*	*16.2%*	*30.0%*	*42.9%*
2000 - 2004	31	41.9%	17	23.0%	42.5%	54.8%
2005 - 2008	11	14.9%	11	14.9%	27.5%	100.0%
Total 2000 - 2008	*42*	*56.8%*	*28*	*37.8%*	*70.0%*	*66.7%*
N/A	4	5.4%		0.0%	0.0%	0.0%
Total	*74*	*100.0%*	*40*	*54.1%*	*100.0%*	*54.1%*

Table 3.6.4 lists respondents by AUM, while Table 3.6.5 reports PhVCs by AUM corrected for size. Concerning Table 2.6.4, the same range categories used for describing the population are used here. Due to the high number of missing data about the AUM of the population, the column labelled as *% over population* is not presented. Accordingly, half of respondents manage assets up to 10 million US dollars. Overall, 32 funds (91 percent of respondents, excluding missing AUMs) fall into the category of AUM up to 100 million US dollars. Among the

remaining funds (9 percent of respondents), only 3 PhVCs manage funds of more than 100 million US dollars.

Table 3.6.4: Number of respondent PhVC funds by AUM.

AUM	Population		Sample		% over sample
	Number	%	Number	%	
0 – 10 M $	21	28.4%	20	50.0%	50.0%
10.1 M - 100 M $	18	24.3%	12	30.0%	30.0%
More than 100M $	5	6.8%	3	7.5%	7.5%
N/A	30	40.5%	5	12.5%	12.5%
Total	74	100.0%	40	100.0%	100.0%

Table 3.6.5: Number of respondent PhVC funds by AUM corrected for size.

AUM Corrected for size	# of respondents	% over sample
0 - 100 K $	9	22.5%
100.01K - 500K $	8	20.0%
500.01K - 1M $	8	20.0%
1.01M - 10M $	9	22.5%
More than 10M $	1	2.5%
N/A	5	12.5%
Total	40	100.0%

Figure 3.6.2 depicts PhVCs taking into account the legal structure and their AUM. The two PhVCs with more than $10 billions, considered as extreme outliers, are not included in the analysis. Based on Figure 3.6.2 the following observations can be drawn. First, that PhVCs being either foundations or public charities have similar median corrected AUM ($683,333 for foundations vs. $465,909 for public charities) with for-profit PhVCs managing the highest amount of money ($1,550,000). Donor-advised funds present the highest dispersion of AUM, ranging this from a minimum of $1,000 to a maximum of $5,000,000. These also present the lowest median corrected AUM, i.e., $150,000.

Figure 3.6.2: AUM corrected for size by legal structure.
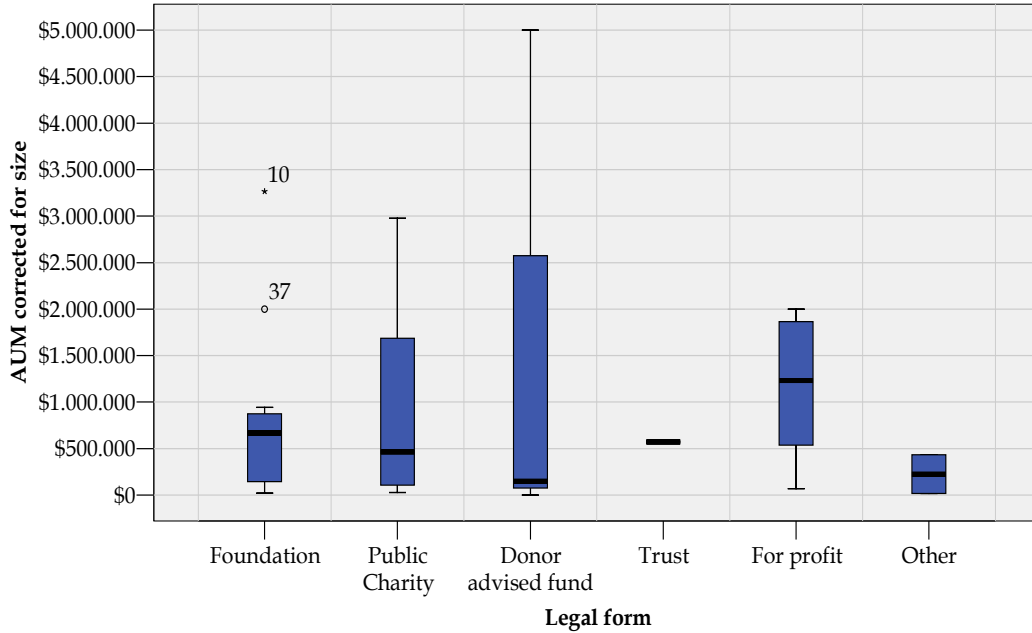
3.6.3. *Selection Bias*

In survey sampling, bias refers to the tendency of a sample statistic to systematically over- or under-estimate a parameter characterizing the population. Following the survey inference process, statistics computed on respondents are used to draw inferences about the characteristics of the population. Figure 3.6.3 depicts, in ovals, the sources of bias arising during the representational process of a survey, which are:

1. Coverage error;
2. Sampling error;
3. Non-response error;

The first source of bias was discussed in details in chapter 3.2. Here, a discussion concerning sampling error and non-response error is presented.

Figure 3.6.3: Representational process of a survey.
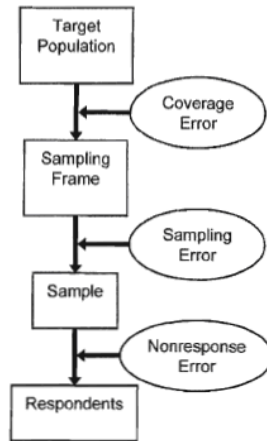
3.6.4. *Sampling Error*

Sampling error happens when not all persons in the sampling frame are measured. Two components of sampling error exist: sampling bias and sampling variance. Sampling bias arises when some members of the sampling frame are given no chance (or reduced chance) of selection. In such a design, every possible set of selections exclude them systematically (Groves, 2004). On the other hand, sampling variance arises because, given the design for the sample, by chance many different sets of frame elements could be drawn (Groves, 2004).

In this research, the sampling frame population coincides with the sample. As a consequence, rather than being present a sampling error, the potential presence of coverage error dominates.

3.6.5. *Non-Response Error*

Non-response error arises when the values of statistics computed based only on respondent data differ from those based on the entire sample data (Groves, 2004). Miller and Smith (1983) report that using information only from those that choose to respond can introduce error as data gathered from self-selected respondents may not represent the opinions of the entire sample or population.

By conducting content analysis of brief articles published in the *Journal of Extension* in the period 1995-1999, Lindner and Wingenbach (2002) find that non-response error is a threat to external validity in 82 percent of the cases. Further, they also find that in 80 percent of the

articles, no attempts to control for non-response is mentioned. In this case, findings can only be generalized to respondents.

Radhakrishna and Doamekpor (2008), Lindner, Murphy, and Briers (2001), as well as Miller and Smith (1983) suggest to comparing early, late, and non-respondents. In case no significant statistical evidence of differences among these is found, then results can be generalized to the population. Figure 3.6.4 depicts the comparison and generalization based on early, late, and non-respondents.

Figure 3.6.4: Logic of comparing early, late, and non-respondents.
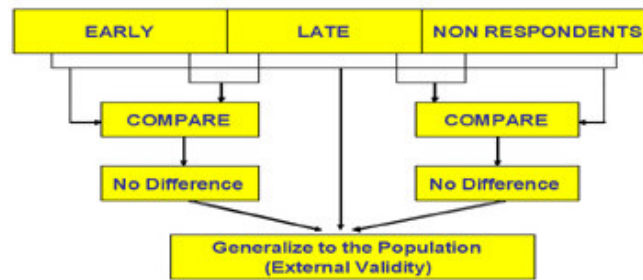
Source: Radhakrishna and Doamekpor (2008).

In order to establish whether significant differences exist, two levels of analysis are taken into account. The first level investigates whether a significant difference is found between respondents and non respondents. If this is the case, the second level of analysis is performed which is based on categorizing respondents in early and late respondents, and in comparing these two categories with non-respondents to check whether the latter behaves more like early or late respondents.

As a result, a test for independence is conducted between *Type of respondent*, i.e., respondents and non-respondents with the three variables for which the distribution of the entire population is known. These are *Legal structure*, *Nationality*, and *Year of creation* of the PhVC fund.

For what concerns the variables *Legal structure* and *Nationality*, the Pearson chi-square test for independence was conducted, given both variables are nominal. However, one of its assumptions is that the contingency table cells which the test is based on must have a minimum expected count of 5. In the case of both *Legal structure* and *Nationality*, 8 (66.7 percent) and 2 (25.0 percent) cells respectively did not fulfil this assumption. The following strategy was thus followed. In terms of *Legal structure,* PhVC funds were categorized taking into account the non-distribution constraint, and accordingly divided in non-profit and for-profit: the variable *Organizational form of PhVCs* was thus created. This strategy was also followed to solve for the

one unit of missing data characterizing the distribution of *Legal structure* (cfr. Table 3.3.1): by using secondary sources, it was possible to identify it as non-profit, while it was not possible to discern its specific legal form. Concerning the variable *Nationality*, PhVC funds were categorized based on the region where they are located, i.e., Europe and the US: the variable *Location of PhVCs* was thereby built.

The Fisher exact test, which is suitable for 2x2 crosstables like those considered in this test, was then considered and its results corroborated by the Pearson's contingency coefficient. Results reported in Table 3.6.6 fail to reject the hypothesis of independence between the rows of legal structure in the form of *Organizational form of PhVCs* and *Location of PhVCs* and the column *Type of respondent*.

Table 3.6.6: Relationship of the organizational form of PhVCs with location and type of respondent - Fisher exact test and Pearson's contingency coefficient.

	Value of coefficient		*Approx. Sig.*	
	Fisher exact test	Pearson's contingency coefficient	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient
Organizational form of PhVCs	-	0.174	0.121	0.128
Location of PhVCs	-	0.079	0.327	0.496

For what concerns the variable *Year of creation*, the procedure proposed by Morgan (2004: 96) was followed. According to this, with a dependent ordinal variable (in this case, *Year of creation*) and one independent variable (in this case, *Type of respondent*) characterized by 2-levels or categories, the non-parametric Mann-Whitney U test needs to be used. Table 3.6.7 indicates that the null hypothesis of equality is failed to be rejected.

Table 3.6.7: Difference between the PhVCs' year of creation and the type of respondent - Mann-Whitney U test.

	Type of respondent
PhVCs' year of creation	505.500

Following the above mentioned strategy to test for non-response error and considering that no statistical significant dependence of being a respondent/non-respondent and the variables *Location of PhVCs* and *Year of creation* is found, this allows to conclude that non-respondents are not statistically significant different from respondents.

3.7. CONCLUSIONS

This chapter has presented the methodology used in this piece of work to address the research question. Through a series of interviews led with European and American PhVCs a survey was developed and addressed to the entire population of PhVCs active in the two regions. Content analysis of the interviewed added richness and consistency to the development of the survey and to the subsequent analysis.

Concerning the survey, if controlling for non-response error, the major source of selection bias in this research, results show that respondents are not significantly different from non-respondents, allowing for a generalization of the results.

CHAPTER 4: INTERVIEWS RESULTS

4.1. INTRODUCTION

This chapter presents the results obtained from the five in-depth interviews led with European and US PhVCs. Interviews were analyzed through content analysis, a methodology used in social sciences to study the content of communication.

The open coding of the interviews led to the development of a set of variables in the dimensions characterizing each phase of the PhVCs investment process; these, together with the use by PhVCs based on the number of references made to each variable, are here presented.

The structure of the chapter is as follows. First, an overview of the sample of interviews that were content analyzed and the coding scheme on the operationalized dimensions and variables is presented. Second, results are analyzed based on the perspective presented in chapter 2.3 and 2.4. Last, conclusions are drawn.

4.2. INVESTMENT STRATEGY OF INTERVIEWED PHILANTHROPIC VENTURE CAPTIALISTS

The content analysis of the five interviews led to the identification of the investment strategy dimensions and variables reported in Table 4.2.1. Based on these, the highest emphasis is placed on the dimension *SEs' stage of development* which accounts for 26.5 percent of the discussion. In terms of variables, expansion stage SEs were the most mentioned, which confirms the fact that PhVCs fulfilment of their value proposition is pursued through backing SEs that are ready to grow and, thus, ready to expand their social activity and maximize impact.

Also, both dimensions *SEs' organizational form* and *Sector focus* received 23.5 percent of all references. Within the dimension SE's organizational form PhVCs mostly mentioned non-profits, whereas in terms of sector SEs operating in the educational field either working towards

improving the current state of the world of public schools or aiming at improving students achievement. Only one PhVCs claimed not to have a specific sector investment focus.

The dimension *Geographic focus* accounted for 20.6 percent of references; of these, the variable *In the PhVCs' country* received 57.1 percent of the references, while the remaining dimensions, overall, were only marginal.

Table 4.2.1: Investment strategy category and variables.

Dimension	Variable	% of references	
SE's stage of development		*26.5%*	
	Expansion stage		55.6%
	Maturity stage		33.3%
	Early stage		11.1%
SE's organizational form		*23.5%*	
	Non-profit		62.5%
	For-profit		42.5%
Sector focus		*23.5%*	
	Education	25.0%	
	Health	12.5%	
	Energy		12.5%
	Food		12.5%
	Housing		12.5%
	No sector focus		12.5%
Geographic focus		*20.6%*	
	In the PhVCs' country		57.1%
	In the PhVCs' continent		14.3%
	Africa		14.3%
	Asia		14.3%

Note: *% of references* is calculated based on the absolute number of references to each variable and the absolute total number of references made to all the variables making up a category.

4.3.   CONTENT ANALYSIS RESULTS: INVESTING

4.3.1. *Deal Origination*

Starting from findings obtained by VC scholars, two dimensions of deal origination were identified: passive and proactive. The content analysis of the question concerning the origination phase of PhVC investments led to the subsequent identification of the sources and variables which are listed in Table 4.3.1.

Table 4.3.1: Passive and proactive deal origination – Categories, sources, and variables identified through content analysis.

Dimension	Source	Variable	% of references
Passive			*43.8%*
	Social entrepreneur		85.7%
		Application	71.4%
		Web pages	14.3%
	Referrals		14.3%
		Business network	14.3%
Proactive			*56.3%*
	Referrals		16.7%
		Proactive contact of other referral partners	33.3%
		Philanthropic investors	11.1%
		Organization in the portfolio	11.1%
		Network of VCs	11.1%
	Creation of ad-hoc SE		11.1%
	Other		12.5%
		Own research	22.2%

Note: *% of references* was calculated based on the absolute number of references to each variable and the absolute total number of references made to all the variables making up a category.

Results show that among passive deal origination methods, the most widely used source is the social entrepreneur who submits a business plan, and among proactive ones referrals through other contacts than those explicitly mentioned in the table and belonging to the PhVCs' business network. Also, the source *Creation of an ad-hoc SE* was identified and accounted for 11.1 percent of all references to proactive deal origination. The *Other* variable in proactive deal origination includes the search through the PhVCs' own research and received 12.5 percent of references. Overall, content analysis reveals that proactive deal origination is the most used method of deal flow.

The PhVCs own research was described as an active process requiring networking and identification of those organizations willing to grow:

> *"It's a variety of networking and talking to people. We talk to the people to find out who is making an impact." (PhVCs F)*

Also, the creation of an ad-hoc SE is seen as one of the possible consequences of the PhVCs' own research: if a suitable investment candidate cannot be identified in the investment arena, the PhVCs might decide to scout out for a social entrepreneur willing to carry out the PhVCs' idea:

> *"We have done that a couple of times and probably the best example is [name of the company*

that was incubated] that is an organization in [name of place] that develops charter school

facilities. We thought that that was a real need for the charter school organizations we

invested in. We found an entrepreneur to write the business plan and then funded the

company to fulfil their needs. We financed the social entrepreneur with a grant and the

organization was incorporated as a non-profit."(PhVCs F)

The sum of the references attributed to each variable listed in Table 4.3.1 led to the quantification of the use of passive and proactive deal origination. Results indicate that passive and proactive deal origination receives 56.3 and 43.8 percent of references, confirming the expectation for Proposition 1. However, since the PhVCs might proactively seek for new potential investments as a consequence of not having a track record or visibility, the motivation underlying the higher use of proactive criteria might be due to potential for adverse selection on the side of the social entrepreneur and other players who then might present lemons rather than good projects to the PhVCs, providing support to what claimed by PhVCs D.

4.3.2. *Deal Screening and Evaluation*

The deal screening and evaluation phase of PhVC investments is felt like very much following that characterizing traditional VC, with a particular focus on the social component of the investment:

"[...] to be honest with you, our due diligence process looks very much like that of venture

capital firms. Most of the diligence is focused on the social entrepreneur and the business

model, the unit economics, the customer need, the quality of the organization, the integrity of

the leadership team, and the financial plan" (PhVCs E)

Also:

"We have a pretty regular due diligence process doing everything from extensive financial

analysis, interviews with the social entrepreneurs and management team, interview with

customers and competitive analysis to see if their infrastructure is scalable. I mean, our

selection and evaluation process is pretty much similar to that of venture capitalists but with

a strong focus on the social entrepreneur and on social impact"(PhVCs D)

In terms of variables, results presented in Table 4.3.2 suggest that the most importance is attributed to the social entrepreneur, which is identified as a proxy for the dimension *Human capital* dimensions receives a reference percentage higher than 30 percent. In particular, what is

looked for is enthusiasm and the ability to lead an organization towards the accomplishment of its social mission:

"[…] a special focus [is] on the social entrepreneur and the ability to pursue the social mission via a well defined social strategy. We want social entrepreneurs who are enthusiastic about the mission of their social enterprise and that's what we seek" (PhVCs D)

"The social entrepreneur is the one who develops the social mission of the organization and is the one who can identify which social markets to play in to achieve that mission and how to solve potential problems within the organization and face external ones" (PhVCs B)

Table 4.3.2: Deal screening and evaluation dimensions and variables.

Dimension	Variable	% of references	
Human capital		30.4%	
	Social entrepreneur		100.0%
Organization activity		28.3%	
	Social mission		30.8%
	Business strategy		23.1%
	Achievement of clear outcomes with a significant number of people		7.7%
	Credible and sustainable revenue model		7.7%
	Technology		7.7%
External environment		17.4%	
	Social market served		75.0%
	Market size		25.0%
Potential		10.9%	
	Social impact		40.0%
	Financial sustainability		60.0%
Assessment of the deal		2.2%	
	Deal terms		100%

Note: *% of references* was calculated based on the absolute number of references to each variable and the absolute total number of references made to all the variables making up a category.

Also, among the *Organizational activity* dimension, social mission and the business strategy implemented by the social entrepreneur to pursue the social mission are of key importance and received 30.8 and 23.1 percent of references. Also, elements of sustainability are taken into account:

"Traditionally, social enterprises have mixed income streams you know grants, donations, services etc. There is an element of sustainability within the criteria we consider in our selection process. Our mission is to improve the sustainability conditions of social enterprises and working on the missing 50% of unsustainable income related to the grants they are still

receiving in such a way that the income of the organization is 100% earned income although
we know that in social enterprises this may not ever happen but we work in getting towards
that" (PhVCs B)

External environment, evaluated taking into account variables such as the typology of social market served by the SEs and its size, account for 17.4 percent of the discussion. Within the dimension *Potential*, which receives overall 10.9 percent of references, financial sustainability accounts for 60 percent of the discussion. This result suggests that PhVCs look for SEs with good prospects of becoming self-sufficient and thus surviving in the long-term. This finding could be of key importance in the post-investment and exiting phase of PhVCs investments while understanding how PhVCs enable SEs to achieve sustainability. For what concerns the potential for social impact, which accounts for 40 percent of the references of the dimension *Potential*, remarkably one interviewee claimed:

"So, in order to make an investment we must look at a couple of things. […] Then, I think
what is most interesting is: will these companies be able to materially impact the lives of at
least one million people making less than four dollars a day? We estimate through their
financial expectations in their business plans how many customers they are going to serve in
a 5 to 10 years period and we are able to estimate what their expectations are. Sometimes it is
a bit earlier depending on the stage of development and the targets achieved by the
investment. Are they really serving people in the low income bracket? There are some
companies for whom 10 percent of their customers are 10 percent of the base of the pyramid:
that is not enough for us" (PhVCs E)

Content analysis results support the expectation of Proposition 2, signalling that among a pool of investment, PhVCs consider the social entrepreneur as a proxy for social impact thus, placing the highest importance on it while selecting deals.

4.3.3. Deal Structuring

The content analysis of the question concerning the type of financial instrument used by PhVCs led to the identification of three typologies of instruments: grant, loan, and equity which accounted for 46.7, 26.7, and 26.7 percent of the discussion respectively. One of the interviewees claimed:

"[Name of PhVCs] does provide capital and strategic assistance but at the moment capital is

provided in the form of grants. […]So we would fund an IT system or, you know, pay
salaries for senior members of staff or a working capital facility. So in that sense it is equity
like but literally speaking it is structure as a grant. So there is no return of the money back to
[Name of PhVCs]. It is equity like in time engagement." (PhVCs B)

This suggests that the use of grant financing, despite not being comparable with equity financing contractually speaking, is perceived by the PhVCs as binding as equity in terms of engagement and responsibility towards the backed SEs.

As such, based on the expectation proposed in Proposition 3, the higher use of grants to finance SEs vs. loan and equity indicates a low perception of moral hazard. On the contrary, the use of instruments that involve some kind of return, other than social, can be seen as clashing with the PhVC's intrinsic value proposition of creation of social value. Grants tend thereby to be preferred to other financing instruments that can be misleading and misunderstood by the general public, as one of the interviewees claimed:

"[…] we are much into the feeling of our cornerstone investor, did not wants to have any
element of return based on the media perception of private equity and private equity would be
seen to be profiting from social enterprises or charities that might be a negative black clash for
us" (PhVCs B)

This might suggest that stewardship theory rather than moral hazard is better able to explain the deal structuring behaviour of PhVCs. Consequently, since in stewardship theory the principal fully enables the steward to act in the best interest of the organization, the binding relationship is built on a trust mechanism that enables the steward to make choices that maximize the long-term return for the organization. In fact, putting control structures on stewards will significantly de-motivate the steward and be counter-productive for both the steward and for the organization (Argyris, 1990). If stewardship theory is able to explain this phase of the PhVCs investment, the expectation is that PhVCs will place a higher importance to the variable trust than to any other contractual provision. Content analysis thus leads to the formulation of the following proposition which will be analyzed in the survey result section:

Proposition 13*: The higher the importance of trust vs. Formal contractual provisions, the higher the stewardship offered by philanthropic venture capitalists.*

If trying to understand under which conditions a specific type of financing is used, interviews reveal that grant financing was mentioned in relationship with the financing of early-stage SEs and it tends to follow a staging model, according to which SEs are planned to

receive additional and greater grant financing based on the achievement of milestones, both on a social and economic perspective:

"We tend to invest in what we call capacity grant or smaller grants or you know 50 to 100 thousands when it's really early and they have readied their business plans. Once we want them to be part of our portfolio that tends to be a larger, multimillion dollar grant that is used out of the course of several years based on the milestones they achieve" (PhVCs F)

On the other hand, loans and equity tend to be used with mature SEs:

"We have also made loans and equity investments in the for-profit companies. So far we have provided loan to one organization that was a non-profit […] it was a more developed organization so I think it must have been a capital need at that moment" (PhVCs F)

"[We] Mainly [use] grants, but occasionally we use also debt for mature organizations" (PhVCs G)

Based on Proposition 4, a positive relationship between the use of traditional valuation models and moral hazard risk is expected to be found. Findings suggest that formal valuation models tend to be related to the use of loan and equity as financing instrument, and more specifically, with the financing of for-profit SEs.

"I guess the valuation question comes mostly with our for-profit companies and that I guess follows the standard rules for valuing for-profit companies" (PhVCs F)

However, those PhVCs performing a formal valuation declared that social components are not taken into account in this specific phase of the investment.

"When doing valuation we do consider discounted or multiples so as far as it is for valuation that's not where the social criteria comes into place. We consider them when we have to decide whether we wanna make the investment or not, that's when we look at the social impact" (PhVCs D)

For what concerns the use of grants, they result to be used in connection with non-profit SEs, and in this case:

"On the non-profit side, valuation is a little bit messier and tends to be a little bit more about

what are the scale and growth plans of the organizations. So their sort of financial model for
what they believe it's gonna bring the organization to scale. So it is definitely not a typical
valuation model but it is a little bit more understanding this what we've done so far and this
is what it takes to go from here to there and how a combination of philanthropy and revenues,
if there is ever any, and our public fund, like our first one, can help them in achieving the
goal" (PhVCs F)

"You know, we do not value non-profits as in the for-profit field. We estimate how much the
non-profit needs based on what they plan to do with the funds we will provide them. This is
the sort of valuation we do." (PhVCs G)

Concerning contractual provisions, a difficulty in collecting information was encountered with interviewees as they were not involved in the contractual design of the deal. However, those PhVCs who backed SEs with grants claimed that, generally speaking, provisions that are typically used in VC are not included in the term sheet. A request for an analysis of a contract that is typically used was made but, for confidentiality reasons, it was not possible to obtain information. After investigating the issue with their legal staff, one of the interviewed PhVCs came back to the question by email and confirmed the use of entrepreneurs' binding provisions as well as liquidation and renegotiation clauses. Given the paucity of information, no general conclusions can be drawn.

