

**The effect of founders' experience on the performance of philanthropic venture capital firms**

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## **Abstract**

This article is the first known study assessing the relationship between the experiences of the philanthropic venture capital firm's founding team, and their venture firm's economic, social, and total performance. Results indicate that commercial and social experience help economic and social performance respectively. However, when pursuing the maximization of both social and economic performance, philanthropic venture capital firms perform best when the founding team has high levels of commercial experience and low levels of social experience.

## **Keywords**

Experience; Performance; Philanthropic Venture Capital; Social Entrepreneurship.

## Introduction

Social entrepreneurship is a way of addressing societal needs through the employment of economically *sustainable* market strategies, which facilitate organizational longevity (Austin, Stevenson, and Wei-Skillern, 2006). However, focus on both social and economic outcomes creates organizational tension (Moss, Short, Payne, and Lumpkin, 2011; Santos, 2012). On the one hand, the commercial activity might reduce attention to the firm's social mission, leading to mission-drift. On the other hand, too much emphasis on the social mission might, instead, lead to overlooking the economic factors that ensure financial sustainability. Because of this organizational tension, social entrepreneurship has attracted scholarly attention and evolved into a new field of study (Short, Moss, and Lumpkin, 2009).

Philanthropic venture capital (PhVC) is a new and innovative funding approach for social enterprises (SEs). PhVC applies the traditional venture capital (TVC) investment model (Gompers and Lerner, 2001; Tyebjee and Bruno, 1984) to the funding needs of SEs (Letts, Ryan, and Grossman, 1997; Scarlata and Alemany, 2010). PhVC firms seek investments that are efficient, economically sustainable, and have measureable social impact. As such, just like the SEs they fund, PhVC firms are subject to organizational tension between their social mission and their economic objectives.

Additionally, the PhVC industry is still relatively young and small. Historically, it emerged in the late nineties during and after the dot.com boom. Dissatisfied with the results obtained by traditional forms of charity to support social causes, many successful high-tech entrepreneurs adopted the principles and discipline of TVC. A report by the European Venture Philanthropy Association [EVPA] (2012) indicates that the total funding available in Europe alone for PhVC investing in 2011 amounts to €3.86 billion, with a median fund size of €11 million. Despite the fact that the PhVC industry has existed for more than fifteen

years, it is still in its early stages of development, with many firms that are small and struggling for survival (EVPA, 2012). Today, across both the U.S. and Europe, we have identified 70 independent PhVC firms (i.e., firms started by individuals, as opposed to being part of a larger institution, such as a bank or a corporation).

Although the PhVC industry is poised for high growth, it remains largely under-researched. Little is known about what it takes for PhVC firms to become successful, especially in light of the dualistic and competing nature of their organizational objectives. While we know that the knowledge created through experience matters for firm performance, this research has primarily focused on organizations pursuing economic returns, such as TVC firms (Dimov and Shepherd, 2005; Walske and Zacharakis, 2009; Zarutskie, 2010). O'Donohoe, Leijonhufvud, Saltuk, et al. (2010) suggest that PhVC firms need to be financially proficient and, at the same time, knowledgeable about the peculiarities of socially driven endeavours. The question, therefore, becomes whether *both* experience in commercial and social endeavours aid PhVC firms that seek dual performance outcomes.

Following the lead of studies in TVC that examine how prior founder experience impacts firm performance (Dimov and Shepherd, 2005; Walske and Zacharakis, 2009; Zarutskie, 2010), this research is the first attempt to delineate which experiences influence PhVC firm performance using a quantitative approach. Specifically, this article looks at whether the dualistic nature of founders' experience, garnered either in the commercial sector, social sector, or a combination of the two, leads to better investment performance. By delving into this topic, we inform scholars and practitioners alike about the success factors required to maximize both economic *and* social return in firms with dual objectives.

This article adds to the literature in a number of ways. First, entrepreneurship research on organizations pursuing dual objectives has mainly been conceptual and qualitative (Short,

et al., 2009; Dacin, Dacin, and Matear, 2010; Austin, et al., 2006). While quantitative studies have analyzed the distinctive elements of social vs. commercial ventures (Moss, et al., 2011) or, very recently, validated measures of the economic and social component of SEs' mission (Stevens, Moran and Bruneel, 2014), our article is the first known quantitative study to assess the *total performance* of dual objective organizations, using the total performance measure conceptually elaborated by Zahra, Gedajlovic, Neubaum, et al. (2009) and Emerson (2003). Second, beyond including traditional measures of commercial experience, we introduce and build an empirical measure for social experience and assess its effect on economic, social, and total firm performance. Third, given that PhVC is an emerging and fast growing field, it is likely that new firms will be formed in the coming years. As such, we provide early evidence as to which types of experience are most common and which relate to firm success. This is particularly interesting for investors committing capital to PhVC.

The article is structured as follows. First, we use Human Capital (HC) Theory (Becker, 1964) to hypothesize how founder experience impacts firm performance. Second, we present the methodology applied to test these hypotheses, including sources and descriptions of the data. Third, we share the results of our empirical analysis and discuss findings. Last, opportunities for future research are discussed.

