Does Cultural Capital Matter?
Exploring Sources of Funding in New Venture Creation

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Scholars and practitioners generally agree that access to financial capital is an important driver of new venture creation (Chandler & Hanks 1998). This study examines how human, social, and cultural capitals influence the type and amount of funding a nascent entrepreneur acquires. Data from the Panel Study of Entrepreneurial Dynamics II are utilized to investigate the relationship of human, social, and cultural capital on different financing sources utilized among a cohort of sole proprietor start-ups prior to legal registration of the venture. Findings suggest that cultural capital is a more significant factor in acquiring funding than human or social capital.

Human capital (HC) and social capital (SC) provide compelling focal points in research on new venture creation. HC refers to the knowledge and skills a person utilizes and leverages to perform labor in creating economic value (Becker 1993). In general, the skills and knowledge gained through work experience and professional training enhance the ability of potential entrepreneurs to perceive and exploit opportunity (Davidsson & Honig, 2003). By contrast, SC represents resources ingrained in social relationships that enable persons to pursue their entrepreneurial interests (Baker 1990, p. 619). Empirical findings suggest both HC and SC are influential factors that direct important entrepreneurial activities, such as alertness to new opportunities and financing in the nascent entrepreneurship process (Cassar, 2006; Chandler, Honig & Wiklund, 2005; Davidsson & Gordon, 2009; Davidsson & Honig, 2003; Diochon, Menzies & Gasse, 2008; Liao & Welsch, 2003, 2005; Reynolds, 1997).

While the contributions of HC and SC advance our understanding of the nascent entrepreneurship process, scant attention has been given to the substantial impact cultural capital (CC) plays in this process (Foley, 2008). First introduced by Bourdieu (1983, 1986), CC refers to the combination of the dominant forms of societal knowledge, skills, and education level that impact an individual's behavior. Some individuals benefit from relatively greater amounts of CC, which in turn affords them a higher status in society. Therefore, we suggest that individuals with varying levels of CC (e.g., status and power) will behave differently in the new venture creation process.

As a concept, CC was developed as an individual construct; yet, it is theoretically intertwined with conceptualizations of HC in economics and management (Robbins, 1991; Throsby, 1999). While definitions of HC within economics and management may include culture as one of its components (e.g., Chiswick, 1983; Costanza & Daly, 1992; Throsby, 1999), Bourdieu's conceptualization about CC did not provide a clear direction for operationalization of the concept (Tramonte & Williams, 2010, p. 202). Specifically, empirical investigations of resource endowments often define level of education as an attribute of HC (e.g., Davidsson & Honig, 2003; Delmar & Davidsson, 2000; Kim, Aldrich & Keister, 2006; Reynolds, 1997; Reynolds, Carter, Gartner & Greene, 2004; Rotefoss & Kolvereid, 2005). Instead, we argue that the level of education is a more appropriate reflection of CC because it reflects the perception of prestige associated with such educational attainment. Moreover, rather than considering educational attainment as an individual resource that determines one’s productivity, it is regarded as a resource, which is both individual and collective, and more or less determines individuals’ social positions and their financing possibilities in relation to specific social fields (Karin, 2009). Scholars have acknowledged the influential role CC plays in entrepreneurship; however, the nature of the role needs further theoretical and empirical development.
As a result of the ambiguity surrounding CC, we conceptually and empirically develop CC, as it exists in three forms: embodied state, objectified state, and an institutionalized state (Bourdieu, 1986). Moreover, our research clarifies and extends this line of inquiry by highlighting the importance of CC and focusing on two research questions designed to explore the nature and role of CC in the nascent stages of new venture creation. First, how is CC defined within the context of nascent entrepreneurial activity? Second, does the presence of HC, SC, and CC influence start-up funding acquisition efforts of nascent entrepreneurs, and if so, how?

This article proceeds as follows. First, we discuss the bounds and importance of HC, SC, and CC, drawing from multiple literatures. Next, we discuss how these types of capital affect nascent start-ups’ funding choices and develop testable hypotheses designed to inform both theory and practice. We then discuss the construct measures and methods utilized to test the relationship between human, social, and cultural capital and funding sources. Finally, the data analysis, results and implications of this study are discussed.

THEORETICAL DEVELOPMENT AND HYPOTHESES

Non-monetary start-up resources have traditionally been categorized as either human or social capital endowments. HC refers to the stock of skills and knowledge embodied in the ability to perform labor so as to produce economic value (Becker, 1993; Schultz, 1971). Essentially, HC is the skills and knowledge gained by an individual through work experience and professional training specifically related to functional specialization. On the other hand, SC is a more ambiguous construct. SC can be defined as the resources that individuals derive from specific social structures and then use to pursue their interests and stems from changes in relationships among persons (Baker, 1990, p. 619). Scholars have suggested that HC and SC are vital to the new venture creation process because these resource endowments are instrumental in providing business founders’ access to additional financial capital required for new venture creation and success (Chandler & Hanks, 1998; Hart, Wearing, Leipens & Griffen, 1997).

HUMAN CAPITAL

As noted previously, a widely adopted definition of human capital is that it is the skills, experience and knowledge actors utilize to enhance firm value (Becker, 1964; Schultz, 1961). Further, many concur that HC is a vital resource for firms. Indeed, Chandler (1962) stated that HC is perhaps the most important resource available to firms. In general, it has been suggested that the larger the amount of HC, the better an actor will perform at any given task (Becker, 1993). Not only does HC increase the nascent entrepreneur’s activity surrounding starting the business, but also aids in managing relationships with all stakeholders in any given industry (Bruderl, Preisendorfer & Zielger, 1992). Therefore, in regards to new venture creation, actors with greater HC are more likely to engage in the process of starting a new venture (Davidsson & Honig, 2003) and the venture is more likely to survive (Bates, 1990). Hence, HC is a pivotal aspect of entrepreneurship start up and success (Coleman, 2007).