4.3.4. *Post-Investment Activities*

In order to understand how stewardship is offered by PhVCs, questions on monitoring and cooperative activities were asked. Results, including dimensions and variables are presented in the following sections.

4.3.4.a. *Monitoring*

PhVCs were asked to describe how they perform monitoring roles in the SEs they back. Starting from findings obtained by VC scholars (cfr. the discussion in paragraph 2.3.4.a), the interviews with PhVCs led to the identification of two monitoring dimensions, i.e., formal and informal. Results are presented in Table 4.3.3.

Table 4.3.3: Monitoring dimensions and variables.

Dimension	Variable	% of references
Formal		*63.6%*
	Board seat	42.9%
	Reports	35.7%
	Stage financing	21.4%
Informal		*36.4%*
	Informal meetings	100.0%

Note: *% of references* was calculated based on the absolute number of references to each variable and the absolute total number of references made to all the variables making up a category.

In terms of formal monitoring, this results to be performed mainly through the participation to formal meetings of the management of the backed SE thanks to the right to take a sit in the board of the organization, which accounts for 42.9 percent of the references to the dimension of *Formal monitoring*. However, if digging into this finding, interviews reveal that formal monitoring through board seat, despite being used, is referenced more in terms of cooperative activities rather than a tool to protect investments from harmful behaviours on the side of the social entrepreneur. Only one reference, accounting for 11 percent of the overall references for formal monitoring, was made in this sense:

"[…] in our first investment we do take a seat on the board, we are not looking to take over a company but we are looking for some sort of control so we can protect our investment and then being in a position to help the company to overcome their obstacles to growth" (PhVCs F)

Concerning formal monitoring through board seat, one of the interviewed PhVCs stated:

"Being involved on a board level is something we are necessarily striving for either. It is about assisting the organization to meet their strategic roles. We would not even get involved with them unless we believe we are comfortable with the social entrepreneur and the strategic goals of the organization. Then, how we do this, well, dialogue, good cooperation. Our support is considered very valuable and our suggestions and recommendations are strongly taken into account by the social enterprises we support. You know, they recognize their weaknesses and pay great attention at all the strategies they can adopt to achieve their social mission. The social enterprise trusts us and we trusts the social enterprise and both want to maximise the impact of the grant" (PhVCs A)

Formal monitoring through reports required by the PhVCs accounts for 35.7 percent of the references, and particularly, results to be strictly related to SE's performance in terms of

social impact:

"So, for our first investment they have reporting us how many pounds of books they had from XXXX, how many employees they have that live in long term neighbourhoods or how many pounds of carbon they offset" (PhVCs D)

"Each company we support has to send us quarterly reports filling up traditional business metrics including variables such as strength of the management team, capacity of achieving social impact" (PhVCs E)

"We also use the online data system […] that helps us in collecting up-to-date […] data from the organizations and their performance, how they are doing and their plans for the future in terms of scale and philanthropy needs for sustainability" (PhVCs F)

Stage financing was mentioned as a monitoring device, and, like in VC, is subject to the achievement of milestones:

"We tend to do a sort of a combination of stage financing and upfront investments. We tend to approve upfront investments up to two million dollars over the course of two years and then we do set up as I mentioned milestones which then sort of define the time frame and the dollar amount for, you know, in the next six months we expect that you will hire a chief financial officer, you know, whatever, so that's sort of the combination we weight up."
(PhVCs F)

If comparing the use of formal and informal monitoring dimensions, based on the references to each variable, content analysis results suggest a higher importance of the *Formal* dimension vs. *Informal*, accounting for 63.6 and 36.4 percent of the overall references. This finding suggests that Proposition 7 is not supported.

4.3.4.b. Cooperation

Of the cooperative dimensions identified through the VC literature, i.e., *Strategic*, *Supportive*, and *Networking*, results from the content analysis of PhVCs interviews are presented in Table 4.3.4. Accordingly, PhVCs appear to be pretty strong on cooperation at the strategic level and particularly, through the variable strategic advice which accounts for more than 85 percent of the discussion on cooperation through strategic roles.

Dimension	Variable	% of references
Strategic		*57.4%*
	Strategic advice	85.2%
	Board seat	11.1%
Supportive		*29.8%*
	Human resource	42.9%
	Financial management and accounting	28.6%
	Marketing and communication	14.3%
	Legal	7.1%
	IT	7.1%
Networking		*12.8%*
	Syndication	50.0%
	Access to future funders	50.0%

Note: *% of references* was calculated based on the absolute number of references to each variable and the absolute total number of references made to all the variables making up a category.

In particular, strategic advice can be delivered in a variety of ways:

"[…] generally speaking, ehm, each organization we work with will have a [name of private equity firms] mentor that works with the chief executive. They will have monthly or even more frequently meetings where they would discuss the main strategic problems of the organization and what [name of private equity firms] can provide is a totally different mindset. You see, working in the third social sector that is where social enterprises operate there is a certain way that these organization think about, the market thinks about, the cash flow is thought about, revenue, whatever and [name of private equity firms] offers a fresh perspective on the ways of looking at the organization. […] We provide capital and strategic and managerial support to established non-profit social enterprises and help in scaling up their business […] In some cases we would advice organizations to move away from a particular market focus, or we would ask them to focus internally on their operations. With one of the organizations in our portfolio, we asked them to focus on their internal operations and they moved from a situation of stable revenues to one of increasing revenues." (PhVCs B)

"During the investment term, PhVCs E provides strategic management support to help investees reach expected exit targets" (PhVCs E)

"In our team we have a lot of experience, we have a serial entrepreneur [name of partner] so he knows a lot of these growth and market formation issues. We have a lot of friends and professionals through our network that have experience in growing companies. So we try to

put us in a position to be able to use that for the benefit of our investment or of our

investees." (PhVCs F)

As previously mentioned, being formally engaged on a board level is perceived as a cooperative value-added activity provided to the backed organization rather than a control mechanism, as stated by PhVCs F:

"[Cooperation] for us means that we do that through taking a board seat in the social

enterprise we work with, we are pretty active on a board level taking a seat in every

investment that we make. We are pretty active on the board at the strategic and financial

level." (PhVCs F)

Overall, strategic roles account for 57.4 percent of the discussion on cooperative activities, with supporting and networking roles amounting to 29.8 and 12.8 percent respectively. Among supportive roles, PhVCs are mostly involved in human resource activities, which include finding skilled professionals able to manage social and financial aspects:

"Ehm, growing non-profit organizations struggle to secure skilled resource, high-quality

advice and expertise; they lack funds and professionals with experience in managing financial

and social aspects." (PhVCs B)

In terms of networking, references were alternatively concerned about syndication practices, also referred to as co-investments and providing access to future funders. Syndication is mentioned in relationship with the backing of for-profit SEs:

"We build a network for the social entrepreneurs we work with both in the financial and

philanthropic communities […] [Syndication] depends. If we are supporting a for-profit

organization, we typically do so. We tend to purchase it with a larger round that usually

includes other venture capital investors. When it is a non-profit organization we tend to just

be us. However, we work closely throughout the years with other funders but when we come

to the table it's just us." (PhVCs F)

The interviews indicate a shift of focus from what the investor believes might allow the backed SE to maximize its social impact to what the SEs effectively needs towards that. As a result, as expected in Proposition 8 through Proposition 10, PhVCs behave as stewards of the organizations they back, placing emphasis on cooperative behaviours for the SEs rather than cooperating for protecting the investment. Furthermore, content analysis indicates that PhVCs

behave as prescribed by (Rosenstein et al., 1993) and (Sapienza and Timmons, 1989) rather than by (MacMillan et al., 1989).

4.4.   CONTENT ANALYSIS RESULTS: EXITING

Proposition 11 expected a positive relationship between the duration of PhVCs investments and the risk for adverse selection. The content analysis of PhVCs interviews identified the holding period presented in Figure 4.4.1 which indicates that 50% of the references concerned an investment period ranging from 5 to 7 years. This finding suggests that Proposition 11 is supported as references keep on increasing as the duration period enlarges, showing a spike in the 5-7 years period, as happens for VC investments.

Figure 4.4.1: Holding period of PhVCs investment.
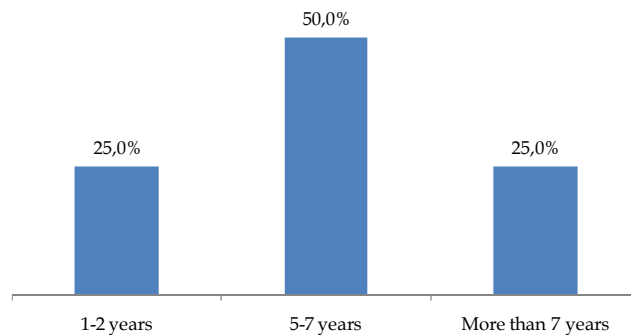
In terms of exit strategies, it should be acknowledged that for the PhVC investor, exits do not look like more typical "take-out" strategies in the for-profit sector, as one interviewees noted while asked about which exit strategy they adopt:

> *"That's a hard question for us and I guess it will be also a hard question for philanthropic venture capitalists in general because we generally don't, especially if funding non-profits, have a good comparison with what you can make in the for-profit market, where you either sell the company or you take it public or you are taking your money back and that organization is going for additional funding from another source." (PhVCs F)*

Through content analysis, five variables indicating PhVCs' exit strategies were identified and collated in Table 4.4.1.

Table 4.4.1: PhVCs exit strategies.

Variable	% of references
New financial partners	36.4%
Follow-on investments	18.2%
Ongoing management strategic support	18.2%
Buyback	9.1%
M&A	9.1%
Repayment of loan	9.1%

Note: *% of references* was calculated based on the absolute number of references to each variable and the absolute total number of references made to all the variables making up a category.

Findings show that the most mentioned exit strategy was helping the SEs in getting funded by other investors or institutions, as a result of the achievement of operational goals and social impact. This exit strategy accounts for 36.4 percent of the overall references, and new financial partners can be other PhVCs, traditional foundations, or the government itself, whose task would be to further scale up the mission of the SE:

"At this stage what is exit is still not well defined and you know there is not a developed social market for these companies. Part of it is definitely pass them and moving them to new sources of funding and because these support agreements are very well defined and we monitor the performance, we signal success to other players." (PhVCs B)

"For us the closest thing that we got is to stop our funding and make sure that the organization is backed up by a larger foundation so that it can continue to get funding and the organization can grow to scale; or the organization becomes sustainable with its own combination of revenue and kind' a public money." (PhVCs F)

Also, follow-on investments and on-going management support result widely mentioned, confirming Proposition 12:

"We have also extended our support for the organisations beyond the original two-year agreement, in some cases through additional funding, but in most cases with ongoing management support." (PhVCs B)

"PhVCs E strives to maintain a strong relationship with investees post-exit and provides on-going support by continuing to communicate with investees on their progress even after our investments end. When appropriate opportunities arise, PhVCs E considers a follow-on investment in an existing or exited investee. As PhVCs E 's initial investment aim is to help

enterprises reach scale and access more commercial forms of capital, a follow-on investment is
more likely to be directed towards a new business line, such as developing a new and
innovative product." (PhVCs E)

4.5. CONCLUSIONS FROM CONTENT ANALYSIS

The results obtained by content analyzing five interviews led with PhVCs suggest that while the overall investment process, in terms of investment stages, follow that characterizing the traditional VC one, differences are found for what concern the structure of each phase. More specifically, while theoretical background on VC explain both pre-investment and exiting phases within an adverse selection framework, post-investment activities are motivated using an agency and moral hazard perspective and basically explain the VCs' behaviour as motivated by the necessity of protecting the value of the investment.

Findings from PhVCs interviews, which are summarized in Table 4.5.1, confirm the relationships set by the propositions presented in chapter 2.3 and chapter 2.4. Like VCs, PhVCs face severe adverse selection which induces them to both originate new potential deals by a proactive search and to select deals considering the characteristics of the social entrepreneur. However, whereas the shift from the explanation of VCs behaviour based on the risk of moral hazard to that of PhVCs based on stewardship was expected to happen in the post-investment phase of the process, results indicate this happens already in the deal structuring stage. The use of preferred equity characterizing VC as a means of shifting away risk from the VCs to the entrepreneur, is substituted in PhVCs with the large use of grant financing, which by definitions is "money for free", meaning no return of money back to the investor/donor is expected/required. The absence of any binding terms in the grant instrument should cause a higher risk for moral hazard entirely borne by the PhVCs: the SEs might, in fact, "take the money and run". PhVCs should thus have either sophisticated contractual financing agreement to compensate for this risk, as done by VCs, or full trust in the backed social entrepreneurs. The corroboration of this finding would have been possible if more information was available in terms of the typology and nature of contractual provisions established between the PhVCs and the SEs; in this part of the research no generalizable results were obtained. However, if the expectation of a lower perception of moral hazard holds in PhVCs investments, as posited by the set of proposition investigating the deal structuring phase, then contracts could be replaced by a higher level of trust in the social entrepreneur they back, thus making trust more important than contractual provisions.

For what concerns the post-investment stage of the process, despite it might sound a romantic and optimistic explanation, the PhVCs focus is not on the protection of their investment but it is indeed focused on the activities that the PhVCs can implement to enable the backed SE to expand its activity and, consequently, maximize its potential social impact thanks to the shaping of a managerial and strategic organizational culture. Also, monitoring activities, which are typically explained in VC through an agency theory perspective and aim at "monitoring to protect", in PhVCs monitoring it aims at "monitoring to add value". Thus, formal monitoring, which contrary to expectations results to prevails on informal monitoring, is run more as cooperative activity than as a means for the PhVCs' investment protection, confirming the expectation of PhVCs behaving as stewards of the organizations they back rather than self-interested motivated actors.

Table 4.5.1: Summary of content analysis results with respect to propositions and relationship with theoretical issues.

Investment phase	Proposition	Issue	Theoretical framework	Expected relationship	Support
Deal origination	1	Proactive methods	Adverse selection	+	✓
Deal screening and evaluation	2	Human capital	Adverse selection	+	✓
Deal structuring	3	Grant financing	Moral hazard	-	✓
	4	Valuation	Stewardship	-	✓
	5	Entrepreneur binding provisions	Moral hazard	+	?
	6	Renegotiation clauses	Moral hazard	+	?
Post-investment	7	Monitoring: informal monitoring	Stewardship	+	X
	8	Cooperation: strategic roles	Stewardship	+	✓
	9	Cooperation: supportive roles	Stewardship	+	✓
	10	Cooperation: networking roles	Stewardship	+	✓
Exit	11	Holding period of investment	Adverse selection	-	✓
	12	Secondary sale	Adverse selection	-	✓

CHAPTER 5:   **SURVEY RESULTS**

5.1.   INTRODUCTION

This chapter presents the results obtained by the survey addressed to the population of PhVCs and it is organized as follows. First, PhVCs are cluster analyzed to confirm the different categories identified in chapter 1.3. Second, a broad understanding on the identity of investors/donors in PhVC funds is gained. Third, the investment strategy of PhVCs is analyzed on different levels, including the nature of the backed SEs' organizational form, the sectors mostly present in the PhVCs' portfolio, the location of portfolio SEs as well as their stage of development. Third, results on the investing and exiting phase of the PhVCs investment process are reported. All throughout the chapter, results are also analyzed to identify whether differences exist with respect to the professional profile of the person who materially responded to the question, respondents' location of the PhVC fund, the legal form of the fund, and last the PhVCs cluster.

5.2.   CLUSTERS OF PHILANTHROPIC VENTURE CAPITALISTS

As a first step, respondent PhVCs were cluster analyzed according to their organizational form (non-profit or for-profit) and the outcome associated with the type of SEs they back. To this respect, a combination of hierarchical and nonhierarchical clustering algorithms was used (Hair, 2006). The hierarchical procedure using Ward's linkage method for distance measure is first used both to establish the number of clusters and to specify initial cluster seed points (Edelbrock, 1979). Subsequently, the nonhierarchical *k*-means procedure is implemented to classify data through a certain number of clusters (assume k clusters) fixed a priori. The main idea is to define *k* centroids, one for each cluster such that the objects are separated into groups from which the cluster distance to be minimized can be calculated (Milligan and Cooper, 1986).

Accordingly, three clusters were identified whose final centers are presented in Table 5.2.1. Results from the cluster analysis suggest that respondents reflect the clusters of PhVCs

identified based on the literature in chapter 1.3. Cluster 1 includes those PhVCs investing mainly in non-profits and identified as *pure highly-engaged philanthropists*; cluster 2 groups those PhVCs that invest in for-profit SEs, and previously identified as *social VCs*; last, cluster 3 gathers those PhVCs that invest alternatively in non-profit and for-profit SEs, identified as *hybrid philanthropists*.

Table 5.2.1: Final cluster centers of PhVCs.

		Clusters		
		1	2	3
Organizational form of backed SEs and projects	Non-profits	98.00%	8.00%	64.00%
	For-profits	0.75%	87.78%	30.45%
	Projects	1.25%	4.22%	5.55%

Figure 5.2.1 depicts the percentage of respondent PhVCs belonging to each of the previously identified clusters.

Figure 5.2.1: Percentage of PhVCs cases in each cluster.
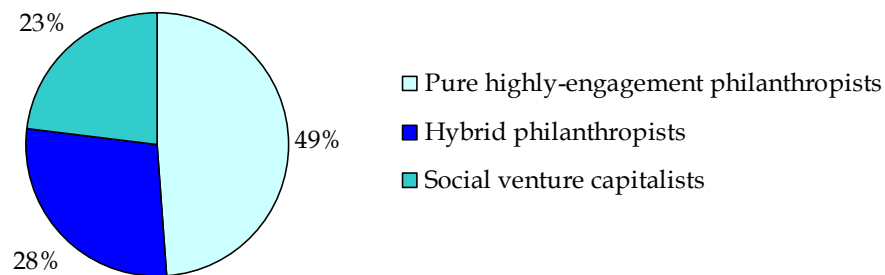
If analyzing the typology of respondent PhVCs by location, results show that in the US PhVCs fall mainly under the category of *pure highly-engaged philanthropists,* while in Europe they are better spread across all clusters. This suggest that there might be a difference in the definition of PhVC in Europe vs. the US, with US considering PhVCs those entities that are non-profits, provide capital as well as non-financial support to non-profits, and their primary and unique objective is seeking a social return.

Figure 5.2.2: Percentage of PhVCs by cluster and location of the headquarters.
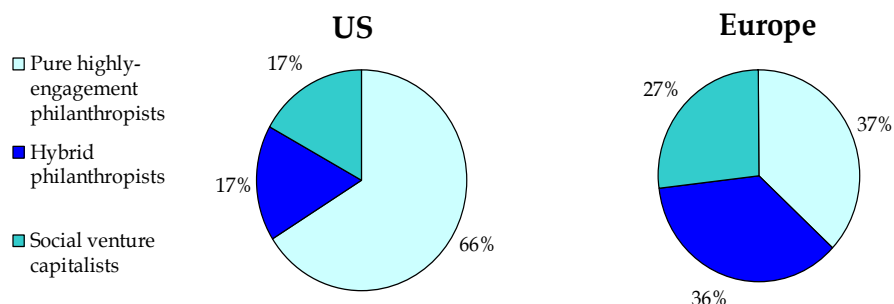
Following this divergence in the percentage of PhVCs belonging to each cluster with respect to location, a test for difference was conducted using the non-parametric Mann-Whitney U test. Results in Table 5.2.2 show that the null hypothesis of equality is failed to be rejected.

Table 5.2.2: Difference between the number of cases of PhVCs in each cluster and the location of the PhVCs - Mann-Whitney U test.

	Number of cases in clusters
Location of PhVCs	183.00

5.3. INVESTORS IN PHILANTHROPIC VENTURE CAPITAL FUNDS

According to responses, PhVCs receive funds that will be used to back SEs mainly by private individuals, followed by foundations and corporations. Additionally, 43 percent of respondent PhVCs receive funds from financial system participants, such as banks (28 percent) and private equity and VC firms (25 percent). 11 percent of PhVCs receive funds from other entities, namely either other PhVCs active in supporting previous or subsequent stages of development of social enterprises or non-profit organizations.

Table 5.3.1: Investors in PhVC funds.

Investors	*% of PhVCs*
Private individuals	83%
Foundations	62%
Corporations	53%
Banks	28%
Private equity and VC funds	25%
Government	21%
Endowment funds	9%
Pension funds	2%
Other	11%

The % of cases does not sum up to 100 percent as PhVCs might have different
categories of investors as source of funds (cfr. Question 4 in Appendix 4).

In terms of combination of investors, survey results show that 20 percent of PhVCs receive funds only from private individuals who are the main source of funding. These are followed by a combination of foundations, corporations, and private individuals (10 percent), foundations and private individuals (10 percent) as well as foundations, corporates, banks, and private individuals (5 percent). Summing up these combinations of investors, 45 percent of PhVCs employ these sources. The remaining combinations are each used by 2.5 percent of PhVCs each.

When investigating whether having one of the above mentioned investors is influenced by the organizational form of the PhVC fund in terms of the being a non-profit or for-profit, the Fisher exact test is run and corroborated by the contingency coefficient. Table 5.3.2 shows that the type of investor is not influenced by the non-profit or for-profit legal structure of the PhVCs, except the case of having banks or private and VC funds as investors.

Table 5.3.2: Relationship of the organizational form of the PhVCs with the type of investor in the fund - Fisher exact test and contingency coefficient.

| | *Organizational form of PhVCs* | | | |
Investor	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
Private individuals	-	0.172	0.279	0.268
Foundations	-	0.020	0.617	0.900
Corporations	-	0.066	0.500	0.677
Banks	-	0.323	0.050	0.031
Private equity and VC funds	-	0.393	0.020	0.007
Government	-	0.066	0.569	0.677
Endowment funds	-	0.118	0.448	0.453
Pension funds	-	0.074	0.825	0.641
Other	-	0.152	0.448	0.332

More likely than expected under the null hypothesis, for-profit PhVCs have banks as investors. Cramer's V's value, which indicates the strength of the association between the two variables and is reported in Table 5.3.3, amounts to 0.342 in the case of PhVCs being for-profit and 0.428 if PhVCs are non-profits and the effect size is considered to be medium (Cohen, 1988).

Table 5.3.3: Strength of association between the organizational form of the PhVCs and investor in the fund being banks or private equity and VC funds.

| | | *Organizational form of PhVCs* | | |
Investor	n	Non-profit	For-profit	Cramer's V
Banks	33	6	4	0.342*
Private equity and VC funds	7	4	4	0.428*

Investigating now any differences of *Investors* between European and US PhVCs, the

Fisher exact test was again used and corroborated with the contingency coefficient. Table 5.3.4 reports that the null hypothesis of equality is rejected in the case the investor is a bank.

Table 5.3.4: Relationship of the location of PhVCs with the type of Investor in the fund - Fisher exact test and contingency coefficient.

Investor	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
		Location of PhVCs		
Private individuals	-	0.042	0.565	0.789
Foundations	-	0.010	0.601	0.949
Corporations	-	0.197	0.170	0.204
Banks	-	0.376	0.011	0.010
Private equity and VC funds	-	0.197	0.193	0.204
Government	-	0.197	0.193	0.204
Endowment funds	-	0.249	0.156	0.103
Pension funds	-	0.143	0.550	0.360
Other	-	0.197	0.230	0.204

To better investigate the statistical significant difference encountered with respect to banks, a cross tab analysis reveals that in Europe banks support PhVCs funds more than expected, with a count of 9 vs. an expected count of 5.5. Considering the bank centralism of the European financial system together with the result in Table 5.3.3, it is not surprising to encounter this finding.

Last, an Ordinary Least Square (OLS) regression was run to identify how well the type of Investor predicts the amount of money managed by the PhVC fund, measured by the variable *AUM.* Since 3 respondents were identified as outliers (cfr. Table 3.6.4) and might have an impact on the regression's results, an analysis of these outliers was performed to understand if all outliers might have an impact on regression's results. To do so, the 10 most extreme values for the studentized deleted residuals were identified. Table 5.3.5 indicates that the case number 32 in the dataset has the largest value (50.400) suggesting it to be the outlier.

Table 5.3.5: Outlier statistics – Studentized deleted residuals for AUM.

Case number	Stud. deleted residuals
32	50.400
6	-1.826
2	-1.582
4	-1.565
27	-1.451
30	-1.119
12	1.070
10	-1.006
31	-0.817
14	0.787

This finding is also confirmed when outliers are identified based on those observations whose standardized residuals exceed 2 (cfr. Table 5.3.6).

Table 5.3.6: Outlier identification – Standardized residuals larger than 2.

Case Number	Stud. Deleted Residual	AUM	Predicted Value	Residual
32	50.400	1750000000	819171212.33	930828787.671

Dependent Variable: AUM.

