Women don't ask: an investigation of start-up financing and gender

Authors: Agnieszka Kwapisz, Diana M. Hechavarría

This is an Accepted Manuscript of an article published in [Venture Capital](#) on June 2018, available online: <http://www.tandfonline.com/10.1080/13691066.2017.1345119>.

Kwapisz, Agnieszka, and Diana M. Hechavarría. "Women don't ask: an investigation of start-up financing and gender." *Venture Capital: An International Journal of Entrepreneurial Finance* 20, no. 2 (June 2018): 159-190. DOI:10.1080/13691066.2017.1345119.

Made available through Montana State University's [ScholarWorks](#)
scholarworks.montana.edu

Women don't ask: an investigation of start-up financing and gender

Agnieszka Kwapisz^a and Diana M. Hechavarría^b

^aJake Jabs College of Business & Entrepreneurship, Montana State University, Bozeman, MT, USA; ^bCenter for Entrepreneurship, Muma College of Business, University of South Florida, Tampa, FL, USA

ABSTRACT

Are women less likely to ask for help financing their businesses? This study investigates whether gender is a factor that impacts the propensity to ask for financing among nascent entrepreneurs. We also investigate if start-up helpers, who do not have an ownership share, have an impact on the likelihood of asking for financing, specifically between men and women. Our findings suggest that being female significantly decreases the probability of asking for financing and the presence of start-up helpers significantly increases the incidence of asking for financing in the nascent stage. In addition, among those who created new firms or were still in the start-up process, the number of start-up helpers exponentially increased the incidence of asking for financing among female founders. We use the Panel Study of Entrepreneurial Dynamics II data, the largest, nationally representative, and longitudinal database on nascent entrepreneurs for the United States.

Introduction

Extensive empirical evidence suggests that ventures which receive external capital achieve significantly higher sales and employment growth (Bruno and Tyebjee 1985; Inge Jenssen and Greve 2002; Gartner et al. 2009; Bertoni, Colombo, and Grilli 2011). The availability of financial resources is often cited as the major deterrent of women-owned businesses' growth (Carter and Allen 1997). Given the significant growth of female venturing in recent years and its relevance to the economy (Greene et al. 2003; Mitchell 2011), it is important to understand what factors female entrepreneurs might face when participating in financial markets. A large number of studies claim that women face barriers to access financing for start-ups and early stage ventures, which could leave them to a disadvantage (e.g., Riding and Swift 1990; Loscocco and Robinson 1991; Coleman and Cohn 2000; Cavalluzzo, Cavalluzzo, and Wolken 2002; Smith-Hunter and Boyd 2004; Treichel and Scott 2006; Coleman and Robb 2009; Wu and Chua 2012; Mijid 2015). Others claim that there are no tangible differences in terms of start-up and early-stage financing options between men and women (e.g., Cavalluzzo and Cavalluzzo 1998; Blanchflower, Levine, and Zimmerman 2003; Cavalluzzo and Wolken 2005; Carrington 2006; Madill, Riding, and Haines 2006; Orser, Riding, and Manley 2006; Mijid and

Bernasek 2013). We propose that these mixed findings are partly due to the fact that women are less likely to ask for help financing their start-ups. Very few researchers have studied if women are more likely to be discouraged from asking for financing. Currently, the only existing research on this topic focuses on the effect of gender on the decision to apply for credit in the context of bank loan applications in established and operating firms (Cavalluzzo, Cavalluzzo, and Wolken 2002; Treichel and Scott 2006; Mijid 2015).

We build and extend on this line of scholarship by studying differential effect of gender on asking for any financial support ranging from other people (e.g., family and friends) to all financial institutions during the nascent start-up stage. We focus on nascent entrepreneurs because receiving external capital may be a determinant in forming a new company. As undercapitalization at start-up may jeopardize survival, entrepreneurs should not rely solely on bank loans but consider other sources, such as venture capital, business angels, or even friends and family (Hill, Leitch, and Harrison 2006). Accordingly we investigate, what, if anything, is different among female entrepreneurs, and what does this tell us about innate tendencies of men and women entrepreneurs?

We draw on literature based in the area of organizational behavior and conflict management that finds men are more likely than women to negotiate for what they want (Babcock et al. 2003). Research by Babcock and Laschever (2009) finds considerable evidence that men ask for things they want and initiate negotiations much more often than women (up to four times more often). Men often equate negotiation as "fun," whereas women equate negotiation as "scary." Negotiation can be seen as a competition over resource distribution, which is very much what start-up financing is all about. Women may be less likely to negotiate because of gender stereotypes, reputation issues, societal norms, expected discrimination and denial, lower level of risk-tolerance or confidence, and less or inadequate support.

Moreover, a single individual rarely starts an organization without any help from others (Shane 2000). Instead, starting an organization generally requires mobilizing resources from numerous stakeholders (Burton, Anderson, and Aldrich 2009). The ability to develop and manage effective networks is one of the most essential personal skills for entrepreneurs (Hampton, Cooper, and McGowan 2009; Roomi 2009). Dubini and Aldrich (1991) called entrepreneurship "inherently a networking activity" (306). Social capital that is developed by networking has been related to performance, growth, competitive advantage as well as survival and growth of new firms (Bourdieu 1986; Coleman 1988, 1994; Putnam 1995, 2000, 1993; Bruderl and Preisendorfer 1998; Robinson and Stubberud 2009; Roomi 2009). Social networks can provide not only motivation, advice, and information but also business opportunities and access to resources and contacts (Birley 1985; Granovetter 1983, 1992; Carson et al. 1995; Dodd 1997; Gulati, Nohria, and Zaheer 2000; Hoang and Antoncic 2003; Farr-Wharton and Brunetto 2007; Robinson and Stubberud 2009; Ghani, Kerr, and O'Connell 2013). Despite the obvious importance of networks, previous studies suggest that female enter self-employment under-resourced in social capital (Schmidt and Parker 2003; Marlow and Carter 2004; Roomi 2009). Previous research documents that women lack information about networks, don't participate in traditional business circles (Marlow and Carter 2004; Smith-Hunter and Boyd 2004; Roomi 2009), have different priorities when establishing networks (Buttner 1993), and don't identify themselves or are not welcomed in established traditional business social associations (e.g., old boy's network, fraternity contacts) (Brush 1997; Moore and Buttner 1997; Carter, Anderson, and Shaw 2001; Gamba and Kleiner 2001; Knouse and Webb 2001; Linehan, Scullion, and Walsh 2001; Brush et al. 2004; Neergaard, Shaw, and Carter 2005;

Hampton, Cooper, and McGowan 2009). Also, women tend to rely on all-female networks especially in the early stage of business development (Klyver and Terjesen 2007; Hampton, Cooper, and McGowan 2009). Overall, researchers agree that female networks are limited by size, diversity, density, range, and tie strength (Hampton, Cooper, and McGowan 2009; Granovetter 1983; Ibarra 1993; Knouse and Webb 2001; Aldrich 1989; Renzulli, Aldrich, and Moody 2000; Díaz and Carter 2009). In fact, Brush et al. (2006) listed lack of social and family support (next to sector differences and lack of adequate childcare) as one of the most important reasons for underperformance of female businesses in revenue, profit, turnover, job creation, size, age, and structural and organizational growth (Watson 2003; Brush et al. 2004, 2006; Marlow and Carter 2004; Roomi 2009). The Diana Project (Brush et al. 2003a,b) reported that women were consistently left out of the networks of growth capital finance and lacked the contacts needed to break through.

Despite the importance of social capital, prior scholarship in nascent entrepreneurship has generally privileged one set of stakeholders: “founders,” ignoring other start-up helper roles. Also, the subject of differences in the utilization of networks across gender has been under-studied (Hoang and Antoncic 2003; Conway and Jones 2006; Klyver and Terjesen 2007; Díaz and Carter 2009; Hampton, Cooper, and McGowan 2009; Roomi 2009) and most of the previous attempts have focused on qualitative studies that include female samples only (Hampton, Cooper, and McGowan 2009; Roomi 2009). Accordingly, this research also elaborates on the concept of start-up helpers and their potential impact on start-up financing. Helpers are individuals who do not share an ownership stake in the start-up, nor are employed by the founding team, but provide direct assistance in helping launch the start-up (Burton, Anderson, and Aldrich 2009). And although there is considerable evidence to support the existence of helpers in entrepreneurship (e.g., Kim and Aldrich 2005; Aldrich and Kim 2007; Burton, Anderson, and Aldrich 2009; Ruef 2010), there is limited research on the impact they have on obtaining financing, although this is a key factor for venture creation and development. Therefore, another objective of this research is to investigate the impact start-up helpers have on the likelihood of asking for financing, specifically the differences between men and women.

Our findings suggest that only about a third of nascent entrepreneurs (individuals who initiate activities that are intended to culminate in a viable new firm) ask for outside financing during the start-up process. Furthermore, women are considerably less likely to ask for start-up financing than men. However, start-up helpers appear to have an appreciable impact on the probability of asking for financing among women who launched new firms or were still in the start-up process.¹

Research at the intersection of gender and entrepreneurship identifies many of the hurdles faced by female entrepreneurs, such as lower levels of human capital (Coleman and Robb 2009; Fairlie and Robb 2009), social capital (Brush et al. 2002), financial knowledge (Verheul and Thurik 2001), business acumen (Orser, Hogarth-Scott, and Riding 2000), growth aspirations (Cliff 1998), and funding connections (Harrison and Mason 2007). However, gender has rarely been investigated as a factor affecting the likelihood of asking for financing and only in the context of loan applications in established firms. Accordingly, there is a clear need for more detailed investigations into the demand for finance, and in particular, whether female founders have a lower tendency to ask for any kind of financing during the start-up process when compared to men. Therefore, our research addresses a serious oversight in our field that often assumes a supply-side lack of financial access for female entrepreneurs.

Our study suggests that this may actually be a result of self-selection among female founders to “not ask” or seek financing during the start-up process and points to the effect of helpers on the decision to ask for financing. As a result, our study contributes to a gender-informed view of entrepreneurial finance by investigating how gender and the help from others considerably affect the demand for financing among founders.

Literature review and hypotheses

Gender and entrepreneurial finance

Historically, research in entrepreneurship attributes gender differences in access to finance as primarily due to supply side discrimination by financial institutions against female founders (Carter and Shaw 2006). Supply side factors attributed to differences in entrepreneurial finance between genders are often associated with the structural characteristics of the female-led firm. In terms of supply-side factors, Kwong, Jones-Evans, and Thompson (2012) argued that the traditional stereotypical gender roles of society deter women from developing sufficient human capital and making the same network contacts as their male counterparts, which would also reduce their access to finance.

In addition to supply side factors, demand side factors are also acknowledged to impact the use of start-up capital among women. For instance, risk aversion is often argued as a factor that lowers a female entrepreneurs’ propensity to leverage the firm through external funds (Croson and Gneezy 2009). Additionally, women might be more detail-oriented than men, which can also lower risk-tolerance while starting a business (Mittal and Vyas 2011; Kwapisz, Bryant, and Rosso 2014). Such differences in risk attitudes and preferences can create different approaches toward application for external financing between male and female founders. Indeed, research by Brush et al. (2014) found that the majority of early-stage female entrepreneurs finance their firms with their own personal money vs. external finance. However, personal financial investment can actually place the founder in more financial risk, contrary to what prior studies argue (e.g., Croson and Gneezy 2009).

Women’s preference to keep their businesses small in order to keep full control over all aspects of the new business may lower their demand for outside financing (Barton and Matthews 1989; Cressy 1995; Hamilton and Fox 1998; Gibb 2000; Watson, Newby, and Mahuka 2009). This may be an intentional decision made by female entrepreneurs if, for example, the new business is just a part time hobby in addition to housework duties. It may also be an unintentional decision that comes from the fear of risks associated with big businesses. However, previous research shows that nascent entrepreneurs who have higher growth aspirations for their future business are more likely to form a new firm as opposed to quitting the startup process (Naffziger, Hornsby, and Kuratko 1994; Levie and Autio 2013).