Moreover, the extant literature is replete with studies that highlight the importance of HC, including education level, prior experience and years of work experiences. Indeed, prior studies suggest that nascent entrepreneurs have higher average education and previous start-up experience than non-entrepreneurs (e.g., Davidsson & Honig, 2003; Delmar & Davidsson, 2000; Kim, Aldrich & Keister, 2006; Reynolds, 1997; Rotefoss & Kolvereid, 2005). Other studies report that failure of prior start-up attempts increases the propensity to become a nascent entrepreneur (Reynolds, Carter, Gartner & Greene, 2004). Further, it has been suggested that the education effect may be curvilinear, such that those with medium-high education are the most over-represented (Davidsson & Gordon, 2009). A corresponding curvilinearity may partially explain why the influence of managerial experience appears weak or
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uncertain in relation to HC (Kim, Aldrich & Keister, 2006). Controlling for the negative effect of age, Davidsson and Honig (2003) found a positive effect for years of work experience. However, Kim and colleagues (2006) found no such effect, after netting out years of managerial work experience. Thus, the HC stemming from founders’ abilities is an important contributor to the success of the firm (Cooper, Gimeno-Gascon & Woo, 1994). By extension, HC provides for increased opportunity recognition and even entrepreneurial success.

SOCIAL CAPITAL

Social capital is often regarded as vital for new venture start-up success since it stems from changes in relationships among individuals. These dynamic, changing relationships with others enable action. Similar to HC, SC is vital in the resource-acquisition required for new venture creation and success. Therefore, SC refers to assets gained through membership in networks. In general, SC facilitates entrepreneurship (Chong & Gibbons, 1997) and the formation of start-up companies (Walker, Kogut & Shan, 1997) by increasing individuals’ awareness of start-up activities (Singh, 2000) and resource acquisition via social contacts (Hills, Lumpkin & Singh, 1997).

Prior studies have demonstrated the importance of SC in the new venture context. For example, research on ethnic entrepreneurs and ethnic firms suggest that the information provided by community ties is critical for the mobility opportunities of newly arrived immigrants (Portes & Sensenbrenner, 1993). At the firm level, the entrepreneurship literature highlights the significance of SC in understanding how firms create and manage a network (e.g., Aldrich & Zimmer, 1986; Florin, Lubatkin & Schulze, 2003; Larson & Starr, 1993). At the individual level, research suggests that an entrepreneur’s personal network allows access to resources that are not possessed internally (Ostgaard & Birley, 1994). There is general consensus that a high level of SC, built on a favorable reputation, relevant previous experience, and direct personal contact, often assists entrepreneurs in gaining access to venture capitalists, key competitive information sources, potential customers, and others (Liao & Welsch, 2005).

In sum, both HC and SC are important factors that influence many aspects of the nascent entrepreneurial process. Indeed, scholars argue that actors with higher stocks of HC and SC ultimately perform better at tasks, are more apt to recognize opportunities and have access to more social resources, among other activities driving entrepreneurial engagement (e.g., Cassar, 2006; Chandler et al., 2005; Davidsson & Honig, 2003; Diochon, et al., 2008; Liao & Welsch 2003, 2005; Reynolds, 1997).

CULTURAL CAPITAL

Unlike human and social capital, cultural capital (CC) has received less attention in the literature related to nascent entrepreneurship start-up processes. CC, first introduced by Bourdieu (1983, 1986), encompasses forms of dominant societal knowledge, skills, and the degree of education a person has, which gives the individual a higher status in society. In particular, he asserts that cultural “habits and dispositions” comprise a resource capable of generating “profits;” they are potentially subject to monopolization by individuals and groups; and, under appropriate conditions, they can be transmitted from one generation to the next (Lareau & Weininger, 2003). Accordingly, CC endows status and power and exists in three forms: embodied state, objectified state, and institutionalized state (Bourdieu, 1986).

Embodied cultural capital consists of inherited and acquired properties in one’s self. In its “embodied” form, CC is a “competence” or skill that cannot be separated from its “bearer” (that is, the person who “holds” it). For example, embodied CC is often expressed in activities or relationships between parents and children. Therefore, embodied CC refers to a level of cultivation, or capital inherited over time via family socialization, culture and traditions (Karin, 2009). Bourdieu (2001) argues that one antecedent of
CC is the level of income in the actor's childhood home. Consequently, if an individual's parents are of high socio-economic status, that individual will have more cultural knowledge and awareness of dominant societal values. As a result, the individual will embody this type of knowledge from an early age, and is generally applied towards future acquisition of additional CC (Bourdieu, 1992). Hence, in the case of start-ups, parental role modeling and exposure to family business creates tacit knowledge that confers embodied cultural capital (Kim, Aldrich & Keister, 2006).

Objectified cultural capital consists of activities and owned physical objects that symbolically represent “high-browed” societal values (Bourdieu, 1986). High-browed societal values include the possession of high culture goods, such as artworks, musical instruments, and classical music and activities, such as going to museums, the ballet or theatre (Tramonte & Wiliams, 2010). For instance, knowing how to "dress for success” indicates an individual has cultural knowledge, which in turn can enhance one’s cultural status. Socio-economic status, or net worth, has often been used as a proxy measure to estimate objectified CC (e.g., Crook, 1997; De Graaf, De Graaf & Kraaykamp, 2000; DiMaggio & Mohr, 1985; Sullivan, 2001).

Institutionalized cultural capital consists of institutional recognition, most often in the form of academic credentials or qualifications, held by an individual. Institutionalized CC (Bourdieu, 1977) refers to certificates awarded to individuals that suggest competencies and skills have been mastered. When the individual is credentialed, the embodied CC takes on an objective value that is marketable and leads to financial capital. Institutionalized CC is the simplest of the three to recognize because it requires one to be acknowledged or receive external validation for successfully completing requirements to receive the credentials.