The following step was to analyze the leverage value to identify observations that would have potential great influence on regression coefficient estimates. Generally, a point with leverage greater than $(2k+2)/n$ should be carefully examined, with k being the number of predictors and n being the number of observations. In this case $k = 9$ and $n = 40$, which implies that a value exceeding 0.5 is worthy of further investigation; based on Figure 5.3.1, 3 observations fulfil this condition.

Figure 5.3.1: Centered leverage value for AUM.
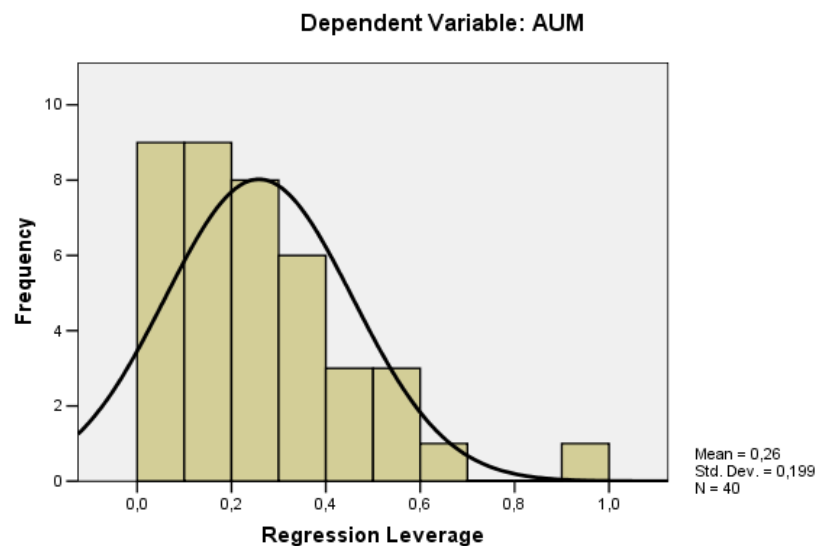
If combining information on the residuals and leverage, the Cook's distance was calculated and observation 32 was identified as the only outlier based on a cut-off point of 0.1[1].

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[1] The conventional Cook's D cut-off point for the identification of outlier is given by the formula $4/n$ with n=number of observations.

Table 5.3.7: Identification of outliers by AUM - Cook's distance.

Case Number	Cook's distance
32	1.996
2	0.296
12	0.216
4	0.174
6	0.149
27	0.082
31	0.079
34	0.071
10	0.067
30	0.035

Since observation 32 appears as an outlier as well as an influential point in every analysis conducted so far, it was omitted in the regression between *AUM* and *Investor* whose results are reported in Table 5.3.8. After checking the fulfilment of all the assumptions underlying the regression model, results concerning the ability of the type of *Investor* to predict *AUM* were found to be statistically significant with $F_{(9,23)}$ = 5.55, $p<0.001$, and adjusted R square of 0.561 (cfr. Table 5.3.8).

Table 5.3.8: Regression results – AUM (no outliers) and Investors.

	Standardized coefficient			Collinearity Statistics	
	β	t-value	Sig.	Tolerance	VIF
Constant		0.237	0.815		
Private individuals	0.063	0.471	0.642	0.766	1.305
Foundations	0.335	2.351	0.028	0.677	1.476
Corporations	-0.306	-1.962	0.062	0.563	1.775
Banks	-0.072	-0.543	0.593	0.779	1.284
Private equity and VC funds	-0.038	-0.267	0.792	0.693	1.444
Governments	0.089	0.642	0.527	0.722	1.385
Endowment funds	0.027	0.195	0.847	0.721	1.387
Pension funds	0.767	5.753	0.000	0.772	1.296
Other	0.116	0.788	0.439	0.629	1.589
R Square	0.685				
Adj. R Square	0.561				
Std. Error of the Estimate	25046921.123				
Durbin-Watson	2.033				

Predictors: (Constant), Private individuals, Foundations, Corporations, Banks, Private equity and VC funds, Government, Endowment funds, Pension funds, Other. Dependent Variable: AUM.

Findings indicate that 56.1 percent of the PhVCs' *AUM*'s variance can be explained by the type of *Investor* in the fund. More specifically, findings suggest that having a foundation or a pension fund as *Investor* in the PhVC fund increases the *AUM* by 33.5 percent and 76.7 percent respectively, while other types of Investor are found to be not significantly related to the money managed by PhVCs.

5.4. INVESTMENT STRATEGY

While seeking to understand the investment policy characterizing PhVC funds, the survey asked them to provide information about their target and actual portfolio. On the one hand, the motivation that pushed for an understanding of the PhVCs' target rather than actual portfolio is that, being some of the surveyed PhVCs relatively young and created in the time period 2005-2008 (cfr. Table 3.6.3), these might have not concluded their investment phase yet. The target composition of the PhVC portfolio takes into account the legal form of the supported SE. On the other hand, the present situation of the portfolio of PhVC funds is explored on a sector level, on a spatial distribution level and lastly on a development stage level.

Based on the discussion presented in chapter 1.3 and taking into account the non-distribution constraint (Hansmann, 1980), SEs were divided into non-profits and for-profits. However, considering that PhVCs might also want to have projects in their portfolio to better diversify risk, this response category was also proposed in the survey. It is worthy to note here that investing in projects does not make the PhVC model presented in

Figure 1.2.3 invalid as long as this category constitutes a marginal portion of the PhVCs' portfolio. The results obtained from the questionnaire are presented in Table 5.4.1: Composition of PhVCs' target portfolio by organizational form of SEs and projects. Accordingly, the average target portfolio is made up of 68 percent of non-profits, 29 percent of for-profits, and 3 percent of projects with a standard deviation of 37.7 percent, 35.9 percent, and 10 percent respectively.

Table 5.4.1: Composition of PhVCs' target portfolio by organizational form of SEs and projects.

| | *Organizational form of SEs and projects backed by PhVCs* | | |
	% of Non-profits	% of For-profits	% of Projects
Mean	68.50	28.50	3.00
Median	80.00	15.00	0.00
SD	37.697	35.89	9.98

Combining the different typologies of backed SEs and projects that PhVCs can invest in, Table 5.4.2 is presented. The relative majority of PhVCs invest either only in non-profit SEs (42.5 percent) or both in non-profit and for-profit SEs (32.5 percent).

Table 5.4.2: Percentage of PhVCs by target portfolio of SEs and projects.

	For-profit	Non-profit	Both	*Total*
Supports organizations	10.0%	42.5%	32.5%	*85.0%*
Supports organzations and projects	2.5%	2.5%	10.0%	*15.0%*
Total	*12.5%*	*45.0%*	*42.5%*	*100%*

The Mann-Whitney U test was used to test for differences between the dependent variable *Backed SEs' organizational form* and the PhVCs' location measured by the regions *Location of PhVCs*. Whereas in the case of PhVCs backing for-profits SEs or projects differences are not statistically significant in Location of PhVCs, Table 5.4.3 indicates that the equality hypothesis is failed to be rejected for when PhVCs back non-profit SEs. More specifically, US PhVCs result to back more non-profits than their European counterparts with a mean rank of 24.75 for US and 17.02 for Europe.

Table 5.4.3: Difference between the composition of the target portfolio in terms of SEs organizational forms and projects and the location of PhVCs - Mann-Whitney U test.

	Organizational form of SEs and projects backed by PhVCs		
	% of Non-profits	% of For-profits	% of Projects
Location of PhVCs	121.500**	133.000	162.500

** Significant at 5% level.

To investigate if the choice of backed SEs organizational form might be influenced by the preference of investors/donors to focus on that particular form, a correlation analysis was run and results are presented in Table 5.4.5. As a methodological issue, being dichotomous the categories making up the variable *Investors*, the point-biserial correlation should be computed, which captures the relationship between a dichotomous variable (in this the categories making up the variable *Investor*) and a continuous variable (in this case the categories making up the variable *Organizational form of SEs and projects backed by PhVCs*). However, the normality assumption of the continuous variable underlying the point-biserial is rejected (cfr. Table 5.4.4). The non-parametric Spearman correlation coefficient thus needs to be used.

Table 5.4.4: Organizational form of SEs and projects backed by PhVCs - Normality test.

	Kolmogorov-Smirnov [a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
% of Non-profits	0.223	40	0.000	0.779	40	0.000
% of For-profits	0.236	40	0.000	0.769	40	0.000
% of Projects	0.468	40	0.000	0.346	40	0.000

[a] Lilliefors Significance Correction

Table 5.4.5 indicates that the hypothesis of no linear relationship between the categories making up the variable *investor* and the portfolio by the *organizational form of SEs and projects backed by PhVCs* is failed to be rejected excepted for the *Investor* category *Endowment funds* and *% of Projects*. The direction of the Spearman correlation is positive, hence suggesting that PhVCs whose investors include endowment funds are more likely to have a higher percentage of projects in their portfolio. The same statistic was employed to investigate if there is a statistical significant association between *AUM* and the o*rganizational form of SEs and projects backed by PhVCs*: Table 5.4.6 indicates the absence of any relationship.

Table 5.4.5: Correlation coefficient between the PhVCs portfolio by the organizational form of backed SEs and projects and Investors.

		Investors								
		Private individuals	Foundations	Corporations	Banks	Private equity and VC funds	Government	Endowment funds	Pension funds	Other
Organizational form of backed SEs and projects	% of Non-profits	-0.111	-0.100	0.115	-0.023	0.107	0.040	-0.227	-0.253	0.150
	% of For-profits	0.127	0.178	-0.096	0.068	-0.080	-0.009	0.190	0.262	-0.133
	% of Projects	-0.034	-0.074	0.125	-0.101	-0.039	-0.048	0.423***	-0.067	0.076

*** Significant at 1% level.

Table 5.4.6: Correlation matrix - Portfolio by backed SEs' organizational form and AUM (no outliers).

	Organizational form of SEs and projects backed by PhVCs		
	% of Non-profits	% of For-profits	% of Projects
AUM	-0.090	0.153	0.129

Analyzing now the PhVCs' portfolio in terms of *Backed sectors*, education and health result to be the most widely present in their portfolio, with about 76 and 57 percent of PhVCs supporting at least one SE operating in these sectors respectively (cfr. Table 5.4.7); 68 percent of PhVCs hold at least one SEs categorized under the *Other* sector category which groups together a number of sectors such as civic engagement, human rights, economic development, food and nutrition, legal advocacy, and non-violence.

Table 5.4.7: Percentage of PhVCs backing at least one SE by sector.

Sector	% of PhVCs
Education	75.7%
Health	56.8%
Employment	50.0%
Energy and environment	43.2%
Disabled	37.8%
Housing	32.4%
Water	18.9%
Other	67.6%

The % of cases does not sum up to 100 percent as PhVCs might have different categories of investors as source of funds (cfr. Question 10 in Appendix 4).

Table 5.4.8 groups by sector the number of SEs held by PhVCs. If considering the range of the number of SEs belonging to each sector and held by PhVCs, it is clear the presence of outliers which were subsequently identified through a boxplot analysis.

Table 5.4.8: PhVCs' average portfolio by sector – Outliers included.

	Mean	Median	Max	Min	SD
Education	21	4	297	1	56.12
Health	18	3	271	1	58.36
Employment	10	3	59	1	18.19
Disabled people	8	2	64	1	16.90
Energy and environment	5	2	34	1	9.18
Housing	5	2	21	1	5.90
Water	4	3	10	1	4.10
Other	42	3	818	1	162.78

Figure 5.4.1 identifies observation 15 as an extreme outlier, and observations 2, 9, and 1 as mild outliers. Analyzing these observations in terms of demographics, two are in Europe and two in the US; all are non-profit PhVCs and, more interestingly, all are public charities. Findings were then taken into account while trying to identify a non-inflated composition of the

portfolio. To this respect, after the identification of which observations needed to be considered as outliers, any differences between the number of backed SEs by sector for outliers and non-outliers was investigated using the Mann-Whitney U test. The analysis aimed at understanding whether a detailed study of the sector composition of the portfolio of outliers and non-outliers was worthy.

Figure 5.4.1: Number of SEs in the PhVCs' portfolio – Boxplot analysis of outliers.
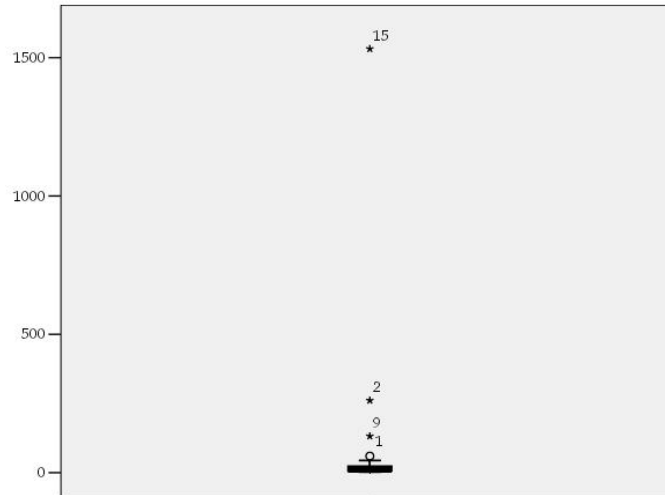
Table 5.4.9 indicates a statistical significant difference in the number of SEs held by PhVCs in all sectors but "Water", suggesting a deeper and separate examination of the portfolio of outliers and non-outliers.

Table 5.4.9: Difference between the number of SEs in the PhVCs portfolio by sector and being an outlier or a non-outlier - Mann-Whitney U test.

	Number of SEs in the PhVCs portfolio by sector							
	Education	Health	Employment	Disabled people	Water	Energy and environment	Housing	Other
Outlier or no-outlier	7.000***	4.000***	1.000***	24.000**	42.500	2.500***	1.500**	27.500*

* Significant at 10% level; ** Significant at 5% level; *** Significant at 1% level.

As a consequence, the portfolio of outliers and non-outliers reported in Table 5.4.10 and Table 5.4.11 was compared. Results indicate that the highest number of SEs in the non-outlier portfolio is active in the "Education" field, aiming at improving school leadership and student achievement across the system; in the case of non-outliers the "Other" sector is the most

represented. This confirms the significant different result encountered in Table 5.4.9. Also, the water sector appears to rank more in the non-outlier portfolio.

The non-outlier portfolio results to be more consistent in terms of representativeness: if looking at the standard deviation (SD) an average decrease by about 85 percent across the education, health, and energy and environment sectors is found. Also, the analysis of the composition of the PhVCs' portfolio depurated from outliers reveals that the maximum number of held SEs is 42 and these are active in the education sector.

Table 5.4.10: PhVCs' portfolio by sector – Outliers.

	Mean	*Median*	*Max*	*Min*	*SD*
Education	100	49	297	7	132.91
Health	79	21	271	5	128.07
Employment	34	36	59	6	28.97
Disabled people	25	6	64	6	33.49
Energy and environment	16	14	34	2	14.45
Housing	10	8	21	3	7.87
Water	6	6	10	1	6.36
Other	313	96	818	25	438.78

Table 5.4.11: PhVCs' portfolio by sector – No outliers.

	Mean	*Median*	*Max*	*Min*	*SD*
Education	8	4	42	1	10.81
Health	4	2	22	1	5.29
Water	4	3	10	1	3.71
Disabled people	3	1	20	1	5.62
Employment	3	2	10	1	2.42
Energy and environment	2	1	5	1	1.16
Housing	2	1	6	1	1.73
Other	5	3	24	1	5.68

The last analysis conducted on the number of SEs by sector held by non-outlier PhVCs was to identify any differences with respect to the variable *Location of PhVCs* and *Organizational form of PhVCs*. Results in Table 5.4.12 show that the null hypothesis of no differences is failed to be reject but in the case of the number of SEs operating in the "Disabled people" sector and the *Location of the PhVCs*: results suggest that an average of 0.85 and 0.2 SEs active in this sector are supported by European and US PhVCs respectively.

Table 5.4.12: Difference between the number of SEs in the PhVCs portfolio by sector and the location as well as the organizational form of the PhVCs - Mann-Whitney U test.

	Number of SEs in the PhVCs portfolio by sector							
	Education	Health	Employment	Disabled people	Water	Energy and environment	Housing	Other
Location of PhVCs	105.00	121.50	112.00	76.50**	100.50	120.00	130.50	93.50
Organizational form of PhVCs	74.50	58.00	46.00	80.50	66.00	65.00	75.00	63.50

** Significant at 5% level.

Geographically, results show that SEs held by PhVCs are mainly in the PhVCs' country (cfr. Figure 5.4.2), confirming the presence of home bias in the PhVC portfolio. This, in turn, suggests that like in VC, geographic proximity helps PhVCs in the due diligence and screening phase of their investments, facilitating information flow and monitoring, as well as cooperative behaviours between the PhVCs and the backed SE. Also, 20 percent of PhVCs do not have a specific geographic focus considered in their investment strategy.

Figure 5.4.2: Spatial distribution of the PhVCs portfolio.
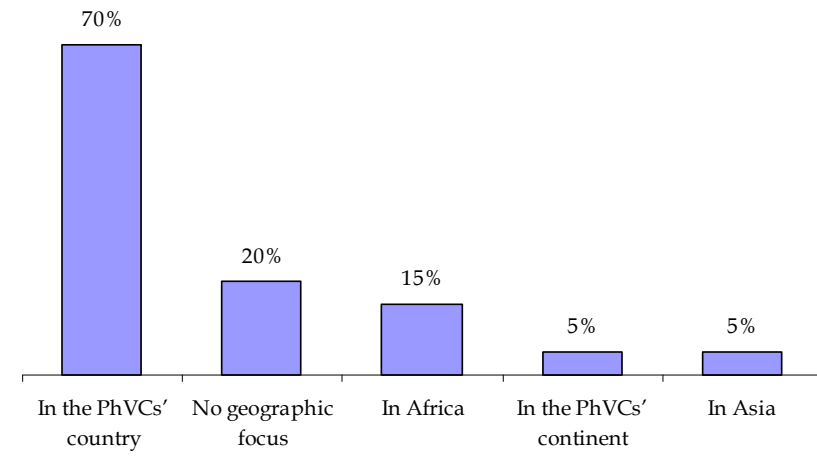
Categories do not sum up to 100 percent as respondents were allowed to choose multiple options (cfr. Question 11 in Appendix 4).

Taking into account the previously identified outliers with respect to the number of PhVCs backed SEs by sector, it was investigated if outliers can be said to differ from non-outliers in that they focus on backing SEs in a specific location. Since the categories making up the variable *SEs' location* are dichotomous as well as the variable *Outlier*, the analysis employed the statistical procedure used in chapter 3.6.5. Accordingly, the Fisher exact test was computed and corroborated by the contingency coefficient. Table 5.4.13 indicates that the null hypothesis

of being an outlier influences the SEs' location is failed to be rejected for all categories of SEs' location but when PhVCs invest in SEs located in their own country or if they do not have a geographic focus. Findings suggest that non-outlier tend to invest more than expected in SEs' in their country and vice versa for outliers (for non-outlier PhVCs 26 out of an expected count of 24 invest in SEs' in their own country, whereas for outlier PhVCs 1 out of an expected count of 3), and that non-outliers appear to have a geographic focus more than outliers (for non-outlier PhVCs 5 out of an expected count of 7 do not have a geographic investment focus, whereas 3 outliers out of an expected count of 1 do have it).

Table 5.4.13: Relationship of SEs' location with outlier PhVCs - Fisher exact test and contingency coefficient.

| *SEs' location* | *Outlier* | | | |
	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
In the PhVCs' country	-	0.352	0.052	0.022
In the PhVCs' continent	-	0.083	1.000	0.613
Africa	-	0.136	1.000	0.403
Asia	-	0.083	1.000	0.613
No geographic focus	-	0.411	0.026	0.006

If then considering only non-outliers, a test for difference with respect to the variable *Organizational form of SEs and projects backed by PhVCs* and *Location of PhVCs* was conducted. Table 5.4.14 and Table 5.4.15 indicate that the null hypothesis of any relationship is failed to be rejected in both cases.

Table 5.4.14: Relationship of SEs' location with the organizational form of PhVCs - Fisher exact test and contingency coefficient.

| *SEs' location – Non-outliers* | *Organizational form of PhVCs* | | | |
	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
In the PhVCs' country	-	0.086	1.000	0.606
In the PhVCs' continent	-	0.108	1.000	0.515
Africa	-	0.196	0.561	0.230
Asia	-	0.108	1.000	0.515
No geographic focus	-	0.036	1.000	0.829

Table 5.4.15: Relationship of SEs' location with the location of the PhVCs -
Fisher exact test and contingency coefficient.

	Location of PhVCs			
SEs' location – Non-outliers	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
In the PhVCs' country	-	0.000	1.000	1.000
In the PhVCs' continent	-	0.212	0.492	0.193
Africa	-	0.100	0.672	0.549
Asia	-	0.262	0.190	0.104
No geographic focus	-	0.194	0.355	0.236

Lastly, the PhVCs' investment strategy was analyzed in terms of backed SEs' stage of development, measured as early stage, expansion stage, and maturity stage. As a matter of fact, a test of difference with respect to the variable *Outlier* was run to understand if a separate and distinct analysis needed to be conducted. The null hypothesis of no differences is failed to be rejected.

Table 5.4.16: Difference between the percentage of SEs by stage of development
and PhVCs being outliers - Mann-Whitney U test.

	Percentage of SEs by stage of development		
	Early-stage	Expansion	Maturity
Outlier	40.500	41.000	28.500

Analyzing thus the composition of the PhVCs' portfolio by stage of development, findings suggest that 34.3 percent of respondents back a mix of early and expansion stage SEs, followed by 22.8 percent backing exclusively early stage companies, and 20 percent only expansion stage SEs. Summing up these three categories, 77.1 percent of PhVCs result to support those SEs for which barriers to growth are more pressing.

Table 5.4.17: PhVCs portfolio by backed SEs' lifecycle.

SEs' lifecycle	*% of PhVCs*
Early and expansion stage	34.3%
Only early stage	22.8%
Only expansion stage	20.0%
Early, expansion, and maturity stage	20.0%
Expansion and maturity stage	2.9%
Only maturity stage	0.0%

No significant differences are found with respect to the percentage of PhVCs backed SEs and the variable *Organizational form of PhVCs*; differences are instead significant at 10 percent level with respect to early-stage and expansion and *Location of PhVCs* (cfr. Table 5.4.18).

Table 5.4.18: Difference between the percentage of SEs by stage of development and the PhVCs' organizational form as well as its location - Mann-Whitney U test.

	Percentage of SEs by stage of development		
	Early-stage	Expansion	Maturity
Organizational form of PhVCs	86.000	78.000	64.000
Location of PhVCs	80.500*	84.500*	118.500

* Significant at 10% level.

A boxplot analysis of the differences reveals that European PhVCs tend to invest less in early stage SEs and more in expansion stage SEs that their American counterparts. Results are presented in Figure 5.4.3 and Figure 5.4.4 respectively.

Figure 5.4.3: Boxplot analysis – Percentage of early stage SEs and location of the PhVCs.
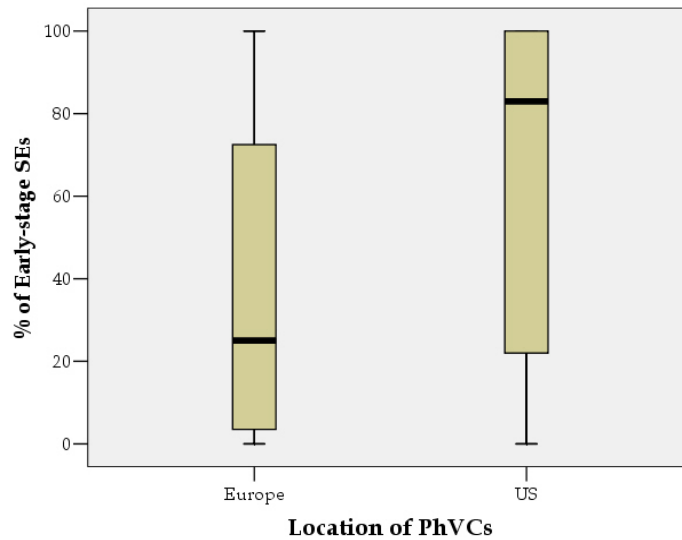
**Figure 5.4.4: Boxplot analysis - Percentage of expansion stage SEs and location
of the PhVCs.**
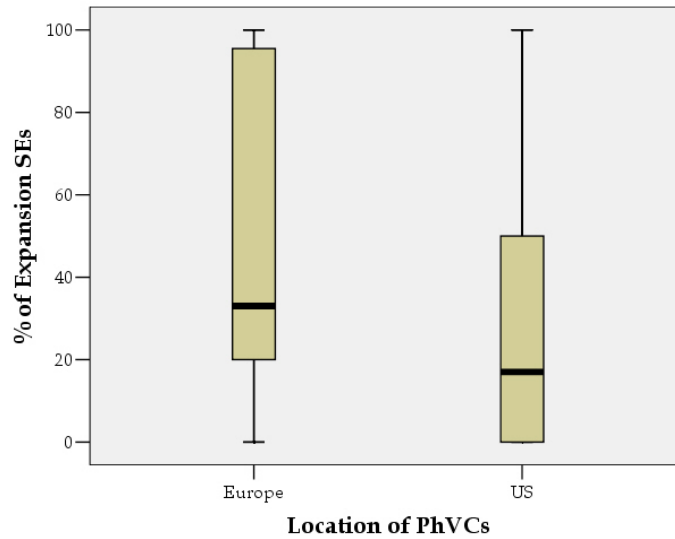
5.5.   RESULTS: INVESTING

5.5.1. Deal Origination

Following the discussion presented in chapter 2.3.1 and the results obtained in chapter 4.3, five passive and seven proactive criteria of deal origination were identified, collated, and assembled in Table 5.5.1 and Table 5.5.2.