Furthermore, research also argues that demand side factors are partly structural. With respect to startup decisions, women tend to operate smaller businesses (in terms of less capital, sales, revenues, or employees) in less-profitable industries and have less industry-specific experience; which places them at a relative disadvantage when compared to their male counterparts (Loscocco et al. 1991; Carrington 2006; Coleman and Robb 2009). Men tend to start businesses in sectors such as manufacturing, construction, and high-technology, while women are more likely to launch businesses in service or retail sectors (Carrington 2006; Parker 2010; Brush et al. 2014). As a result, one might quickly conclude that female

entrepreneurs apply less for external finance because they don't really need it. But research by Marlow and Patton (2005) found that, in most economies, women have a greater need for credit than men when starting new businesses. Previous research also informed us that female-owned businesses are significantly less likely to apply for a bank loan even after controlling for important business characteristics, such as firm size, years in operation, industry, and organizational structure (Cavalluzzo, Cavalluzzo, and Wolken 2002; Treichel and Scott 2006; Mijid 2015). Moreover, female perceptions of financial barriers might have an impact on the type of business they start (e.g., size) or the industry sectors they choose to enter (Mijid 2015). Consequently, prior research applying the demand side perspective to investigate the use of external finance between men and women has been inconclusive, and often has difficulty reconciling contrary arguments.

Gender and asking for financing

Research by Roberts, Peter, and Koushyar (2015) on start-ups within accelerator programs found that women-led early-stage ventures have considerably lower levels of equity investment than non-female-led ventures. Moreover, research by Brush et al. (2014) on Goldman Sachs 10,000 Women initiative found evidence that the majority of female entrepreneurs do not apply for formal financing; however, those who do apply generally attain the requested financing. Research drawing on the Global Entrepreneurship Monitor (GEM) found that women are around 7.4% more likely to perceive financial barriers to business start-up than men (Roper and Scott 2009). In all, scholars agree that women demonstrate very different demand patterns than men, even when their financial applications do not demonstrate a higher probability to be turned down (Coleman and Cohn 2000; Cole and Mehran 2009).

So why are women less likely to ask? Differences in demand behavior for entrepreneurial finance has been attributed to the lower propensity of women to negotiate when compared to men (Babcock et al. 2003, 2009; Amanatullah and Morris 2010). In the business context, it is well documented that women are less likely to ask for raises than men (Kolb 2000; Babcock et al. 2003, 2009; Kray 2007; Small et al. 2007). Work by Babcock and Laschever (2009) provided compelling evidence that women are much less likely than men to ask for what they want and to use negotiation as a tool to promote their own ambitions or desires in their jobs. Babcock and Laschever (2009) work illustrated that men use negotiation significantly more often as women do and that men use negotiation to get ahead and get what they want between two and nine times as often as women did. As a result, women earn less and tend to advance more slowly than equally qualified men in their careers. However, women do not lack the motivation and capability to bargain effectively, as evidenced by the fact that women have no trouble speaking up for colleagues. In an experiment conducted by Amanatullah and Morris (2010) women asked for an average of \$7000 less (nearly 20% of the total expected value) than men when they negotiated for themselves but asked for just as much money as men when they negotiated on behalf of a friend. They suggested that in self-advocacy context, women anticipated backlash in the form of negative evaluations and treatment; therefore, chose not to take the risk.

Scholars believe that gender role stereotypes could be the driving factor to the difference between men and women asking for "things" in society. According to social role theory (Eagly, Wood, and Diekmann 2000), society conveys different expectations for the appropriate behaviors of men and women. Accordingly, norms train women to believe that it is not proper or

"feminine" for them to assert their own ambitions and pursue their self-interest (Babcock and Laschever 2009). Research finds that both male and female managers are less likely to want to work with women who negotiate during a job interview (Bowles, Babcock, and Lai 2007; Amanatullah and Morris 2010). This may imply reputation issues that women need to face later which can also explain a lower tendency of women to negotiate. In addition, subordinates evaluate female leaders more harshly than their male peers when they attempt to establish their authority in a traditionally masculine manner (Eagly, Makhijani, and Klonsky 1992). Scholars often find that women who use stereotypically masculine approaches to self-promote are perceived to be socially less competent, aggressive, and pushy (Rudman 1998; Rudman and Fairchild 2004).

From birth, girls are advised to focus on the needs of others rather than on their own. The messages girls receive from socializing agents (e.g., media, family, teachers, etc.) can be so influential that as adults, women may not even realize that their reluctance to ask for what they want is a learned behavior, one which can be unlearned. Again, work by Babcock and Laschever (2009) provided further evidence of this argument. They found that the distinctive manners in which boys and girls are socialized train girls about their proper role in society, and this ultimately develops characteristics aligned with compliance vs. independence. This research also found that societal norms perpetuate a strong expectation that women will abide by their assigned roles. Moreover, if a woman violates these societal expectations, society tends to react in a negative manner. In turn, these normative social expectations can lead to stereotypical views on gender (Babcock and Laschever 2009).

Gupta et al. (2009, 400) noted that, "women are generally seen as inferior to men on qualities believed to be necessary to succeed in the business world" and "the talents and skills they bring to the table are valued relatively less than men (Marlow 2002)" (400). Some argue that the negative stereotype against women may result in a self-fulfilling prophecy (Fay and Williams 1993), in that socialization expectations could influence societal beliefs regarding the financial management capabilities of women during the start-up process (Marlow and Swail 2014). As observed by Bowles, Babcock, and Lai (2007, 86), even within the US where gender segregation of occupations has declined and the proportion of women in the workplace has grown,

women are still expected to fulfill prescriptions of feminine niceness (e.g., warmth, kindness, sensitivity to the needs of others), which is emblematic of their subordinate status, and therefore not fully compatible with all aspects of the masculine personality type (Jackman 1994; Prentice and Carranza 2002; Ridgeway 2001; Rudman and Glick 2001). (86)

Consequently, it is logical to assume that this kind of discrimination, which entails discouragement, could also be influencing female founders to not ask for financing during the start-up process (Cavalluzzo and Cavalluzzo 1998).

Indeed, preliminary evidence seems to indicate that women are less inclined to "ask" for financing when negotiating in general. Compared to their male counterparts, women tend to display a conservative tendency in the anticipation of fiscal requirements when negotiating financial aspects of deals (Babcock et al. 2003). Expanding upon this work, similar results have been found in emerging research in entrepreneurship investigating negotiations of female/male entrepreneurs in private equity circumstances (e.g., venture capital and business angel investing) (Amatucci and Sohl 2004) and bank loans (Cavalluzzo, Cavalluzzo, and Wolken 2002; Treichel and Scott 2006; Mijid 2015). Kon and Storey (2003) provided a theoretical base for "discouragement": a situation when good borrowers may not apply for

a loan to a bank because they feel they will be rejected. Cavalluzzo, Cavalluzzo, and Wolken (2002) found considerable evidence that female ventures tend to avoid credit application because they believe they would likely be denied due to the credit market constraints. Similarly, Mijid (2015) reported that female business owners are less likely to apply for a bank loan because they fear their application will be rejected based on their previous loan experiences. In order to lower the anxiety and risk-aversion among low-power individuals, such as women, Small et al. (2007) suggested to re-frame the phrase: "opportunity for negotiations" as "opportunity for asking." Hill, Leitch, and Harrison (2006), through the conduct of in-depth semi-structured interviews, suggested that women apply less for bank loans because they perceive that bankers regard women entrepreneurs as less credible.

Robb (2002) found that female entrepreneurs were more likely to borrow through credit cards, likely because it circumvents entering a bank negotiation. Women may be more detail-oriented than men, which can lead to lower risk-tolerance while starting a business (Mittal and Vyas 2011), and subsequently increases the likelihood to use credit card debt over formal venture debt. Taken together, we believe the lower reports of external equity investments in this instance to be likely related to lower rates or application by females. Moreover, women tend to display a conservative tendency in the anticipation of financial requirements while their male counterparts tend to foresee a need for greater financial input (Babcock et al. 2003). As a result, we hypothesize:

H1: Female entrepreneurs are less likely to ask for outside financing than male entrepreneurs.

Helpers and asking for financing

Nascent ventures often have a variety of helpers that become involved in the start-up even at the earliest phases of start-up development (i.e., before there was a stream of positive cash flow) (Ruef 2010). For instance, over one third of entrepreneurs in the US rely on regular contributions from helpers in the form of e.g., material investments, guidance, and other support. Comparatively, only eight percent of start-ups hire full or part time employees. Combining the statistics on co-owners, helpers, and employees, Reynolds and Curtin (2009) found that merely 16% of entrepreneurs in the US could be identified as the true solo entrepreneurs. As a result, these findings provide evidence to counter the mythology of solo entrepreneurship often portrayed in the mass media.

Since starting a new venture generally requires the accumulation of a variety of resources with very limited financial capability (Brush, Greene, and Hart 2001), there are critical questions about the role helpers, or support networks, play in facilitating the acquisition and exploitation resources into capabilities within the nascent context. For instance, Aldrich and Carter (2004) posited that nascent entrepreneurs often attain resources from "others," also known as helpers or non-owner founders, who do not share an ownership stake in the start-up, nor are employed by the founding team. These "other" individuals provide information, training, or advice that the founding team believed crucial to the start-up. Preliminary analysis by Aldrich and Carter (2004) found the average age of these "other" individuals acting as helpers was about 43, that they were acquainted with the nascent entrepreneur for an average of about 12 years, and on average discussed the start-up issues about three times per month. About 64% of nascent entrepreneurs state that they obtained critical resources for their start-up effort in the form of moral or emotional support, information,

training, and/or creativity from these helpers (Aldrich and Carter 2004). Ruef (2010) reported an average age of helpers as 45 and a history of three previous business start-ups. Also, helpers working in the role of consultants or vendors tend to be the oldest and the most experienced members of the entrepreneurial group. Burton, Anderson, and Aldrich (2009) expanded upon the function of this "other" founder role and found that only about 38% of nascent entrepreneurs do not use helpers in any capacity. Therefore, helpers are key conduits of knowledge, directing key tacit information to the start-up founders, which may be translated to key organizational capabilities.

Furthermore, considerable evidence has accrued in the US that implies entrepreneurial helpers have a considerable effect on start-up survival and performance (Nahavandi and Chasteen 1988; Chrisman and Katrishaen 1994; Bruderl and Preisendorfer 1998). For example, helpers aid entrepreneurs in developing an effective network of contacts (Hansen 1995), building a management team (Rice 2002), easing access to labor, skills, information, and opportunities (Johannisson 1988; Freeman 1999; Singh et al. 1999; Greve and Salaff 2003), preparing a business plan (Smeltzer, Van Hook, and Hutt 1991), and most importantly raising capital (Aldrich and Zimmer 1986; Bygrave and Timmons 1992). For example, venture capitalists tend to invest in new ventures where they know the entrepreneurs directly or indirectly (Shane and Cable 2002; Shane and Stuart 2002; Batjargal and Liu 2004; Zhang et al. 2008).

The value of helpers comes mainly from the opportunity for knowledge accumulation in the context of a specific venturing decision for founders (Chrisman and McMullan 2004), such as the decision to ask for financing. Helpers appear to be imperative in transforming resources in the start-up context. Therefore, the presence of helpers may contribute to the stock of knowledge structures for the founding team. These knowledge structures could potentially be a source of competitive advantage for some individuals in that they enhance the cognitive capability of the founding team to recognize opportunities by allowing them to "connect the dots" more effectively (Baron 2006). Therefore, helpers will likely aid nascent entrepreneurs by expediting the completion of critical start-up activities such as asking for financing (Kim, Longest, and Aldrich 2013; Åstebro and Serrano 2015). Additionally, Kotha and George (2012) examined the impact of helpers prior to raising formal capital, that is, how entrepreneurs mobilize resources from a family, friends, and colleagues (Khayesi and George 2011). Although the focus of their work was not on gender differences, their findings appear to suggest that women use the assistance of helpers differently than men. Even more in need of further investigation is the relationship between start-up helpers and start-up financing in women's entrepreneurship as only few studies and mostly outside the US, tried to address this topic (e.g., Field et al. 2015).

Surveys of female entrepreneurs reveal that women in the early stages of startup development use social networks for advice, emotional support, inspiration, encouragement, helping to establish the validity of the business idea, and to increase self-confidence (Hampton, Cooper, and McGowan 2009; Roomi 2009). During this time women tend to network with other female entrepreneurs via personal contacts (family and friends). However, women who are able to develop their companies to a later stage stress the importance of joining formal and informal mix gender networks that tend to be more serious and more growth oriented (Roomi 2009). These more successful women find the mixed gender networks valuable in referrals to clients, suppliers, distributors, potential employees, partners, technical resources, freelance workers and service providers, training, professional and business advisers, and, in particular, access to funding (Roomi 2009). According to Hampton,

Cooper, and McGowan (2009), "women who had successfully established their business over a longer period of time were particularly adept at developing and managing diverse networks which included both sexes" (205). Klyver and Terjesen (2007), using data on both male and female entrepreneurs from the Danish Global Entrepreneurship Monitor, confirmed that female entrepreneurs who are able to persist in the new venture process develop networks similar to their male counterparts. Olm, Carsrud, and Alvey (1988) found that access to a network of contacts gives female entrepreneurs greater access to more formal sources of capital.