CC is conceptually intermingled with extant economic and management usages of HC (Robbins, 1991; Throsby, 1999). Definitions of HC within economics and management literatures explicitly include culture as one of its components (e.g., Chiswick, 1983; Costanza & Daly, 1992; Throsby, 1999). Further, empirical investigations of resource endowments often define level of education as an attribute of HC (e.g., Davidsson & Honig, 2003; Delmar & Davidsson, 2000; Kim, Aldrich & Keister, 2006; Reynolds, 1997; Reynolds, Carter, Gartner & Greene, 2004; Rotefoss & Kolvereid, 2005). Institutionalized CC is often operationalized as the highest level of academic education (e.g., Baum & Ma, 2007; Bourdieu, 1997; Karin, 2009; Reitzug, 2009). To confuse matters, CC is variously operationalized by level of education, while others operationalize HC by level of education. Therefore, ambiguity resides in defining and measuring CC, HC, and SC.

The research presented in this paper delineates and clarifies the three capital constructs, CC, HC and SC, in the nascent entrepreneurship process. To achieve this we operationalize the constructs in a way that distinguishes the bounds of each construct, while highlighting the importance of each, and CC in particular. We posit that the current operationalization of HC by level of education more accurately reflects institutionalized CC, not HC. That is, there is a demonstrable difference between level of education as an attribute of CC and functional training, specialization, and labor experience as an attribute of HC. Moreover, HC and CC are juxtaposed because actors who have one usually have the other as well, but the two non-financial forms of capital are distinct, in principle. Level of education alone, however, is less likely to develop the competencies and capabilities needed from the task-related to business creation (Gibbons & Waldman, 2004). Consequently, the task-relatedness of HC helps explain the differential effects of HC on success, particularly in the domain of entrepreneurship (Unger, Rauch, Frese & Rosenbusch, 2011). Task-related HC, in essence, relates to the current tasks of the business owner (e.g., owner experience, start-up experience, industry experience, and knowledge). Non-task related HC, on the other hand, does not relate to current tasks of the business owner (e.g., general field education, general IQ).
CULTURAL, HUMAN AND SOCIAL CAPITAL AND START-UP

Access to financial capital is important because constraints of credit are one of the most salient causes of small business failure (Honig, 1998). This research aims to unpack the relationship between HC, SC, and CC among start-ups and how these forms of non-financial capital influence the pursuit and acquisition of funding sources. Borrowing from extant theory about sources of funding and nascent ventures (Cassar, 2004; Gartner et al., 2009), we hypothesize that the sources of financing that nascent entrepreneurs pursue are influenced by the HC, SC, and CC with which the entrepreneur is endowed. For example, recent research suggests that HC and SC influence entrepreneurs’ knowledge of financing alternatives, impacting how funding is acquired (Seghers, Manigart & Vanacker, 2012). In addition, prior studies have found that household income and net worth typically do not discriminate between nascent entrepreneurs and non-entrepreneurs (Kim et al., 2006; Reynolds, 1997; Reynolds et al., 2004). Additionally, the majority of business founders invest relatively modest sums in their start-up attempts (Kim et al., 2006), suggesting the amount may be less important than the source. Yet the money available may restrict the nature and scope of the venture and the likelihood of venture success (e.g., Cassar, 2006; Liao & Welsch, 2003; Singh, Knox & Crump, 2008).

Nascent entrepreneurs are likely to pursue multiple available options to raise the necessary resources (Kim, Aldrich & Keister, 2003). Therefore, HC, SC, and CC play a pivotal role in directing what types of funding nascent entrepreneurs pursue. In this study, we examine seven potential sources of start-up funding: (1) personal investment, (2) funds from family, (3) funds from friends, (4) credit card funding, (5) personal bank loans, (6) asset backed loans, and (7) other sources (e.g., angel investors, venture capitalists). Specifically, we examine whether the level of HC, SC, and CC among nascent entrepreneurs influences the types of funding sources sought. Bourdieu (1992) argues that social life, and therefore business activity, may be conceived as a multi-dimensional status game in which individuals draw upon their economic, social, and CC resources in order to compete for status, or “symbolic capital” (p. 29). Therefore, this investigation seeks to clarify and understand how the degree of HC, SC, and CC among start-ups impacts the actual funding the start-up seeks and receives from various sources.

Extending extant research on the sources of funding for new ventures (Cassar, 2004; Gartner et al., 2009; Frid, 2009), our central argument is that HC, SC, and CC play a pivotal role in directing what types of funding nascent entrepreneurs pursue. Specifically, we contend that entrepreneurs with more CC are more likely to use personal funds or asset backed loans to finance the venture. While an argument could be made that nascent entrepreneurs with greater CC have access to a broad potential financial network, it is likely that those entrepreneurs who originate from higher socio-economic strata will have a larger personal and family financial capital resource base from which to draw (Anderson & Miller, 2003).

Hypothesis 1: There is a positive relationship between cultural capital and utilizing personal funds among nascent sole proprietor entrepreneurs to finance their new venture.

Interpersonal connections are a significant informal source of information about opportunities and available resources for occupational mobility and improved life chances (Campbell, 1988; Campbell, Marsden & Hurlbert, 1986,1988). By extension, SC plays a similar role in business start-ups (Renzulli, Aldrich & Moody, 2000). Furthermore, the social embeddedness of a relationship (Granovetter, 1985) may facilitate the acquisition of financing among nascent entrepreneurs. Social embeddedness is defined as the degree to which commercial transactions take place through social relations and networks of relations that use exchange protocols associated with social, noncommercial attachments to govern business dealings (Marsden, 1981; Uzzi, 1997). Moreover, Uzzi (1999) found that social and network ties affect commercial lending decisions. In this view, SC can help obtain limited resources (such
as credit and loans), because it provides external actors with full or partial control over interests or activities that are shared by members. For example, Birley (1985) found that new firms in Indiana relied primarily on networks of informal contacts for assistance, followed by cold contacts, and this pattern did not vary among growth and no growth businesses (Honig, 1998). Likewise, Renzulli (1998) found that women business owners included more kin in their business discussion networks than men. By contrast, male owners included more coworkers in their networks than women. As a result, it is plausible that nascent sole proprietors will have a significant degree of friend and family start-up financing.