Passive methods were classified in three groups based on their source (cfr. Table 5.5.1). The first group deals with the entrepreneur as source of proposal, which becomes the social entrepreneur in case of PhVC. Within this group of passive methods, criteria A and B were identified through the pilot interviews and confirmed by content analysis results. Nor Tyebjee and Bruno (1984) or Sweeting (1991) mention these specific methods in the case of VC.

With respect to proactive methods, group 1 presented in Table 5.5.2 – referrals – was identified based on the VC literature. Within this group, method A derives out from pilot interviews. As in the case of passive methods, the remaining groups were identified from the in-depth pilot interviews conducted with PhVCs. In particular, group 2 includes the creation of a SE by the PhVC fund; group 3 includes other methods, than those previously mentioned, of proactive search.

Findings presented in Table 5.5.1 indicate that in 52.5 percent of the cases PhVCs passively receive proposals mainly via mail from the social entrepreneur. If considering also the

method of applying via the PhVCs' web page, passive deal origination having the social entrepreneur as source is used by an average of 45 percent of PhVCs: internet and post mail are used by 52.5 percent and 37.5 percent of PhVCs respectively.

The second group of passive methods deals with proposals received through referrals arising from the PhVCs' business network of contacts, including personal acquaintance, consultants, and/or prior/existing investees, as Sweeting (1991) shows for VC. Referrals are used by 42.5 percent of PhVCs. The same pattern with respect to the source of the deal was found through content analyzing PhVCs interviews in chapter 4.3.

As third group, 12.5 percent of PhVCs declared to use other passive methods for deal origination than those proposed in the questionnaire, more specifically conferences. Given the low use of this method, the results confirm that PhVCs mainly adopt the previously mentioned methods and sources. These PhVCs declared to use conferences to passively originate potential deals: this method is not found in Tyebjee and Bruno (1984) or Sweeting (1991). Interestingly enough, 25 percent of PhVCs declared a deal flow policy of not accepting unsolicited proposals: this indicates that these PhVCs only adopt proactive methods in their origination phase.

Table 5.5.1: PhVCs use of passive deal origination.

Source	Variable	Use
	Specific section on the PhVCs web page	52.5%
Social entrepreneur	Mail	37.5%
Referrals	Business network	42.5%
Other	Conferences	12.5%

The sum of the categories does not amount to 100 percent as respondents were allowed to choose multiple options (cfr. Question 19 in Appendix 4).

As such, deal origination through referrals results to be the most used source, confirming that the quality of the source is considered by PhVCs as a good proxy for the quality of the deal, as in VC. However, as discussed on chapter 2.3.1, being passive deal origination more prone to adverse selection, proactive deal origination practices are used by VCs. The same holds for PhVCs that proactively tend to use a referral network approach in their search for new SEs to support (cfr. Table 5.5.2).

Table 5.5.2: PhVCs use and frequency of use of proactive deal origination.

Source	Variable	Use	Mean (Rank)	Median (Rank)	SD (Rank)
Referrals		*90.6%*	*4.53*	*4.75*	*1.65*
	Network of philanthropic investors	95.0%	4.95	5.00	1.62
	Organizations in the existing portfolio	92.5%	4.60	5.00	1.69
	Network of VCs	80.0%	3.25	3.00	1.84
	Proactive contact of other referral partners	95.0%	5.30	6.00	1.45
Creation of a SE		*46.3%*	*2.44*	*1.50*	*1.80*
	Incubation	50.0%	2.58	2.00	1.74
	Direct creation of a SE if a suitable candidate is not found	42.5%	2.30	1.00	1.86
Other		*27.5%*	*2.07*	*1.00*	*1.87*

The sum of the categories in column *Use* does not amount to 100 percent as respondents were allowed to choose multiple options (cfr. Question 19 in Appendix 4); 1-7 scale, 1 = "*Never used*", 4 = "*Sometimes used*", 7 = "*Always used*".

On average, the deal origination source *Referrals* is used by more than 90 percent of PhVCs, with 95 percent of them proactively seeking out new deals either by contacting their network of philanthropic investors or through other referral partners than those explicitly proposed as response categories. On average, 50 percent of PhVCs incubate SEs to test their suitability in the fund's social strategy and 42.5 percent declare to create an ad-hoc SE in the event of no suitable SE being found, averaging to more than 46 percent those PhVCs that use deal origination though *Creation of SE*. PhVCs also mentioned the use of other proactive search methods to those explicitly proposed in the survey, such us own research, conferences, network of public agencies, and one PhVCs seeks out new investment proposals through consultants. However, results show that these methods are only marginally used by PhVCs.

Differently than passively originated deals, which are originated by external sources than the PhVCs who receives the investment proposal, in the case of proactive methods PhVCs were asked to rank the frequency of use of each of those proposed as response categories using a 1-7 scale, with 1 indicating "*Never used*" and 7 indicating "*Always used*", with the middle category 4 indicating "*Sometimes used*". Results are presented in the third, fourth, and fifth column of Table 5.5.2. Accordingly, the channel most often used by PhVCs while seeking for new deals is referrals through proactive contact of third parties (other than those previously listed in the table) which receives an average score of 5.3 points and a median of 6, with the lowest standard deviation (SD) among the proposed options. This finding confirms and strengthens the result presented in the second column of the table. Within the source *Referrals*, another important source of deal origination is the PhVCs network of philanthropic supporters, which receives an

average rating close to 5 and referrals from SEs that have already been backed by PhVCs which receive an average rating of 4.6; both criteria present one of the lowest SD. Only sometimes PhVCs originate deals by contacting their network of VCs, but it is characterized by the highest SD among the criteria having *Referrals* as source.

Proactive search through incubation, which was identified through content analysis, despite being used by an average of 50 percent of PhVCs, it is barely used in terms of frequency: both E and F receive a rating above 2 and are characterized by a high level of SD. This might be a signal that PhVCs actually consider the option of having entrepreneurs in residence programs but the current situation only allows them to use them in a very few cases. Understanding the conditions under which these kinds of programs are implemented could be an avenue for future research. In the source *Other*, proactive search is done by research on the PhVCs' management team side and by attending business conferences.

Comparing findings in Table 5.5.1 and Table 5.5.2, PhVCs adopt proactive deal origination more frequently than passive (92.5 percent and 45 percent of use for referrals respectively), suggesting they do face a high level of information asymmetries and due to bounded rationality an active contact of referral partners, being these philanthropic investors, backed organizations, or other entities, helps them in better managing and minimizing adverse selection risks. In such a way financial resources are assumed to be channelled to high quality SEs with the potential for the maximum social impact. Survey results, thus, corroborate findings obtained through content analysis.

As a result, integrating PhVC findings with those presented in Table 2.3.1 and Table 2.3.2 for VC, the following tables can be created with respect to the source of the deal to identify if VCs and PhVCs adopt the same strategies to minimize adverse selection problems. Based on results, although proactive deal origination is more used than passive, the ranking in the source of PhVC deals does not differ from that characterizing traditional VC (cfr. Table 5.5.3 for passive deal origination and Table 5.5.4 for proactive in PhVCs).

Table 5.5.3: Passive deal origination – VC and PhVC comparison.

	VC Ranking		PhVC Ranking
Source	Tyebjee and Bruno (1984)	Sweeting (1991)	
Entrepreneur	1	1	1
Referrals	2	2	2
Other	-	-	3

Table 5.5.4: Proactive deal origination – VC and PhVC comparison.

	VC Ranking	PhVC Ranking
Source	Tyebjee and Bruno (1984)	
Referrals	1	1
Creation of a SE	-	2
Other	-	3

Next, any differences between the frequency of use of each proactive origination variable and the profile of respondents were investigated: the Kruskal-Wallis test presented in Table 5.5.5 indicates no differences.

Table 5.5.5: Difference between the frequency of use of proactive deal origination and the profile of respondents - Kruskal-Wallis test.

Source	Variable	Profile of respondents
Referrals	Network of philanthropic investors	0.271
	Organizations in the existing portfolio	0.978
	Network of VCs	1.514
	Proactive contact of other referral partners	1.472
Creation of a SE	Incubation	3.776
	Direct creation of a SE if a suitable candidate is not found	1.398
Other		1.719

If performing a bivariate analysis in terms of use of deal origination methods and control variables such as the legal form of the PhVC with respect to *Organizational form of PhVCs* and *Location of PhVCs*, a chi-square test was performed as done in chapter 3.6.3: both Fisher and contingency coefficient indicate that the null hypothesis of no relationship is failed to be rejected, suggesting that both American and European PhVCs employ the same sources.

The null hypothesis of no difference between the *frequency of use of proactive deal origination* and the *Organizational form of PhVCs* is failed to be rejected. Findings are presented in Table 5.5.7.

Table 5.5.6: Relationship of passive and proactive use of deal origination sources with the organizational form of PhVCs - Fisher exact test and contingency coefficient.

		Organizational form of PhVCs			
Passive deal origination		Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
Source	*Variable*				
Social entrepreneur	Specific section on the PhVCs web page	-	0.172	0.412	0.270
	Mail	-	0.235	0.210	0.126
Referrals	Business network	-	0.129	0.677	0.412
Other	Conferences	-	0.171	0.565	0.271
Proactive deal origination					
Referrals	Network of philanthropic supporters	-	0.193	0.323	0.215
	Organizations in the existing portfolio	-	0.130	1.000	0.407
	Network of VCs	-	0.098	0.611	0.533
	Proactive contact of other referral partners	-	0.105	1.000	0.504
Incubation	Incubation	-	0.066	1.000	0.677
	Direct creation of a SE if a suitable candidate is not found	-	0.003	1.000	0.983
Other		-	0.011	1.000	0.944

Table 5.5.7: Difference between the frequency of use of proactive deal origination criteria and the organizational form of PhVCs - Mann-Whitney U test.

Proactive deal origination		Organizational form of PhVCs
Source	*Variable*	
Referrals	Network of philanthropic supporters	70.000
	Organizations in the existing portfolio	112.000
	Network of VCs	101.000
	Proactive contact of other referral partners	105.000
Incubation	Incubation	103.500
	Direct creation of a SE if a suitable candidate is not found	107.000
Other		92.000

Next, an analysis of difference is run to understand whether PhVCs differ in their origination process according to their location. The analytical process is similar to that adopted for what concerns the variable *Organizational form of PhVCs*. While the hypothesis of no differences is failed to be rejected for the use of all passive and proactive deal origination variables (cfr. Table 5.5.8) and the frequency of use of proactive ones (cfr. Table 5.5.9), a significant difference is found for what concerns the location of the PhVCs and the frequency of use of the PhVCs' network of philanthropic supporters (5 percent significant level) as well as

organizations in the PhVCs' portfolio (10 percent significance level) (cfr. Table 5.5.9).

Table 5.5.8: Relationship of passive and proactive use of deal origination sources with the location of PhVCs - Fisher exact test and contingency coefficient.

Passive deal origination		Location of PhVCs			
		Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
Source	*Variable*				
Social entrepreneur	Specific section on the PhVCs web page	-	0.055	0.761	0.726
	Mail	-	0.122	0.526	0.436
Referrals	Business network	-	0.066	0.755	0.676
Other	Conferences	-	0.187	0.355	0.230
Proactive deal origination					
Referrals	Network of philanthropic supporters	-	0.023	1.000	0.884
	Organizations in the existing portfolio	-	0.067	1.000	0.673
	Network of VCs	-	0.050	1.000	0.751
	Proactive contact of other referral partners	-	0.023	1.000	0.884
Incubation	Incubation	-	0.000	1.000	1.000
	Direct creation of a SE if a suitable candidate is not found	-	0.066	0.755	0.676
Other		-	0.106	0.723	0.499

Table 5.5.9: Difference between the frequency of use of proactive deal origination criteria and the location of PhVCs - Mann-Whitney U test.

Proactive deal origination		Location of PhVCs
Source	*Variable*	
Referrals	Network of philanthropic supporters	107.000**
	Organizations in the existing portfolio	127.000*
	Network of VCs	187.500
	Proactive contact of other referral partners	198.000
Incubation	Incubation	191.500
	Direct creation of a SE if a suitable candidate is not found	177.000
Other		157.000

* Significant at 10% level; ** Significant at 5% level.

On the one hand, referrals from the PhVCs' network of philanthropic supporters results to be widely used in the US: a comparison of the frequency of use of this variable reveals that the significant difference can be found in the high-end of the rating scale: US PhVCs tend to use more than expected this variable, with overall 13 funds (out of 18) attributing a rating of 6 and 7 vs. a total expected count of 8. On the other hand, a boxplot analysis presented in Figure 5.5.1 of the frequency of use of referrals from organizations in the PhVCs' portfolio indicates that US

PhVCs tend to use it more than European ones.

Figure 5.5.1: Boxplot analysis – Frequency of use of origination through organizations in the PhVCs' portfolio and location of the PhVCs.
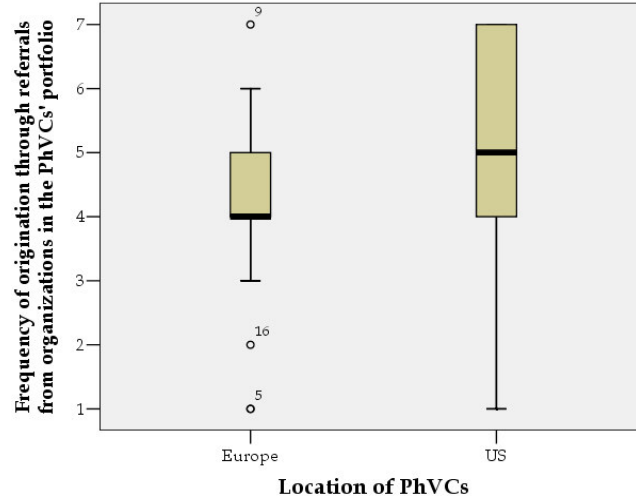
Last, any difference in use of passive and proactive variables of deal origination sources as well as frequency of use of proactive ones was analyzed with respect to *PhVCs clusters* identified in chapter 1.3 using the Kruskal-Wallis test. Table 5.5.10 presents results in terms of use of origination variables, whereas Table 5.5.11 shows findings on the frequency of use of proactive ones. Both tables indicate that the null hypothesis of no difference is failed to be rejected except for the other variable in the use of proactive deal origination and the frequency of use of referrals from PhVCs' network of VCs.

Table 5.5.10: Difference between passive and proactive use of deal origination sources and PhVCs clusters - Kruskal-Wallist test.

Source	Passive deal origination Variable	PhVCs clusters
Social entrepreneur	Specific section on the PhVCs web page	1.006
	Mail	0.425
Referrals	Business network	0.390
Other	Conferences	4.599
	Proactive deal origination	
Referrals	Network of philanthropic supporters	1.254
	Organizations in the existing portfolio	0.926
	Network of VCs	5.734
	Proactive contact of other referral partners	2.053
Incubation	Incubation	3.528
	Direct creation of a SE if a suitable candidate is not found	3.221
Other		9.747**

** Significant at 5% level.

Table 5.5.11: Difference between the frequency of use of proactive deal origination and PhVCs clusters - Kruskal-Wallist test.

	Proactive deal origination	*PhVCs clusters*
Source	*Variable*	
Referrals	Network of philanthropic supporters	2.607
	Organizations in the existing portfolio	0.001
	Network of VCs	9.578**
	Proactive contact of other referral partners	2.008
Incubation	Incubation	3.948
	Direct creation of a SE if a suitable candidate is not found	4.757
Other		5.897

** Significant at 5% level.

Both the frequency of use of other variable of proactive deal origination and of referrals from VCs result to be more used by social VCs as reported in Table 5.5.12. This is compatible with the definition of social VC provided in chapter 1.3, based on which investors falling into this category invest in for-profit SEs seeking double- or triple-bottom line returns. As such, traditional VCs might pass onto social VCs those investment prospects they receive from for-profit organizations that are looking for funds and that, because of the social component that is intrinsic in their activity, might not be able to offer traditional VCs an adequate economic rate of return on the investment.

Table 5.5.12: Proactive deal origination - Frequency of use of referrals from network of VCs and PhVCs clusters.

		PhVCs clusters		
		Social VCs	High engagement philanthropists	Hybrid philanthropists
		Count	Count	Count
Referrals from Network of VCs	Never	0	8	1
	2.00	0	5	3
	3.00	2	3	1
	Sometimes	2	1	3
	5.00	4	1	0
	6.00	1	1	2
	Always	0	1	1

5.5.2. *Deal Screening and Evaluation*

Moving now to the second phase of the investment process as described in chapter 2.3.2, Proposition 2 expected a positive relationship between the risk for adverse selection and the importance attributed to the *Human capital* dimension in the screening and evaluation phases of

the PhVC investment process. Before moving on to the analysis of selection dimensions and variables considered by PhVCs, it was asked PhVCs which is the important document that they require applicants to send them. Findings show that the business plan receives an average importance rating of 6 (SD = 1.39), the financial plan of 5.73 (SD = 1.42), and audited accounts of 5 (SD = 2.02).

Results from Table 5.5.13 indicate that the PhVCs selection process result to be indeed focused on the *Human capital* dimension, and more particularly, on the experience of the social entrepreneur and of the management team. The *Human capital* dimension receives the highest importance among those proposed in the survey, with an average rating of 6.82 (median of 7), the lowest SD (0.55), and 90 percent of PhVCs considering it as a very important variable for screening.

Table 5.5.13: Selection variables – PhVCs' rating.

Dimension	Variable	% of Very important	Mean (rank)	Median (rank)	SD (rank)
Human capital		*90%*	*6.82*	*7.00*	*0.55*
	Social entrepreneur	90.0%	6.82	7.00	0.55
Activity of the organization		*27.5%*	*5.00*	*5.25*	*1.44*
	Business strategy	40.0%	6.17	6.00	0.81
	Credible and sustainable revenue model and/or credible, sustainable funding model	27.5%	5.40	6.00	1.55
	The SE is achieving clear outcomes with a significant number of people	42.5%	5.28	5.00	1.66
	Technology	-	3.18	4.00	1.74
External environment		*26.25%*	*5.31*	*5.50%*	*1.43*
	Social market served	42.5%	5.85	6.00	1.29
	Market size	10.0%	4.78	5.00	1.56
Assessment of the deal		*21.45%*	*4.47*	*5.00*	*1.97*
	Fit in the portfolio	35.0%	5.23	6.00	2.02
	Deal terms	7.9%	3.71	4.00	1.92
Potential		*40.83%*	*5.94*	*6.33*	*1.14*
	Financial sustainability	27.5%	5.80	6.00	1.07
	Social impact	55.0%	6.33	7.00	0.89
	Scale	40.0%	5.70	6.00	1.47
Other		7.5%	3.17	4.00	2.34

1-7 scale, 1 = "*Never used*", 4 = "*Sometimes used*", 7 = "*Always used*".

If ranking the dimensions which each variable represent, the pattern found is the following:

1. *Human Capital* measured by the experience of the social entrepreneur and of the

management team and receiving an average rating of 6.82;

2. *Potential* measured by the social impact the SE is estimated to be able to create, receiving an average importance of 5.94;

3. *External environment* considering the type of social market the SE is targeting which is rated on average 5.31;

4. *Activity of the organization* in terms of the business strategy pursued to achieve the SE's social mission and, thus, maximize its social impact which receives an average importance of 5.00;

5. *Assessment of the deal* measured by variables indicating the fit in the existing portfolio and the terms of the deal which receives an average rating of importance of 4.47.

Results thus suggest that adverse selection issues are perceived as severe by PhVCs, as expected by Proposition 2. Survey results confirmed those obtained through content analysis in terms of importance of the *Human capital* dimension. However, the ranking comparison of Table 5.5.13 with Table 4.3.2, the dimension *Potential* appears to be or greater importance than what found from content analysis. Furthermore, survey respondents appear to place more emphasis on external rather than internal characteristics of the SEs, with the dimension *External environment* ranking higher than *Activity of the organization*.

Survey also indicates that the dimension *Assessment of the deal,* measured by the variables *Fit in the portfolio*, in the way discussed in chapter 5.4 and *Deal terms* are considered of lower importance and higher SD while selecting for new potential investments. This is also confirmed by the very low percentage of PhVCs rating them as very important (35 percent and 7.9 percent respectively).

If comparing Table 5.5.13 with Table 2.3.3, findings suggest that PhVCs behave more as presented by MacMillan et al. (1985) rather than by Kaplan and Strömberg (2001): both PhVCs and VCs rate the dimension *Human capital* as the most important one. However, while VCs appear to strongly focus on the dimension *External environment*, PhVCs appear to attribute more importance to *Potential*.

As a further step, any differences between the importance of selection variables was investigated with respect to *Profile of respondents, Organizational form of PhVCs* as well as the *Location of PhVCs.* Table 5.5.14 presents results with respect to the organizational form, whereas Table 5.5.15 in terms of location. Accordingly, among respondents Table 5.5.14 shows that the null hypothesis of no differences underlying the Kruskal-Wallis test is failed to be rejected but for the selection variable "Technology" which result to be significant at 10 percent level.

Table 5.5.14: Difference between rating of selection variables and profile of respondents - Kruskal-Wallis test.

Dimension	Variable	Profile of respondents
Human capital	Social entrepreneur	1.583
Activity of the organization	Business strategy	4.769
	Credible and sustainable revenue model and/or credible, sustainable funding model	2.314
	The SE is achieving clear outcomes with a significant number of people	1.714
	Technology	6.562*
External environment	Social market served	3.074
	Market size	2.631
Assessment of the deal	Fit in the portfolio	1.732
	Deal terms	3.529
Potential	Financial sustainability	4.587
	Social impact	7.449
	Scale	1.397
Other		1.388

* Significant at 10% level.

The boxplot analysis of the identified differences presented in Figure 5.2.2 reveals that CEOs and investment directors rated the importance of the "Technology" variable lower than all other profiles.

Figure 5.5.2: Boxplot analysis of technology and profile of respondents.
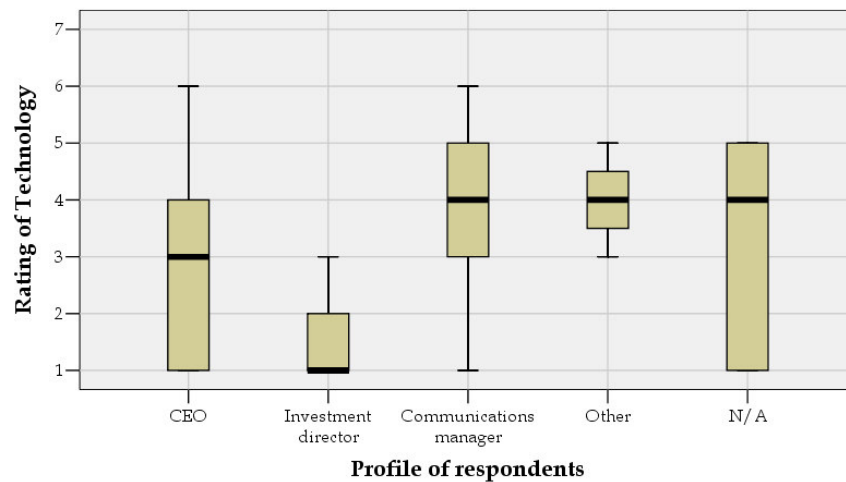
Table 5.5.15 indicates a statistical significant difference at 10 percent level between the importance of the two selection variables "Social market served" and "Scale" and the location of PhVCs.

Table 5.5.15: Difference between the rating of selection variables, the organizational form of PhVCs and their location - Mann-Whitney U test.

Dimension	Variable	Organizational form of PhVCs	Location of PhVCs
Human capital	Social entrepreneur	101.500	154.000
Activity of the organization	Business strategy	95.500	137.500
	Credible and sustainable revenue model and/or credible, sustainable funding model	115.000	176.000
	The SE is achieving clear outcomes with a significant number of people	74.500	198.000
	Technology	90.500	138.500
External environment	Social market served	86.500	134.000*
	Market size	104.500	139.500
Assessment of the deal	Fit in the portfolio	102.500	171.000
	Deal terms	91.000	112.000*
Potential	Financial sustainability	81.500	163.500
	Social impact	112.500	151.000
	Scale	111.000	136.000*
Other		28.500	59.000

* Significant at 10% level.

A boxplot analysis of the differences, presented in Figure 5.5.3 and Figure 5.5.5, shows that both for "Social market served" and "Potential for scalability" European PhVCs tend to rate them lower than the American counterparts. On the contrary, "Deal terms" are way far important for European than US PhVCs (cfr. Figure 5.5.4).