Men are generally more likely to use professional acquaintances as a source of advice while women tend to start building their networks with family and friends and with people who are similar to them in their views (Díaz and Carter 2009; Aldrich, Reese, and Dubini 1989). Only once women's networks grow bigger, they become more diverse, giving women actual benefits of social capital (Verheul, Risseuw, and Bartelse 2002). Relying exclusively on affective support provided by key supporters (such as family and close friends) has been even connected to negative effect on success by providing uncritical support for unrealistic entrepreneurial projects (Inge Jenssen and Greve 2002). As observed by Robinson and Stubberud (2009), networks that are not well-acquainted with each other usually provide a wider variety of resources, viewpoints, ideas, and information (Smeltzer, Van Hook, and Hutt 1991). More diverse and bigger networks may help women overcome limits that stop them from asking for financing (such as self-confidence) as well as present them with more opportunities to ask for financing since bigger networks may mean more diversity with ties to banks, venture capitalists, and other financial resource owners beyond family and friends (Uzzi 1999; Mencken and Winfield 2000; Marlow 2002; Greer and Greene 2003; Díaz and Carter 2009). For example, Díaz and Carter (2009) showed that women have fewer contacts with business owners and bank staff – occupations that enable access to funding resources. However, when adding business partners to the personal network, women counterbalance these differences obtaining more physical resources, business services, and personal services than their male counterparts.

Additionally to surveys of female entrepreneurs, previous research offers some experiments documenting how helpers and networks may assist women in overcoming lower levels of confidence in their relative abilities as compared to men and give women the feeling of being supported in the start-up process. Emotional support is associated with sharing life experiences, listening, building esteem, affect, trust, and concern (Neergaard, Shaw, and Carter 2005; Díaz and Carter 2009). For example, Kuhn and Villeval (2013) showed that the relative lack of confidence and a more optimistic assessment of their prospective teammate's ability, prompted women to be more likely than men to select team-based as opposed to individual compensation where team production offered no efficiency advantages over individual production. In another example, in an experiment conducted by Field et al. (2015), women who attained business training with a friend, as opposed to those who attended alone, had a higher propensity to borrow and they almost exclusively used marginal loans for business purposes. Moreover, after four months, they reported differences in business behavior, including a higher volume of sales, more stated business plans to increase revenues, significantly higher household income and expenditures, and lower probability to report their occupation as housewives. Field et al. (2015) concluded: "Our results suggest that one potentially important factor limiting financial inclusion efforts is inadequate peer support among many of the women who have the potential to start or expand entrepreneurial

activities" (21). As such, guided by the literature on women networks and helpers in nascent entrepreneurship, we believe that the presence of helpers will affect women more strongly than men in terms of asking for financing and that women need bigger networks in order to gain social capital benefits. Therefore, it is hypothesized:

H2: As the number of helpers increases, the probability of female entrepreneurs asking for financing increases.

Methods

Sample

In order to investigate our research question, data from the Panel Study of Entrepreneurial Dynamics II (PSED II) are utilized. The PSED is a longitudinal study of nascent entrepreneurs (Reynolds and Curtin 2009).² Nascent entrepreneurs are people who are engaged in activities that are intended to culminate in a viable new firm (Reynolds 1994; Davidsson 2004, 2005). The PSED II offers a nationally representative sample of nascent entrepreneurs for the US to offer systematic, reliable and generalizable data on the business formation process. It includes information on the proportion and characteristics of the adult population attempting to start new businesses, the kinds of activities nascent entrepreneurs undertake during the business start-up process and the proportion and characteristics of the start-up efforts that become infant firms (Reynolds 2009). The PSED II screened 32 thousand individuals to locate a cohort of 1214 respondents that were identified while they were in the process of starting new businesses in 2005. The respondents identified as nascent entrepreneurs then completed a single 60-min phone interview in each of six waves of data collected, initial and five follow-up interviews, 12 months apart.

To be considered a founder of a new venture during this time period, the respondent had to answer that: (1) they were in the process of starting a new business, either alone or jointly with others; (2) the first activity implemented to launch the new venture occurred within the first 24 months prior to the screening; (3) the new venture was not part of an effort by an existing organization; and (4) the respondent was a member of the founding team, as opposed to a consultant or passive investor (Shaver et al. 2001). The individuals screened in PSED II yielded 1214 people who had initiated a new venture within a 24-month period of initial screening. Since most studies of firm organizing activities have been retrospective explorations of the start-up behaviors of individuals who are already in business, there is an inherent selection bias that may confound findings. Through examining individuals actively involved in the process of organizing a new firm, our work using the PSED II addresses this selection bias limitation.

For this study the unit of analysis is the respondent, drawn from the PSED data-set. Cases are tracked over a six-year period in PSED II. Attrition obviously impacts the number of cases with outcomes available for analysis. In PSED II there were five follow-up interviews over 60 months. From the 1214 cases of nascent entrepreneurs in PSED II, our sample is adjusted to only include data for cases which we have complete information on our dependent and independent variables. Subsequently, our sample is further limited to 888 cases to test our hypotheses. Characteristics of the sample are shown in Tables 1(a) and 1(b), along with definitions of our study variables.

Table 1a. Definitions, sources, and descriptive statistics of quantitative variables.

Variable	Definition	PSED II code	Mean	St Dev	Min	Max
Total helpers	How many people were helping the founders	AG18	0.890	2.425	0	50
Team Size	Number of founders	AG2	1.693	0.887	1	5
Industry experience	Owner's Industry experience in years	AH11	9.476	10.687	0	54
Start-up experience	Owner's start-up experience in counts	AH12	1.059	1.980	0	25
Age	Age of founder	AH2	44.091	11.833	18	83
Education	Average level of education on team (1) Up to High School (2) Post-High School, Pre-College (3) College Degree (4) Grad Experience	AH6	2.361	1.010	1	4
Innovativeness	Level of Innovativeness on three point scale	AS4, AS5, AS6	0.661	0.869	0	3
Intensity	Person values for entrepreneurship has intensity	AY04, AY05, AY09, AY10	4.135	0.650	1.75	5
Experience	Person has entrepreneurial experience skills and motivation	AY03, AY06, AY07, AY08,	4.403	0.523	1.75	5
Independent	Person is an Independent, unemotional problem solver	AY01, AY11, AY13	2.792	0.764	1	5
Emotional	Indecisive and emotional person	AY02, AY14	2.527	0.854	1	5

Table 1b. Definitions, sources, and descriptive statistics of qualitative variables.

Variable	Definition	PSED II code	Proportion
Asked	Asked for money (1) Did not ask for money (0)	A-FE1	0.307
Female	Female (1) Male (0)	AH1	0.392
Caucasian	Caucasian (1) Other races (0)	AH4a	0.855
Spousal team	Owner and spouse (1) Otherwise (0)	AH8 & AJ2	0.230
Growth preference	Owner's growth aspirations: as big as possible (1)/otherwise (0)	AT1	0.200
Investment	Yes founder(s) Invested in start-up (1) No founder(s) Invested in start-up (0)	AQ4	0.3806
Industry	Transforming Business services Consumer oriented Extractive	AA1	0.230 0.333 0.392 0.046
Outcome	New firm Active start-up Quit	SUSTATUS	0.229 0.259 0.512

Dependent variables

To measure whether or not in founders asked for money, we used item A-FE1 from PSED II, which asks "Have financial institutions or other people been asked for funds for this new business?"

Independent variables

Female

The sex of the lead respondent of the start-up team is coded a dummy variable that takes a value of one for females and zero for males (AH1).

Helpers

Total helpers is a continuous measure that captures the total number individuals who were actively involved in helping the start-up by providing resources for no ownership stake (AG18). As defined in PSED, these people provided significant support, advice, or guidance to the start-up on a regular basis (AG18).

Control variables

Team size

Team size (AG2) is controlled for because previous research has shown that quitting start-up efforts decreases with organization size because larger organizations generally have greater resources, superior scale, bigger capacity, and better management (Carroll and Hannan 2000).

Caucasian

We control for the ethnicity (AH4a1) of the lead respondent of the start-up team because Reynolds (2007) found considerable evidence that individuals with white ethnic backgrounds are associated with start-ups with larger requirements and larger personal financial commitments.

Age

We measured as the age of the lead founder of the start-up team (AH2). We control for age because it has been related to the propensity to ask for financing (Carter et al. 2007).

Start-up experience

The total number of start-up experiences is measured as the total number of start-ups the founder has worked on (AH12). We control for this measure because it is related to the kinds of capital raised and pursued by nascent entrepreneurs (Reynolds 2011).

Industry experience

Years of industry experience is measured as the total number of years that the founder has within the same industry as the start-up (AH11). We control for this measure because it is related to the kinds of capital raised and pursued by nascent entrepreneurs (Reynolds 2011).

Education

Education is measured as the level of education of the founder of the start-up team (AH6). Prior research has found that higher levels of education are significantly related to attaining external equity financing (Carter et al. 2003).

Growth preference

We also control for the founder's growth aspiration (AT1). We define large growth aspirations (coded as 1) when the preference for the future size of the new business was to be as large as possible as opposed to keeping a size small (coded as 0). Prior research has linked higher growth aspirations to higher levels of subsequent new venture growth (Naffziger, Hornsby, and Kuratko 1994). If the entrepreneur wants the business to grow, he or she may be more willing to ask for external financing. Previous research suggests that nascent women entrepreneurs seemed less interested in growing their businesses than their men counterparts (Cliff 1998; Welter 2001; Isaksen and Kolvereid 2005). Alsos, Isaksen, and Ljunggren (2006) showed that the relationship between gender and early business growth is mediated by the level of financial capital.

Innovativeness

The innovativeness of the start-up (AS4, AS5, AS6) is measured as an ordinal measure following Aldrich and Ruef (2006) where zero indicates that the start-up is a reproducer venture and three indicates the start-up is an innovator venture. We control for this measure because the innovativeness of the start-up is related to the kinds of capital pursued and needed by the start-up (Reynolds 2011).

Industry

This study also controls for the industry classification codes from the PSED I and II protocol (AA1) which is grouped into four categories (Reynolds 2011): Extractive (e.g., agriculture, forestry, fishing, and mining, or extraction of products from the natural environment), Transforming (e.g., construction, manufacturing, transportation, and wholesale distribution, or physical transformation or relocation of goods and people), Business Services (where the primary customer is another business), and Consumer Services (e.g., retail, restaurants and bars, lodging, health, education, social services, and recreation). We control for this measure because the industry of the start-up is related to the capital needed by the start-up to launch a new firm (Reynolds 2011).

Spousal team

We control for whether the founders are a spousal team (AH8, AJ2). Research by Yang and Aldrich (2014) finds that women in spousal teams are less likely to be in-charge if they co-found with their husband and this could ultimately impact the probability of asking for funding.

Investment

We also control for whether or not the entrepreneur personally invested in the start-up (AQ14). Founders who personally invest in their ventures are considerably more likely to receive funding from outside stakeholders (Reynolds 2011).

Personal characteristics

Within the PSED II, a well-developed set of 13 items were used to determine the intrinsic motivational emphasis of the nascent entrepreneurs using a five level response scale regarding the importance of the items, ranging from "no extent" to "a very great extent" (Reynolds and Curtin 2008). Four factors are derived using principal components analysis from the

PSED protocol. We use these four factors to capture different personal dimensions of the founders, following Reynolds and Curtin (2009). *Intensity* (AY04, AY05, AY09, AY10) captures whether the individual believes that a new business is a better career opportunity, this new business will help achieve career goals, the respondent will give maximum effort to implement the new business, and do whatever it takes to implement this new business. *Experience* (AY03, AY06, AY07, AY08) captures whether the individual can speak to anyone, believe they have the skills to start a business, past experience valuable to help start a business, and can put in an effort needed to start a business. *Independent* (AY01, AY11, AY13) measures whether the respondent considers themselves a loner, rarely shows feelings, and whether the respondent enjoys uncertainty. Lastly, *Emotional* (AY02, AY14) measures whether respondent shows emotion on the outside and describes themselves as indecisive.

Outcome

We include a measure to identify the outcome status of the start-up because this has been linked to the kinds of financing utilized by the start-up (Hechavarría, Matthews, and Reynolds 2015). Outcome is a nominal variable (SUSTATUS) that captures the state of the start-up at the end of the PSED protocol, as either new firm, still-trying, or quit.