Additionally, Ruef, Aldrich and Carter (2003) report a tendency toward homophilous start-up teams among nascent entrepreneurs. This tendency might extend to the antecedents of financing for entrepreneurs when selecting start-up funding sources. Entrepreneurs seek out trusted ties, as well as those with whom they already have strong interpersonal relationships, while avoiding strangers. We posit that this tendency toward homophile is a function of CC. In general, founding teams are highly homogeneous by race and ethnicity (Ruef et al., 2003). If founders pursue funding from friends and family similar to themselves, then new organizations represent a potent force for solidifying homophiles within commercial relationships. Therefore, it could be argued that CC also has a positive relationship on securing funding from friends and family.

Hypothesis 2: There is a positive relationship between SC and acquiring funding from friends and family by nascent sole proprietor entrepreneurs.

Hypothesis 3: There is a positive relationship between cultural capital and acquiring funding from family and friends by nascent sole proprietor entrepreneurs.

Finally, we contend that individuals with higher levels of HC are more likely to seek financing in the form of personal bank loans, credit card loans and other sources due to their functional experience and skills since entrepreneurs with relatively higher levels of HC may require relatively lower levels of initial financial capital for their new ventures (Timmons, 1989). This suggests that founders with good business opportunities find ways to acquire the minimum necessary financial capital to operate a start-up. Indeed, economic theory (Nicholson, 1989) suggests that there may be some degree of substitutability between human and financial capital. Particularly, before a nascent venture is legally registered, outside investors of small firms may pay close attention to entrepreneur’s creditworthiness and reputation via HC assessments (Ou & Hayne, 2006). Moreover, Gartner, Frid and Alexander (2009) provide evidence to support that task-related HC has considerable impact on acquiring funding during the start-up process. Monitored sources of funds include bank loans, finance companies, and venture capital, among others. To obtain these funds, the lenders, require a thorough understanding of the venture (Gartner et al., 2009). Consequently, the task-relatedness of HC helps explain the differential effects of HC on financing. Additionally, we also contend that CC also plays a crucial role in directing monitored funding. Individuals who provide access to monitored funding sources will likely also judge founders on the merits of CC. For example, having parental role modeling in the area of business ownership could be viewed positively among bankers. Moreover, venture capitalists and business angels often subjectively assess the founder’s reputation when making investment choices. Therefore, CC will also have a positive impact acquiring monitored funding.

Hypothesis 4: There is a positive relationship between cultural capital and acquiring funding from monitored sources by nascent sole proprietor entrepreneurs.

Hypothesis 5: There is a positive relationship between HC and acquiring funding from monitored sources by nascent sole proprietor entrepreneurs.
METHODOLOGY

Data from the Panel Study of Entrepreneurial Dynamics II (PSED II) are utilized to investigate these relationships. The PSED II is a detailed longitudinal survey with information on a cohort of 1,214 individuals engaged directly in the process of starting new businesses between 2005 and 2009 over five waves, an aspect which avoids the confounding influence of retrospective bias often associated with empirical samples in entrepreneurship research. In order to test the aforementioned hypotheses, this study analyzes sole proprietor entrepreneurs and excludes start-ups with more than one person. Sole proprietor entrepreneurs are the dominant players engaged in the nascent entrepreneurship process. In 2008, the most recent year for which data are available, non-farm sole proprietorships account for 22,614,000 returns, versus 3,146,000 for partnerships and 5,847,00 for corporations (U.S. Census Bureau, Statistical Abstract of the United States: 2012). Furthermore, this study analyzes PSED II wave A data, because there is no subsequent information on CC measures over waves B-F on our variables of interest.

MEASURES

**Human Capital.** We follow a similar approach utilized by Kim and Keister (2003) in order to measure HC (items ah11 and ah12). These questions ask respondents how many years of work experience they have in the industry where this new business will compete, and how many other businesses the respondent has helped start. Therefore, these items capture the stock of functional task-related and specific skills that a nascent sole proprietor entrepreneur may be able to exploit as HC.

**Social Capital.** In order to measure SC we utilize items ag13 and ag18 to capture the nature of network size for sole proprietors in our sample. These questions ask respondents: how many individuals have distinctive contribution to the founding of the new business, such as planning, development, financial resources, materials, training, or business services, and will not have ownership share in the new business; and how many other people, who will not have an ownership share, have provided significant support, advice, or guidance on a regular basis to this new business. Burton, Anderson, and Aldrich (2009) explicated these “other” non-owner founder roles as key non-owners and non-owner helpers. These individuals represent how key network ties are bridged to provide key resources for the start-up (Davidsson & Honig, 2003).

**Cultural Capital.** In order to measure CC we utilize items ah6_1, ah11_1, and az36x. These items capture information on the highest level of education of the respondent, prior start-up experience, and the net worth of the respondent. Taken together, highest level of education completed would indicate institutionalized CC. Prior start-up experience would represent embodied CC. Individual net worth is operationalized as a proxy measure of objectified CC. Consequently, these measures capture the stock of cultural knowledge and resources a nascent sole proprietor entrepreneur may be able to exploit.