Figure 5.5.3: Boxplot analysis rating of social market served and location of PhVCs.
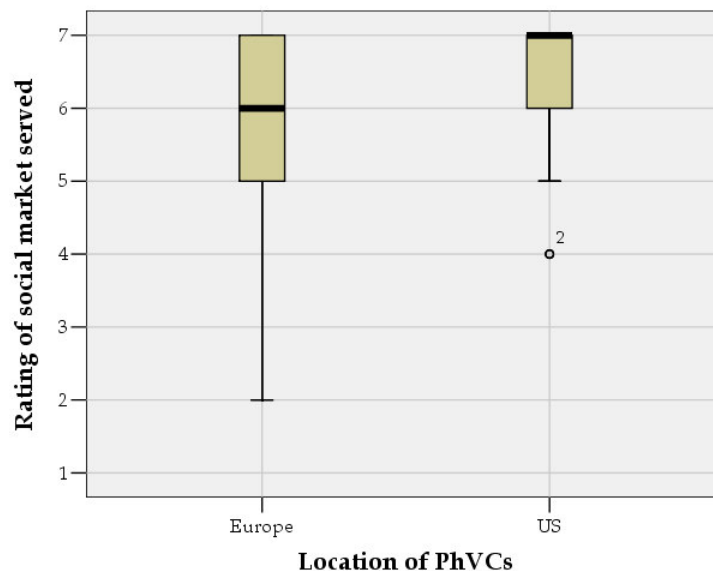
Figure 5.5.4: Boxplot analysis rating of deal terms and location of PhVCs.
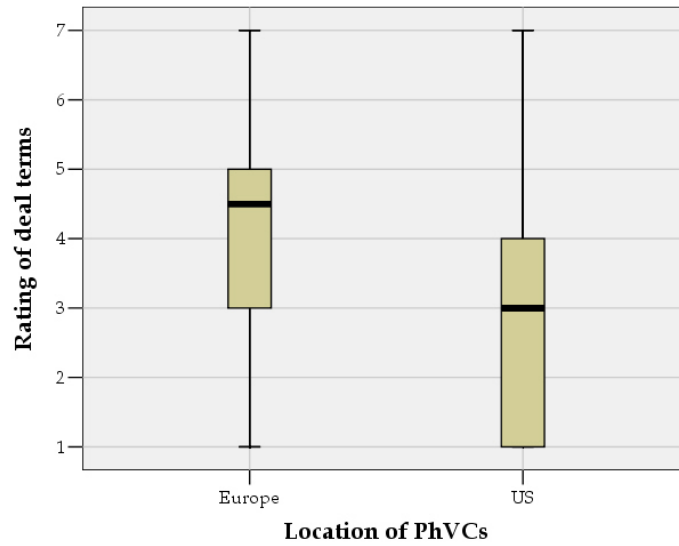
Figure 5.5.5: Boxplot analysis rating of potential for scalability and location of PhVCs.
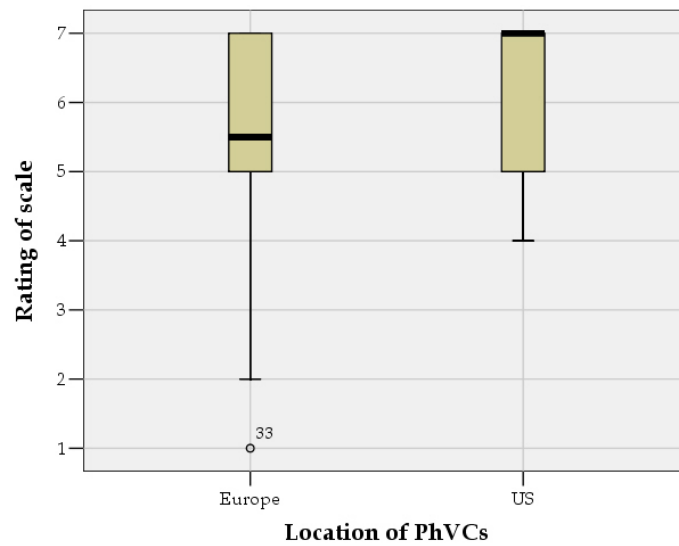
Last, any differences in the importance of selection variables and *PhVCs cluster* was checked using the Kruskal-Wallis test: the null hypothesis of no difference is failed to be rejected for all the variables except in the case of Deal terms (cfr. Table 5.5.16).

Table 5.5.16: Difference between the rating of selection variables and PhVCs clusters - Kruskal-Wallis test.

Dimension	Variable	PhVCs clusters
Human capital	Social entrepreneur	1.722
Activity of the organization	Business strategy	3.468
	Credible and sustainable revenue model and/or credible, sustainable funding model	2.825
	The SE is achieving clear outcomes with a significant number of people	3.292
	Technology	0.005
External environment	Social market served	3.516
	Market size	0.070
Assessment of the deal	Fit in the portfolio	4.026
	Deal terms	11.238**
Potential	Financial sustainability	2.161
	Social impact	2.569
	Scale	2.253
Other		4.939

** Significant at 5% level.

To further investigate the issue, a boxplot analysis was run and results are reported in Figure 5.5.6 which shows that pure highly-engaged philanthropists tend to rate it lower than social VCs and hybrid philanthropists. The rationale behind this finding must take into account the definition of the cluster pure highly-engaged philanthropist provided in chapter 1.3: investing in non-profits does not entail PhVCs in retaining an equity stake, which then decreases the importance of the variable deal terms, namely the price paid for becoming shareholder of a venture.

Figure 5.5.6: Boxplot analysis of Rating of Deal terms and PhVCs cluster.
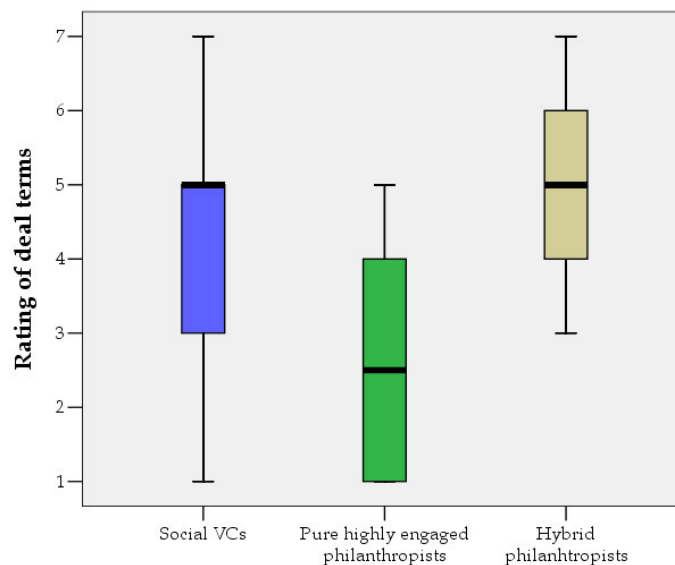
5.5.3. Deal Structuring

Following the discussion presented in chapter 2.3.3, VCs structure their deals such that their own interest is protected against any harmful behaviour of the backed entrepreneur. As a result, Proposition 3 predicted that the higher the risk of moral hazard, the lower the use of grant financing by PhVCs. However, both on an aggregate level and by backed SEs' stage of development, results reveal that grant financing is the most widely used financial instrument by PhVCs, supporting thus John (2007) and content analysis results in chapter 4.3.3. On an aggregate level, Table 5.5.17 indicates that 72.7 percent of PhVCs use grants to back SEs, suggesting a low perception of moral hazard given that grants do not need to be repaid and do not entail grant providers in retaining any shareholding. Also, this finding with the use of equity financing by 34.3 percent of PhVCs confirm John (2007). Only marginally various typologies of debt financing are used, supporting Wedig et al. (1988) argument of a low use of debt in the social sector due to the related high risk of bankruptcy.

Table 5.5.17: Percentage of PhVCs by use of financial instrument.

Financial instrument	% of use
Grant	72.7%
Equity	34.3%
Quasi-equity	27.8%
Underwriting	10.8%
Subordinated loan	8.6%
Senior debt	8.3%
Unsecured loan below market rate	8.3%
Unsecured loan at market rate	8.1%

The sum of the categories in column *% of use* does not amount to 100 percent as respondents were allowed to choose multiple options (cfr. Question 13, 15, and 17 in Appendix 4).

Table 5.5.18 presents the use of the different typologies of financial instruments by stage of development of PhVC backed SEs confirming the prominence of grants vs. all the remaining instruments.

Table 5.5.18: Percentage of PhVCs by use of financial instrument and SE's stage of development.

Financial instrument	SEs' stage of development		
	Early stage	Expansion stage	Maturity stage
Grant	77.4%	64.5%	62.5%
Equity	32.3%	38.7%	31.3%
Quasi-equity	25.8%	25.8%	31.3%
Subordinated loan	16.1%	16.1%	6.3%
Underwriting	12.9%	12.9%	12.5%
Unsecured loan below market rate	9.7%	12.9%	12.5%
Senior debt	6.5%	9.7%	12.5%
Unsecured loan at market rate	6.5%	6.5%	6.3%

However, if investigating whether differences in the use of financial instruments exist with respect to PhVCs clusters, significant differences are found concerning grant, equity, quasi-equity, senior debt, and unsecured loan at market rate, as results in Table 5.5.19 show.

Table 5.5.19: Relationship of the use of financial instrument with PhVCs clusters - Contingency coefficient.

	PhVCs clusters
Financial instrument	Value
Grant	0.647***
Equity	0.454**
Quasi-equity	0.450**
Subordinated loan	0.141
Underwriting	0.203
Unsecured loan below market rate	0.150
Senior debt	0.437**
Unsecured loan at market rate	0.415**

** Significant at 5% level; *** Significant at 1% level.

A cross-tab analysis considering *PhVCs clusters* and the use of those financial instruments for which differences were found reveals that social VCs tend not to use grants (cfr. Table 5.5.20). This is compatible with their double or triple bottom line outcome as grants do not entail donors to receive any payoff from investments. Following this result, equity and quasi-equity are thus used more than expected by social VC and by hybrid philanthropists, whereas senior debt and unsecured loan at market rate results to be more used by hybrid philanthropists.

Table 5.5.20: Financial instrument and PhVCs clusters - Cross tab analysis.

Financial instrument			PhVCs clusters		
			Social VCs	High engagement philanthropists	Hybrid philanthropists
Grant	Used	Count	-	15.0	9.0
		Expected count	5.1	11.6	7.3
Equity	Used	Count	4.0	2.0	6.0
		Expected count	2.1	6.2	3.8
Quasi-equity	Used	Count	4.0	1.0	5.0
		Expected count	1.9	5.0	3.1
Senior debt	Used	Count	-	-	3.0
		Expected count	0.7	1.5	0.8
Unsecured loan at market rate	Used	Count	-	-	3.0
		Expected count	0.6	1.5	0.9

Proposition 4 expected a positive relationship between the use of formal valuation methods and moral hazard risk. In VC, the typical valuation process consists of three sequential steps. First, information is gathered on the venture, its management team, and its future prospects. Second, this information is used to appraise the risk of the venture and hence the

required return on the investment, and to estimate the (future) cash flows and profit potential. Finally, one or more valuation method is used, which combines the elements of risk, return, and profits or cash flows in order to compute the value of the company.

Table 5.5.21 shows that the majority of PhVCs do not perform any valuation of the SEs they select, suggesting that no moral hazard issues are expected. Of those using valuation methods such as multiples (more than 25 percent) or the discounted free cash flow (DCF) method (more than 19 percent), 16 percent use both as a way to better estimate and confirm the fair value of the organization. Furthermore, the frequency of use of these two valuation models as well as their combined use show that PhVCs follow the behaviour of traditional VCs, as shown by Manigart et al. (1997). Into the *Other* response category, PhVCs listed valuation methods based on the estimation of the potential social impact or on legal issues. Digging more into this finding is an interesting area for future research.

Table 5.5.21: Percentage of PhVCs by use of valuation methods.

Valuation method	% of use
No valuation	61.3%
Multiples	25.8%
DCF valuation	19.4%
Multiples and DCF valuation	16.0%
Other	12.9%

Table 5.5.22 shows a significant negative correlation between the use of no formal valuation models and equity as financial instrument whereas Table 5.5.23 indicates that the use of no formal valuation model is associated with a lower importance of the business plan as well as of the estimation of the funds needed by the SE.

Table 5.5.22: Association between the financial instrument and no use of valuation methods - Correlation coefficient.

		No valuation
Financial instrument	Grant	0.256
	Equity	-0.602***
	Quasi-equity	-0.244
	Subordinated loan	-0.224
	Underwriting	0.120
	Unsecured loan below market rate	0.032
	Senior debt	-0.174
	Unsecured loan at market rate	-0.055

*** Correlation is significant at the 1% level.

Table 5.5.23: Association between the importance of the information required by the PhVCs and no use of valuation methods.

		No valuation
Information required	Business plan	-0.385**
	Estimation of funds	-0.434**
	Explanation of use of funds	-0.295
	Financial plan	-0.314

** Correlation is significant at the 5% level.

As discussed in chapter 2.3.3, since no formal valuation models are used, PhVCs are expected to fund specific SEs' needs. Table 5.5.24 shows the frequency of funding specific SEs' needs based on a 1-7 scale, where 1 indicates *Never*, 4 *Sometimes*, and 7 *Always*. Findings indicate that the most often financed need, with a median rating of 6, consists of increasing the SE's management capacity. The concept of capacity building in SEs is similar to the concept of organizational development, organizational effectiveness and/or organizational performance management and capacity building efforts can include a broad range of approaches, e.g., granting operating funds, granting management development funds, providing training and development sessions, providing coaching, supporting collaboration with other non-profits.

Table 5.5.24: Frequency of backed need.

Need backed	*Mean*	*Median*	*SD*
Increase management capacity	5.18	6	1.85
Working capital	4.34	4	1.82
Outsourced project support	4.03	4	1.67
Capex	3.97	4	1.96
Cash	3.37	4	1.96
Other	1.00	1	0.00

1-7 scale, 1 = "*Never used*", 4 = "*Sometimes used*", 7 = "*Always used*".

Table 5.5.25 presents correlations between the frequency of use of the above mentioned needs and the stage of development of the SEs backed by PhVCs. The analysis was run based on the hypothesis that there could be a relationship between a specific need and the stage of development of the organization. However, findings suggest that no significant association exist, indicating needs are present all throughout the life of SEs.

Table 5.5.25: Association between the frequency of backed need and backed SE's stage of development - Correlation coefficient.

		Early-stage	*Expansion-stage*	*Maturity-stage*
Need backed	Increase management capacity	0.155	-0.091	-0.169
	Working capital	0.133	-0.020	-0.261
	Outsourced project support	0.348	-0.298	-0.153
	Capex	0.283	-0.139	-0.305
	Cash	0.300	-0.366	0.106
	Other	-	-	-

Next, any relationship between the frequency of use of each need and the use of valuation methods was investigated to understand whether the funding of a specific need is associated with the use of a valuation model. Table 5.5.26 indicates a positive significant correlation between the frequency of financing working capital needs and valuation based on multiples (ρ = 0.44, $p<0.05$) or DCF (ρ = 0.49, $p<0.01$). Furthermore, whereas a positive correlation is found between the frequency of financing CAPEX needs and valuation through the DCF model (ρ = 0.46, $p<0.05$), a negative correlation exists between the frequency of funding outsourced project support and other methods of valuation (ρ = 0.38, $p<0.05$).

Table 5.5.26: Association between the frequency of backed need with the used valuation method - Correlation coefficient.

	Valuation method			
Need backed	No valuation	Multiples	DCF valuation	Other
Increase management capacity	-0.154	0.034	0.081	0.179
Working capital	-0.332	0.439***	0.496**	-0.091
Outsourced project support	0.287	-0.045	-0.221	-0.381***
Capex	-0.186	0.382	0.459***	-0.227
Cash	-0.004	0.089	0.157	-0.105
Other	-	-	-	-

** Correlation is significant at the 5% level; *** Correlation is significant at the 1% level.

The last part of the analysis investigated any differences among the use of a particular type of financial instrument or the frequency of funding an organizational need and the legal structure of the PhVCs fund in terms of *Organizational form of PhVCs* and its location, namely *Location of PhVCs*. Results, presented through Table 5.5.27 to Table 5.5.30 show no differences either with respect to *Organizational form of PhVCs* or to *Location of PhVCs*. The only difference, which is significant at 10 percent level, concerns the *Location of PhVCs* and the use of multiples as valuation method (cfr. Table 5.5.30): a cross-tab analysis indicates that European PhVCs use multiples more than expected (7 out of an expected count of 4.9).

Table 5.5.27: Difference between the financial instrument and the organizational form of PhVCs - Mann-Whitney U test.

		Organizational form of PhVCs
Financial instrument	Grant	89.500
	Equity	91.000
	Quasi-equity	84.500
	Subordinated loan	87.500
	Underwriting	100.500
	Unsecured loan below market rate	94.000
	Senior debt	91.000
	Unsecured loan at market rate	94.500

Table 5.5.28: Relationship of the use of valuation methods with the organizational form of PhVCs - Fisher exact test and contingency coefficient.

	Organizational form of PhVCs			
Valuation method	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
No valuation	-	0.166	0.624	0.348
Multiples	-	0.058	1.000	0.746
DCF valuation	-	0.007	1.000	0.968
Other	-	0.166	1.000	0.347

Table 5.5.29: Difference between the financial instrument and the location of PhVCs - Mann-Whitney U test.

		Location of PhVCs
Financial instrument	Grant	88.500
	Equity	133.000
	Quasi-equity	118.500
	Subordinated loan	143.500
	Underwriting	135.000
	Unsecured loan below market rate	133.000
	Senior debt	153.000
	Unsecured loan at market rate	142.500

Table 5.5.30: Relationship of the use of valuation methods and the location of PhVCs - Fisher exact test and contingency coefficient.

	Location of PhVCs			
Valuation method	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
No valuation	-	0.717	0.087	0.625
Multiples	-	0.302	0.108	0.077
DCF valuation	-	0.216	0.363	0.217
Other	-	0.272	0.276	0.110

Moving now to Proposition 5 and Proposition 6, a positive relationship between the use of entrepreneurs' binding provisions as well as renegotiation, liquidation, and transfer clauses

and moral hazard risk was expected. Findings on PhVCs show that 11.4 percent of respondents declared to include vesting provisions in their deals. Furthermore, as shown in Table 5.5.31, vesting provisions significantly correlate with PhVCs financing SEs through equity ($\rho = 0.39$, $p<0.05$). Renegotiation as well as liquidation clauses are marginally used (all provisions are used by less than 20 percent of PhVCs). As a confirmation of this, a vast majority of respondents declared not to consider transfer clauses at all in their deals, signalling again the perception of low risk for moral hazard behaviour on the side of the social entrepreneur as well as a different behaviour than that characterizing VC deals.

Table 5.5.31: Percentage of PhVCs using Entrepreneur' binding provisions and Renegotiation and liquidation clauses.

Contractual provisions	% of use
Anti-dilution	20.0%
Liquidation preferences	17.1%
Drag-along	16.7%
Tag-along	13.3%
Vesting	11.4%
Pre-emption rights	10.0%
No transfer rights	46.7%

The sum of the categories in column *% of use* does not amount to 100 percent as respondents were allowed to choose multiple options (cfr. Question 30 in Appendix 4).

Interestingly, significant positive correlation is found with respect to all the above mentioned contractual provisions and the use of equity as financing instrument, indicating that moral hazard risk is perceived higher in the case of an equity-financing . However, a significant positive correlation is also found with respect to the use of liquidation preferences and anti-dilution provisions and the use of subordinated loan as financing instrument.

Table 5.5.32: Entrepreneur' binding provisions, renegotiation and liquidation clauses, financial instrument – Correlation coefficient.

		Contractual provisions						
		Vesting	Liquidation preferences	Anti-dilution	Pre-emption rights	Drag-along	Tag-along	No transfer rights
Financial instrument	Grant	-0.194	-0.248	-0.365	-0.044	-0.457***	-0.457***	0.292
	Equity	0.385***	0.488**	0.764**	0.595**	0.462***	0.595**	-0.260
	Quasi-equity	0.178	0.106	0.406*	0.088	0.019	0.088	0.000
	Subord. loan	0.196	0.447***	0.667**	-0.104	0.277	0.348	0.289
	Underwriting	-0.143	-0.182	0.029	-0.147	-0.199	-0.174	0.433***
	Unsecured loan below market rate	-0.126	-0.160	0.084	-0.125	-0.169	-0.147	0.367
	Senior debt	0.199	0.116	0.084	-0.104	-0.123	-0.123	0.000
	Unsecured loan at market rate	-0.122	0.120	0.348	0.800**	0.229	0.280	-0.273

** Correlation is significant at the 5% level; *** Correlation is significant at the 1% level.

Since with subordinated loan debt providers (the PhVCs) have subordinate status in relationship to the normal debt, in the case of a liquidation event like bankruptcy, the PhVCs would be paid just before stockholders, assuming there are assets to distribute after all other liabilities and debts have been paid. To control for this, liquidation preferences can be set up such that investors have a "first right" to any cash available to shareholders in a liquidity event.

For what concerns the positive correlation of anti-dilution provisions with subordinated debt, these two variables show a high significant correlation with both equity and quasi-equity (cfr. Table 5.5.33). As a result, this may cause the correlation between anti-dilution provisions and subordinated debt. The spurious correlation can be explained with the fact that, being subordinated debt is junior debts and entails debt-holders to be paid only after all senior debt has been repaid, this makes it similar to equity. Hence, the high correlation with it.

The significant negative correlation between grant as financing instrument and drag-along (ρ = -0.46, $p<0.05$) as well as tag-along provisions (ρ = -0.46, $p<0.05$) is not surprising, given that by nature grants do not entail donors to be shareholder's of the grantee organization. Furthermore, the same value of the correlation coefficient results to be due to the positive correlation between drag-along and tag-along provisions (ρ = 0.88, $p<0.01$).

Additionally, two other significant positive correlations are identified: the association of underwriting as financing instrument and the use of no transfer rights (ρ = 0.43, $p<0.05$) as well as that concerning unsecured loan at market rate and pre-emption rights (ρ = 0.8, $p<0.01$).

Last, differences in the use of contractual provisions and PhVCs clusters, the location of the PhVCs as well as their legal form in terms of the variable *Location of PhVCs* and *Organizational form of PhVCs* were investigated. Results in Table 5.5.34 and Table 5.5.35 indicate that the null hypothesis of no differences is failed to be rejected except for location and drag-along (cfr. Table 5.5.35) which results to be significant at 10 percent level. A cross-tab analysis of this difference shows that it is more used by European PhVCs with a count of 5 out of an expected count of 3.2.

Table 5.5.33: Anti-dilution provisions and Financing instrument - Correlation matrix.

	Anti-dilution	Grant	Equity	Quasi-equity	Subordinated loan	Underwriting	Unsecured loan below market rate	Senior debt	Unsecured loan at market rate
Anti-dilution	1.000								
Grant	-0365	1.000							
Equity	0.764***	-0.298	1.000						
Quasi-equity	0.406**	-0.545***	0.343**	1.000					
Subordinated loan	0.667***	-0.309	0.424**	0.484***	1.000				
Underwriting	0.029	-0.190	-0.070	0.373*	0.211	1.000			
Unsecured loan below market rate	0.084	-0.043	-0.006	0.258	0.271	0.853***	1.000		
Senior debt	0.084	-0.043	-0.013	0.484***	0.269	0.533***	0.271	1.000	
Unsecured loan at market rate	0.348	0.194	0.209	0.262	-0.094	-0.103	-0.091	-0.091	1.000

** Correlation is significant at the 5% level; *** Correlation is significant at the 1% level.

Table 5.5.34: Relationship between contractual provisions and organizational form of PhVCs - Fisher exact test and contingency coefficient.

Contractual provision	Organizational form of PhVCs			
	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
Vesting	-	0.161	1.000	0.334
Liquidation preferences	-	0.203	0.561	0.221
Anti-dilution	-	0.222	0.311	0.178
Pre-emption rights	-	0.164	1.000	0.361
Drag-along	-	0.218	0.553	0.221
Tag-along	-	0.192	0.557	0.283
No transfer rights	-	0.197	0.378	0.272

Table 5.5.35: Relationship of contractual provisions with location of PhVCs - Fisher exact test and contingency coefficient.

Contractual provision	Location of PhVCs			
	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
Vesting	-	0.073	1.000	0.664
Liquidation preferences	-	0.062	1.000	0.714
Anti-dilution	-	0.254	0.203	0.121
Pre-emption rights	-	0.246	0.279	0.165
Drag-along	-	0.322	0.129	0.062
Tag-along	-	0.286	0.268	0.102
No transfer rights	-	0.466	0.155	0.389

Proposition 13 formulated based on content analysis results was investigated asking PhVCs the level of importance of trust vs. formal control rights rating it using a 1-7 Likert scale with 1 indicating "*Never used*", 4 "*Sometimes used*", and 7 "*Always used*". Results indicate that 43.2 percent rate trust much more important than formal control rights (rating = 7), with a mean score of 5.81 (median = 6) and a minimum of 4 (indicating that trust is as important as formal control rights) attributed by 22 percent of PhVCs. Thus, support is found. However, if analyzing the relationship between the level of trust and the typology of financial instrument used to back SEs, results indicate a maximum negative coefficient in the case of the use of equity (cfr. Table 5.5.36) which is also significant at 10 percent level. Also, negative coefficients are obtained in the case debt financing (in its various forms) is used. As such, results suggest that trust is indeed much more important than formal control rights, however its importance decreases when

traditional marketable instruments are used.