### **The influence of experience on firm performance**

The role of prior individual experience has long been of interest to HC Theory (Becker, 1964). According to Becker (1964), investments in HC – typically conceptualized as education and work experience – drive the formation of knowledge and skillset. The combination of knowledge and skills allow individuals to successfully perform relevant tasks, ultimately improving their economic conditions. Organizational scholars have further argued that HC, accrued through task-specific experiences, helps top managers select the knowledge

most relevant for firm success, especially in cases where experience is both firm and industry specific (Kor, 2003). As such, variation in firm performance is driven by differences in the HC stock (Bamford, Dean and McDougall, 1999; Beckman and Burton, 2008) and the specific and, often, tacit knowledge base this creates (Polayni, 1966).

In the entrepreneurship context, the experience garnered by new firms' founders creates knowledge bundles that lead to the identification and exploitation of different entrepreneurial opportunities (Beckman and Burton, 2008; Beckman, Burton and O'Reilly, 2007). Furthermore, the influence of firm founders is especially important in young firms, as a) these firms are striving to overcome their liability of newness (Stinchcombe, 1965), and b) these early "imprints" shape future hiring and strategy (Beckman and Burton, 2008), creating a lasting influence on organizational evolution (Boeker, 1989) and performance (Gimeno, Folta, Cooper, et al., 1997).

While investigating experience in TVC firms, Dimov and Shepherd (2005) and Zarutskie (2009) prove that past work experience creates tacit knowledge and domain familiarity that helps investors develop accurate perceptions of risk, return, and investment opportunities. This accuracy, in turn, maximizes the TVC firm's economic performance. PhVC firms also follow the investment practices and techniques of TVC firms in that they screen and actively manage their portfolios of investments (Letts et al., 1997; Scarlata and Alemany, 2010). Also similar to TVC, PhVC organizations are "top heavy," with organizational decisions and strategies being determined by a handful of senior partners, and in our case, given the newness of the PhVC industry, founding partners.

In contrast to TVC firms, PhVC firms and the SEs that they invest in, are also concerned with "value creation," pursuing both social and economic aims (Santos, 2012; Austin et al, 2006). PhVC firms strive to garner a high social return on their investments by

backing organizations that both develop socially innovative market solutions *and* simultaneously employ economically sustainable market strategies. This is in contrast to TVC firms, which focus on what Santos (2012) defines as “value capture” (i.e., the appropriation of economic returns only). In other words, PhVC firms invest in social entrepreneurs who combine both social and economic goals when pursuing a particular entrepreneurial opportunity (Zahra et al., 2009), representing a combination of “*Richard Branson* [serial entrepreneur, founder of Virgin Group, including Virgin Atlantic Airlines and Virgin Records music label] *and Mother Teresa* [Catholic beatified nun who established hospices and homes for the poor and the sick in India, Nobel Prize for Peace in 1997] (Schwab, 2009).”

Research on TVC firms has identified several prior experiences helpful in obtaining superior economic performance. Walske and Zacharakis (2009) and Zarutskie (2010) show that past VC experience builds knowledge that enhances the firm’s ability to raise capital, as the founder can point to prior investment success. Prior VC experience also aids founders in selecting higher quality investments and in knowing how to actively monitor them. Dimov and Shepherd (2005), Walske and Zacharakis (2009), and Zarutskie (2010) further indicate that finance experience facilitates the structuring of VC investments, as it offers a rich understanding of market dynamics and financial instruments. Prior VC and finance experience is important in fundraising, deal structuring, and the monitoring of investments, as well as negotiating subsequent rounds of investments with future co-investors (Walske and Zacharakis, 2009). In contrast, entrepreneurial experience helps when advising the investee on how to adapt to unexpected market developments. Entrepreneurship experience also potentially mitigates agency risk; investors who are former entrepreneurs are better able to detect opportunistic behavior amongst their investees. Finally, senior management experience helps VCs counsel their entrepreneurs on how to scale and grow their organizations,

ultimately resulting in increased portfolio firm value (Walske and Zacharakis, 2009; Zarutskie, 2010).

PhVC firms also want their investments to perform economically, ensuring that they are, at a minimum, economically self-sustaining. As such, commercial experience is helpful when advising portfolio companies on revenue generation strategies, deemed necessary to drive economic sustainability and, ultimately, ensure the SE's survival. Mair and Marti (2009) further stress the importance of economic sustainability, arguing that commercial practices are a necessary condition for the viability of firms that pursue both commercial and social objectives. Therefore, we argue that commercial experience is necessary for the PhVC firm's economic performance, leading to the following hypothesis:

**Hypothesis 1:** *PhVC founders that have higher levels of commercial experience have better economic performance, than PhVC founders that have lower levels of commercial experience.*

In comparison to TVC, PhVC firms' founders have much higher levels of social experience, garnered in socially related endeavors (Scarlata, Zacharakis, and Walske, 2011). Such experiences are valuable because they demonstrate the PhVC firm founders' commitment to the social mission of their investing activity. This, in turn, builds a PhVC firm's credibility (Moss et al., 2011), creating a narrative through which social progress can be demonstrated, over time (Nicholls, 2009). Beyond being consistent with the firm's mission-related investment strategy, social experience creates a better understanding of the motivations and actions necessary to successfully address social problems. As such, experience garnered within government or development agencies enhances the PhVC founders' knowledge about the peculiarities of the sectors which generate positive externalities and improve social welfare, (e.g., education and health). Since governments



highly influence the process of societal change, either by dictating the rules of the social sector, or by creating an ecosystem that finances it, knowing how the government thinks and operates is important to investors in the social sector. This experience ultimately helps with gaining knowledge on the ways through which funding for scaling up initiatives with social causes is ultimately deployed.