**Financing.** In order to measure types of financing sought among nascent entrepreneurs, we use seven items aq4_1 – aq10_1. These items ask respondents what amount of start-up funding (before the business is registered as a legal entity) comes from personal savings, loans from family, loans from friends, credit card loans, personal bank loans, asset-backed loans, and other sources. These forms of financing before the start-up is legally registered as an entity are then classified into eight categories which are the sum of: (1) personal funds (2) family loans (3) friend loans (5) credit card loans (6) personal bank loans (7) asset bank loans, and (8) other sources of financing. These measures represent our variables. These sources of funding are then summed into three groups: (1) personal funds, (2) family and friend funds, and (3) monitored funds.
Control Variables. Data relating to five potential covariates and factors are utilized as possible control variables: Gender, Race, Age, Industry, and Conception Lag. To control for Gender, item ah1_1 is utilized to create a dummy variable (1= male, 0= female). Previous studies have shown that sex is a significant factor influencing the amount of financing entrepreneurs received (Bruni, Gherardi, & Poggio, 2004; Marlow & Patton, 2005). Similarly, item ah4a_1 is utilized to control for Race. Race has shown to be a factor that differentially influences the degree of financing a start-up attains (Delmar & Davidson, 2000; Reynolds, 1997; Reynolds et al., 2004; Singh & Crump, 2007). Studies have shown that industry status may influence the forms of financing acquired. Glaeser, Laibson, and Sacerdote (2002) also found that SC first rises and then falls with age suggesting age is a meaningful control variable. We also control for Race. Industry is a nominal measure based on aggregates of the NAICS code for the start-up sector (1=Extractive, 2=Transforming, 3=Business Services, 4=Consumer Oriented). Studies have shown that certain industries may require more capital to initiate a new venture than others (Kim, Howard & Keister, 2006; Keppler & Shane, 2007). Therefore, industry status may influence the forms of financing utilized. Finally, we control for the time from the first initial activity the entrepreneur enacted and the time to the first interview in PSED II is a significant aspect in the process of financing and investment.

SAMPLE

The total number of sole proprietors analyzed for this study, after excluding cases with missing data, is 360 nascent entrepreneurs. Among this group, with regards to Gender, about 56.3% of the sample is male and 43.7% female. Similarly, for Race 82% of the sample are categorized as White, whereas 14.4% are not. The average Age of the sample is 43.86 years old and the mean Conception Lag is 19.82 months. Furthermore, in regard to Financing, the average amount of personal funds invested was $9,067. The average funds from family were $3,702 and funds from friends were $1,777. On average, nascent sole proprietors invested $1,670 in asset backed loan funds, $2,525 in bank loans, and $11.35 from credit cards to their start-ups. Conversely, on average, nascent sole proprietors invested $1,670 in asset backed loan funds, $2,525 in bank loans, and $11.35 from other sources (see Table 1).

Table 1. Descriptive and Bivariate Statistics for Study Variables

| Variables                  | Mean   | S.D.   | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   |
|----------------------------|--------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Age                        | 43.86  | 12.57  | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Conception Lag (months)    | 19.82  | 10.02  | .317 | .152 | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Years Industry Experience  | 9.61   | 3.17   | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number of Other Businesses | 1      | 1.8    | .169 | -.031| .047 | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number of Key Non-Owners   | 1.22   | 2.37   | -.005| -.015| -.002| .068 | 1    |      |      |      |      |      |      |      |      |      |      |      |      |
| Number of Non-owner Helpers| 1.28   | 2.08   | -.078| .081 | .059 | .598 | 1    |      |      |      |      |      |      |      |      |      |      |      |      |
| Highest Level of Education | 5.45   | 2.1    | .225 | .027 | .112 | .146 | .064 | .086 | 1    |      |      |      |      |      |      |      |      |      |      |
| Household Net Worth         | $265,205.86 | $530,077.55 | .183 | -.04 | .129 | .214 | -.003 | -.001 | .261 | 1    |      |      |      |      |      |      |      |      |      |
| Parent Owned Business       | 0.516  | 0.5004 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Personal Funds              | $9,067.01 | $33,069.65 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Family Funds                | $1,777.92 | $40,211.48 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Credit Card Funds           | $728.29 | $11,984.75 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Asset Backed Funds          | $6,707.27 | $20,780.49 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Bank Loan Funds             | $2,525.53 | $19,224.76 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Other Funds                 | $11.35  | $210.98 | -.014| -.031| .035 | .009 | 0    | .043 | .015 | -.022| -.025| -.01 | -.003| -.002| -.007| -.004| -.004| 1    |      |
| Industry                   | 3.0024 | 0.84654|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Gender                     | 1.39   | 0.488  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Race                       | 1.66   | 1.487  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

*significant at α=.05 **significant at α=.005
RESULTS

Preliminary analysis of bivariate results shows a significant positive relationship between personal funds and highest level of education (\(p<.0001 \ r=.167\)) and household net worth (\(p<.0001 \ r=.136\)), providing preliminary support for hypothesis 1. Data also show a significant positive relationship between number of total key non-owners and family funds (\(p=.040 \ r=.083\)), as well as friend funds (\(p=.039 \ r=.084\)). Likewise, there is a significant positive relationship between the highest level of education obtained and receiving funding from family members (\(p=.032 \ r=.086\)), providing some preliminary support for hypotheses 2a and 3. Among the monitored sources of funding, there is a significant positive relationship between number of businesses helped start and credit card funding (\(p<.0001 \ r=.182\), asset backed funds (\(p=.013 \ r=.099\)), and bank loaned funds (\(p=.002 \ r=.122\)). These data provide preliminary support for hypotheses 4 and 5.

In further analysis, we apply negative binomial regression to examine the following hypothesized relationships. The negative binomial regression for the model predicting amount of funds contributed from personal funds loaned from gender, race, age, industry, conception lag, years industry experience, number of business helped start, number of key-non-owners, number of non-owner helpers, level of education, household net worth, and patents business ownership status was statistically significant with likelihood ratio chi-square = 237.52 df=14 yielding p-value <.0001. The following predictors, level of education and household net worth, are statistically significant in the model. This means that for each one-unit increase of education, the expected log count of the amount of personal funds contributed increases by 0.138, or $1.37. Similarly, for each one-unit increase in household net worth, the expected log count of the amount of personal funds increases by 1.8E-6, or about $1.00. (See Table 2.) Thereby, CC in its objectified and institutionalized form positively influences the use of personal funds among sole proprietors, supporting hypothesis 1.