Table 5.5.36: Association between the importance of trust vs. formal control rights and the use of financing instrument - Correlation coefficient.

		Level of trust
	Grant	0.064
	Equity	-0.323*
Financing instrument	Quasi-equity	-0.204
	Subordinated loan	-0.089
	Underwriting	0.238
	Unsecured loan below market rate	0.159
	Senior debt	-0.090
	Unsecured loan at market rate	-0.164

* Significant at 10% level.

5.5.4. *Post-Investment Activities*

5.5.4.a. *Monitoring*

Proposition 7 expects a positive relationship between the stewardship services offered by PhVCs to backed SEs and the importance of informal monitoring as opposed to formal monitoring. Formal monitoring was measured using the three variables identified through content analysis: board seat, stage financing, and formal reports; informal monitoring was measured using informal meetings with the social entrepreneur and the management team. Findings show that, differently from results obtained by content analyzing the sample of interviewees PhVCs, formal control rights are retained by 38.5 percent of PhVCs, whereas informal rights by 41 percent. Among formal rights, 42.1 percent of PhVCs use board seat as monitoring device and 37 percent retain the right to establish the SE's board composition. PhVCs did not mention other monitoring criteria than those proposed in the survey.

Table 5.5.37 presents the level of importance attributed by PhVCs to each monitoring variable. Amongst those proposed, results confirm precedent results: the variable *informal meetings* is also that characterized by the highest importance (Mean = 6.67; Median = 7) and the lowest SD (0.89) followed by formal monitoring through participation to formal board meetings (Mean = 6.16; Median = 7; SD = 1.08). Results are further on confirmed by 65.8 percent and 52.6 percent of PhVCs rating these two monitoring criteria as *Very important*. Stage financing is not widely used, supporting the expectation of Proposition 7.

Table 5.5.37: Importance of Formal and informal monitoring by PhVCs.

Dimensions	Variable	% of Very important	Mean	Median	SD	Min	Max
Formal monitoring	Board seat	52.6%	6.16	7.00	1.08	4.00	7.00
	Reports	47.4%	6.03	6.00	1.19	2.00	7.00
	Stage financing	27.8%	5.03	5.50	1.89	1.00	7.00
Informal monitoring	Informal meetings	65.8%	6.47	7.00	0.89	4.00	7.00

1-7 scale, 1 = "*Never used*", 4 = "*Sometimes used*", 7 = "*Always used*".

No significant differences were found with respect to the rating attributed to each monitoring criterion and *Profile or respondents* as well as *PhVCs clusters* (cfr. Table 5.5.38).

Table 5.5.38: Difference between monitoring and profile of respondents as well as PhVCs clusters - Kruskal-Wallis test.

Dimensions	Variable	Profile of respondents	PhVCs clusters
Formal monitoring	Board seat	3.061	4.402
	Reports	1.893	1.071
	Stage financing	2.610	4.541
Informal monitoring	Informal meetings	1.322	4.567

Results on importance were also corroborated in terms of frequency of use of formal and informal monitoring criteria throughout the year using a 1-12 scale, with 1 = "*once a year*", 2 = "*Semi-annually*", 3 = "*Quarterly*", 6 = "*Bi-monthly*", and 12 = "*Monthly*". However, stage financing was not included in the options as the technique implies the provision of additional funds to backed organizations depending on the attainment of milestones that generally are fixed over a longer span time than the year. In addition, the temporal frequency of use of formal monitoring through board seat was addressed asking about formal meetings with the SE's social entrepreneur or management. Table 5.5.39 shows that informal monitoring, besides being the most important monitoring variable, is also characterized by the highest frequency of use with 69 percent of PhVCs having informal meetings with backed social entrepreneurs monthly, and on average, having one informal meeting every month and a half. On the contrary, formal meetings happen once every four months, and reports are required twice a year.

Table 5.5.39: Frequency of formal and informal monitoring by PhVCs.

Type of monitoring	Variable	% of Monthly	Mean	Median	SD	Min	Max
Formal	Formal meetings	17.6%	4.38	3.00	3.73	1.00	12.00
	Reports	-	2.12	3.00	0.96	1.00	3.00
Informal	Informal meetings	69.0%	9.34	12.00	4.10	2.00	12.00

1-12 scale, with 1 = "*Once a year*", 2 = "*Semi-annually*", 3 = "*Quarterly*", 6 = "*Bi-monthly*", and 12 = "*Monthly*".

Again, no significant difference was found in terms of frequency of use of formal and informal monitoring and *Profile of respondents* as well as *PhVCs clusters* (cfr. Table 5.5.40).

Table 5.5.40: Difference between the frequency of monitoring and profile of respondents as well as PhVCs clusters - Kruskal-Wallis test.

Type of monitoring	Variable	Profile of respondents	PhVCs clusters
Formal	Formal meetings	2.457	3.353
	Reports	3.369	1.681
Informal	Informal meetings	0.460	0.187

Findings on monitoring hence suggest that PhVCs behave as stewards of organizations they back and that the fulfilment of the social aim of their activity does not force them to retain strong monitoring activities as done in VCs as their interest is aligned with that of the social entrepreneur. Formal monitoring is seen as a tool to exert control over their environment by co-opting the resources needed to survive. Based on stewardship theory, the participation to the board is seen as a mechanism to form links with the external environment and to manage environmental contingencies. Also, PhVCs' director's assistance is believed to raise organizational performance, and increase returns to shareholders.

The last part of the analysis of monitoring activity investigated any difference with respect to the *Location of PhVCs* and the *Organizational form of PhVCs*: Table 5.5.41 and Table 5.5.42 indicate no significant differences.

Table 5.5.41: Difference between formal and informal monitoring and the organizational form of PhVCs - Mann-Whitney U test.

Formal monitoring	Organizational form of PhVCs
Formal meetings	74.500
Reports	100.500
Stage financing	83.500
Informal monitoring	
Informal meetings	97.000

Table 5.5.42: Difference between formal and informal monitoring and the location of PhVCs - Mann-Whitney U test.

Formal monitoring	Location of PhVCs
Formal meetings	124.500
Reports	151.500
Stage financing	151.500
Informal monitoring	
Informal meetings	171.000

5.5.4.b.   Cooperation

Proposition 8 through Proposition 10 expected a positive relationship between the typology of cooperative behaviour by PhVCs and the level of stewardship offered to backed SEs. The most important cooperative activity results to be the provision of strategic advice to backed SEs (cfr. Table 5.5.43) supporting Timmon's (1987) suggestion that one of the most important contributions of a VC is to act as an advisor. The comparison of Table 5.5.43 with Table 2.3.4 indicate that PhVCs tend to behave as prescribed by MacMillan et al. (1989), with strategic roles followed by networking roles and last by supportive roles. Whereas both survey and content analysis findings indicate that strategic cooperation is the most important post-investment activity implemented by PhVCs, contrasting results are obtained with respect to supportive and networking roles.

Table 5.5.43: Rating of cooperative post-investment activities.

Dimension	Variable	*% of Very important*	*Mean (Rank)*	*Median (Rank)*	*SD (Rank)*	*Min (Rank)*	*Max (Rank)*
Strategic		*50.23%*	*6.09*	*6.67*	*1.11*	*-*	*-*
	Strategic advice	69.2%	6.36	7.00	1.16	2.00	7.00
	Board seat	52.6%	6.16	7.00	1.08	4.00	7.00
	Governance advice	28.9%	5.76	6.00	1.10	3.00	7.00
Networking		*30.6%*	*4.56*	*4.67*	*1.32*	*-*	*-*
	Access to future investors	57.9%	6.29	7.00	0.98	4.00	7.00
	Syndication	28.9%	5.66	6.00	1.28	2.00	7.00
	Other	5.0%	1.74	1.00	1.69	1.00	7.00
Supportive		*19.00%*	*5.04*	*5.00*	*1.38*	*-*	*-*
	Financial and accounting management	25.6%	5.79	6.00	0.98	4.00	7.00
	Human resource advice	23.1%	5.56	6.00	1.19	1.00	7.00
	Marketing and communication	28.2%	5.36	5.00	1.39	2.00	7.00
	Legal services	12.8%	4.41	4.00	1.76	1.00	7.00
	IT consultation	5.3%	4.08	4.00	1.57	1.00	7.00

1-7 scale, 1 = "*Never used*", 4 = "*Sometimes used*", 7 = "*Always used*".

Concerning the networking dimension, syndication practices appear to be very important to a marginal percentage of PhVCs, while the PhVCs support as a way for backed SEs to access their social network of future funders seems to be of primary importance, showed by the high rating, the high percentage of PhVCs rating it as a very important post-investment activity, and by the lowest SD. As such, PhVCs appear to be stewards of the SEs they back in terms of providing business and strategic guidance.

The analysis of difference with respect to the ranking of cooperative post-investment activities and *Profile of respondents*, *Organizational form of PhVCs*, *Location of PhVCs*, and *PhVCs clusters* follows. Table 5.5.44 indicates a significant difference between *Profile of respondent* and *Strategic advice* as well as the networking variable *Access to future Investors.*

Table 5.5.44: Difference between the rating of cooperative post-investment activities and profile of respondents as well as PhVCs clusters - Kruskal-Wallis test.

Dimension	Variable	Profile of respondents	PhVCs clusters
Strategic		-	-
	Strategic advice	8.453**	2.041
	Board seat	3.061	4.402
	Governance advice	5.667	2.845
Networking			
	Access to future investors	10.645**	2.228
	Syndication	0.976	6.627**
	Other	4.292	5.753**
Supportive			
	Financial and accounting management	1.455	1.523
	Human resource advice	3.120	2.426
	Marketing and communication	4.573	4.289
	Legal services	4.674	2.954
	IT consultation	5.399	6.775*

** Significant at 5% level.

An in depth analysis of significant differences was conducted through a boxplot analysis. Figure 5.5.7 shows that respondents who are investment director or one of the professional positions categorized as other tend to consider strategic advice less important than respondents with other professional positions. Furthermore, communications directors and other respondents rate access to future funders lower than other types of respondents (cfr. Figure 5.5.8).

Figure 5.5.7: Boxplot – Rating of strategic advice and profile of respondent.
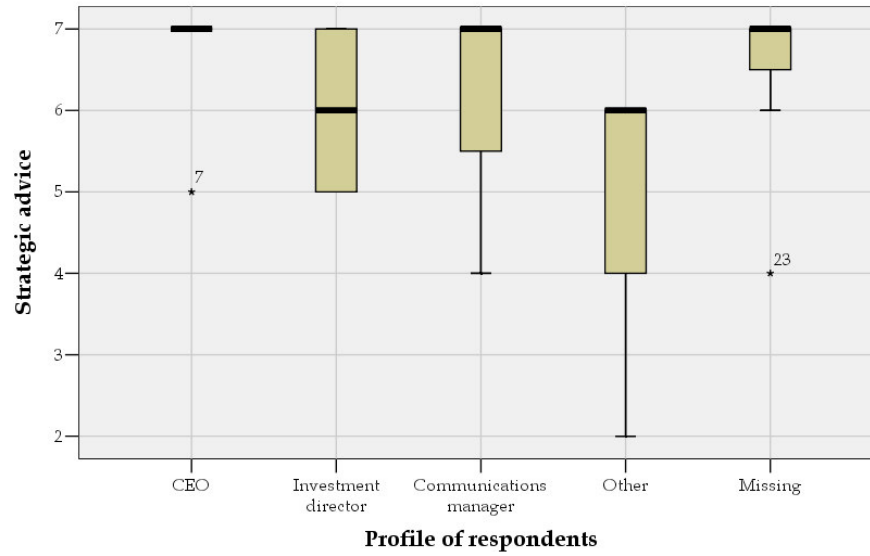
Figure 5.5.8: Boxplot – Rating of access to future funders and profile of respondent.
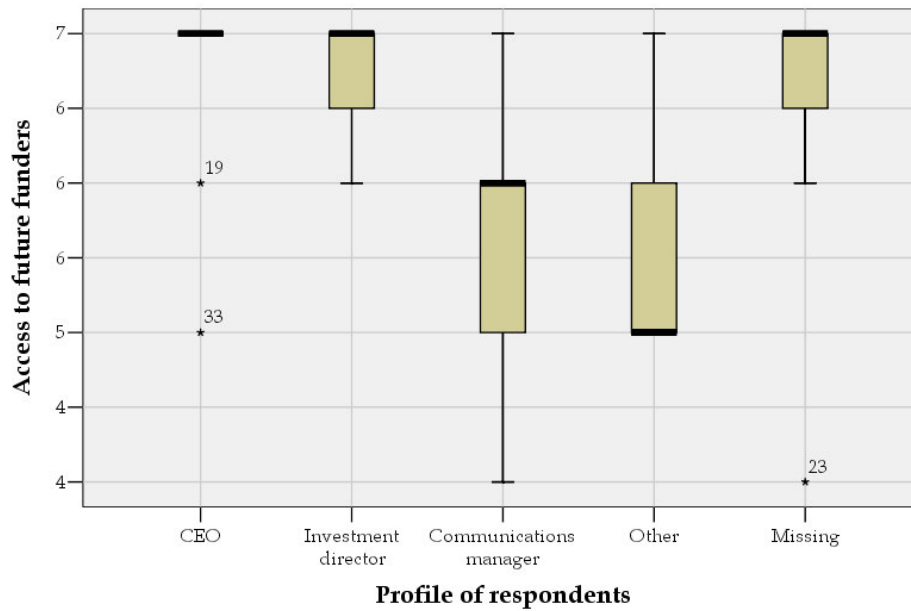
Figure 5.5.9 shows that pure highly-engaged philanthropists tend to rate IT consultation higher than social VCs and hybrid philanthropists, whereas Figure 5.5.10 indicated that hybrid philanthropists tend to rate syndication lower than the other two PhVCs clusters.

Figure 5.5.9: Boxplot – Rating of IT consultation and PhVCs clusters.
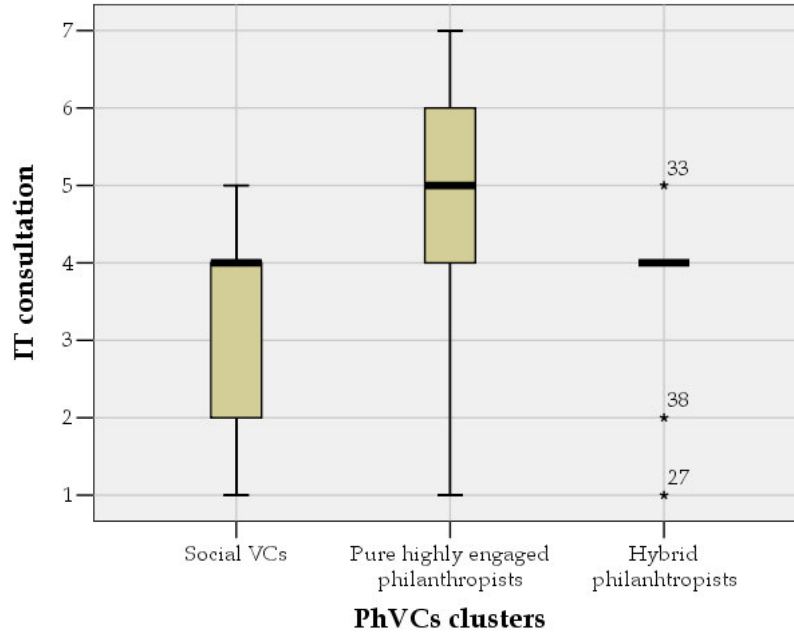
Figure 5.5.10: Boxplot - Rating of syndication and PhVCs clusters.
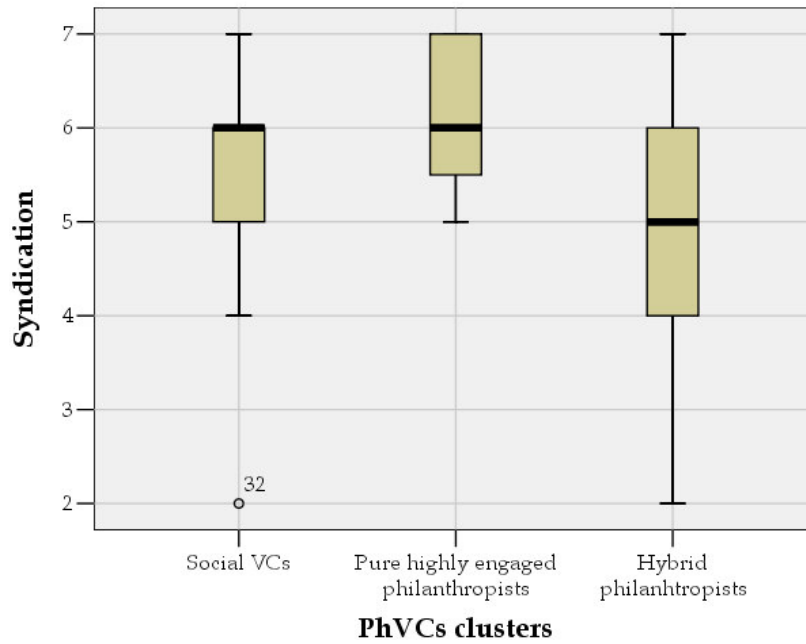
The null hypothesis of no differences is found with respect to *Organizational form of PhVCs* and *Location of PhVCs* (cfr. Table 5.5.45 and Table 5.5.46).

Table 5.5.45: Difference between cooperative post-investment activities and the organizational form of PhVCs - Mann-Whitney U test.

Dimension	Variable	Organizational form of PhVCs
Strategic		
	Strategic advice	90.000
	Board seat	74.500
	Governance advice	96.500
Networking		
	Access to future investors	98.000
	Syndication	104.500
	Other	99.000
Supportive		
	Financial and accounting management	99.500
	Human resource advice	110.500
	Marketing and communication	99.000
	Legal services	109.500
	IT consultation	87.500

Table 5.5.46: Difference between cooperative post-investment activities and the location of PhVCs - Mann-Whitney U test.

Dimension	Variable	Location of PhVCs
Strategic		
	Strategic advice	167.500
	Board seat	124.500
	Governance advice	162.000
Networking		
	Access to future investors	144.000
	Syndication	169.500
	Other	145.000
Supportive		
	Financial and accounting management	148.00
	Human resource advice	176.000
	Marketing and communication	126.00
	Legal services	173.000
	IT consultation	147.500

As a confirmation of the stewardship services provided to backed SEs, PhVCs use their social network to provide non-financial services to backed organizations through strategic partners or pro-bono partnerships. Results presented in Table 5.5.47 show that both strategic and networking roles are mainly provided internally by PhVCs. More particularly, new partners for syndication purposes as well as new potential investors are sought by the PhVCs in more than 94 and 78 percent of the cases, supporting the idea that PhVCs' main activity consists of allowing backed SEs in benefiting from the network of contacts.

Marketing and communication, IT consultation, and particularly legal services are mainly provided as outsourced services, indicating the need for the PhVCs to develop a network with external specialized service providers.

Table 5.5.47: Internal provision of cooperative post-investment activities.

Dimension	Variable	Only internally	Only externally	Both
Strategic				
	Strategic advice	89.5%	7.9%	2.6%
	Governance advice	81.3%	15.6%	3.1%
Networking				
	Access to future investors	94.3%	2.9%	2.9%
	Syndication	78.8%	18.2%	3.0%
	Marketing and communication	43.8%	56.3%	-
Supportive				
	Financial and accounting management	60.0%	37.1%	2.9%
	Human resource advice	58.3%	38.9%	2.8%
	IT consultation	14.3%	56.3%	-
	Legal services	6.7%	93.3%	-

5.6. RESULTS: EXITING

The exit phase of the VC and PhVC investment process enable investors to realize returns (either social, financial, or environmental) and signal their quality. Elaborating on adverse selection risks involved in PhVC financing, Proposition 11 expected a positive relationship between the duration of the investment and the level of the perceived risk for adverse selection. As such, a longer investment period better enables the PhVC investor to manage adverse selection risks, increasing thus the quality of backed SEs in terms of social impact. At the same time, the need for a longer investment period might be due to the difficulties of the backed SEs to become economically viable, and thus sustainable. Of the 44.4 percent of PhVCs that declared to have exited at least one investment, 43.2 percent declare to have an investment period ranging between 3-5 years, with none backing SEs less than a year. If comparing the percentage of PhVCs whose minimum investment period is one year with the one whose minimum is three years, the pattern is 32.4 percent vs. 43.2. Proposition 11 is thus supported as the majority of PhVCs tend to back SEs for a minimum of three years.

Figure 5.6.1: Percentage of PhVCs by duration of investments.
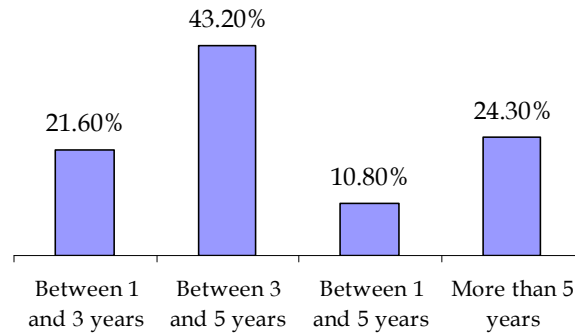
The sum of the categories does not amount to 100 percent as respondents were allowed to choose multiple options (cfr. Question 40 in Appendix 4).

In terms of exit strategies, Figure 5.6.2 shows that the most used one is exiting after finding a new funding partner for the SE (also called secondary sale) which is used by 32 percent thus confirming the expectation of Proposition 12. This is followed by exiting after the SE has become sustainable, used by 28 percent of PhVCs. However, following VC scholars, secondary sales are characterized by a high degree of adverse selection, ranking third according to Table 2.4.1. Buybacks and IPOs, which according to VC scholars are characterized by the lowest and highest degree of asymmetric information, are used only by 5 percent of respondents.

Figure 5.6.2: Typology of exit by percentage of use.
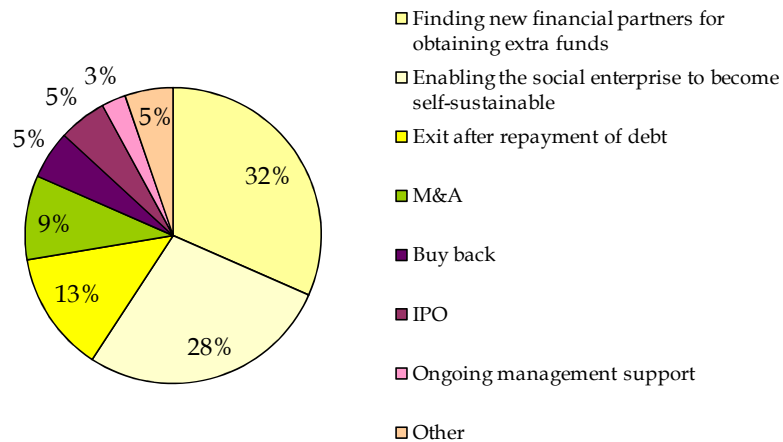
Table 5.6.1 shows the Spearman correlation coefficient of the variables *Typology of exit* and *Reason for exit*. The analysis was run to understand whether to a particular type of exit is associated a specific reason and vice versa. Results are significant only in the case the SE has

become sustainable: in particular, the significant positive correlation between sustainability and follow-on investments suggests that PhVCs signal to other investors the quality of the SEs by enabling them to become sustainable.

Table 5.6.1: Association between the typology of exit and the reason for exit - Correlation coefficient.

	Reason for exit			
Typology of exit	The SE is sustainable	The SE has grown to scale	The SE needs follow on investments	Other
Finding new financial partners	0.213	0.071	0.193	0.031
Enable the SE to become sustainable	0.489***	0.386**	0.459**	-0.226
Exit after repayment of debt	-0.100	-0.048	-0.107	0.447
Not to exit	-0.094	-0.234	0.141	0.327
Buyback	-0.139	-0.145	-0.237	-0.120
M&A	-0.279	-0.005	-0.154	0.354
IPO	-0.347	-0.145	-0.237	0.080
Other	-0.236	-0.067	-0.201	0.181

** Correlation is significant at the 5% level; ** Correlation is significant at the 1% level .

Next, a correlation analysis of the *Typology of exit* and the *Type of return* sought by PhVCs, namely social or financial, is run. Accordingly, the Spearman correlation coefficient was used in the analysis. Given that 100 percent of PhVCs seek a social return on their investment (which implies no variance), the correlation coefficient was calculated only in the case a financial return is explicitly sought. Table 5.6.2 indicates the existence of a significant correlation with respect to exiting after repayment of debt (ρ = 0.4, p<0.01).

Table 5.6.2: Association between the typology of exit and the type of return – Correlation coefficient.