Results

Tables 1(a) and 1(b) present definitions, PSED codes, and descriptive statistics for our sample. As illustrated by Table 1(b), only about a third (30.7%) of the entrepreneurs ask for outside financing (38.9% of entrepreneurs who created new firms, 31.2% who are still trying, and 26.7% who quit the start-up process). On average, a start-up had 0.89 helpers with 65.8% of start-ups having no helpers at all. Interestingly, female and male entrepreneurs used a similar amount of helpers (0.89 for females and 0.88 for males and the difference was not statistically significant). Other characteristics show that an average team had 1.7 members, the owner was 41 years old with 9 years of experience in the same industry as the start-up, and on average started 1 previous company. Table 2 presents all the bivariate correlations for our sample. There were no big correlations between our independent variables so the multicollinearity should not be an issue in our analysis.

Distinguishing between entrepreneurs who asked and did not ask for money (Table 3(a)) reveals that 24% of female and 29% of male entrepreneurs asked for outside financing. Those who asked for financing surround themselves with, on average, 1.22 helpers vs. 0.76 for those who did not ask (see Table 3(b)). Other significant differences include greater team size for teams that asked for financing (1.9 vs. 1.6), owner's experience in starting businesses (1.4 vs. 0.9 start-ups), more years of education, and greater intensity to start a business. Moreover, 36% of entrepreneurs who intended to grow their business as big as possible asked for money which was significantly greater than 25% of those who wanted to keep their businesses small.

A series of logistic regression equations were utilized to test our hypotheses. First, we ran analysis on the full panel of nascent entrepreneurs. The results from the full panel suggest that female entrepreneurs are significantly less likely to ask for outside financing supporting our first hypothesis. Holding all other variables constant (Table 4), the odds of asking for outside financing for females when compared to males was 0.759 ($\beta = -0.276$; $p = 0.09$). Therefore, in terms of percent change, we can say that the odds of asking for financing for

Table 2. Bivariate statistics.

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
(1) Asked	0.252	0.434	1										
(2) Female	1.419	0.493	-0.049*	1									
(3) Helpers	0.890	2.426	0.083**	0.001	1								
(4) Team size	1.705	0.922	0.172**	-0.088**	-0.024	1							
(5) Caucasian	1.173	1.005	0.151**	-0.038	-0.092**	0.598**	1						
(6) Spousal pair	0.225	0.417	0.047*	0.047*	-0.032	0.174**	0.190*	1					
(7) Industry experience (years)	9.117	10.357	0.041	-0.128**	-0.044	0.088**	0.075**	-0.053*	1				
(8) Start-up experience (number)	1.090	2.548	0.066**	-0.066**	0.017	0.088**	0.075**	-0.053*	0.124**	1			
(9) Age (years)	41.945	12.410	-0.033	0.026	-0.069*	-0.015	0.131**	0.040	0.357**	0.177**	1		
(10) Growth preference	0.208	0.406	0.088**	-0.078**	0.068*	0.119*	-0.043	-0.075**	-0.059*	0.088**	-0.098**	1	
(11) Innovative	0.800	0.902	0.001	-0.101**	0.020	0.077**	-0.062**	-0.085**	0.042	0.042	-0.077**	0.147**	1
(12) Education	5.527	2.130	0.072*	0.048	0.015	0.060*	0.126*	0.016	0.086**	0.145**	0.243**	0.021	-0.024
(13) Intensity	4.074	0.668	0.047	-0.005	0.072*	-0.035	-0.069**	-0.038	0.080**	-0.003	-0.098**	0.119**	0.026
(14) Experience	4.331	0.557	0.038	-0.051*	0.004	0.007	0.011	-0.030	0.213**	0.097**	0.111**	0.012	0.002
(15) Independent	2.868	0.765	0.028	-0.220**	0.014	-0.016	-0.091**	-0.091**	0.095**	0.057*	0.012	0.045	0.086**
(16) Emotional	2.799	0.904	0.020	0.084**	-0.054	-0.023	-0.011	0.005	-0.078**	-0.031	-0.113**	-0.030	0.065**
(17) Investment	0.571	0.495	0.197**	-0.031	0.058*	0.008	0.053*	0.073**	0.037	0.042	0.055**	-0.020	-0.069**
(18) Extractive	0.030	0.170	0.079**	-0.026	-0.004	0.025	0.084**	0.103**	0.057*	-0.025	0.004	-0.022	-0.047*
(19) Transforming	0.166	0.373	0.073**	-0.162**	-0.070*	0.013	0.020	-0.016	0.095**	0.000	0.047*	0.019	-0.012
(20) Business services	0.262	0.440	0.069**	-0.053*	-0.033	0.035	0.034	-0.045*	-0.004	0.005	0.022	-0.044*	0.079**
(21) Consumer oriented	0.361	0.480	0.062**	0.186**	0.095**	-0.051*	-0.078**	0.020	-0.099**	0.002	-0.064**	0.027	-0.053*
(22) New firm	0.192	0.394	0.215**	-0.041	0.051	0.074**	0.079**	-0.001	0.109**	0.053*	0.050*	-0.019	-0.005
(23) Still-trying	0.224	0.417	0.082**	0.031	-0.013	0.074**	-0.038	0.038	0.067**	0.021	0.052*	-0.001	0.041
(24) Quit	0.311	0.463	0.010	0.038	-0.036	-0.011	0.034	-0.026	-0.121**	-0.050*	0.019	-0.011	-0.079**
Variable	12	13	14	15	16	17	18	19	20	21	22	23	24
(1) Asked													
(2) Female													
(3) Helpers													
(4) Team size													
(5) Caucasian													
(6) Spousal pair													
(7) Industry experience (years)													
(8) Start-up experience (number)													
(9) Age (years)													
(10) Growth preference													

(Continued)

Table 2. (Continued).

Variable	12	13	14	15	16	17	18	19	20	21	22	23	24
(11) Innovative													
(12) Education	1												
(13) Intensity	-0.181**	1											
(14) Experience	0.094**	0.443**	1										
(15) Independent	-0.115**	0.074**	0.035	1									
(16) Emotional	-0.090**	-0.058*	-0.125**	0.031	1								
(17) Investment	0.034	0.092**	0.131**	-0.036	-0.148**	1							
(18) Extractive	0.002	-0.011	-0.014	0.033	-0.028	0.052*	1						
(19) Transforming	-0.073*	0.011	0.045	0.023	-0.038	0.142**	-0.078**	1					
(20) Business services	0.149**	-0.053*	-0.018	-0.018	-0.046	0.142**	-0.105**	-0.266**	1				
(21) Consumer oriented	-0.079**	0.051*	-0.011	-0.015	0.075**	0.164**	-0.132**	-0.336**	-0.448**	1			
(22) New firm	0.098**	0.033	0.083**	0.005	0.017	0.252**	0.023	0.058**	0.107**	0.028	1		
(23) Still-tying	0.037	0.024	0.004	0.050*	0.076**	0.241**	0.048*	-0.006	0.061**	0.121**	-0.261**	1	
(24) Quit	-0.024	-0.072**	-0.063**	-0.085**	-0.091**	0.072**	0.005	0.082**	0.089**	0.097**	-0.327**	-0.361**	1

* p value significant at 0.05; ** p value significant at 0.01.

Table 3a. Test of differences for qualitative variables.

Variable	Value	% asked for financing	Chi-squared	p-value
Female	Female	0.243	3.596	0.058
	Male	0.293		
Spousal team	Not spousal	0.27	0.484	0.4864
	Spouses	0.291		
Caucasian	White	0.277	0.007	0.9357
	Non white	0.28		
Growth preference	Small	0.252	10.815	0.001
	Big	0.358		
Investment	Yes	0.246	7.943	0.005
	No	0.321		
Industry	Extractive	0.3864	6.889	0.076
	Transforming	0.2795		
	Business services	0.2995		
	Consumer oriented	0.2401		
Outcome	New firm	0.3735	14.637	0.001
	Still trying	0.3004		
	Quit	0.2448		

Table 3b. Test of differences for quantitative variables.

Variable	Asked for financing	Did not asked	t-test	p-value
Total helpers	1.22	0.76	-2.892	0.004
Team size	1.88	1.603	-4.39	0.000
Industry experience	9.838	9.219	-0.906	0.365
Start-up experience	1.369	0.889	-3.209	0.001
Age	43.497	43.593	0.116	0.908
Education	5.778	5.432	-2.53	0.012
Innovativeness	0.628	0.705	1.39	0.165
Intensity	4.215	4.092	-3.038	0.002
Experience	4.41	4.379	-0.935	0.35
Independent	2.823	2.812	-0.231	0.818
Emotional	2.479	2.556	1.413	0.158

females are 24% lower than the odds for males. Also, on average, holding all other variables constant, for each additional helper, we expect to see about 8.4% increase in the odds of asking for funding ($\beta=0.08$; $p=0.02$). Next, we included an interaction term for the full sample between sex and the number of helpers ($\beta=0.07$; $p=0.362$). For female nascent entrepreneurs, the odds ratio of asking for funding is 1.072. Conversely, the odds ratio for female entrepreneurs is 1.129 for a one-unit increase in the number of helpers.³ Therefore, each additional helper yields a 5.3% increase in probability for asking for outside financing for males and 12.9% for females. However, the coefficient on the interaction effect for the full panel of nascent entrepreneurs is not statistically significant.

Next, to further examine the sensitivity of our main results, we ran sub-samples of the panel based on the start-up outcomes: new firm established, quitting the start-up process, or still-trying. Holding all other variables constant, the odds ratio of asking for outside financing for female entrepreneurs who created new firms, when compared to males who created new firms was 0.453 ($\beta=-0.792$, $p=0.048$) (see Table 5). Therefore, the odds of asking for financing for females are 54.7% lower than the odds for males and this effect is greater than the one obtained in the full sample of nascent entrepreneurs (24%). What is most striking,

Table 4. Logistic regression results (full sample).

Variable	Control model				Main effects model				Interaction model			
	Coefficient	SE	Odds ratio	p value	Coefficient	SE	Odds ratio	p value	Coefficient	SE	Odds ratio	p value
Team size	0.144	0.103	1.100	0.371	0.072	0.108	1.075	0.503	0.072	0.108	1.074	0.505
Caucasian	0.126	0.096	1.159	0.133	0.168	0.100	1.183	0.094	0.165	0.100	1.179	0.100
Spousal pair	0.037	0.172	1.055	0.758	0.088	0.176	1.092	0.615	0.089	0.176	1.093	0.613
Industry experience (years)	-0.002	0.007	0.998	0.780	-0.006	0.008	0.994	0.465	-0.006	0.008	0.994	0.466
Start-up experience (number)	0.095	0.038	1.098	0.014	0.077	0.039	1.080	0.050	0.077	0.039	1.080	0.051
Age	-0.008	0.006	0.993	0.235	-0.006	0.006	0.994	0.350	-0.006	0.006	0.994	0.348
Education	0.000	0.000	1.000	0.362	0.000	0.000	1.000	0.346	0.000	0.000	1.000	0.332
Growth preference	0.391	0.178	1.472	0.031	0.394	0.183	1.468	0.036	0.394	0.183	1.484	0.031
Innovativeness	-0.138	0.084	0.876	0.120	-0.150	0.086	0.861	0.084	-0.149	0.086	0.861	0.084
Investment	-0.792	0.160	0.440	0.000	-0.861	0.165	0.423	0.000	-0.861	0.165	0.423	0.000
Intensity	0.346	0.132	1.390	0.013	0.297	0.135	1.346	0.028	0.302	0.135	1.353	0.026
Experience	-0.103	0.159	0.898	0.502	-0.082	0.162	0.921	0.613	-0.086	0.162	0.918	0.598
Independent	0.030	0.094	1.022	0.815	-0.005	0.098	0.995	0.957	-0.008	0.098	0.992	0.938
Emotional	-0.089	0.085	0.925	0.361	-0.045	0.087	0.956	0.603	-0.044	0.087	0.957	0.610
Industry												
Transforming	-0.293	0.359	0.754	0.432	-0.230	0.368	0.794	0.531	-0.246	0.368	0.782	0.504
Business services	-0.296	0.353	0.734	0.382	-0.258	0.362	0.773	0.477	-0.266	0.362	0.766	0.462
Consumer oriented	-0.574	0.352	0.565	0.105	-0.480	0.361	0.619	0.184	-0.495	0.361	0.610	0.171
Outcome												
New firm	0.302	0.196	1.324	0.153	0.273	0.200	1.314	0.173	0.267	0.200	1.306	0.183
Quit	-0.211	0.177	0.782	0.165	-0.226	0.181	0.798	0.211	-0.229	0.181	0.795	0.205
Female												
Helpers					-0.276	0.163	0.759	0.090	-0.341	0.177	0.711	0.054
Female × Helpers					0.080	0.034	1.084	0.020	0.052	0.047	1.053	0.265
Intercept	-1.364	0.272	0.302	0.183	-1.239	0.917	0.290	0.177	0.070	0.076	1.072	0.362
N	888				888				-1.198	0.918	0.302	0.192
Chi-square	90.860				97.840				888			
p value	0.000				0.000				98.730			
Pseudo R ²	0.071				0.078				0.000			
									0.078			

Table 5. Logistic regression results by outcome.