Table 2: Negative Binomial Regression Results for Forms of Financing

<table>
<thead>
<tr>
<th>Variable</th>
<th>Personal Funds</th>
<th>Family and Friend Funds</th>
<th>Monitored Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extractive</td>
<td>0.153 [.292]</td>
<td>-3.18 [.460]**</td>
<td>1.62 [.004]**</td>
</tr>
<tr>
<td>Transforming</td>
<td>0.387 [.003]*</td>
<td>1.32 [.203]**</td>
<td>0.903 [.004]**</td>
</tr>
<tr>
<td>Business Services</td>
<td>0.229 [.135]</td>
<td>0.731 [.156]**</td>
<td>1.33 [.002]**</td>
</tr>
<tr>
<td>Consumer Oriented</td>
<td>~</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Male</td>
<td>0.830 [.126]**</td>
<td>-0.037 [.152]</td>
<td>1.47 [.006]*</td>
</tr>
<tr>
<td>Female</td>
<td>~</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>White</td>
<td>-0.505 [.170]**</td>
<td>-1.12 [.179]**</td>
<td>-0.633 [.002]**</td>
</tr>
<tr>
<td>Not White</td>
<td>~</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Age</td>
<td>0.001 [.005]</td>
<td>-0.001 [.007]</td>
<td>-0.006 [.001]**</td>
</tr>
<tr>
<td>Conception Lag (months)</td>
<td>0.006 [.002]*</td>
<td>0.003 [.002]</td>
<td>0.001 [.001]**</td>
</tr>
<tr>
<td>Human Capital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years Industry Experience</td>
<td>0.006 [.007]</td>
<td>-0.020 [.009]*</td>
<td>-0.020 [.001]**</td>
</tr>
<tr>
<td>Number of Start-up Experiences</td>
<td>-0.016 [.034]</td>
<td>-0.108 [.042]</td>
<td>-0.008 [.003]**</td>
</tr>
<tr>
<td>Social Capital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key Non-owners</td>
<td>0.027 [.026]</td>
<td>0.191 [.031]**</td>
<td>-0.056 [.0004]**</td>
</tr>
<tr>
<td>Non-owner helpers</td>
<td>-0.014 [.019]</td>
<td>-0.047 [.020]*</td>
<td>0.017 [.004]**</td>
</tr>
<tr>
<td>Cultural Capital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>0.138 [.029]**</td>
<td>0.025 [.0357]</td>
<td>0.127 [.0004]**</td>
</tr>
<tr>
<td>Household Net Worth</td>
<td>0.0000018 [.0001]**</td>
<td>0.000002 [.0001]**</td>
<td>0.0000001 [.0000001]**</td>
</tr>
<tr>
<td>Parents Owned Business</td>
<td>-0.165 [.115]</td>
<td>0.771 [.146]**</td>
<td>0.772 [.002]**</td>
</tr>
<tr>
<td>Intercept</td>
<td>7.57 [.292]**</td>
<td>6.37 [.350]**</td>
<td>6.24 [.004]**</td>
</tr>
<tr>
<td>n</td>
<td>358</td>
<td>360</td>
<td>360</td>
</tr>
<tr>
<td>-2 log likelihood</td>
<td>237.52</td>
<td>1406.54</td>
<td>2249671.36</td>
</tr>
<tr>
<td>Deviance</td>
<td>3.98</td>
<td>13.51</td>
<td>27845.58</td>
</tr>
</tbody>
</table>

* significant at \(\alpha=.05\) ** significant at \(\alpha=.005\)
The negative binomial regression for the model predicting amount of funds contributed from family and friends based on gender, race, age, industry, conception lag, years of industry experience, number of business helped start, number of key-non-owners, number of non-owner helpers, level of education, household net worth, and parents business ownership status is statistically significant with likelihood ratio chi-square = 1406.54, df=14 yielding p-value < .0001. The following predictors, years of industry experience, number of non-owner helpers, key non-owners, household net worth, and parental business ownership are statistically significant in the model. This means that for each additional year of industry experience, the expected log count of the amount of personal funds contributed decreases by 0.2. Similarly, for each one-unit increase of non-owner helpers, the expected log count of the amount of personal funds also decreases by 0.047, or about $1.11. Conversely, a one-unit increase in non-owner helpers results in a .191 expected log count increase in funds from friends and family, or about $1.56. A one-unit increase in household net worth results in an expected log count increase of 2.0E-6 in family and friend funds, or about $1.00. Lastly, if the entrepreneur’s parents owned a business, there is a .771 log count increase in personal funds invested (see Table 2), or about $5.91. As a result, we find key non-owners positively influence funding from friends and family, yet non-owner helpers negatively influence funding from friends and family. Therefore, we find some evidence to support hypothesis 2. We also find support for hypothesis 3, which suggests that objectified and embodied CC positively influences acquiring funding from friends and family.

Finally, the negative binomial regression for the model predicting amount of funds contributed from monitored funds from gender, race, age, industry, conception lag, years industry experience, number of business helped start, number of key-non-owners, number of non-owner helpers, level of education, household net worth, and patents business ownership status is statistically significant with likelihood ratio chi-square = 2249671.36, df=14 yielding p-value < .0001. The following predictors, years industry experience, number of start-up experiences, number of non-owner helpers, key non-owners, level of education, household net worth, and if parents owned a business, are all statistically significant in the model. This means that for each one-unit increase in industry experience, the expected log count of the amount of monitored funds contributed decreased by 0.20, or about $1.58. Similarly, for each one-unit increase in the number of start-ups helped found the expected log count of the amount of personal funds decreases by 0.008, or about $1.02. Likewise, a one-unit increase in the number of key non-owner results in a .056 expected log count decrease in monitored funds, or about $1.38. On the other hand, a one-unit increase in the number of non-owner helpers results in a .127 log count increase in monitored funds, or about $1.34. Likewise, we see a one-unit increase in education results in an expected log count increase of .127 in monitored funds (also about $1.34). We also see a log count increase of 1.0E-7 in monitored funds, or about $1.00 with a one unit increase household net worth. Finally, a log count increase of .772 in monitored funds with sole proprietors having parents that owned a business, or about $5.92. Hence, hypothesis 4 is not supported, but hypothesis 5 is supported.