At the same time, “*governments often do not have enough knowledge to act, even when they have the resources and motivation to do so* (Santos, 2012: 342).” Therefore, government experience should be accompanied by other social experiences. King (2004) argues that the management of a nonprofit organization offers first-hand experience in the daily challenges that managers have to face while solving social problems. Having such experience allows founders to develop a deeper understanding of the societal challenges and the effectiveness of social programs (Oster, 1995). We extend this thinking to suggest that the founding of an organization with a primary social aim further builds knowledge of how to address social causes through innovative strategies and solutions. Having these types of experiences may also allow individuals to more aptly mobilize ideas, capacities, and resources that are required in sustainable social transformations (Alvord, Brown, and Letts, 2004). This leads to the formulation of the following hypothesis:

**Hypothesis 2:** *PhVC founders that have higher levels of social experience will have better social performance than PhVC founders with lower levels of social experience.*

Although PhVC firms seek both economic and social objectives, they do not look at these as separate objectives. PhVC firms, like the SEs they back, pursue *simultaneous* economic and social objectives (Chell, 2007). This requires possessing knowledge derived both from commercial and social environments. While there is scant literature on how

commercial and social experience can be combined into a single measure of performance, our argument is that if commercial experience spurs economic sustainability, and social experience cements a firm's commitment to its chosen social cause, then having both should lead to better total firm performance.

Building on hypotheses one and two, we expect that social experience, in conjunction with commercial experience, will further improve the PhVC firms' overall performance, as per the following hypothesis:

**Hypothesis 3:** *PhVC founders that have higher levels of commercial and social experience have better total performance than PhVC founders with lower levels of commercial and social experience.*

## **Methodology**

To test our hypotheses, we focus on independent PhVC firms (i.e., firms started by individuals) and exclude non-independent firms (i.e., corporate and captive firms), consistent with research on independent TVC (Walske and Zacharakis, 2009). To identify PhVC firms, the following criteria had to be met: a) investments must be directed towards SEs; b) both capital and value-added services must be provided to investees; c) social return measurement must be reported to their investors [as O'Donohoe et al. (2010) indicate, investors often use proprietary social performance measurements]; and d) the investment firm must market itself as addressing social issues.

Because PhVC is still an emerging industry, no official list of firms exists. We scanned several published sources including both U.S. and European PhVC firms. PhVC firms were mainly identified through the U.S. National Venture Capital Association (NVCA, 2012) and the European Venture Philanthropy Association (EVPA, 2012). To minimize

potential under-coverage error, the previously identified PhVC firms were cross-referenced with the Morino Institute (2000) list for the United States and the John (2006) list for Europe. Further, to ensure that we included the fullest possible population of PhVC firms in our dataset, we used a snowball sampling approach, asking those identified in these various lists and directories to identify additional firms that were not listed by these sources.

Through this process, we identified organizations that are highly engaged with SEs but do not formally invest capital in them (e.g., consultancy firms and networks), and eliminated these non-investing organizations from our final population. After careful examination, we finalized a dataset of 70 PhVC firms, of which 26 are based in the U.S. and 44 in Europe. Given the emerging state of the PhVC industry, the population of active PhVC firms coincides with the population of first-time PhVC firms; these are all PhVC firms with first time funds. While the mean founding year was 2002 for our population of PhVC firms, one firm was started in 1981. This firm has an evergreen fund, meaning that, despite its age, it is still a first-time fund. We ran tests, including and excluding this firm, and results were consistent in both cases. We kept this PhVC in our dataset to ensure the largest possible number of firms.

Due to a lack of public databases on PhVC, data on founders' experience was collected using the PhVC firm's website. We then consulted professional networks (e.g., LinkedIn and ZoomInfo) to further capture PhVC firm founders' prior work experience. Data on performance was collected in 2012 through a questionnaire, which was administered either by phone or email, depending on the interviewee's preference. We asked respondents about the economic and social performance of their portfolio of investments. We obtained 43 complete usable responses, corresponding to 61 percent response rate. Of these, 13 firms are based in the U.S. and 30 firms are based in Europe. Descriptive statistics of the population of PhVC firms and respondents are reported in Table 1. The mean founding year of the PhVC

firms was 2002 vs. 2003 for the respondent sample. Also, 1.471 founders started PhVC firms in the total population of firms, vs. 1.488 founders in the respondent sample. For experience, the population of PhVC firms shows 2.4 founders with commercial experience vs. 1.0 with social experience. These figures become 2.534 and 1.114 for commercial and social experience, respectively, for respondents.

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Insert Table 1 about here  
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We performed different tests to determine potential non-response bias. In our dataset, the variables available for the entire population were: the number of founders; the year the firm was created, commercial experience, and social experience. We performed a Chi-square test for difference on means, medians, and proportions for each of these variables. The Chi-Square test was statistically insignificant, suggesting that non-respondent PhVC firms do not differ from respondent firms. To address Oppenheim's (1992) concern related to late respondents being similar to non-respondents, we compared early respondents to late respondents, on the basis of the variables used to compare respondents and non-respondents. According to Oppenheim (1992), respondents are considered to be late when their response is obtained only after the first reminder. In addition, a test including the experience variables (which were available for both early and late respondents) was also conducted. The results from the Chi-square tests indicate that early respondents do not significantly differ from late respondents.