Variable	New firm				Still-trying				Quit			
	Coefficient	SE	Odds ratio	p value	Coefficient	SE	Odds ratio	p value	Coefficient	SE	Odds ratio	p value
Team size	-0.266	0.257	0.766	0.301	-0.003	0.248	0.997	0.991	0.142	0.146	1.153	0.331
Caucasian	0.550	0.247	1.734	0.026	0.179	0.237	1.196	0.450	0.076	0.133	1.079	0.570
Spousal pair	0.502	0.376	1.651	0.182	-0.050	0.387	0.951	0.898	0.043	0.261	1.044	0.870
Industry experience (years)	-0.023	0.016	0.978	0.146	-0.030	0.016	0.970	0.058	0.019	0.012	1.019	0.117
Start-up experience (number)	0.176	0.092	1.193	0.055	-0.049	0.085	0.952	0.566	0.125	0.063	1.133	0.045
Age	-0.012	0.013	0.988	0.364	0.015	0.014	1.015	0.301	-0.012	0.009	0.988	0.207
Education	0.000	0.000	1.000	0.314	0.000	0.000	1.000	0.685	0.000	0.000	1.000	0.733
Growth preference	-0.242	0.414	0.785	0.559	0.819	0.376	2.269	0.029	0.552	0.269	1.736	0.040
Innovativeness	-0.122	0.183	0.885	0.503	-0.230	0.188	0.795	0.223	-0.123	0.126	0.884	0.328
Investment	-1.382	0.381	0.251	0.000	-1.374	0.375	0.253	0.000	-0.464	0.224	0.629	0.039
Intensity	0.416	0.298	1.516	0.162	0.185	0.309	1.203	0.549	0.298	0.191	1.347	0.119
Experience	-0.317	0.378	0.728	0.401	-0.171	0.365	0.843	0.640	0.049	0.224	1.051	0.825
Independent	-0.052	0.217	0.949	0.810	-0.222	0.207	0.801	0.284	0.115	0.139	1.122	0.407
Emotional	-0.143	0.182	0.867	0.433	0.114	0.183	1.120	0.535	-0.076	0.127	0.926	0.548
Industry												
Transforming	-0.467	0.765	0.627	0.542	-0.779	0.640	0.459	0.224	0.042	0.661	1.043	0.949
Business services	-0.310	0.757	0.734	0.682	-0.722	0.620	0.486	0.244	-0.063	0.658	0.939	0.923
Consumer oriented	-0.664	0.757	0.515	0.380	-0.975	0.630	0.377	0.122	-0.134	0.652	0.875	0.837
Female												
Helpers	-0.792	0.400	0.453	0.048	-0.492	0.405	0.612	0.224	-0.184	0.257	0.832	0.473
	-0.008	0.103	0.992	0.938	-0.031	0.101	0.969	0.756	0.104	0.067	1.110	0.122
Female × Helpers	0.472	0.242	1.604	0.051	0.424	0.221	1.528	0.054	-0.127	0.130	0.068	0.046
Intercept	0.523	2.042	1.687	0.798	0.088	1.934	1.092	0.964	-2.688	1.347	0.068	0.046
N	208				226				454			
Chi-square	49.540				37.71				41.350			
p value	0.000				0.0096				0.003			
Pseudo R ²	0.151				0.1217				0.068

Figure 1. Sub-sample new firm interaction of gender by total helpers.

is that we can see that the presence of helpers does significantly impact the probability of asking for financing among female entrepreneurs. For females every additional helper yields a change in the odds ratio of 1.604. Therefore, female entrepreneurs that have assistance from one more helper are 60.4% more likely to ask for financing and this effect is significant ($\beta=0.472, p=0.051$). This is best illustrated in Figure 1 that shows marginal effects for males and females. However, for males, since the coefficient on the number of helpers is not statistically significant and actually negative ($\beta=-0.008; p=0.938$), helpers did not influence the odds of asking for financial help.

Likewise, Table 5 presents the results for those still-trying to launch a new firm. Holding all other variables constant, the odds ratio of asking for outside financing for female entrepreneurs who are still-trying, when compared to males who are still-trying was 0.612 ($\beta=-0.492, p=0.224$), but this effect was not statistically significant (see Table 5). Again, the data provide considerable evidence that the presence of helpers significantly impacts the probability of asking for financing among female entrepreneurs. For females every additional helper yields a change in the odds ratio of 1.528. Therefore, female entrepreneurs that have assistance from one more helper are 52.8% more likely to ask for financing and this effect is significant ($\beta=0.424, p=0.054$). This is best illustrated in Figure 2 that shows marginal effects for males and females. However, for males, since the coefficient on the number of helpers is not statistically significant and actually negative ($\beta=-0.031; p=0.756$), helpers did not influence the odds of asking for financial help.

The indicators for gender, helpers, and the interaction effects were not statistically significant for entrepreneurs who quit the start-up process (Table 5). Consequently, our second hypothesis is supported for female entrepreneurs who launched new firms and are still-trying to launch their start-up.

Discussion

Prior research generally examines the supply side (Riding and Swift 1990; Loscocco and Robinson 1991; Cavalluzzo, Cavalluzzo, and Wolken 2002; Carter and Shaw 2006; Treichel

Figure 2. Sub-sample still-trying interaction of gender by total helpers.

and Scott 2006; Kwong, Jones-Evans, and Thompson 2012; Mijid 2015) or demand side factors related to the financing female-led ventures (Croson and Gneezy 2009; Mittal and Vyas 2011; Brush et al. 2014). However, it has not considered the most important demand side factor in our opinion, that nascent women entrepreneurs might be less likely to ask for financing when engaged in the start-up process – the key contribution of this study. Moreover, this study addresses a literature gap around when female nascent entrepreneurs are considerably less likely to ask for financing in the nascent stage by pointing to the size of the support network as an important conditioning factor. Our study extends and refines recent studies at the intersection of gender demand side factors for entrepreneurial finance (e.g., Cliff 1998; Orser, Hogarth-Scott, and Riding 2000; Verheul and Thurik 2001; Brush et al. 2002; Harrison and Mason 2007; Coleman and Robb 2009) by examining how gender interacts with the non-founder role of helpers among entrepreneurs who reach new firm status. Our findings suggest that gender significantly influences entrepreneurs' probability to ask for financing: nascent women entrepreneurs are less likely to ask for start-up funding than men after controlling for important owner and business characteristics. We believe this to be attributed to substantial differences in how men and women approach negotiations (Babcock and Laschever 2009). Moreover, we also find significant evidence that start-up helpers significantly increase the probability of asking for funding. However, our findings do not provide sufficient evidence to suggest that helpers increase the probability of asking for funding among female entrepreneurs in general.

Correspondingly, the most striking feature of the assessments generated by this research is the differential impact of helpers on the probability of asking for financing between male and female entrepreneurs among new firms. As previously noted, men are more likely to ask for financing than women and the presence of helpers significantly increases the probability of asking for financing among founders. However, start-ups initiated by women that reached new firms status or still trying to start the company are significantly more likely to request financing as the presence of helpers increases. It may be the impact of helpers to open up network ties and introduce female founders to potential investors, and in turn, increase the incidence of asking for financing. Olm, Carsrud, and Alvey (1988) found that

one of the main reasons why female entrepreneurs fail to raise capital is because of their inability to access informal networks. As opposed to men who include professionals in their networks, women start to build their networks with family and friends and look for moral support and increase in self-esteem. Women in bigger and more developed companies have more diverse networks. Our results confirm Díaz and Carter's (2009) recommendation that "women should proactively and consciously look for beneficial partners and obtain from them a broader array of resources" (246) in order to overcome constraints that exist for them due to the gender-belief system.

Contributions and implications

A key contribution of our study is that it identifies limits and boundary conditions regarding gender and entrepreneurial finance, which improves ultimately the precision of our theorizing. The exclusion of an important moderator variable can lead to overgeneralizations that fail to highlight the boundary conditions under which proclaimed relationships exist (Edwards and Berry 2010). Our study finds considerable evidence that gender is a key demand side factor in terms of asking for financing and that the effect of gender is attenuated when female nascent entrepreneurs utilize helpers during the start-up process among those who create new firms. Accordingly, our work suggests that a structural problem is probably at work in our society that prevents women from being as free as men to ask for funding during the start-up process. However, surrounding yourself with helpers may be one solution to the limitations women have in asking for money. Our findings are consistent with previous studies that suggested that female business owners are more likely to be discouraged from applying for a bank loan compared to male business owners because they fear that their application will be rejected (Cavalluzzo, Cavalluzzo, and Wolken 2002; Kon and Storey 2003; Treichel and Scott 2006; Mijid 2015).

When negotiating for others, women are not worse advocates than men, and Amanatullah and Morris (2010) suggested that women may want to frame negotiation as bargaining on behalf of their family, employees, or a team. Also, women can swap negotiation roles with others to avoid self-advocacy. Our results also suggest the potential value of education for both men and women in increasing the likelihood that individuals ask for outside funding. More education may increase women confidence in financial markets as also suggested by Roper and Scott (2009). For example, policy-makers may focus on marketing the availability of start-up financial resources from various sources to encourage women to attempt to obtain the necessary financing rather than being discouraged at the first hurdle. Specifically, developing mentorship programs may be a desirable policy since it appears that helpers do have a significant impact on increasing the probability of asking for financing among women and asking for financing is the first step needed to attain financing, as, for example, programs such as the Opening Doors project run by Women in Rural Enterprise (WiRE) in UK or US Small Business Administration (SBA) that provide a range of activities to help women in business gain the confidence, knowledge, support, financing opportunities, and skills they need to start up their own business may be of great value to women entrepreneurs (Roper and Scott 2009).

Limitations and future directions

Our findings should be considered in certain limitations. First, we acknowledge that we are essentializing gender to a degree. However, we believe that in order to make meaningful comparisons of the socially constructed dimension of gender, we need to temporally essentialize the construct to reach real world conclusions about the status of reality. We also acknowledge that our claims are generalizations. As a result, future qualitative studies should investigate the tensions and paradoxes associated with being female and the processes of asking for financing and negotiating terms of financing beyond formal equity by using pluralistic methodologies, including constructivist and positivist approaches.

Moreover, gender is not the only thing that characterizes a person: race and religion, among many other factors, influence how one portrays their gender. Thus, future studies would benefit by embracing a multiplicity of context approach and identify how multiple factors influence the likelihood of asking for financing among early-stage entrepreneurs (Welter 2011).

For instance, this study does not distinguish between being pushed into venturing, or “necessity entrepreneurship” (which refers to a situation where people are involved in entrepreneurship activities because they have no better choices for work) vs. when one is pulled into venturing, or “opportunity entrepreneurship” (where people are pursuing a business opportunity or personal interest while other choices to earn a living are open to them) (Parker 2009). Considering gender, the tendency of being motivated by push or pull factors remains unresolved. Women, arguably are both pushed into entrepreneurship because they are discontent with a lack of recognition, insufficient opportunities for promotion, and the difficulties related to balancing work-life roles (Shapiro and Sokol 1982; Hisrich and Brush 1986; Minniti and Arenius 2003); however, they are also pulled into entrepreneurship to take advantage of opportunities in the social arena more consistent with feminine values and ideals (Brush 1992; Orhan and Scott 2001). Yet, others contend that motivating factors for men and women are very similar (Jennings and Cash 2006). Thus, future inquiry might examine personal factors that direct opportunity and necessity entrepreneurship, and how that interrelates with the probability of asking for financing between women and men. These issues may compound the effects of gender and helpers on asking for start-up financing.

Our paper focuses on the moderating role of helpers on the probability that female entrepreneurs ask for financing. However, other moderators can be considered. In particular, the effects of intensity, experience, independence, or emotions could be considered in future research.

Another way our paper can be extended is by examining different roles helpers provide in the startup process. Since PSED data-set does not provide detailed information on all the roles, an alternative database has to be employed.