	Type of return
Typology of exit	Financial return
Finding new financial partners	0.016
Enable the SE to become sustainable	-0.248
Exit after repayment of debt	0.430**
Not to exit	0.104
Buyback	0.305
M&A	0.300
IPO	0.305
Other	-0.087

** Correlation is significant at the 5% level.

Last, a test for difference in the use of the *Typology of exit* and *PhVCs cluster*, *Location of PhVCs*, and *Organizational form of PhVCs* was run. The contingency coefficient reported in Table 5.6.3, Table 5.6.4, and Table 5.6.5 and the Fisher exact test in Table 5.6.4 and Table 5.6.5 indicate that the null hypothesis of no relationship is failed to be rejected in all cases but between PhVCs cluster and exit after repayment of debt, buyback, M&A or IPO as exit strategy. To this respect, a cross-tab analysis reveals that social VCs tend to use more than pure highly-engaged philanthropists and hybrid philanthropists exit after repayment of debt, buyback, M&A and IPO (expected count = 2.4, 1, 1.7, and 1 respectively vs. count = 5, 3, 4, and 3).

Table 5.6.3: Association between the typology of exit and PhVCs cluster - Contingency coefficient.

Typology of exit	*PhVCs cluster*
Finding new financial partners	0.159
Enable the SE to become sustainable	0.295
Exit after repayment of debt	0.391**
Not to exit	0.154
Buyback	0.417**
M&A	0.371*
IPO	0.417**
Other	0.272

* Significant at 10% level; ** Significant at 5% level.

Table 5.6.4: Relationship of the typology of exit with the organizational form of PhVCs - Fisher exact test and contingency coefficient.

Typology of exit	*Organizational form of PhVCs*			
	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
Finding new financial partners	-	0.015	1.000	0.931
Enable the SE to become sustainable	-	0.084	1.000	0.629
Exit after repayment of debt	-	0.020	1.000	0.911
Not to exit	-	0.131	1.000	0.449
Buyback	-	0.034	1.000	0.843
M&A	-	0.093	0.623	0.592
IPO	--	0.034	1.000	0.843
Other	-	0.034	1.000	0.843

Also, the absence of any relationship between the typology of exit used by PhVCs with their location indicates that American and European PhVCs face the same challenges while trying to exit from investments. The use of the same exit strategies might also indicate that the

similar level of development of social markets and social investors. Investigating this issue could be an avenue for further research.

Table 5.6.5: Relationship between the typology of exit with the location of PhVCs - Fisher exact test and contingency coefficient.

Typology of exit	Location of PhVCs			
	Fisher exact test value	Pearson's contingency coefficient value	Fisher exact test exact. sig. (2-sided)	Pearson's contingency coefficient approx. sig.
Finding new financial partners	-	0.237	0.230	0.160
Enable the SE to become sustainable	-	0.083	0.716	0.632
Exit after repayment of debt	-	0.219	0.259	0.198
Not to exit	-	0.072	1.000	0.679
Buyback	-	0.105	0.610	0.545
M&A	-	0.084	1.000	0.629
IPO	--	0.105	0.610	0.545
Other	-	0.286	0.125	0.087

5.7. CONCLUSIONS

This chapter has presented results based on a survey addressed to the entire population of European and US PhVCs. The analysis of respondents revealed that PhVCs are mainly pure highly-engaged philanthropists. This result is quite important as it contradicts the common belief that high engagement philanthropists are mainly active in the United States as opposed to Europe, where PhVCs are believed to be more sophisticated. Additionally, PhVCs receive money from private individuals and traditional foundations, with banks acting mainly in Europe and investing in social VCs and endowment funds inducing PhVCs in investing a larger percentage of their portfolio in projects.

In terms of investment strategy of PhVC funds, they tend to invest in non-profit SEs and investments in non-profits are more pronounced in the US than in Europe. Sector speaking, the PhVCs portfolio is composed of SEs active in the education, health care, and employment segment of social needs and these tend to be located in the PhVCs' own country. However, a significant portion of PhVCs do not have a specific geographic focus and those who were identified as outliers with respect to the number of held SEs result to be particularly active in supporting SEs in Africa or Asia. Last, SEs in their early and expansion stage are the most present in PhVCs portfolio.

For what concerns the research question and the analysis of the PhVCs investment process survey results confirm findings obtained through content analysis. More specifically,

the use of proactive methods of deal origination and the evaluation of the venture focusing on the human capital dimension imply a confirmation of the respective propositions and, thus, of a problem for adverse selection. Findings also suggest that in their proactive search, PhVCs receive investment proposals from their investors/donors: this might imply a non-independent decision of which SEs to consider for the investment decision. Future research could dig more into this issue and on the dependence of PhVCs investment decision, understanding which variables play a significant role. Also, in the screening and evaluation phase of PhVCs investments, the variable identified through the VC literature, i.e., deal terms, results to be particularly important in the process of social VCs and hybrid philanthropists: because of their double- or triple-bottom line outcome, they must pay higher attention to the terms of the deal to accomplish their financial sub-value proposition.

For what concerns the structuring of the deal, on a global level PhVCs mainly use grants to back SEs. Since grants do not entail donors to receive back any cash flow or repayment as they lack a link of funds with performance, on a formal level they do not incorporate any incentive for grantees to perform well and repay donors. As such, because of this lack of incentive, the high use of grant financing by PhVCs signals a low perception of moral hazard. However, if digging into the different clusters of PhVCs, social VCs and hybrid philanthropists tend also to use more sophisticated financial instruments, such as equity and debt, which entails for a claim on the SEs' future cash flows. This finding is compatible with the double- or triple-bottom line value proposition these categories of PhVCs have.

A low perception of moral hazard is also confirmed by the low use of formal valuation models as well as entrepreneur's binding provisions or renegotiation clauses. However, if combining together the use of formal valuations and these contractual provisions with the typology of financial instrument used to back SEs, a positive relationship is found with respect to equity; also, valuation through multiples or DCF is associated with the financing of working capital needs, whereas the financing of fixed assets leads to a higher use of only DCF valuation and the financing of outsourced project support with other valuation methods. This suggest that stewardship rather than asymmetric information theories are better able to explain PhVCs investment behaviour already in the deal structuring phase further on confirming results obtained through content analysis.

Stewardship theory also explains the post-investment activities implemented by PhVCs both on a monitoring and cooperation level. With respect to the former, PhVCs tend mainly to monitor backed SEs on an informal rather than formal level, and that formal monitoring tends to be more important for maturity stage SEs. The more use of informal monitoring devices suggests that trust might play a key role in shaping the PhVCs and backed SEs relationship. On

the other hand, among strategic, supportive, and networking cooperative activities, strategic ones, measured by the variables strategic advice and participation to board meetings, appear to be the most important towards the maximization of social impact. At the same time, among the supportive roles measured by IT consultation and legal services, and among the networking role measured by marketing and communication, PhVCs widely outsource the services. Strategic roles and networking roles, measured by access to present and future funders, are provided internally by the exploitation of the PhVCs' reputational capital and its network of contacts.

Last, the exit phase of PhVCs investment process was examined. Survey results confirm the expectation of a high level of adverse selection both in terms of duration of the investment period and of use of IPOs as exit strategy: the under-development of social capital markets requires PhVCs to hold longer SEs and to exit from their investment mainly by finding new financial partners for backed SEs. Surprisingly, while in the VC model exit is a must, in PhVCs exit can be also pursued by stopping funding SEs but continuing providing management and strategic support, signalling again that the PhVCs' involvement is more shaped by stewardship.

Table 5.7.1 summarizes survey findings with respect to the propositions presented in chapter 2.3 and 2.4.

Table 5.7.1: Summary of survey results with respect to propositions and relationship with theoretical issues.

Investment phase	Proposition	Issue	Theoretical framework	Expected relationship	Support
Deal origination	1	Proactive methods	Adverse selection	+	✓
Deal screening and evaluation	2	Human capital	Adverse selection	+	✓
Deal structuring	3	Grant financing	Moral hazard	-	✓
	4	Formal valuation models	Moral hazard	-	✓
	5	Entrepreneur binding provisions	Moral hazard	+	✓
	6	Renegotiation clauses	Moral hazard	+	✓
	13	Trust	Stewardship	+	✓
Post-investment	7	Monitoring: informal monitoring	Stewardship	+	✓
	8	Cooperation: strategic roles	Stewardship	+	✓
	9	Cooperation: supportive roles	Stewardship	+	✓
	10	Cooperation: networking roles	Stewardship	+	✓
Exit	11	Holding period of investment	Adverse selection	+	✓
	12	Secondary sale	Adverse selection	-	✓

CHAPTER 6: **CONCLUSIONS**

6.1. CONCLUSIONS

The research question underlying this piece of work has been formulated taking into account the degree to which asymmetric information issues, which are traditionally used by scholars to explain the VC investment process, shape the PhVC investment behaviour while backing SEs.

Building on a formal model of VC investment activity, Amit et al. (1998) show that VCs are principals who become skilled at selecting good projects in environments with hidden information and are good at monitoring and advising agents, i.e., entrepreneurs, who might otherwise be vulnerable to agency problems. Thanks to their abilities in reducing informational asymmetries, VCs can solve the problems related to appropriability and reliability of the information provided by the entrepreneur in markets with imperfect information. This enables them to have a competitive advantage and, thus, to obtain superior financial returns.

On the contrary, PhVCs are specialized investors in the social arena: their objective is to maximize the social impact of the SEs they back. As such, taking into account the clash arising from a divergent value proposition of VCs and PhVCs, recently PhVCs have been presented as stewards of the SEs they back (Van Slyke and Newman, 2006), having higher-order needs for self-esteem, self-actualization, growth, achievement and affiliation. Stewardship theory (Muth and Donaldson, 1998; Davis et al., 1997; Fox and Hamilton, 1994; Donaldson and Davis, 1991) suggests that managers make effective board members to the extent that their interests are aligned with those of the firm. This is in contrast to agency theory's characterization of human beings as opportunistic, inherently untrustworthy, and focused on a narrow pursuit of financial gains. As a result, while adverse selection issues can characterize both VC and PhVC, agency theory and moral hazard appear to be less explicative of PhVC investment behavior in the deal-structuring and post-investment phase.

In order to understand how asymmetric information shapes the PhVCs investment model first a series of in-depth interviews with leading PhVCs active in the United States and in Europe was conducted. Interviewees were then content analyzed and a set of relevant variables taken into account in the investment process was identified. Second, interviewees were used to develop a survey which was addressed to the entire population of PhVCs active in the two

regions. The aggregation of data collected from these sources ensures triangulation, minimising bias from the author or from the methodology used, and construct validity (Saunders et al., 2007).

Results suggest that PhVC, like VC investments, is characterized by a high degree of asymmetric information in the form of adverse selection. More specifically, results from interviews and survey suggest a positive relationship between the perception for adverse selection problems and two of the investing as well as exiting phase of the PhVCs investment process. The lack of a well-developed social capital market, with transparent criteria for the allocation of funds and measurement of performance, makes potential investment very opaque for PhVCs whose budget constraint requires them to back only those SEs able to maximize the social impact of funds. As a result, the paucity of information on the side of the PhVC investor is managed by a proactive origination of new potential deals through a referral approach, assuming that the quality of the source (which is known by the PhVCs) is a good proxy for the quality of the deal (which is unknown to the PhVCs). Both content analysis and survey results confirm the high use of referrals which imply strong linkages between the PhVCs and the community they work with, particularly with their own investors who might guide the investment decision. As results show, VCs are one important source for PhVCs deals: it might be the case that both VCs and PhVCs play a cooperative game in which those deals that cannot receive VC financing due to the very early stage of development of the business idea or because of the high level of commercialization risk involving the project, are passed onto PhVCs investors, who thus play an important role in spurring social innovation, if the idea results to be successful.

In addition, the screening phase of PhVCs investments strongly takes into account the human capital dimension which is considered of key importance in managing severe adverse selection issues. The ranking received by the human capital dimension is the highest in the selection variables and it is also the one receiving the highest percentage of "*Very important*" rating. This is followed by an examination of the potential for social impact that the SEs is expected to be able to create and of the market where the SEs is operating. Findings indicate that among the selection variables that consider the activity of the organization, PhVCs tend to consider SEs with a clear funding plan which is going to enable their sustainability.

The lack of a well-developed social capital marketplace which is presented by Grossman (1999) as chaotic and not-self reinforcing makes investments in SEs more illiquid than VC ones. Liquidity here refers not to the ability of investors to buy-sell assets on the market, but rather on the ability of investors to price social impact. Existing stock exchanges trade assets based on the price of the company issuing them which, in turn, is based on the economic profitability of the

venture. On the contrary, social capital markets should price those assets issued by SEs based on their social profitability; metrics to evaluate organizational effectiveness, however, have not been developed for most fields of SEs service delivery. At the same time, although social impact assessment metrics do exists, a consensus on which metric to be used still is lacking: each PhVCs tend to evaluate social impact based on the evaluation of specific and case-contingent metrics which are difficult to be compared across sectors and across investors. As such, PhVCs' assessment of social impact, although being implemented, does not apply uniform criteria, making results comparison hard. At the same time, the use of grants for SEs backing makes trading on traditional stock exchanges impossible. The inaccessibility of traditional capital markets for SEs and, consequently for social investors, requires PhVCs to follow exit strategies that are feasible and that signal the quality of the SEs to other players. Results show that the most used exit strategy is the accompaniment of backed SEs towards new sources of funds, which might be strongly influenced by the PhVCs' reputational capital and network of contacts.

However, if asymmetric information is able to explain the origination, screening, and exiting phase of PhVCs investments, it does not so in the structuring and post-investment phase. To this respect, findings suggest the high use of grant financing, which does not entail donors to have the right to be claimants of the SEs' future cash flows. As such, differently than VCs, PhVCs have a different mindset which leads them to pay more attention to the strategic, supportive, and networking needs of backed social organization rather than to their own self-interest. PhVCs thus structure their deals with a low use of the covenants typically included in VC contracts that aim at protecting the investment.

The high use of informal monitoring as opposed to formal one, typically adopted by VCs, strengthens results and the idea of PhVCs being more stewards of backed SEs rather than self-motivated investors. This suggests that the success of the PhVC investment model, on a social, financial, as well as environmental level (depending on the PhVC's outcome), might be influenced by the degree to which its surroundings approximate the idea of a civic community, with a steady recognition and pursuit of the public good at the expenses of all purely individual private ends. The dichotomy between self-interest and altruism can easily be overdrawn, for no mortal and no successful society can renounce the powerful motivation of self-interest. Citizens in the civic community are not required to be altruist; in the civic community, however, citizens pursue what de Tocqueville (2009) termed "self-interest properly understood", i.e., self-interest defined in the context of broader public needs, self-interest that is "enlighted" rather than "myopic", self-interest that is alive to the interests of others. Trust enables the civic community more easily to surmount what economists call "opportunism", in which shared interest are unrealized because each individual, acting in wary isolation, has an incentive to defect from

collective action.

6.2. IMPLICATIONS AND LIMITATIONS

This study makes several contributions for both researchers and practitioners. From a scholar perspective, it answers to the call of research on SEs' funding options made by Austin et al. (2006). By analyzing the investment practices of PhVC, it builds a theory on the investment model and shows that, while common belief is that PhVCs implicitly derives from VC sharing with it the same theoretical organizational model, this is partially not the case. More specifically, the ability of information asymmetries, and specifically adverse selection which VC is traditionally embedded in, are able to explain the origination and screening phases of the investing as well as exiting stage of both VC and PhVC. However, in the deal structuring phase of the investing, adverse selection appears to be superseded by stewardship theory, which also prevails in the PhVC's post-investment activities. To this respect, the research makes an important contribution to the VC literature as it shows that, since the two investment models result to be strongly characterized by information asymmetries in the form of adverse selection in the pre-investment and exiting stages, it is possible to build contractual relationship based on trust rather than on self- and profit-motivated-interests.

In addition, although recently VC scholars have started to analyze and explain post-investment behaviors within a stewardship theory perspective, the bulk of VC research still focuses on agency theory and moral hazard on the entrepreneur side. As such, both monitoring and cooperative activities are implemented by VCs to protect their own investment, and thus interest, against harmful behaviors of the entrepreneur. Differently from VC, the PhVC model develops post-investment activities focusing on the SEs' organizational needs and how the PhVCs' involvement is able to benefit the organization by the provisions of tools to successfully respond to their organizational and financial needs, making them survive in the long-term and having the highest social impact.

It also gains insights into the entrepreneurship, and more specifically, social entrepreneurship literature, as it presents a first exploratory study on the PhVC new financing option available for social entrepreneurs. It thus opens new research avenues on social entrepreneurial finance, especially considering that social entrepreneurs repeatedly identify resources as being one of their prime strategic concerns (Bloom and Chatterji, 2009; Harding, 2007) and few studies up to date have addressed these issues. By focusing on sustainability, PhVCs aim at enabling backed SEs to grow and to maximize their social impact. As such, it is the first study that systematically analyzes the investment practices adopted by American and

European PhVCs, highlighting similar behaviors and investment practices in the two markets. This has been possible thanks to an extensive work of sources integration aiming at identifying those organizations that can be considered PhVCs.

From a practitioner perspective, it provides a guideline on PhVC investments for social entrepreneurs seeking funds, placing emphasis on those variables mostly taken into account by PhVCs in their decision making process and in the post-investment management. To this respect, the analysis indicates that PhVCs provide a wide range of non-financial, advisory services that are generally valued by the social entrepreneurs whose organisations these funds invest in. Among the pool of services, strategic roles result to be the most important cooperative activity implemented by PhVCs; this finding can be of help for social entrepreneurs wanting to understand how PhVCs contribute to the organizational development of the SEs they back and the engagement level in the management of the organization. By understanding how PhVCs behave after an investment, the social entrepreneur increases his/her chances of selecting the right PhVC investor.

The outsourcing activities of some of the non-financial services provided by PhVCs to backed SEs is particularly interesting for commercial companies providing such services which view PhVCs as a natural partnership for their own social responsibility agenda. Private equity firms and associated professional service are showing interest in PhVC as a vehicle for their own philanthropy, which can potentially bring significant new human resources into the social sector. The challenge is to adapt these business-orientated skills for the needs of social purpose organisations, ensuring relevancy as well as high quality.

The research also shows that the PhVC investment model tends to back SEs using those financing instruments typically employed by traditional philanthropists, i.e., grants: as such, this study contributes to increasing awareness of how traditional philanthropists can move from the mere role of funds providers to that of fully engaged investors. It also helps those actors that are interested in entering the PhVC field to gain knowledge how other PhVCs operate.

Nevertheless, four main limitations can be identified. The main limitation concerns the sample size of survey respondents. Despite having a 54 percent response rate, which makes the respondent sample very highly representative of the PhVC population and not subject to non-response error, the absolute number of responses, i.e., 40, makes it hard to use statistical procedures such as regression analysis or factor analysis (which need a minimum number of 50 observations). Undercoverage error has been sought to be minimized by consulting different databases during the population identification process; ineligible units have been identified by conducting a detailed screening of the activity of the identified units. However, the absence of a PhVC association in the US makes the identified US population subject to sampling error.

Second, the comparison between VC and PhVC is based on the VC practices identified through the literature. As such, it could be the case that some of these practices have changed over time; also the importance of the variables considered in each phase of the investment process may have changed too, making findings presented here subject to intertemporal error.

Third, both interviews and survey take into account the perspective of the PhVC investor, without taking into account the social entrepreneur who received PhVC financing. It is too early to tell whether supply and demand of services are well balanced in a market which is supply-driven. It is highly likely that demand for PhVC by social entrepreneurs and others wishing to bring their organisations through a period of rapid growth or development is greater than supply. As such, further research might conduct a dyadic study involving both the PhVC investor and the backed social entrepreneur to gaining a better understanding on the dynamics of the financing model.

The fourth limitation consists of the subjectivity of the responses involved in the questionnaire. In particular, the statistical relationships between subjectively assessed characteristics of deals and the PhVCs' decision regarding them may reflect a post-hoc rationalization of the decision. However, the issue is common in every survey based research.

6.3. FURTHER RESEARCH

This study opens up a wide set of future research opportunities. On the one hand, two of the three main phases of the PhVC investment model were analyzed, i.e., investing and exiting. The motivation underlying the choice was to gain a better understanding of the relationship between the PhVC investor and the backed SE. Since PhVCs' activity consists of maximizing the social impact of the SEs they back by the provision of capial and strategic guidance, a deeper knowledge of the investment model required a focus on those phases involving a relationship between investor and investee. Further research could move on to the first phase of the PhVC investment model, i.e., fundraising, investigating thus the relationship between PhVCs and investors. Digging more into the key drivers of the PhVC fundraising could help in understanding how demand and supply for capital in the philanthropic market are shaped and modelled. At the same time, an in depth analysis of the fundraising phase could provide a better understanding on the strategies and techniques adopted by investors of PhVC funds to manage adverse selection issues (while deciding which PhVCs to support) and moral hazard on the side of the PhVCs. Further research, currently in progress, analyzes the general and specific human capital that is present in the founders of PhVCs and compares findings with the work done on traditional VCs, identifying similarities and differences which could facilitate the

process of transferring VC expertise to the philanthropic environment.

If focusing on the investment strategy adopted by PhVCs, further research could analyze how heterogeneous are PhVC firms in terms of SEs stage, skills necessary to manage such investments, and adaptation of the latter to the cultural environment where the backed SEs operate. An understanding of the differences among PhVCs can be helpful to social entrepreneurs in search of capital: by digging into what PhVCs are looking for in an investment the social entrepreneur might be able to increase the chances of finding capital. Furthermore, since PhVCs operate in mixed markets where non-profit and for-profit SEs compete, it could be interesting to conduct an analysis of the competitive advantage, disadvantages, and interactive dynamics that characterize the PhVC environment and contrast it with VC.

In addition, there are other interesting areas that could be further analyzed. First, how philanthropic investors influence PhVC deals in the selection phase: if the PhVC fund is established by one main investor, as in the case of a private grant-making foundations adopting PhVC practices, this can have power not only in originating the deal, but also in actively participating in the decision making process, leaving PhVC fund manager little room for independent selection of investments.

Second, an understanding of the conditions under which SEs are created by PhVCs, both at macro and micro level, and how investors are involved in the creation of the new social venture might be another avenue for research.

Third, embedded in network theory, it can be investigated how PhVCs' network with social sector players is structured while identifying potential investments; also, network plays a keyrole in the provision of non-financial services to backed SEs, which could be further analyzed to understand the linkages between PhVCs and service providers.

Forth, while analyzing PhVC decision making, it can be analyzed the motivations that lead European PhVCs to rate deal terms higher and the social market served by the potentially baked SEs lower than American PhVCs.

Fifth, concerning the deal structuring phase, an analysis of the contractual agreement characterizing PhVC investments could shed more light on the stewardship services provided to SEs. This could be integrated with an understanding of the mechanisms through which trust between the PhVCs and the backed social entrepreneur are build and how they impact the success of the financing program both in terms of improving sustainability and in creating social impact.

Sixth, in terms of exit strategies it could be examined how the PhVC field is shaping the social capital market and pushing for the creation of a social stock exchange. The need of PhVCs

to exit investment, and the lack of a stock exchange suitable for investments in SEs, is currently limiting the PhVC activity.

Last, by developing an indicator of social return that can be applied to PhVC investments, further research could explain how the PhVC investment process and, more particularly, its stages contribute toward the maximization of social impact.

As such, the exploratory study conducted here has tried to build a theory on the PhVC investment model which, through the selection and management of investments in high potential social ventures, might contribute to envision and realize a world with a les degree of social inequalities and problems.

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APPENDIX 1: *Sampling frame population.*

Table 1: Sampling frame of the target population of European PhVCs.

Name of PhVC fund	Source	Nationality
Adventure Capital Fund	John (2006)	UK
Alfanar	EVPA (2008)	UK
Andrews Charitable Trust	John (2006)	UK
Ark	EVPA (2008)	UK
Rianta Capital	EVPA (2008)	UK
Bonventure	EVPA (2008)	Germany
Bridges Community Ventures	John (2006)	UK
CAN	EVPA (2008)	UK
CANOPUS	EVPA (2008)	Germany
Children's Investment Fund Foundation	John (2006)	UK
Clann Credo Social Investment Fund	John (2006)	Ireland
Demeter Foundation	EVPA (2008)	France
dob Foundation	EVPA (2008)	Holland
Fondazione Dynamo	John (2006)	Italy
Futurebuilders	John (2006)	UK
George Avenue	EVPA (2008)	Holland
Good Deed Foundation	EVPA (2008)	Estonia
Impetus Trust	EVPA (2008)	UK
Inspiring Scotland	EVPA (2008)	UK
Invest for Children	EVPA (2008)	Spain
LGT Venture Philanthropy Foundation	EVPA (2008)	Lichtenstein
Media Development Loan Fund	John (2006)	Czech Republic
Najeti	EVPA (2008)	France
NESst	EVPA (2008)	Hungary
Oliver Twist Foundation	EVPA (2008)	Italy
Oltre Venture	EVPA (2008)	Italy
Phi Trust Foundation	EVPA (2008)	France
Schwab foundation	Other (2008)	Switzerland
SHINE	John (2006)	UK
SOVEC - Social Venture Capital	John (2006)	Holland
Stiftung Charite	EVPA (2008)	Germany
The Blue Link	John (2006)	Holland
The One Foundation	EVPA (2008)	Ireland
The Sutton Trust	EVPA (2008)	UK
VSB Fonds	EVPA (2008)	Holland
Venture Partnership Foundation	EVPA (2008)	UK
Venturesome	EVPA (2008)	UK

Table 2: Sampling frame of the target population of US PhVCs.