### *Measures and Analysis*

To test our hypotheses, commercial experience is measured at the firm level using the sum of prior work experiences of all firms' founders, in keeping with prior management

research (Beckman and Burton, 2008; Carpenter, Pollock and Leary, 2003; Walske and Zacharakis, 2009). Commercial experience types are those found in published TVC research (Dimov and Shepherd, 2005, Walske and Zacharakis, 2009, Zarutskie, 2010), including: VC; entrepreneurial; financial; senior management; and consulting experience. VC experience indicates that the person has previously worked in a TVC firm. Finance experience includes investment banking; options trading; foreign exchange management; commercial banking; and mutual fund portfolio management. Entrepreneurial experience was defined as founding a commercially motivated enterprise. An individual was coded as having senior management experience if she had been a Chief Executive Officer (CEO), Chief Operating Officer (COO), Chief Strategy Office (CSO) or a Chief Financial Officer (CFO). Consulting experience includes prior work in strategic and management consulting firms. Each founder received a “1” for each experience type consistent with prior HC research (Beckman and Burton, 2008; Carpenter, et al., 2003).

Social experience, at the firm level, is measured as the sum of the following prior work experiences of all the firms’ founders: positions within government or government agencies; management of an enterprise with a social aim; and founding of an enterprise with a social aim. An individual is coded as having government experience if she worked for a government branch or for international governmental organizations aimed at promoting economic development and social progress. Experience managing an organization with a primary social aim (either a non-profit, for profit or hybrid) includes individuals who were previously employed by such firms. These experiences are coded as “management of an enterprise with a primary social aim” akin to the term “senior management experience” which was used for coding one of the components of the commercial experience construct. Experience founding a non-profit organization or a SE is coded as “founding of an enterprise with a primary social aim,” akin to “entrepreneurial experience,” used in coding commercial experience. The

coding process followed what was done for the measures related to the commercial experience construct, with founders receiving a “1” for each experience type, in keeping with prior research (Beckman and Burton, 2008; Carpenter, et al., 2003).

We measure total performance dependent variable (DV) following Zahra et al. (2009) who present a comprehensive framework for evaluating organizations pursuing dual objectives. Zahra et al. (2009) propose the use of a total performance measure, which is captured by summing its economic and social components. This is consistent with Chell (2007) and Emerson’s (2003: 38) blended value concept, based on “*the core nature of investment and return is [...] the pursuit of an embedded value proposition composed of both [economic and social return].*” Our total performance variable is as follows:

$$\text{Total performance} = (\text{Economic performance} + \text{Social Performance})$$

Consistent with the argument that SEs must become economically sustainable (Letts et al., 1997), we measure economic performance as the extent to which the PhVC investor’s portfolio has achieved economic sustainability at the time of the questionnaire. Using such a measure, rather than return on investment (as typically done in TVC research), allowed us to collect data from the entire spectrum of the PhVC value proposition, including those seeking a high economic return, as well as those seeking no economic return. However, all PhVC firms want their investments in SEs to be economically sustainable. For both for-profit and non-profit organizations, economic sustainability relates to reallocating assets and resources in order to seize opportunities and react to unexpected threats while maintaining general operations of the organization (Bowman, 2011). As such, economic sustainability refers to having economic conditions that allow SEs to survive over the long-term.

The social entrepreneurship literature suggests that SEs can undertake both the non-profit and for-profit organizational form (Austin et al., 2006; Dees, 1998). In the case of non-

profit SEs, we define economic sustainability as a non-profit's ability to earn income by selling products or providing services to communities in need, rather than by relying on grants alone. Economic sustainability is thereby represented by the relative percentage of income that is garnered by such activities, typically unrestricted, as opposed to the income earned through grants, which are typically restricted (Alter, 2000; Bell, Masaoka, Zimmerman, 2010; Gras and Mendoza, 2014). This is consistent with Sontag-Padilla, Staplefoote, and Gonzalez Morganti (2012) who find that one of the major challenges for non-profits is a total reliance on external project funding. Grants often have considerable restrictions on how funds can be utilized, and rarely support general operations and administration. They are also often granted for a relatively short period of time, such as one or two years (Letts et al., 1997). Therefore, a dependency on grants alone can create organizational vulnerability and increase its likelihood of failure. If the SE undertakes a for-profit or hybrid organizational form, we define economic sustainability as the ability of the investee to generate a positive cash flow (McMullen and Dimov, 2013).

Consistent with prior research, SEs combine existing resources in new and/or different ways to address social causes (Alvord et al., 2004; Bornstein, 2004; Brinkerhoff, 2001; Dees, 1998; Mair and Marti, 2006; Reis, 1999). Therefore, we measure social performance as the extent to which the portfolio SEs have been able to spur social innovation (Alvord, et al., 2004; Austin et al., 2006; Leadbeater, 2007; Luke and Chu, 2013; Mulgan, 2007; Shaw and de Bruin, 2013). Social innovation is defined as the SE's ability to create and bring to market new products and services that benefit society at large (Alvord et al., 2004). For both our economic and social performance indicators, investors were asked to rate their current investments using a seven-point Likert scale. Both of these measures were collected through the questionnaire sent to founders and executives of PhVC firms.