Finally, the propensity to negotiate is associated with “quicker advancement” (Greig 2008). Although our study used sub-sample analysis to investigate the propensity of asking among new firms, still-trying, and quits, we did not specifically examine their performance in terms of revenue and job or firm growth. Therefore, future research can investigate if those that ask for financing are more likely to perform better over time than those who do not ask for financing, or if those who asked for financing were able to implement new firms in a timelier manner (Hechavarria, Matthews, and Reynolds 2015).

Conclusions

This study investigates whether female nascent entrepreneurs are less likely than males to ask for outside financing for their start-ups and the effect of helpers, who do not have an ownership share, on the probability of asking for financial help. Our results show that indeed females are less likely to ask for outside funding than males uncovering an important demand side factor related to the financing female-led ventures. Nascent women entrepreneurs are significantly less likely to ask for outside financing even after controlling for important owner characteristics such as industry and startup experience, education, growth preference, and motivation as well as business characteristics such as the type of industry. In previous literature, these characteristics were suggested as the source of the differences between the differences in likelihood that men and women in established businesses apply for bank loans.

This study also points to the importance of helpers, especially for female entrepreneurs. Having helpers to assist during the start-up process increases the probability of asking for financing and, as the number of helpers increase, the probability of female entrepreneurs asking for financing goes up. Our results point to the importance of considering gender differences in asking for financing and the influence of helpers. Connecting to practice, female entrepreneurs are particularly advised to actively seek helpers.

Notes

1. Among nascent start-ups there are two obvious possible outcomes of the process: *new firm creation* or *quitting* (sometimes called disbandment). A new firm is defined as profitable business venture affecting the prices and quantities of goods traded in the market. The alternative transition for nascent entrepreneurs is quitting from the start-up process. Quitting is relatively straightforward, as it represents individual(s) who have elected not to continue working on the creation of the firm (Reynolds and Curtin 2009). A third more subtle status, which is not an outcome, is an ongoing attempt, or indefinite involvement in the start-up effort (Reynolds 2007). Nascent ventures that fail to experience an outcome over an observation period remain in the *still-trying* state (sometimes called persistence), and continue in efforts to start a new business.
2. Access for the consolidated data-set can be found at: www.psed.isr.umich.edu.
3. To calculate the odds ratio for females, we use the following formula, using the coefficients from helpers and interaction term for female and helpers: $1.129 = (\exp(0.070 + 0.052))$.

Disclosure statement

No potential conflict of interest was reported by the authors.

References

- Aldrich, Howard E. 1989. "Networking among Women Entrepreneurs." In *Women Owned Businesses*, edited by O. Hagan, C. Rivchun, and D. Sexton, 103–132. New York: Praeger.
- Aldrich, H. E., and N. M. Carter. 2004. "Social Networks." *Handbook of Entrepreneurial Dynamics: The Process of Business Creation*. Sage Publications.
- Aldrich, Howard E., and Phillip H. Kim. 2007. "Small Worlds, Infinite Possibilities? How Social Networks Affect Entrepreneurial Team Formation and Search." *Strategic Entrepreneurship Journal* 1 (1–2): 147–165.

- Aldrich, Howard E., Pat Ray Reese, and Paola Dubini. 1989. "Women on the Verge of a Breakthrough: Networking among Entrepreneurs in the United States and Italy." *Entrepreneurship & Regional Development* 1 (4): 339–356.
- Aldrich, Howard E., and Martin Ruef. 2006. *Organizations Evolving*. Padstow, Cornwall: TJ International.
- Aldrich, Howard E., and C. Zimmer. 1986. *Entrepreneurship through Social Networks*. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship. Available at SSRN 1497761.
- Alsos, G. A., E. J. Isaksen, and E. Ljunggren. 2006. "New Venture Financing and Subsequent Business Growth in Men- and Women-led Businesses." *Entrepreneurship Theory and Practice* 30 (5): 667–686.
- Amanatullah, Emily T., and Michael W. Morris. 2010. "Negotiating Gender Roles: Gender Differences in Assertive Negotiating Are Mediated by Women's Fear of Backlash and Attenuated When Negotiating on Behalf of Others." *Journal of Personality and Social Psychology* 98 (2): 256–267.
- Amatucci, Frances M., and Jeffrey E. Sohl. 2004. "Women Entrepreneurs Securing Business Angel Financing: Tales from the Field." *Venture Capital* 6 (2–3): 181–196.
- Åstebro, Thomas, and Carlos J. Serrano. 2015. "Business Partners: Complementary Assets, Financing, and Invention Commercialization." *Journal of Economics & Management Strategy* 24 (2): 228–252.
- Babcock, Linda, and Sara Laschever. 2009. *Women Don't Ask: Negotiation and the Gender Divide*. Princeton, NJ: Princeton University Press.
- Babcock, Linda, Sara Laschever, Michele Gelfand, and Deborah Small. 2003. "Nice Girls Don't Ask." *Harvard Business Review* 81 (10): 14–16.
- Barton, S. L., and C. H. Matthews. 1989. "Small Firm Financing: Implications from a Strategic Management Perspective." *Journal of Small Business Management* 27 (1): 1–7.
- Batjargal, B., and M. Liu. 2004. "Entrepreneurs' Access to Private Equity in China: The Role of Social Capital." *Organization Science* 15 (2): 159–172.
- Bertoni, Fabio, Massimo G. Colombo, and Luca Grilli. 2011. "Venture Capital Financing and the Growth of High-Tech Start-ups: Disentangling Treatment from Selection Effects." *Research Policy* 40 (7): 1028–1043.
- Birley, S. 1985. "The Role of Networks in the Entrepreneurial Process." *Journal of Business Venturing* 1 (1): 107–117.
- Blanchflower, David G., Phillip B. Levine, and David J. Zimmerman. 2003. "Discrimination in the Small-business Credit Market." *Review of Economics and Statistics* 85 (4): 930–943.
- Bourdieu, P. 1986. "The Forms of Capital." In *Handbook of Theory and Research for the Sociology of Education*, edited by J. Richardson, 241–258. New York: Greenwood.
- Bowles, Hannah Riley, Linda Babcock, and Lei Lai. 2007. "Social Incentives for Gender Differences in the Propensity to Initiate Negotiations: Sometimes It Does Hurt to Ask." *Organizational Behavior and Human Decision Processes* 103 (1): 84–103.
- Bruderl, J., and P. Preisendorfer. 1998. "Network Support and the Success of Newly Founded Businesses." *Small Business Economics* 10: 213–225.
- Bruno, A. V., and T. T. Tyebjee. 1985. "The Entrepreneur's Search for Capital." *Journal of Business Venturing* 1 (1): 61–74.
- Brush, C. G. 1992. "Research on Women Business Owners: Past Trends, a New Perspective and Future Directions." *Entrepreneurship: Theory and Practice* 16 (4): 5–31.
- Brush, C. G. 1997. "Women-owned Business: Obstacles and Opportunities." *Journal of Developmental Entrepreneurship* 2 (1): 1–24.
- Brush, C. G., N. M. Carter, P. G. Greene, M. M. Hart, and E. Gatewood. 2002. "The Role of Social Capital and Gender in Linking Financial Suppliers and Entrepreneurial Firms: A Framework for Future Research." *Venture Capital* 4 (4): 305–323.
- Brush, C. G., N. M. Carter, E. J. Gatewood, P. G. Greene, and M. Hart. 2003a. "Venture Capital Access: Is Gender an Issue?" In *The Emergence of Entrepreneurship Policy: Governance, Start-ups, and Growth in the U.S. Knowledge Economy*, edited by D. Hart, 141–154. London: Cambridge Press.
- Brush, C., N. Carter, E. Gatewood, P. Greene, and M. Hart. 2003b. *The Diana Project: Women Business Owners and Equity Capital: The Myths Dispelled*. Kansas City, MO: The Kauffman Foundation.
- Brush, C., N. Carter, E. Gatewood, P. Greene, and M. Hart. 2004. *Clearing the Hurdles: Women Building High-growth Business*. Upper Saddle River, NJ: FT/Prentice Hall.

- Brush, C. G., P. G. Greene, and M. M. Hart. 2001. "From Initial Idea to Unique Advantage: The Entrepreneurial Challenge of Constructing a Resource Base." *The Academy of Management Executive* 15 (1): 64–78.
- Brush, Candida G., Lakshmi Balachandra, Amy Davis, and Patricia G. Greene. 2014. *Investing in the Power of Women. Progress Report on the Goldman Sachs 10,000 Women Initiative*. Babson College. Accessed October 2, 2015. www.goldmansachs.com/citizenship/10000women/news-and-events/10kw-progress-report/progress-report-full.pdf
- Brush, C., N. Carter, E. Gatewood, and Patricia Greene. 2006. *Growth-oriented Women Entrepreneurs and Their Businesses*. MA: Edward Elgar.
- Burton, M. Diane, Phillip C. Anderson, and Howard E. Aldrich. 2009. "Owner Founders, Nonowner Founders and Helpers." In *New Firm Creation in the United States*, edited by P. Reynolds and R. Curtin, 115–133. New York, NY: Springer.
- Buttner, E. H. 1993. "Female Entrepreneurs: How Far Have They Come?" *Business Horizons* 36 (2): 59–65.
- Bygrave, William D., and Jeffrey A. Timmons. 1992. *Venture Capital at the Crossroads*. Boston, MA: Harvard Business School Press.
- Carrington, Christine. 2006. "Women Entrepreneurs." *Journal of Small Business and Entrepreneurship* 19 (2): 83–94.
- Carroll, Glenn R., and Michael T. Hannan. 2000. *The Demography of Corporations and Industries*. Princeton, NJ: Princeton University Press.
- Carson, D., S. Cromie, P. McGowan, and J. Hill. 1995. *Marketing and Entrepreneurship in SMEs: An Innovative Approach*. Padstow: Prentice-Hall.
- Carter, Nancy M., and K. R. Allen. 1997. "Size Determinants of Women-owned Businesses: Choice or Barriers to Resources?" *Entrepreneurship & Regional Development* 9 (3): 211–220.
- Carter, Sara, S. Anderson, and E. Shaw. 2001. *Women's Business Ownership: A Review of the Academic, Popular and Internet Literature*. Glasgow: University of Strathclyde Report to the Small Business Service.
- Carter, Nancy M., William B. Gartner, Kelly G. Shaver, and Elizabeth J. Gatewood. 2003. "The Career Reasons of Nascent Entrepreneurs." *Journal of Business Venturing* 18 (1): 13–39.
- Carter, Sara, and Eleanor Shaw. 2006. *Women's Business Ownership: Recent Research and Policy Developments*. DTI Small Business Service Research Report. London: Minister of State for Industry and the Regions. Accessed October 2, 2015. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.397.8769&rep=rep1&type=pdf>
- Carter, Sara, Eleanor Shaw, Wing Lam, and Fiona Wilson. 2007. "Gender, Entrepreneurship, and Bank Lending: The Criteria and Processes Used by Bank Loan Officers in Assessing Applications." *Entrepreneurship Theory and Practice* 31 (3): 427–444.
- Cavalluzzo, Ken S., and Linda C. Cavalluzzo. 1998. "Market Structure and Discrimination: The Case of Small Businesses." *Journal of Money, Credit and Banking* 30: 771–792.
- Cavalluzzo, Ken, Linda C. Cavalluzzo, and John D. Wolken. 2002. "Competition, Small Business Financing, and Discrimination: Evidence from a New Survey." *The Journal of Business* 75 (4): 641–679.
- Cavalluzzo, Ken, and John D. Wolken. 2005. "Small Business Loan Turndowns, Personal Wealth and Discrimination." *The Journal of Business* 78 (6): 2153–2178.
- Chrisman, James J., and Frances Katrisha. 1994. "The Economic Impact of Small Business Development Center Counseling Activities in the United States: 1990–1991." *Journal of Business Venturing* 9 (4): 271–280.
- Chrisman, James J., and W. McMullan. 2004. "Outsider Assistance as a Knowledge Resource for New Venture Survival." *Journal of Small Business Management* 42 (3): 229–244.
- Cliff, J. E. 1998. "Does One Size Fit All? Exploring the Relationship between Attitudes towards Growth, Gender, and Business Size." *Journal of Business Venturing* 13 (6): 523–542.
- Cole, RA, and H. Mehran. 2009. "Gender and the Availability of Credit to Privately Held Firms." Paper first presented at the Kauffman-Federal Reserve Conference on Entrepreneurial Finance, Cleveland, OH, March 11–12, 2008.
- Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94: S95–S120.
- Coleman, James S. 1994. *Foundations of Social Theory*. Cambridge, MA: Belknap Press of Harvard University Press.