If we divide the sample by the mean for high to low among the independent variables, we can get a clearer picture of exactly how influential differential levels of HC, SC and CC (see Figure 1). For example, it appears that high household net worth and education have the most considerable impact on personal funds. Similarly, high numbers of key non-owners, along with high levels of the CC measures (education, household net worth, and parents who did own a business) also are the most influential factors among sole proprietors who acquired the most funds from friends and family. Finally, high levels of non-owner helpers and household net worth are the most sizeable factors influencing the acquisition of monitored funds before the start-up is legally registered.
DISCUSSION

Our findings provide preliminary support that HC, SC and CC differentially influence the forms of start-up financing acquired by sole proprietor entrepreneurs. This study provides evidence that higher stocks of HC actually negatively influences personal, friends and family, as well as monitored funding sources before the start-up is legally registered. Few studies have examined how firms acquire funding before they are considered to be a legal entity. This nascent phase is important because entrepreneurs are attempting to attain legitimacy for their prospective new venture. Conversely, CC appears to have a positive impact on personal funds, friend and family funds, as well as monitored funding. Additionally, SC appears to have a mixed impact. Certain elements of SC are positive with regard to influencing friend and family funding (key non-owners); while others are negative (non-owner helpers). Similarly, SC appears to have a mixed impact on monitored funding, whereas key non-owners negatively influence monitored funding; meanwhile, non-owner helpers positively influence monitored funding. In addition to assessing the forms of non-capital impact on funding sources, practical measures of HC, CC and SC in the context of nascent entrepreneurship are provided.

In this study, we operationalize HC by the nascent entrepreneur’s number of start-up experiences and years of industry experience. We find that the years of industry experience significantly negatively influence sources of funding. However, the number of prior start-up experiences has no influence on acquiring funding before the business is legally registered. The negative relationship between industry experience and funding might stem from sole proprietors’ being less likely to create more formal business plans due to the amount of uncertainty involved in the planning process (Matthews & Scott, 1995). As a result of the lack of formal business planning, these start-ups may be less likely to acquire funding. Regarding the nascent, sole proprietors in this study, only about 50% had written a plan; for those with plans, 20% were unwritten in their heads, 48% were informally written, and 32% were formally written. Thereby, among this sample, only 33% of the business plans were formally written. Therefore, it is plausible that the negative relationship between years of industry experience and funding stems from the lack of formal business planning. Specifically, entrepreneurs leveraging prior experience during the period of founding time are more optimistic about expectations for the nascent venture (Lejarraga & Pindard-Lejarraga, 2013).
Moreover, traditional arguments in HC literature argue that increased levels of HC lead to increased planning. Although this argument is relevant to nascent entrepreneur teams, not necessarily sole proprietors (Honig, Liao & Gartner, 2009). Empirical investigations have highlighted that nascent entrepreneurs are more likely to get funding if they have a business plan (e.g., Gartner, Frid, Alexander & Carter, 2007; Oakes, Townley & Cooper, 1998). Therefore, future studies should investigate the differences among types of teams with respect to start-up funding and HC.

Furthermore, Seghers, Manigart, and Vanacker (2012) found that advanced monitored finance methods targeted at start-ups is the least known category among entrepreneurs. Specifically, HC is not generally associated with a nascent entrepreneur’s knowledge of advanced monitored finance alternatives for the start-up phase. Therefore, it could be that having task-related HC does not positively influence the acquisition of monitored funding because entrepreneurs are unaware of how to acquire such funds, contrary to our hypothesis. The task-related HC is specific to operating the nascent business, not necessarily financing its founding.

SC is operationalized as key non-owners and non-owner helpers. When examining SC, our findings highlight that key non-owners have a positive relationship with regard to acquiring funding from friends and family, whereas, non-owner helpers negatively influence the amount of funding from friends and family. A non-owner helper is an individual who will not have an ownership share, but has provided significant support, advice, or guidance on a regular basis to the new business (Burton, Anderson & Aldrich, 2009). It may be the case that key non-owners undertake a more critical role in facilitating the startup process than non-owner helpers. Burton, Anderson and Aldrich (2007) confirm key non-owners differ from helpers, as key non-owners are more involved than helpers. Key non-owners seem to be more likely to have personally accepted responsibility for a critical component of the start-up process than helpers (35% versus 18%). Key non-owners are more likely to expect to participate in day-to-day operations than helpers (25% versus 14%), and are more likely to be employees or exclusive subcontractors (25% versus 16%). Consequently, the key non-owners may positively influence the acquisition of funds from friends and family because of their more active role in the start-up process.

Finally, the findings for CC confirm that it plays a very important role in the funding process before the start-up is legally registered. Moreover, CC is operationalized as a distinct construct via the level of education, household net worth and parental business ownership. Indeed, education and household net worth have a positive impact on the acquisition of personal funds. Education, household net worth, and parental business ownership also positively influence the acquisition of funding from family and friends. According to pecking order theory, the capital structure of a start-up emerges as the firm selects funding that minimizes the cost of capital (Myers 1984; Myers & Majluf, 1984). Also, education, household net worth and parental business ownership all appear to play a significant role, positively influencing the acquisition of monitored funding. This may be partly due to the fact that outside investors who control monitored funding pay close attention to entrepreneur’s creditworthiness and reputation (Ou & Haynes, 2006), and CC is a very vital indicator of reputation, status and legitimacy. Overall, high levels of CC imply the entrepreneur’s exposure to the dominant practices and understanding of how these practices align with current arrangements in the field to effectively exploit available resources (Cliff, Devereaux & Greenwood, 2006; De Clercq & Voronov, 2009). Accordingly, our study provides evidence on how important CC is in regard to acquiring financial resources from both monitored and unmonitored funds.