We control for four variables available for all respondents. First, we control for the size of the PhVC firm (measured as natural logarithm of number of portfolio companies). Second, given that ecology theorists suggest that older and larger firms have a greater chance of survivorship (Freeman, Carroll, and Hannan, 1983), we control for firm age. Third, we control for whether the firm has its headquarters in Europe or the United States. Last, we control for the PhVC firm's value proposition – defined as the extent of the firm's pursuit of social and economic return. This is consistent with prior research that shows that PhVC firms' value proposition ranges across a continuum of social and economic return (Scarlata, Alemany, and Zacharakis, 2012). Some PhVC firms are “social first,” and measure success purely by social returns. An example of such a firm is the New Schools Venture Fund, a U.S. based PhVC firm that aims to transform the public education system for low-income children (New Schools Venture Fund, 2013). Other PhVC firms emphasize the need for the redistribution of economic returns to their investors, over their fund's social return. An example of such a firm is Lift Investment Partners, a U.S. based PhVC firm, which invests in ventures to grow them to scale and return capital, alongside any appreciation, to its investors (Lift Investment Partners, 2013). In the middle lie firms such as Acumen Fund, a U.S. based PhVC firm that aims to create both social impact and an economic return, using all investment proceeds to fund future investments (Acumen Fund, 2013).

In the questionnaire, value proposition was measured as an ordinal variable ranging from 1 to 3, with 1 = Economic return is our priority, 2 = Social and economic return are equally important, and 3 = Social return is our priority. Respondents were therefore asked to indicate what value proposition best described their activity. Results (reported in Table 2) indicate that respondents are in the blended performance spectrum, which equally emphasizes economic and social return (mean of respondent sample = 2.302).



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Insert Table 2 about here  
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We then ran OLS regressions to test our hypotheses. We treated the Likert scale of the DVs as continuous variables, consistent with prior research (Carifio and Perla, 2007; Jamieson, 2004). Tests indicate the absence of multicollinearity across all models reported. The value of the Variance Inflation Factors across the different models presented in the next section range between 1.5 (for the model including control variables only) and 1.9 (for the full model), well below the cutoff value of 5 or 10 suggested in prior research (Hair and Anderson, 2010).

We performed several robustness checks of our results. First, we addressed endogeneity, which could affect our analysis and lead to biased OLS estimates. In our context, the question is whether the effect of experience on performance might be due to a “selection” effect, where founders with greater levels of commercial experience might be more likely to report higher economic performance in their portfolio of investments, for example. By doing so, they would send a signal that their lower levels of experience in the social sector, as shown by Table 2, does not negatively impact their investment performance. If non-random, it is possible that the independent variable, commercial experience, is correlated with the regression error term, leading to biased OLS estimates. We therefore implemented a two-stage least square (2SLS) instrumental variable regression, which requires using an instrument that is not correlated with the error term, but that is correlated with the independent, endogenous variable to be instrumented. Consistent with prior research and the argument that the higher the number of founders with commercial experience, the higher the firm’s economic performance (Adams, Almeida, and Ferreira, 2003, 2005; Bruton, Chanine, Filatotchev, 2009), we used the number of founders as an instrument for

commercial experience. This is consistent with results by Beckman and Burton (2008) and Patzelt (2010) showing a positive significant correlation between number of founders and commercial experience.

The first stage of 2SLS provides an estimate for the endogenous variable and indicates the strength of the instrument being used. Based on Stock, Wright, and Yogo (2002), strength can be measured by the F statistic which should be higher than 10 for strong instruments. In our case, the F statistic from the first stage regression of 2SLS used to instrument commercial experience through number of founders, showed a value of  $F = 11.31$ ,  $p < .05$ . This indicates that number of founders is a strong instrument.

Second, to deal with a potential concern related to performance being influenced by the extent to which the investor can add value to their portfolio companies (Cumming, 2006; Cumming and Johan, 2007; Kannianen and Keuschnigg, 2004), we used average number of portfolio SEs per founder as control variable. Third, to alleviate concerns related to the presence of one outlier in our respondent sample, we a) ran a quantile regression, and b) winsorized the variable “Age,” (i.e., the variable characterized by the presence of the firm started in 1981). Across these robustness checks, results were consistent with those reported in Table 3.

## **Results**

Table 2 provides the descriptive statistics and correlations for the variables used, specifying the mean and standard deviations. Results show that both commercial and social experience is present among PhVC firms’ founders. However, founders in our sample have more commercial than social experience (mean of 2.534 vs. 1.114 respectively). In addition, seven of these firms had founders with no commercial experience vs. eight firms with founders showing no social experience. However, T-tests indicate that the difference between

respondent firms whose founders have neither social nor commercial experience, compared to respondent firms with founders having both, are not statistically significant.

In Table 3, we provide the results of the OLS and 2SLS full-models estimation for economic, social, and total performance. Results across OLS and 2SLS methods are consistent with one another. Results indicate that commercial experience is positively and significantly affecting economic performance ( $\beta = .337, p < .05$ ). A one standard deviation increase in commercial experience causes a 0.337 increase in the economic sustainability of the PhVC firm's portfolio of investments. This provides support for Hypothesis 1 which predicts that commercial experience leads to higher economic performance.

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Insert Table 3 about here  
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For social performance, results indicate a positive effect of social experience ( $\beta = .313, p < .1$ ), consistent with Hypothesis 2. One standard deviation increase in social experience causes a 0.313 increase in the social performance of the PhVC firm's portfolio of investments in SEs.