- Coleman, Susan, and Richard Cohn. 2000. "Small Firms' Use of Financial Leverage: Evidence from the 1993 National Survey of Small Business Finances." *Journal of Business and Entrepreneurship* 12 (3): 81.
- Coleman, Susan, and Alicia Robb. 2009. "A Comparison of New Firm Financing by Gender: Evidence from the Kauffman Firm Survey Data." *Small Business Economics* 33 (4): 397–411.
- Conway, S., and O. Jones. 2006. "Networking and the Small Business." In *Entrepreneurship and Small Business: Principles, Practices and Policy*, edited by S. Carter and D. Jones-Evans. Harlow: Prentice-Hall.
- Croson, Rachel, and Uri Gneezy. 2009. "Gender Differences in Preferences." *Journal of Economic Literature* 47 (2): 1–27.
- Cressy, R. 1995. "Business Borrowing and Control: A Theory of Entrepreneurial Types." *Small Business Economics* 7 (4): 291–300.
- Davidsson, P. 2004. *Researching Entrepreneurship*. New York: Springer.
- Davidsson, P. 2005. *Nascent Entrepreneurship: Empirical Studies and Developments*. Hanover, MA: Now Publishers.
- Díaz, C., and S. Carter. 2009. "Resource Mobilization through Business Owners' Networks: Is Gender an Issue?" *International Journal of Gender and Entrepreneurship* 1 (3): 226–252.
- Dodd, S. D. 1997. "Social Network Membership and Activity Rates: Some Comparative Data." *International Small Business Journal* 11 (2): 13–25.
- Dubini, P., and H. Aldrich. 1991. "Personal and Extended Networks Are Central to the Entrepreneurial Process." *Journal of Business Venturing* 6 (5): 305–313.
- Eagly, Alice H., M. G. Makhijani, and B. G. Klonsky. 1992. "Gender and the Evaluation of Leaders: A Meta-analysis." *Psychological Bulletin* 111: 3–22.
- Eagly, Alice H., Wendy Wood, and Amanda B. Diekmann. 2000. "Social Role Theory of Sex Differences and Similarities: A Current Appraisal." In *The Developmental Social Psychology of Gender*, edited by T. Eckes & H. M. Trautner, 123–174. Mahwah, NJ: Erlbaum.
- Edwards, Jeffrey R., and James W. Berry. 2010. "The Presence of Something or the Absence of Nothing: Increasing Theoretical Precision in Management Research." *Organizational Research Methods* 13 (4): 668–689.
- Fairlie, Robert W., and Alicia M. Robb. 2009. "Gender Differences in Business Performance: Evidence from the Characteristics of Business Owners Survey." *Small Business Economics* 33: 375–395.
- Farr-Wharton, R., and Y. Brunetto. 2007. "Women Entrepreneurs, Opportunity Recognition and Government-sponsored Business Networks." *Women in Management Review* 22 (3): 187–207.
- Fay, Michael, and Lesley Williams. 1993. "Gender Bias and the Availability of Business Loans." *Journal of Business Venturing* 8 (4): 363–376.
- Field, Erica, Seema Jayachandran, Rohini Pande, and Natalia Rigol. 2015. *Friendship at Work: Can Peer Effects Catalyze Female Entrepreneurship?* NBER Working Paper No. 21093
- Freeman, J. 1999. "Venture Capital as an Economy of Time." In *Corporate Social Capital and Liability*, edited by S. M. Gabbay, 460–479. New York, NY: Springer.
- Gamba, M., and B. H. Kleiner. 2001. "The Old Boys' Network Today." *International Journal of Sociology and Social Policy* 21 (8–10): 101–107.
- Gartner, William B., Casey J. Frid, John C. Alexander, and Nancy M. Carter. 2009. "Financing the Emerging Firm: Comparisons between PSED I and PSED II." In *New Firm Creation in the United States*, edited by P. D. Reynolds and R. T. Curtin, vol. 23, 185–216. New York: Springer.
- Gibb, A. A. 2000. "SME Policy, Academic Research and the Growth of Ignorance, Mythical Concepts, Myths, Assumptions, Rituals and Confusions." *International Small Business Journal* 18 (3): 13–35.
- Ghani, E., W. R. Kerr, and S. D. O'Connell. 2013. "Local Industrial Structures and Female Entrepreneurship in India." *Journal of Economic Geography* 13 (6): 929–964.
- Granovetter, M. 1983. "The Strength of Weak Ties—A Network Theory Revisited." In *Sociological Theory*, edited by R. Collins, 201–233. San Francisco, CA: Jossey-Bass.
- Granovetter, M. S. 1992. "Networks and Organisations: Problems of Explanation in Economic Sociology." In *Networks and Organisations: Structure, Form and Action*, edited by N. Nohria and R. G. Eccles, 26–56. Boston, MA: Harvard Business School Press.
- Greene, Patricia G., Myra M. Hart, Elizabeth J. Gatewood, Candida G. Brush, and Nancy M. Carter. 2003. *Women Entrepreneurs: Moving Front and Center: An Overview of Research and Theory*. USASBE White Paper. Whitewater, WI: United States Association for Small Business and Entrepreneurship.

- Greer, M. J., and P. G. Greene. 2003. "Feminist Theory and the Study of Entrepreneurship." In *Women Entrepreneurs*, edited by J. E. Butler, 1–24. Greenwich, CT: Information Age.
- Greig, F. 2008. "Propensity to Negotiate and Career Advancement: Evidence from an Investment Bank That Women Are on a "Slow Elevator"." *Negotiation Journal* 24 (4): 495–508.
- Greve, A., and J. W. Salaff. 2003. "Social Networks and Entrepreneurship." *Entrepreneurship Theory and Practice* 28 (1): 1–22.
- Gulati, R., N. Nohria, and A. Zaheer. 2000. "Strategic Networks." *Strategic Management Journal* 21 (3): 203–215.
- Gupta, Vishal K., Daniel B. Turban, S. Wasti, and Arijit Sikdar. 2009. "The Role of Gender Stereotypes in Perceptions of Entrepreneurs and Intentions to Become an Entrepreneur." *Entrepreneurship Theory and Practice* 33 (2): 397–417.
- Hamilton, R. T., and M. A. Fox. 1998. "The Financing Preferences of Small Firm Owners." *International Journal of Entrepreneurial Behavior & Research* 4 (3): 239–248.
- Hampton, A., S. Cooper, and P. McGowan. 2009. "Female Entrepreneurial Networks and Networking Activity in Technology-based Ventures: An Exploratory Study." *International Small Business Journal* 27 (2): 193–214.
- Hansen, Eric L. 1995. "Entrepreneurial Networks and New Organization Growth." *Entrepreneurship Theory and Practice* 19: 7–20.
- Harrison, R. T., and C. M. Mason. 2007. "Does Gender Matter? Women Business Angels and the Supply of Entrepreneurial Finance." *Entrepreneurship Theory and Practice* 31 (3): 445–472.
- Hechavarria, Diana, Charles H. Matthews, and Paul D. Reynolds. 2015. "Does Start-up Financing Influence Start-up Speed? Evidence from the Panel Study of Entrepreneurial Dynamics." *Small Business Economics* 46 (1): 137–167.
- Hill, F. M., C. M. Leitch, and R. T. Harrison. 2006. "Desperately Seeking Finance? The Demand for Finance by Women-owned and -led Businesses." *Venture Capital* 8 (2): 159–182.
- Hisrich, R. D., and C. Brush. 1986. "Characteristics of the Minority Entrepreneur." *Journal of Small Business Management* 24: 1–8.
- Hoang, H., and B. Antoncic. 2003. "Network-based Research in Entrepreneurship." *Journal of Business Venturing* 18: 165–187.
- Ibarra, Herminia. 1993. "Personal Networks of Women and Minorities in Management: A Conceptual Framework." *Academy of Management Review* 18 (1): 56–87.
- Inge Jenssen, J. I., A. Greve. 2002. "Does the Degree of Redundancy in Social Networks Influence the Success of Business Start-ups?" *International Journal of Entrepreneurial Behavior & Research* 8 (5): 254–267.
- Isaksen, E. J., and L. Kolvereid. 2005. "Growth Objectives in Norwegian Start-up Businesses." *International Journal of Entrepreneurship and Small Business* 2 (1): 17–26.
- Jackman, M. R. 1994. *The Velvet Glove: Paternalism and Conflict in Gender, Class, and Race Relations*. Berkeley: University of California Press.
- Jennings, J. E., and M. P. Cash. 2006. "Women's Entrepreneurship in Canada: Progress, Puzzles and Priorities." In *Growth-oriented Women Entrepreneurs and their Businesses*, edited by C. G. Brush, N. M. Carter, E. J. Gatewood, P. G. Greene and M. M. Hart, 53–87. Northampton, MA: Edward Elgar Publishing.
- Johannisson, B. 1988. "Business Formation – A Network Approach." *Scandinavian Journal of Management* 4 (3–4): 83–99.
- Khayesi, J., and G. George. 2011. "When Does the Socio-cultural Context Matter? Communal Orientation and Entrepreneurs' Resource Accumulation Efforts in Africa." *Journal of Occupational and Organizational Psychology* 84: 471–492.
- Kim, P. H., and H. E. Aldrich. 2005. "Social Capital and Entrepreneurship." *Foundations and Trends* in Entrepreneurship* 1 (2): 55–104.
- Kim, Phillip H., Kyle C. Longest, and Howard E. Aldrich. 2013. "Can You Lend Me a Hand? Task-role Alignment of Social Support for Aspiring Business Owners." *Work and Occupations* 40 (3): 213–249.
- Klyver, K., and S. Terjesen. 2007. "Entrepreneurial Network Composition: An Analysis Across Venture Development Stage and Gender." *Women in Management Review* 22 (8): 682–688.

- Knouse, S. B., and S. C. Webb. 2001. "Virtual Networking for Women and Minorities." *Career Development International* 6 (4): 226–229.
- Kolb, Deborah M. 2000. "More than Just a Footnote: Constructing a Theoretical Framework for Teaching about Gender in Negotiation." *Negotiation Journal* 16 (4): 347–356.
- Kon, Yoshinori, and David J. Storey. 2003. "A Theory of Discouraged Borrowers." *Small Business Economics* 21 (1): 37–49.
- Kotha, Reddi, and Gerard George. 2012. "Friends, Family, or Fools: Entrepreneur Experience and Its Implications for Equity Distribution and Resource Mobilization." *Journal of Business Venturing* 27 (5): 525–543.
- Kray, Laura J. 2007. "Leading through Negotiation: Harnessing the Power of Gender Stereotypes." *California Management Review* 50 (1): 159–173.
- Kuhn, Peter, and Marie Claire Villeval. 2013. "Are Women More Attracted to Co-operation than Men?" *The Economic Journal* 125: 115–140.
- Kwapisz, Agnieszka, Scott Bryant, and Brent Rosso. 2014. "Should Men and Women Start Companies Together? The Impact of Team Diversity on Startup Success." *Academy of Management Proceedings* 2014: 17252.
- Kwong, Caleb, Dylan Jones-Evans, and Piers Thompson. 2012. "Differences in Perceptions of Access to Finance between Potential Male and Female Entrepreneurs." *International Journal of Entrepreneurial Behavior & Research* 18 (1): 75–97.
- Levie, J., and E. Autio. 2013. *Growth and Growth Intentions*. Growth and Growth Intentions. White Paper. Enterprise Research Centre.
- Linehan, Margaret, Hugh Scullion, and James S. Walsh. 2001. "Barriers to Women's Participation in International Management." *European Business Review* 13 (1): 10–19.
- Loscocco, Karyn A., and Joyce Robinson. 1991. "Barriers to Women's Small-business Success in the United States." *Gender & Society* 5 (4): 511–532.
- Loscocco, Karyn A., Joyce Robinson, Richard H. Hall, and John K. Allen. 1991. "Gender and Small Business Success: An Inquiry into Women's Relative Disadvantage." *Social Forces* 70 (1): 65–85.
- Madill, Judith J., Allan L. Riding, and George H. Haines Jr. 2006. "Women Entrepreneurs: Debt Financing and Banking Relationships." *Journal of Small Business & Entrepreneurship* 19 (2): 121–142.
- Marlow, Susan. 2002. "Women and Self-employment: A Part of or apart from Theoretical Construct?" *The International Journal of Entrepreneurship and Innovation* 3 (2): 83–91.
- Marlow, Susan, and S. Carter. 2004. "Accounting for Change: Professional Status, Gender Disadvantage and Self-employment." *Women in Management Review* 19 (1): 5–17.
- Marlow, Susan, and Dean Patton. 2005. "All Credit to Men? Entrepreneurship, Finance, and Gender." *Entrepreneurship Theory and Practice* 29 (6): 717–735.
- Marlow, Susan, and Janine Swail. 2014. "Gender, Risk and Finance: Why Can't a Woman Be More like a Man?" *Entrepreneurship & Regional Development* 26 (1–2): 80–96.
- Mencken, F. C., and I. Winfield. 2000. "Job Search and Sex Segregation: Does Sex of Social Contact Matter?" *Sex Roles* 42 (9/10): 847–864.
- Mijid, Naranchimeg. 2015. "Why Are Female Small Business Owners in the United States Less Likely to Apply for Bank Loans than Their Male Counterparts?" *Journal of Small Business & Entrepreneurship* 27 (2): 229–249.
- Mijid, Naranchimeg, and Alexandra Bernasek. 2013. "Gender and the Credit Rationing of Small Businesses." *The Social Science Journal* 50 (1): 55–65.
- Minniti, M., and P. Arenius. 2003. "Women in Entrepreneurship." *The Entrepreneurial Advantage of Nations: First Annual Global Entrepreneurship Symposium* 29.
- Mitchell, Lesa. 2011. *Overcoming the Gender Gap: Women Entrepreneurs as Economic Drivers*. Kansas City, MO: Ewing Marion Kauffman Foundation. doi:10.2139/ssrn.1934906.
- Mittal, Manish, and R. K. Vyas. 2011. "A Study of Psychological Reasons for Gender Differences in Preferences for Risk and Investment Decision Making." *IUP Journal of Behavioral Finance* 8 (3): 45–60.
- Moore, D. P., and E. H. Buttner. 1997. *Women Entrepreneurs: Moving beyond the Class Ceiling*. Thousand Oaks, CA: Sage.
- Naffziger, D. W., J. S. Hornsby, and D. F. Kuratko. 1994. "A Proposed Research Model of Entrepreneurial Motivation." *Entrepreneurship Theory and Practice* 18 (3): 29–42.