Additionally, the results indicate that the concept of CC has important implications for understanding entrepreneurial financing, along with HC and SC. Moreover, our findings highlight that CC, HC and SC are distinct constructs. SC posits that the extent and effectiveness of social and community relations modifies the returns to HC (Coleman, 1990). Furthermore, we can extend this rationale to contend that CC also influences the extent and degree of SC and HC among entrepreneurs (Bourdieu 1984).
CONTRIBUTIONS

This paper makes three important contributions in viewing the nascent entrepreneurship process through the lens of human capital, social capital and cultural capital. Specifically, this research contributes to 1) the definition of the construct of CC in concert with HC and SC in a nascent venture context; 2) differentiating CC from HC and SC, as applied to the new venture creation process; and 3) the overall, linking of HC, SC and CC to an activity associated with funding sources for nascent ventures. Consequently, this study enhances current understanding of the practice and emergence of new organizations. In so doing, we also extend research on HC and SC resource endowments by highlighting CC’s contribution to financial capital acquisition.

This study distinguishes CC from other forms of capital. We used proxy items from the PSEDII to represent CC, HC and SC. Our proxies significantly represent CC’s distinct categories, as Bourdieu (1983) discussed: objectified, institutionalized and embodied. Resultantly, we set empirical and theoretical bounds in defining and measuring this construct. Therefore, this study demonstrates that CC is distinct from HC, and indicates that level of education is a proxy of CC, not HC.

Moreover, it is generally accepted that entrepreneurs utilize a myriad of sources of funding (Gartner et al., 2009); yet to date, limited attention has been given to what fuels a nascent entrepreneur’s quest for a specific type of funding. Our study highlights nascent entrepreneurs’ stock of capital will influence their approach to funding. Indeed, our findings suggest that a nascent entrepreneur with higher stocks of cultural capital will pursue funding from both monitored and unmonitored sources. Furthermore, CC has the most significant impact on the financing choice of the three types of capital investigated in this study. Contrary to current thought, this study finds that stocks of HC do not influence financing choices. Therefore, this study extends insight into how nascent, emerging ventures approach funding; whereas, CC is a key indicator of the type of financing an actor might seek to finance his/her venture.

PRACTICAL IMPLICATIONS

As reported in our findings, HC, SC and CC impact the choice of venture funding. Yet one key area of development for any entrepreneur is to focus on developing their SC via social networking strategies. Specifically, our findings suggest that the more key non-owners that are affiliated with a new venture, the more funding that an entrepreneur is likely to receive from friends and family, rather than from formally monitored sources. Thus, having key non-owners involved in one’s venture gives an entrepreneur potential access to available and potentially lower interest financing.

Given this finding of non-owner involvement, it is desirable to further investigate how to engage key non-owner helpers in new ventures via direct, strong ties. Scholars have noted that SC enables individuals to connect with one another through “bonding” ties or alternatively through ‘bridging’ with other individual in external networks to obtain other resources (Adler and Kwon, 2002). Yet, for nascent entrepreneurs seeking funding, the emerging question is whether they should focus more on bonding, bridging ties, or utilize both equally? If key non-owner helpers enable greater access to discounted financing from friends and family, then nascent entrepreneurs may want to place greater emphasis on bonding and direct network ties, and put less emphasis on bridging ties (although still important).

As noted above, key non-owner founders undertake a more critical role in facilitating the startup process than non-owner helpers. One way that nascent entrepreneurs can engage non-owner founders is via the establishment of a “kitchen cabinet” of strategic advisors. A kitchen cabinet provides a financially limited nascent entrepreneur three advantages: 1) access to expert advice; 2) the best of both informal and formal advice; and 3) potential access to an ever-expanding network of non-owners who could potentially be involved as the venture grows and matures.
LIMITATIONS AND FUTURE DIRECTIONS

This study has several inherent limitations. First, it does not access the role of the social ties of SC; therefore, future research should investigate the strength of embedded social relationships as a resource for acquiring financing (Burt, 1992; Baker, 1990; Coleman, 1988, 1990; Bourdieu, 1985) for the start-up. Likewise, future research should examine different forms of HC, such as specific forms of training, prior occupations, and functional education (not level of education). Similarly, future research might explore how different forms of CC translate across countries and communities because different races and societies likely embody different cultural values and knowledge. As a result, cross-national comparative studies would be very beneficial. Second, examining sector differences among varying forms of financing of start-ups was beyond the scope of this study. Future research should examine the underlying factors related to industry differences in financial requirements in regard to HC, SC and CC endowments. Finally, this study is cross sectional and we only examine sole proprietor nascent entrepreneurs. It would be valuable for future research to examine potential longitudinal changes in HC, SC and CC across multiple waves of data and focusing on teams. Collecting data on HC, SC and CC of start-up team members could provide a richer, deeper picture of how resource endowments influence start-up financing. In addition, we encourage more dynamic development of the CC construct. Specifically, we measured the CC construct with three items; however, CC has several dimensions which when collectively combined increase the likelihood of financing and other outcomes. Thus, future research might assess the collective impact of education, experience and net worth, while including more nuanced measures and nuanced representative measures. In addition to financing, what does CC, as HC and CC, impact in the entrepreneurial process? Do HC, SC and CC collectively for a type of entrepreneurial capital?

CONCLUSION

This paper illustrates the importance of a nascent entrepreneur’s human capital, social capital and cultural capital assets and the extent to which these resources combine and interrelate in the early stage financing among sole proprietor new ventures. This study provides evidence that the stock of CC will positively influence the amount of funding from personal funds and asset backed loans a sole proprietor acquires. Similarly, evidence is also found that the stock of SC will positively influence the amount of funds loaned from friends and family. Finally, the data also provide evidence that the stock of HC positively influences the amount of credit card loans, personal bank loans, and loans from other sources a sole proprietor acquires. Therefore, the data provide further confirmation of the antecedent role capital resource endowments play in the new venture creation process. Approaching the study of entrepreneurship from the perspective of early stage financing has enabled us to explore some of the mechanisms through which HC, SC and CC impact the new venture creation process.

REFERENCES