When firms pursue the simultaneous maximization of economic *and* social return, or total performance, our results indicate that *social experience is both a significant and negative moderator for total performance* ( $\beta = -.203, p < .05$ ), providing no support to Hypothesis 3. As such, a one standard deviation increase in both commercial and social experience causes a 0.203 decrease in the total performance of the PhVC firm. Results are consistent across OLS and 2SLS tests, indicating that our results are not affected by endogeneity. This strengthens the view that when PhVC firms' founders pair

commercial and social experience, total performance suffers. This is counterintuitive and the opposite of what was predicted by Hypothesis 3.

To further understand why the combination of social and commercial experiences negatively influence total performance, we parsed out the main effect of commercial and social experience, and their interaction, on total performance, as shown in Figure 1. The effect of social experience on total performance was plotted considering two different combinations of commercial and social experience: high commercial – low social, and low commercial – high social. This further analysis explains the variation in our correlation tables as *the relationship between experience and total performance is positive when commercial experience is high and social experience is low*. On the contrary, *total performance is significantly lower when social experience is high and commercial experience is low*. This leads to a novel and nuanced finding: *commercial and social experiences are both positively correlated with PhVC total performance, but only when commercial experience is high and social experience is low*.

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## **Discussion and Implications**

This study examines the effects of founder experience on firm-level economic, social, and total performance within organizations pursuing both economic *and* social returns. It addresses the following research question: *what types of founder’s experiences in firms pursuing economic and social objectives best aid total firm performance?* To answer this question, we analyze performance factors in the context of PhVC firms, whose primary activity lies in investing capital and providing strategic advice to SEs. We also ask which

experiences, garnered prior to founding a PhVC firm, most aid firm performance. To do so, we ran our empirical analysis using European and American investing PhVC firms, which invest across the entire social-economic performance spectrum.

We find that individuals who start a PhVC firm tend to have more experience in the commercial (i.e., TVC, finance, senior management, consulting, and entrepreneurship experience), rather than the social sector (i.e., government experience, the management/creation of an organization with a primary social aim). By aggregating a range of founder experiences, based on their commercial or social nature, we find that experience is indeed a strong predictor of economic performance, consistent with prior TVC work by Dimov and Shepherd (2005) , Walske and Zacharakis (2009) and Zarutskie (2010). Specifically, we find that PhVC firms started by individuals with more commercial experience are more likely to hold a portfolio of investments in SEs that are more economically sustainable. This provides support for Hypothesis 1.

Empirical results also suggest that social experience alone strongly predicts the performance of firms when they seek to maximize social performance, consistent with Hypothesis 2. This indicates that the tacit knowledge developed through social sector experiences are of key importance for the performance of firms active in such contexts. Although not formally hypothesized, results in Table 3 also suggest that commercial experience alone indeed improves social performance. However, coupling social with commercial experience significantly decreases the social performance of the PhVC firm's portfolio. Perhaps, the challenges of translating and integrating, simultaneously, knowledge accrued both through commercial and social experience into projects purely focused on social returns is insurmountable. This is in line with Ancona and Caldwell (1992) who argue that the heterogeneity of experiences may impede the exchange and understanding of relevant information, which relate to the use of different narratives, vocabularies, and objectives.

The empirical evidence indicates that when firms pursue singular objectives, either economic or social, context specific experience helps (i.e., strong commercial experience leads to better economic performance and strong social experience leads to better social performance). However, contrary to our expectations, coupling commercial with social experience actually undermines total performance. Although relevant knowledge in both commercial and social domains accentuates the PhVC firms' pursuit of dual objectives, having too much social experience makes investments less economically sustainable and, in turn, less successful. Investments that are not economically viable do not survive in the long run, thus limiting the SE's social impact (Morino, 2000; Letts et al., 1997). As Morino (2000) states, too much social experience creates firms more focused on the pursuit of social objectives, at the expense of their own survivorship. Further, too much of a social focus may result in non-economically sustainable organizations that cannot scale, thus limiting their efficiency and efficacy both at an economic *and* social level (Letts et al, 1997). Lastly, it is important to remember that PhVC firms are investment vehicles, making the economic and social performance of their funds of utmost important to their financial backers. Indeed, our results indicate that total performance (i.e., blended economic and social performance) is driven more by its economic component and by context specific commercial experience.

These results support HC theory, in that context specific experience is key to firm success (Becker, 1964) when PhVC firms pursue economic returns. However, we challenge the assumption that firms pursuing dual objectives need to possess dual types of experiences with equal amounts of both commercial and social experiences. As reported by prior studies, different experiences increase the firm's ability to take actions and respond to change (Chen and Macmillan, 1992). This is consistent with Eisenhardt (1989) in that differing knowledge stocks can impede a firm's responsiveness to environmental factors, negatively impacting firm performance. Applying these arguments to the context of PhVC firms, our results show

that equal amounts of both commercial and social experience does not improve total performance. Further, our work suggests that the tacit knowledge gained by PhVC firms' founders in the social sector alone, while relevant for maximization of social performance, does not increase a firm's total performance. In essence, more social experience is not better; however some social experience, coupled with higher levels of commercial experience, leads to superior total performance within PhVC firms.