- Nahavandi, Afsaneh, and Susan Chesteen. 1988. "The Impact of Consulting on Small Business: A Further Examination." *Entrepreneurship Theory and Practice* 13 (1): 29–40.
- Neergaard, H., E. Shaw, and S. Carter. 2005. "The Impact of Gender, Social Capital and Networks on Business Ownership: A Research Agenda." *International Journal of Entrepreneurial Behavior & Research* 11 (5): 338–357.
- Olm, K., A. Carsrud, and L. Alvey. 1988. "The Role of Networks in New Venture Funding for the Female Entrepreneur: A Continuing Analysis." In *Frontiers of Entrepreneurship Research*, edited by B. A. Kirchoff, W. A. Long, W. E. McMullan, K. H. Vesper, and W. E. Wetzel Jr., 658–659. Wellesley, MA: Babson College.
- Orhan, M., and D. Scott. 2001. "Why Women Enter Into Entrepreneurship: An Explanatory Model." *Women in Management Review* 16 (5): 232–247.
- Orser, B. J., S. Hogarth-Scott, and A. L. Riding. 2000. "Performance, Firm Size, and Management Problem Solving." *Journal of Small Business Management* 38 (4): 42–58.
- Orser, Barbara J., Allan L. Riding, and Kathryn Manley. 2006. "Women Entrepreneurs and Financial Capital." *Entrepreneurship Theory and Practice* 30 (5): 643–665.
- Parker, S. C. 2009. *The Economics of Entrepreneurship*. Cambridge University Press.
- Parker, Betty J. 2010. "A Conceptual Framework for Developing the Female Entrepreneurship Literature." *Journal of Research on Women and Gender* 1 (2): 169–190.
- Prentice, D. A., and E. Carranza. 2002. "What Women and Men Should be, Shouldn't be, are Allowed to be, and Don't Have to be: The Contents of Prescriptive Gender Stereotypes." *Psychology of Women Quarterly* 26 (4): 269–281.
- Putnam, R. D. 1993. "The Prosperous Community: Social Capital and Public Life." *The American Prospect* 4 (13): 35–42.
- Putnam, R. D. 1995. "Bowling Alone: America's Declining Social Capital." *Journal of Democracy* 6 (1): 65–78.
- Putnam, R. D. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.
- Renzulli, Linda A., Howard Aldrich, and James Moody. 2000. "Family Matters: Gender, Networks, and Entrepreneurial Outcomes." *Social Forces* 79 (2): 523–546.
- Reynolds, Paul D. 1994. "Autonomous Firm Dynamics and Economic Growth in the United States, 1986–1990." *Regional Studies* 28 (4): 429–442.
- Reynolds, Paul D. 2007. *Entrepreneurship in the United States: The Future is Now*. Vol. 15. New York, NY: Springer.
- Reynolds, Paul D. 2009. "Screening Item Effects in Estimating the Prevalence of Nascent Entrepreneurs." *Small Business Economics* 33 (2): 151–163.
- Reynolds, Paul D. 2011. "Informal and Early Formal Financial Support in the Business Creation Process: Exploration with PSED II Data Set." *Journal of Small Business Management* 49 (1): 27–54.
- Reynolds, P. D., and R. Curtin. 2008. "Business Creation in the United States: Panel Study of Entrepreneurial Dynamics II Initial Assessment." *Foundations and Trends in Entrepreneurship* 4 (3): 155–307.
- Reynolds, Paul D., and Richard T. Curtin. 2009. *New Firm Creation in the United States: Initial Explorations with the PSED II Data Set*. Vol. 23. New York, NY: Springer Science & Business Media.
- Rice, Mark P. 2002. "Co-production of Business Assistance in Business Incubators: An Exploratory Study." *Journal of Business Venturing* 17 (2): 163–187.
- Ridgeway, C. L. 2001. "Gender, Status, and Leadership." *Journal of Social Issues* 57: 637–655.
- Riding, Allan L., and Catherine S. Swift. 1990. "Women Business Owners and Terms of Credit: Some Empirical Findings of the Canadian Experience." *Journal of Business Venturing* 5 (5): 327–340.
- Robb, Alicia M. 2002. "Entrepreneurial Performance by Women and Minorities: The Case of New Firms." *Journal of Developmental Entrepreneurship* 7 (4): 383–397.
- Roberts, Peter W., Sean Peter, and Justin Koushyar. 2015. *The Entrepreneurship Database Program at Emory University 2015 Mid-year Data Summary*. Socialenterprisegoizueta. Aspen Network of Development Entrepreneurs. Accessed October 2, 2015. http://goizueta.emory.edu/faculty/socialenterprise/documents/Database_Data_Summary_Final.pdf
- Robinson, S., and H. A. Stubberud. 2009. "Sources of Advice in Entrepreneurship: Gender Differences in Business Owners' Social Networks." *International Journal of Entrepreneurship* 13: 83–101.

- Roomi, M. A. 2009. "Impact of social capital development and use in the growth process of women-owned firms." *Journal of Enterprising Culture* 17 (4): 473–495.
- Roper, Stephen, and Jonathan M. Scott. 2009. "Perceived Financial Barriers and the Start-up Decision: An Econometric Analysis of Gender Differences Using GEM Data." *International Small Business Journal* 27 (2): 149–171.
- Rudman, Laurie A. 1998. "Self-promotion as a Risk Factor for Women: The Costs and Benefits of Counterstereotypical Impression Management." *Journal of Personality and Social Psychology* 74 (3): 629–645.
- Rudman, L. A., and P. Glick. 2001. "Prescriptive Gender Stereotypes and Backlash Toward Agentic Women." *Journal of Social Issues* 57: 743–762.
- Rudman, Laurie A., and Kimberly Fairchild. 2004. "Reactions to Counterstereotypic Behavior: The Role of Backlash in Cultural Stereotype Maintenance." *Journal of Personality and Social Psychology* 87 (2): 157–176.
- Ruef, Martin. 2010. *The Entrepreneurial Group: Social Identities, Relations, and Collective Action: Social Identities, Relations, and Collective Action*. Princeton: Princeton University Press.
- Schmidt, R. A., and C. Parker. 2003. "Diversity in Independent Retailing: Barriers and Benefits – The Impact of Gender." *International Journal of Retail and Distribution Management* 31 (8): 428–439.
- Shane, Scott Andrew. 2000. *A General Theory of Entrepreneurship: The Individual-opportunity Nexus*. Cheltenham: Edward Elgar.
- Shane, Scott Andrew, and D. Cable. 2002. "Network Ties, Reputation, and the Financing of New Ventures." *Management Science* 48: 364–381.
- Shane, Scott Andrew, and T. Stuart. 2002. "Organizational Endowments and the Performance of University Start-ups." *Management Science* 48: 154–170.
- Shapiro, A., and L. Sokol. 1982. *The Social Dimensions of Entrepreneurship*. *Encyclopedia of Entrepreneurship*. <https://ssrn.com/abstract=1497759>
- Shaver, K. G., W. B. Gartner, E. Crosby, K. Bakalarova, and E. J. Gatewood. 2001. "Attributions about Entrepreneurship: A Framework and Process for Analyzing Reasons for Starting a Business." *Entrepreneurship: Theory and Practice* 26 (2): 5–33.
- Singh, R. P., G. E. Hills, G. Lumpkin, and R. C. Hybels. 1999. "The Entrepreneurial Opportunity Recognition Process: Examining the Role of Self-perceived Alertness and Social Networks." *Academy of Management Proceedings* G1–G6.
- Small, Deborah A., Michele Gelfand, Linda Babcock, and Hilary Gettman. 2007. "Who Goes to the Bargaining Table? The Influence of Gender and Framing on the Initiation of Negotiation." *Journal of Personality and Social Psychology* 93 (4): 600–613.
- Smeltzer, Larry R., Barry L. Van Hook, and Roger W. Hutt. 1991. "Analysis of the Use of Advisors as Information Sources in Venture Startups." *Journal of Small Business Management* 29 (3): 10.
- Smith-Hunter, Andrea E., and Robert L. Boyd. 2004. "Applying Theories of Entrepreneurship to a Comparative Analysis of White and Minority Women Business Owners." *Women in Management Review* 19 (1): 18–28.
- Treichel, Monica Z., and Jonathan A. Scott. 2006. "Women-owned Businesses and Access to Bank Credit: Evidence from Three Surveys since 1987." *Venture Capital* 8 (1): 51–67.
- Uzzi, B. 1999. "Embeddedness in the Making of Financial Capital: How Social Relations and Networks Benefit Firms Seeking Financing." *American Sociological Review* 64: 481–505.
- Verheul, I., P. Risseuw, and G. Bartelse. 2002. "Gender Differences in Strategy and Human Resource Management: The Case of Dutch Real Estate Brokerage." *International Small Business Journal* 20 (4): 443–476.
- Verheul, I., and R. Thurik. 2001. "Start-up Capital: Does Gender Matter?" *Small Business Economics* 16 (4): 329–346.
- Yang, Tiantian, and Howard E. Aldrich. 2014. "Who's the Boss? Explaining Gender Inequality in Entrepreneurial Teams." *American Sociological Review* 79 (2): 303–327.
- Watson, John. 2003. "Failure Rates for Female-controlled Businesses: Are They Any Different?" *Journal of Small Business Management* 41 (3): 262–277.
- Watson, John, Rick Newby, and Annie Mahuka. 2009. "Gender and the SME 'finance gap'." *International Journal of Gender and Entrepreneurship* 1 (1): 42–56.

- Welter, Friederike. 2001. "Who Wants to Grow? Growth Intentions and Growth Profiles of (Nascent) Entrepreneurs in Germany." In *Frontiers of Entrepreneurship Research*, edited by W. D. Bygrave, E. Autio, C. G. Brush, P. Davidsson, P. G. Greene, P. D. Reynolds, and H. J. Sapienza, 91–100. Wellesley, MA: Babson College.
- Welter, Friederike. 2011. "Contextualizing Entrepreneurship – Conceptual Challenges and Ways Forward." *Entrepreneurship Theory and Practice* 35 (1): 165–184.
- Wu, Zhenyu, and Jess H. Chua. 2012. "Second-order Gender Effects: The Case of U.S. Small Business Borrowing Cost." *Entrepreneurship Theory and Practice* 36 (3): 443–463.
- Zhang, Jing, Vangelis Souitaris, Pek-hooi Soh, and Poh-kam Wong. 2008. "A Contingent Model of Network Utilization in Early Financing of Technology Ventures." *Entrepreneurship: Theory & Practice* 32 (4): 593–613.