Name of PhVC fund	Source
Acumen Fund	NVCA (2008)
Ashoka	NVCA (2008)
Blue Ridge Foundation	Morino (2000)
Common Good Ventures	Morino (2000)
Community Development Venture Capital Alliance	NVCA (2008)
Criterion Ventures	Board (2008)
Draper Richards Foundation	NVCA (2008)
E+CO	NVCA (2008)
Echoing Green Foundation	NVCA (2008)
Edna McConnell Clark Foundation - Youth Development Fund	Morino (2000)
Entrepreneurs Foundation	NVCA (2008)
Full Circle Fund	NVCA (2008)
Good Capital	Morino (2000)
Initiative for a competitive inner city	NVCA (2008)
Institute for the Study of Aging	NVCA (2008)
Investors circle	NVCA (2008)
Jewish Venture Phialnthropy Fund	Other (2008)
Kirlin Foundation	Morino (2000)
Legacy Venture	NVCA (2008)
Los Angeles Social Venture Partners	Morino (2000)
New Profit	NVCA (2008)
New Schools	NVCA (2008)
New Ventures	NVCA (2008)
New York City Venture Philanthropy Fund	Other (2008)
Pacific Community Ventures	NVCA (2008)
Pittsburgh Social Venture Partners	NVCA (2008)
Project Redwood	NVCA (2008)
Rinconada Ventures	Morino (2000)
Robert Enterprise Development Fund	NVCA (2008)
Robin Hood Foundation	NVCA (2008)
Silicon Valley Community Foundation	NVCA (2008)
Social venture partners International	NVCA (2008)
Swan Ventures	NVCA (2008)
The Chicago Public Education Fund	NVCA (2008)
Three Guineas Fund	NVCA (2008)
Venture Philanthropy Partners	NVCA (2008)

APPENDIX 2: *Example of survey email sent to PhVCs.*

Dear Mr. XXX,

A team of academic researchers at ESADE Business School is leading a project investigating the model adopted to support social enterprises through philanthropic venture capital, also known as venture philanthropy. The project is based on a web survey addressed to all European and US funds. Your response would be greatly appreciated.

The study aims at analyzing the approach adopted by philanthropic venture capitalists (also known as venture philanthropy funds) while supporting social enterprises. To this respect, please remember that the survey aims at analyzing the philanthropic venture capital approach. While answering to the survey, please consider only those cases for which you have adopted this model.

The survey is confidential. It is being conducted by a team of researchers at ESADE Business School and individual responses will be viewed only by ESADE's researchers in philanthropic venture capital. Only aggregated data will be published. Moreover, if you wish, a copy of the research will be emailed to you once the study is finished.

The survey will take you maximum 20 minutes and is divided in 5 sections. You can exit and re-enter the survey at any time until you close it either by clicking on "Exit this survey" or by submitting it.

If you wish, you can answer the survey by clicking here. In case you are not able to respond to the survey, we would appreciate if you could pass the link to someone in your team and have us receiving your response by November, 15th.

We would like to stress that the research aims at identifying the practices used in the field both by European and US PhVC funds. As such, it is very important for the research to maximize the number of responses to the survey. In fact, due to the novelty of the field, this is one of the firsts study of its kind conducted so far.

In case you experience any problem while completing the survey or would like to have more information about the research please let me know.

We look forward to receive your response and incorporate it in the analysis.

Kind regards,

Mariarosa Scarlata

Philanthropic Venture Capital Survey

Thank you for responding to this survey sponsored by the Institute for Social Innovation of ESADE Business School which since its foundation has been seeking to promote knowledge, based on both rigorous and relevant investigation and innovation.

The survey is part of a PhD level study. Its objective is to understand the investment model adopted by philanthropic venture capitalists. To this respect the study seeks to determine a) which are the variables considered in the screening phase, b) which valuation methods are used, c) which kind of control rights are allocated, d) which value-added and monitoring activities are used, and last e) which exit strategies are adopted. In the survey the term social enterprise refers both to non-profits and to for -profit organizations (to this respect, the purpose of for-profit social enterprises must be the creation of social value).

The survey is confidential. It is being conducted by a team of researchers at ESADE Business School and individual responses will be viewed only by ESADE's team of researchers in philanthropic venture capital. Only aggregated data will be published. A copy of the results from the survey with aggregated data will be emailed to you once the study is completed.

In order to progress through this survey, please use the following navigation links:

- Click the *Next* button to continue to the next page.

- Click the *Previous* button to return to the previous page.

- Click the *Exit the Survey* button located at the right top of the web page if you need to exit the survey.

- Click the *Submit* button to submit your survey.

In any moment, you can leave the survey and re-open it from the last question you answered.

If you have any questions, please contact us at mariarosa.scarlata@esade.edu

A.   General Information

1.   Which is the legal structure of your organization? *(Please tick the most appropriate box)*

        ☐ Foundation

        ☐ Public Charity

        ☐ Donor Advised Fund

        ☐ Trust

        ☐ Other: Please specify

2.   Which is the nationality of your organization?

3.   When was your organization founded?

4.   Who are your supporters/donors/investors? (*More than one option is possible, please select the most appropriate one. In case other entities than those reported below provide money to your organization, please select the "Other" category, specifying the entity.*)

- ☐ Foundations
- ☐ Governments
- ☐ Corporates
- ☐ Endowment funds
- ☐ Banks
- ☐ Pension funds
- ☐ Venture capital and private equity firms
- ☐ Private individuals
- ☐ Fund of funds
- ☐ Other, Please specify

5.   Which is the target percentage of for-profit and non-profit social enterprises as well as project/individuals in your portfolio? (*please note that the two categories should sum up to 100%*)

	% with respect to total number of organizations supported
Non-profits	
For-profits	
Projects/individuals	
	100%

6.   In which ways does your organization provide money to social enterprises?

- ☐ Directly
- ☐ Not directly, by providing money to other funds/entities which directly support social enterprises
- ☐ No money provided
- ☐ Other, please specify

7.   How much money do you currently manage?

Amount in thousands

8.   Which is your range of investment per social enterprise in monetary terms?

Min Amount

Max Amount

9. Please tell us in which currency you have expressed the two previous questions.

    d Euros
    d Pounds
    d US dollars

10. Which is the number of social enterprises belonging to the following sectors in your target portfolio? *(Please insert a positive number)*

	#
Disabled people	
Education	
Employment	
Energy and environment	
Health	
Housing	
Water	
Other, please specify	

11. Where are the social enterprises that you support mainly located? (*More than one option is possible*)

    d In the organization's country
    d In the organization's continent
    d Africa
    d Asia
    d Latin America
    d All around the world

12. How many social enterprises in your current portfolio belong to the following stages? *(Please insert a positive number)*

	#
Early-stage	
Expansion	
Maturity	

13. Which is the financial instrument that you use to support early-stage enterprises? (*More than one option is possible*)

d Grant

d Underwriting

d Senior loan

d Unsecured loan below market rate

d Unsecured loan at market rate

d Subordinated loan

d Quasy-Equity

d Equity

d No seed stage social enterprises supported

d Do not know

14. In case you support early-stage social enterprises by undertaking an equity participation, which is the average percentage of equity rights retained by your organization? *(Please tick the most appropriate box)*

     d Less than 20%
     d Between 21% and 50%
     d More than 51%
     d Not applicable
     d Do not know

15. Which is the financial instrument that you use to support expansion stage enterprises? *(More than one option is possible)*

     d Grant
     d Underwriting

     d Senior loan

     d Unsecured loan below market rate

     d Unsecured loan at market rate

     d Subordinated loan

     d Quasy-Equity

     d Equity

     d No seed stage social enterprises supported

     d Do not know

16. On average, which is the percentage of equity rights retained by your organization in expansion stage social enterprises? *(Please tick the most appropriate box)*

d Less than 20%

d Between 21% and 50%

d More than 51%

d Not applicable

d Do not know

17.   Which is the financial instrument that you use to support maturity stage enterprises?
       (More than one option is possible)

   d Grant

   d Underwriting

   d Senior loan

   d Unsecured loan below market rate

   d Unsecured loan at market rate

   d Subordinated loan

   d Quasy-Equity

   d Equity

   d No maturity stage social enterprises supported

   d Do not know

18.   On average, which is the percentage of equity rights retained by your organization in
       expansion stage social enterprises? *(Please tick the most appropriate box)*

   d Less than 20%

   d Between 21% and 50%

   d More than 51%

   d Not applicable

   d Do not know

B.   Deal Flow: Screening and Due Diligence

This section asks questions concerning the way in which you screen and select social
enterprises. In particular, the purpose is to understand which selection variables you explicitly
consider.

19.   Which are the channels you use to proactive search for new social enterprises to
       support? *(More than one option is possible)*

   d Through 3rd parties

d Through network of philanthropic supporters

d Through network of venture capitalists contacts

d Through organizations in the existing portfolio

d By proactively contacting other entities

d By incubating social enterprises

d By creating social enterprises in case no suitable candidate can be identified

d Other, please specify

20. How often do you use each one of the channels? *(Please rank each variable. Besides, use the "Other" in case you consider other variables than those listed in the matrix. If so, please fill in the text box at the bottom of the matrix with the variable you consider.)*

	7 = Always		*4 = Sometimes*		*1 = Never*			*88 = Do not know*
	7	6	5	4	3	2	1	88
Through 3rd parties								
Through network of philanthropic supporters								
Through network of venture capitalists contacts								
Through organizations in the existing portfolio								
By incubating social enterprises								
By creating social enterprises in case no suitable candidate can be identified								
Other, please specify								

21. Which one of the following methods do you adopt to receive unsolicited proposals? *(More than one option is possible)*

d Specific section on our web pages

d Social enterprises send proposal to our offices

d Business network

d Unsolicited proposals are not accepted

d Do not know

d Other, please specify

22. While selecting for new social enterprises to potentially support, how important are the following variables? *(Please rank each variable. Besides, use the "Other" in case you consider other variables than those listed in the matrix. If so, please fill in the text box at the bottom of the matrix with the variable you consider.)*

	7 = Very important		*4 = Not important neither unimportant*			*1 = Not important at all*		*88 = Do not know*
	7	6	5	4	3	2	1	88
Entrepreneur and Management team								
Business Strategy								
Social market served								
The SE is achieving clear outcomes with significant numbers of people								
Deal terms								
Credible and sustainable revenue model and/or credible, sustainable funding plan								
Potential for financial sustainability								
Market size								
Potential significant social impact								
Potential to achieve scale								
Technology								
Good fit in the your portfolio								
Other, please specify								

23. While applying for funds, how important is for your organization to receive the following information/documents from a social enterprise in order to be eligible? *(Please rank each information/document. Besides, use the "Other" in case you consider relevant to receive other information/documents than those listed in the matrix. If so, please fill in the text box at the bottom of the matrix with the information/document you consider.)*

24.

	7 = Very important			4 = Not important neither unimportant			1 = Not important at all	88 = Do not know
	7	6	5	4	3	2	1	88
Turnover								
Audited accounts								
Business plan								
Estimation of needed capital								
Explanation of what the funds will be used to accomplish								
Financial plan								
Other, please specify								

Which of the following formal due diligence practices do you adopt? *(More than one option is possible)*

- d Social due diligence
- d Environmental due diligence
- d Legal due diligence
- d Technology due diligence
- d Other, please specify

- d Market due diligence
- d Fiscal due diligence
- d Accounting due diligence
- d No formal due diligence process
- d Do not know

C. Valuation, Equity Rights, Control Rights

This section asks about the methods your organization adopt to value social enterprises, as well as the equity and control rights retained, if applicable.

25. What are the methods that you adopt to value a social enterprise? *(More than one option is possible)*

    ◻ DCF

    ◻ Multiples

    ◻ No valuation of the enterprise, we only finance specific needs
    ◻ Other, please specify
    ◻ Do not know

26. While supporting social enterprises, how often you financially back the following needs? *(please rank each need. Besides, use the "Other" in case you financially support other needs than those listed in the matrix. If so, please fill in the text box at the bottom of the matrix with the need you support.)*

	1 = Never			*4 = Not important neither unimportant*			*1 = Not important at all*	*88 = Do not know*
	1	2	3	4	5	6	7	88
Working capital								
Capex								
Cash								
Increase management capacity								
Outsourced project support								
Other, please specify								

27. Which kind of control rights do you retain? (*More than one option is possible*)

    ◻ Formal
    ◻ Informal
    ◻ No control rights are retained
    ◻ Depends

28. How much more important is "TRUST" than formal control rights in managing the relationship with the social enterprises you support?

<table>
<tr><td>0 = Much more important</td><td></td><td></td><td>4 = As important as formal control rights</td><td></td><td></td><td>7 = Not important at all</td><td>Do Not know</td></tr>
<tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>88</td></tr>
</table>

29. Does your organization retain the right to actively participate in the board of directors of the social enterprises you support?

  d Yes
  d No
  d Depends

30. Which kind of clauses do you include in the term sheet? (*More than one option is possible*)

  d Potential future exit strategy
  d Type of reports to be sent by the social enteprise
  d Liquidation preferences
  d Dividend rights
  d Anti-dilution clauses
  d Redemption rights
  d Lock-ups
  d Board composition
  d Warranties
  d Vesting
  d Option pool
  d Milestones
  d None of the above
  d No term sheet is signed
  d Do not know
  d Other, please specify

31. Which transfer rights do you include in the term sheet? (*More than one option is possible*)

  d Pre-emption rights
  d Drag – along
  d Tag – along
  d Transfer rights are not considered
  d Do not know

D. **Post Investment: Value-Added and Monitoring**

This section asks about the non-financial activities that your organization implement to add-value in the social enterprises it supports as well as the monitoring devices.

32. How important are the following non-financial added-value activities in supporting social enterprises? *(Please rank each value-added activity. Besides, use the "Other" in case you implement other value - added activities than those listed in the matrix. If so, please fill in the text box at the bottom of the matrix with the value - added activity you provide.)*

	7 = Very important		4 = Not important neither unimportant			1 = Not important at all		88 = Do not know
	7	6	5	4	3	2	1	88
Strategic advice								
Marketing and communication								
IT consultation								
Financial management and accounting								
Legal								
Human resourse recruiting								
Governance advice								
Access to a network of potential future investors/donors								
Syndication / co-partnership								
Other, please specify								

33. How does your organization provide value-added activities? *(Please select the most appropriate column for each monitoring device that you use. Besides, use the "Other" in case you implement other monitoring activities than those listed in the matrix. If so, please fill in the text box at the bottom of the matrix with the monitoring device you use)*

	Directly	Externally
Strategic advice		
Marketing and communication		
IT consultation		
Financial management and accounting		
Legal		
Human resourse recruiting		
Governance advice		
Access to a network of potential future investors/donors		
Syndication / co-partnership		
Other, please specify		

34. How important are the following monitoring devices in your investment management approach? *(please for each monitoring device that you use select the most appropriate column. Besides, in case you select the "Other" category, please fill in the text box at the bottom of the matrix.)*

	7 = Very important			4 = Not important neither unimportant			1 = Not important at all	88 = Do not know
	7	6	5	4	3	2	1	88
Reports								
Formal meetings with the management								
Informal meetings with the management								
Implementation of the Balance Scorecard								
Staging the total amount of funds subject to the reaching of milestones								
Other, please specify								

35. How often do you perform monitoring activities?

	Montlhy	Bi-monthly	Quarterly	Semi-annually	Once a year	Do not know
Reports						
Formal meetings with the management						
Informal meetings with the management						
Other, please specify						

E. **Exit / Graduation: Typologies and Return**

This section asks about the exit strategies you adopt and the returns you have obtained so far.

36.   Have you exited / graduated any social enterprise?

- ☐ Yes
- ☐ No
- ☐ Do not know

37.   How many investments have you exited/graduated so far?

38.   Why do you exit investments?

- ☐ The social enterprise has become sustainable
- ☐ The social enterprise has grown to scale
- ☐ The social enterprise needs follow on investments
- ☐ Other, please specify
- ☐ Do not know/not applicable

39.   Which are the exit strategies you adopt or will adopt in the future?

- ☐ Enabling the SE to become self-sustainable
- ☐ Finding new financial partners for obtaining extra funds
- ☐ Exit after repayment of debt
- ☐ Buy back
- ☐ M&A
- ☐ IPO
- ☐ Not to exit
- ☐ Do not know
- ☐ Other, please specify

40.   On average, how long does your organization support social enterprises?

- ☐ Less than 1 year
- ☐ Between 1 and 3 years
- ☐ Between 3 and 5 years
- ☐ More than 5 years

d Do not know

41. Do you seek a social return from your investments?

    d Yes

    d No

    d Sometimes

42. How do you determine social returns?

    d REDF (Robert Enterprise Development Fund) Methodology

    d Growth rate of turnover

    d Growth rate of "lives touched"

    d Progress toward going to scale

    d Quality of the service provided by the SE

    d Other, please specify

    d We do not use any

    d Do not know

43. How much social return have you obtained so far?

0 = Very much less than expected						*10 = Much more than expected*					*Do not know*
0	1	2	3	4	5	6	7	8	9	10	88

44. Do you seek a financial return from your investments?

    d Yes

    d No

    d Sometimes

45. Why do you seek a financial return?

    d To push the social enterprise in becoming sustainable

    d To cover the fund's management costs

    d To establish a revolving fund

    d To be more attractive for a wider audience of investors

    d Other, please specify

46. Which is your target financial return measured by the indicator IRR? *(Please insert a positive number. For example, write 5 for 5%)*

47.   Could you please provide us with the email address of the person who answered the survey? *(The email address will be used only for sending the results of the research)*

Thank you very much for participating in the survey.
We will email you the results as soon as these are available.

APPENDIX 4: Code sheet.

Investment strategy				
Dimension	*Variable*	*Type of variable*	*Value*	
Sector focus		**Sum of seven variables below**		
	Health care	Count	0 = No	1 = Yes
	Education	Count	0 = No	1 = Yes
	Water	Count	0 = No	1 = Yes
	Energy	Count	0 = No	1 = Yes
	Food	Count	0 = No	1 = Yes
	Youth	Count	0 = No	1 = Yes
	No sector focus	Count	0 = No	1 = Yes
Geographic focus		**Sum of four variables below**		
	Country	Count	0 = No	1 = Yes
	Continent	Count	0 = No	1 = Yes
	Africa	Count	0 = No	1 = Yes
	Asia	Count	0 = No	1 = Yes
Stage of development		**Sum of three variables below**		
	Early stage	Count	0 = No	1 = Yes
	Expansion stage	Count	0 = No	1 = Yes
	Maturity stage	Count	0 = No	1 = Yes
Organizational form		**Sum of two variables below**		
	Non profits	Count	0 = No	1 = Yes
	For profits	Count	0 = No	1 = Yes

Deal origination					
Dimension	*Source*	*Variable*	*Type of variable*	*Value*	
Passive			**Sum of two sources below**		
	Social entrepreneur		**Sum of two variables below**		
		Application	Count	0 = No	1 = Yes
		Web page	Count	0 = No	1 = Yes
	Referrals		**Sum of one variable below**		
		Business network	Count	0 = No	1 = Yes
Proactive			**Sum of three sources below**		
	Referrals		**Sum of four variables below**		
		From business network	Count	0 = No	1 = Yes
		From donors	Count	0 = No	1 = Yes
		From organization in the portfolio	Count	0 = No	1 = Yes
		From VCs or PEs	Count	0 = No	1 = Yes
	Creation of ad-hoc SE		**Sum of one variable below**		
		Incubation of existing SE	Count	0 = No	1 = Yes
	Other		**Sum of one variable below**		
		Own research	Count	0 = No	1 = Yes

Deal selection and evaluation				
Dimension	*Variable*	*Type of variable*		*Value*
Human capital		Count	0 = No	1 = Yes
Organization activity		**Sum of five variables below**		
	Achievement of clear outcomes with a significant number of people	Count	0 = No	1 = Yes
	Credible and sustainable revenue model	Count	0 = No	1 = Yes
	Technology	Count	0 = No	1 = Yes
	Business strategy	Count	0 = No	1 = Yes
	Social mission	Count	0 = No	1 = Yes
External environment		**Sum of two variables below**		
	Market size	Count	0 = No	1 = Yes
	Social market served	Count	0 = No	1 = Yes
Assessment of the deal		**Sum of one variable below**		
	Deal terms	Count	0 = No	1 = Yes
Potential		**Sum of two variables below**		
	Social impact	Count	0 = No	1 = Yes
	Financial	Count	0 = No	1 = Yes

Deal structuring				
Dimension	*Variable*	*Type of variable*		*Value*
Financial instrument	Grant	Count	0 = No	1 = Yes
	Loan	Count	0 = No	1 = Yes
	Equity	Count	0 = No	1 = Yes

Post-investment activities				
Monitoring		**Sum of monitoring and cooperation dimensions**		
Dimension	*Variable*	*Type of variable*		*Value*
Formal		**Sum of three variables below**		
	Board seat	Count	0 = No	1 = Yes
	Reports	Count	0 = No	1 = Yes
	Stage financing	Count	0 = No	1 = Yes
Informal		**Sum of one variable below**		
	Meetings	Count	0 = No	1 = Yes

Cooperation		**Sum of monitoring and cooperation dimensions**		
Dimension	*Variable*	*Type of variable*		*Value*
Supportive		**Sum of five variables below**		
	IT	Count	0 = No	1 = Yes
	Legal advice	Count	0 = No	1 = Yes
	Marekting and communication advice	Count	0 = No	1 = Yes
	Human resources recruiting	Count	0 = No	1 = Yes
	Financial management and accounting	Count	0 = No	1 = Yes
Strategic		**Sum of five variables below**		
	Board seat	Count	0 = No	1 = Yes
	Strategic advice	Count	0 = No	1 = Yes
Networking		**Sum of five variables below**		
	Present funders - syndication	Count	0 = No	1 = Yes
	Future funders	Count	0 = No	1 = Yes

Exit				
Dimension	*Variable*	*Type of variable*		*Value*
Duration		**Sum of three variables below**		
	1-2 years	Count	0 = No	1 = Yes
	5-7 years	Count	0 = No	1 = Yes
	More than 7 years	Count	0 = No	1 = Yes
Typology		**Sum of six variables below**		
	M&A	Count	0 = No	1 = Yes
	Buy back	Count	0 = No	1 = Yes
	Repayment of loan	Count	0 = No	1 = Yes
	Continue with the relationship on strategic level	Count	0 = No	1 = Yes
	Follow on investment	Count	0 = No	1 = Yes
	New financial partners	Count	0 = No	1 = Yes

```
  ***  Sample Confidence Intervals  ***
Completed [1/N]: 0.5405
95% CI: 0.427<1<0.654; Wilson: 0.421<1<0.656
Compl+Part [A/N]: 0.5405
95% CI: 0.427<A<0.654; Wilson: 0.421<A<0.656
Refused [B/N]: 0.0405
95% CI: -0.004<B<0.085; Wilson: 0.011<B<0.122
Unknown [C/N]: 0.4189
95% CI: 0.307<C<0.531; Wilson: 0.307<C<0.539
ISER eligibility rate: 1
95% CI: 1<ER<1; Wilson: 0.939<ER<0.999


  ***  CASRO Response Rates  ***
simple [unknowns eligible]: 0.5405
simple [unknowns not eligible]: 0.9302
CASRO [unknowns devided]: 0.5405
e for CASRO [proportion eligible]: 1


  ***  AAPO Response Rates  ***
RR1 [1/(A+B+C)]: 0.5405
RR2 [A/A+B+C]: 0.5405
RR3 [1/(A+B+e*C)]: 0.5405
RR4 [A/(A+B+e*C)]: 0.5405
RR5 [1/(A+B)]: 0.9302
RR6 [A/(A+B)]: 0.9302


  ***  AAPO Cooperation Rates  ***
CR1 [1/(A+4+5)]: 0.9302
CR2 [A/(A+4+5)]: 0.9302
CR3 [1/(A+4)]: 0.9302
CR4 [A/(A+4)]: 0.9302


  ***  AAPO Refusal Rates  ***
RefR1 [4/(A+B+C)]: 0.0405
RefR2 [4/(A+B+e*C)]: 0.0405
RefR3 [4/(A+B)]: 0.0698
```

```
   ***  AAPO Contact Rates  ***
ConR1 [(A+4+5)/(A+B+C)]: 0.5811
ConR2 [(A+4+5)/(A+B+e*C)]: 0.5811
ConR3 [(A+4+5)/(A+B)]: 1


   ***  ISER Rates  ***
Response-o [A/(A+B+e*C)]: 0.5405
Response-f [1/(A+B+e*C)]: 0.4595
Co-operation [A/(A+4+5+e*6a)]: 0.5405
Contact [(A+4+5+e*6a)/(A+B+e*C)]: 1
Refusal [4/(A+B+e*C)]: 0.0405
```