#### *Implications and suggestions for further research*

Extant research has focused on investing firms that pursue an economic return on investments (Dimov and Shepherd, 2005; Walske and Zacharakis, 2009; Zarutskie, 2010). Another stream of literature has examined organizations that pursue a social objective, mainly in the non-profit domain, which has implicitly assumed that economic indicators can measure social performance (e.g., Forbes, 1998; Ritchie and Kolodinsky, 2003). In the entrepreneurship literature, research on social entrepreneurship has been mainly conceptual (Emerson and Twersky, 1996; Emerson, 2003; Zahra et al., 2009) or qualitative (cfr. Short, et al., 2009; Dacin, et al., 2010). Our work is the first known quantitative research that conceptualizes and measures social experience. We then perform the challenging task of measuring *total* performance, when firms have the dual objective of economic and social return maximization. Building on prior conceptual work in the entrepreneurship literature, we empirically measure and implement, for the first time, a total performance indicator that includes both economic and social parameters.

While we find that PhVC firms are started by few individuals with relatively low commercial and social experience, the knowledge they gained through such experience indeed leads to better economic, social, and total firm performance. Our data further reveals caveats around combining commercial and social experience. Firms whose founders possess both

commercial and social experience, in equal amounts, fail to deliver when performance expectation blends both economic and social performance. These results are due to the challenges associated with integrating knowledge stocks developed in two different and, often, mutually exclusive endeavours (i.e., commercial and social) which are characterized by their own narratives, language, and practices. Given that total PhVC performance is driven by economic rather than the social component, we suggest that high levels of commercial experience is critical to the success of PhVC firms. Also, because SEs do not rely solely on grants or donations to fund their operations, but instead implement market-based approaches to solve social problems, investors need to have knowledge on how these operations should be designed and implemented. They also should be able to advise SE's on how to improve or modify their business model, if necessary. Therefore, SEs that fail to achieve economic sustainability are more likely to be unsuccessful portfolio firms, in turn, leading to less successful PhVC firms. However, PhVC firms need a little social experience to understand and support the mission of the SEs in which they invest. In sum, higher commercial mixed with lower social experience leads to the higher total performance of PhVC firms.

With respect to total performance, we find that a small level of social experience is quite beneficial. As such, the knowledge created through social experience must be evaluated more deeply so that we can: a) understand what types and amount of social experience is most correlated with high total performance b) identify which social experiences are best coupled with commercial experiences; b) evaluate the extent to which alternative explanations could drive the negative effects of social experience on total performance, (e.g., entrenched founders who “hire” prominent persons with a high social profile to attract fund inflows, but are not prepared to identify, invest and advise the best SEs); and c) more deeply understand what types of commercial experience best aid firm performance. Future research could therefore tease out which commercial experiences drive firm performance at the



economic, social, and total level. Finally, further analysis could determine if all experiences included in the social experience construct negatively influence overall performance.

Considering that the current population and sample is small, it is difficult to empirically test these sub-components. Qualitative research could lead to a more nuanced understanding of which social and commercial experiences are most essential in dual objective firms.

Our findings also indicate that while extant research focuses on identifying differences and similarities between dual and single objective organizations (Austin et al., 2006; Miller and Wesley, 2010; Moss, et al., 2011), we need a better understanding of how economic and social experiences relate and influence total organizational performance. In fact, studying organizations that simultaneously pursue economic *and* social objectives is fertile ground to test and improve upon well-known entrepreneurship and management theories (Santos, 2012). While dual-purpose organizations put equal emphasis on commercial factors and social factors (Miller and Wesley, 2010; Moss, et al., 2011), our research shows that pursuing dual organizational objectives does not require equal stocks of knowledge (Dierickx and Cool, 1989). This could create new areas of study for researchers interested in identifying efficient ways to allocate both human and financial resources for social causes. Our results are also relevant for practitioners. If their objective is to put financial resources into the best performing PhVC investment vehicles, they would have to look for those firms where founders have high commercial but low social experience. For prospective PhVC firms' founders, instead, individuals should be looking to create founding teams who hold more experience in the commercial sector. Those interested in creating a PhVC firm should also be wary of having a dominant level of founder experience in the social sector.

The findings suggest that a higher balance of commercial experience versus social experience is essential to PhVC firm success challenging the assumption that to be successful in PhVC, social experience is more important than commercial experience. Typically, there is

an emphasis on social experience, as it is commonly thought that such experience creates an understanding of the dynamics, narratives, and challenges within the social sector. While possessing some social knowledge is helpful, and likely motivates a person to work in PhVC, commercial experience is *essential* to achieving total performance returns. A better understanding of who are the founding partners of PhVC firms is additionally beneficial to those social entrepreneurs seeking capital. Typically, entrepreneurs do better when backed by higher performing investment entities, as successful investors become a source for capital in future fundraising rounds (Walske, Zacharakis, and Smith-Doerr, 2007).

Aside from contributing to the emerging field of PhVC, there are some limitations to our study that need to be considered. First, the population of PhVC firms is very small, and has limited operating histories. Although our sample includes 61 percent of the PhVC population, the size of our sample does not allow for fine-grained analysis of all IV's that we would have preferred to test. For example, we could have divided firms based upon their expectations around social and economic return, focusing only on a particular investor category (i.e., finance first, social first, or equally weighted finance and social return emphasis). Given the small population of PhVC firms in each investment category, it is difficult to quantitatively test each of the three firm categories. Second, while we have strived to identify all active PhVC firms, our dataset might not be complete. We conducted several Internet searches and reached out to industry associations and networks, to ensure as complete a sample as possible. Third, our measurement of experience variables is subject to self-reporting bias. It may be that the difference at the commercial and social experiences level is affected by the decision of the founder to report only those experiences deemed to be relevant. For example, philanthropic activity may be under-reported by founders at PhVC firms if they view this as unpaid, volunteer work, and not a legitimate part of their work history. Fourth, while we capture the different types of experience that founders possess, we

cannot capture how many years of each type of experience each founder holds. Similar to past work in TVC HC (Dimov and Shepherd, 2005; Walske and Zacharakis, 2009; Zarutskie, 2010), we are limited to types of experience possessed and not the relative strength (as measured in years) for each experience type. Considering that 42 percent of the PhVC sample consists of firms started by one founder, the overall sample has relatively lower experience counts in both commercial and social experience. It may be that the optimal strategy for PhVC success is to have multiple founders with complementary experience. Future qualitative research could clarify this issue further.

A final limitation of our work lies in a somewhat subjective measurement of social and economic performance, given that the data is self-reported. Future research might look into social and economic performance by employing quantifiable and objective measures of social return. Since there is no industry or academic standard to measure social performance, we had investors rate their portfolio firm performance using Likert scales. The use of external measures can be incorporated into follow-on research, once they are developed and implemented more widely and consistently in the field of social finance and social entrepreneurship.

## **Conclusion**

In closing, our results indicate that PhVC firm total performance is influenced mainly by its economic component which, in turn, is driven by commercial experience; PhVC firm founders with high levels of commercial experience improves total PhVC performance. Finally, combining *both* commercial *and* social experience is detrimental to a PhVC firm's total performance, if founders hold high levels of both experience types. Instead, our plots indicate that when commercial experience is high, and social experience is low, total performance for PhVC firms is the highest. Through this research we delineate the experiences that best correlate with firm performance in dual

objective organizations. These findings are a significant contribution to the knowledge base around PhVC, not only for academicians, but also for the investor in PhVC firms, for the founders of PhVC firms, and for social entrepreneurs seeking capital from PhVC firms.

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**Table 1: Descriptive statistics of PhVC firms – Population and respondents.**

	Population						Respondents					
	<i>n</i>	<i>Mean</i>	<i>Median</i>	<i>Min</i>	<i>Max</i>	<i>SD</i>	<i>n</i>	<i>Mean</i>	<i>Median</i>	<i>Min</i>	<i>Max</i>	<i>SD</i>
Year	70	2002	2003	1981	2011	5.369	43	2003	2004	1981	2011	5.372
Number of founders	70	1.471	1.00	1	4	0.689	43	1.488	1.000	1	3	0.631
Commercial experience	70	2.400	2.000	0	8	2.152	43	2.534	2.000	0	8	2.208
Social experience	70	1.000	1.000	0	5	1.174	43	1.114	1.000	0	5	1.283

**Table 2: Descriptive statistics and correlations.**

	<b>n</b>	<b>Mean</b>	<b>St. Dev</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
1 Economic performance	43	4.698	.320	1.000										
2 Social performance	43	6.000	.199	-.228	1.000									
3 Total performance	43	10.698	2.199	.820***	.369*	1.000								
4 Commercial experience	43	2.534	2.208	.163	.099	.098	1.000							
5 Social experience	43	1.114	1.283	-.288	-.042	-.331**	.049	1.000						
6 Ln Portfolio size	43	3.006	1.583	-.031	.167	.068	-.191	-.076	1.000					
7 Firm age	43	2003	5.374	.175	-.223	.036	.024	-.001	-.701***	1.000				
8 Value proposition	43	2.302	.558	.141	-.066	.096	.059	.106	.074	.103	1.000			
9 Ln Number of founders	43	.397	.392	.256	.068	.160	.485**	.014	-.057	.063	-.136	1.000		
10 Location	43	.674	.474	.138	-.078	.086	-.194	-.002	-.140	.194	.111	.023	1.000	
11 Ln Size (Capital)	38	16.083	2.448	-.123	.210	.011	-.236	-.162	.423**	-.138	.022	.206	-.199	1.000

\*\*\*p<0.01; \*\*p<0.05; \*p<0.1

**Table 3: OLS regressions for economic, social, and total performance (full models).**

	Economic performance		Social performance		Total performance	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Commercial experience	.337** (.199)	1.155** (.544)	.298* (.098)	.383* (.218)	.599** (.196)	1.483** (.604)
Social experience	-.144 (.357)	.526 (.596)	.313* (.167)	.488** (.244)	.058 (.353)	.852 (.667)
Commercial experience x Social experience	-.012 (.091)	-.359 (.183)	-.087** (.041)	-.139** (.068)	-.203** (.089)	-.474** (.204)
Ln Portfolio size	.316 (.283)	.001 (.001)	.218 (.129)	.244 (.124)	.279 (.287)	.429 (.375)
Firm age	.126 (.084)	.140 (.091)	-.045 (.039)	-.007 (.037)	.047 (.087)	.057 (.109)
Value proposition	.352 (.575)	.391 (.609)	-.141 (.292)	-.103 (.277)	.118 (.571)	-.020 (.726)
Location	.541 (.710)	1.171 (.853)	-.056 (.343)	.103 (.364)	.502 (.699)	1.134 (.968)
Constant	-251.223 (168.633)	-280.716 (181.492)	14.019 (78.669)	17.080 (73.692)	-87.032 (174.277)	-108.553 (220.808)
N	43		43		43	
R2	.241		.209		.312	
Adj. R2	.089		.073		.169	

\*\*\*p&lt;0.01; \*\*p&lt;0.05; \*p&lt;0.10

**Figure 1: Interaction effect of commercial and social experience on total performance.**

