Entrepreneurs' Access to Venture Capital in Moroccan's Technology-Based Ventures: An Exploratory Study of the Role of Social Capital

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Abstract

This paper aims to explore how do the structural and relational social capital configurations of entrepreneurs influence their ability to get access to financial sources directly and under which conditions they do (have to) rely on third-parties on higher-risk investments? A semi-structured interview with a short questionnaire was adopted and six technology-based new ventures were selected that shared some common characteristics from an initial shortlist of 10 technology-based ventures backed or not by Moroccan venture capitalists. Our findings show that social capital of entrepreneurs seems to have positive effect, although indirectly, on higher investment decisions facing more risks, typically venture capitalists investment. The effects of social capital, sense-making as favorable anticipation, are contingent on specific characteristics of third-parties involved in venture capitalists funding process rather than on just that of their entrepreneurial teams. Also, results show the optimal scenario when new venture able to get access to financial sources directly and under which conditions they do (have to) rely on third-parties involved in venture capitalists investment decision process. However, the validity of exploratory research rests on the concept of theoretical saturation, we cannot definitively claim for it with six cases with 19 external financial sources because interview with entrepreneurs is not sufficiently refined to detect unless social capital of entrepreneur can have effects on venture capitalists' investment decisions. The extension to high technologies is the most natural step, moving to other low-risk industries is possible with the same kind of research protocol. Finally, this study contributes to the new venture's social capital and venture capital literature by providing an optimal combination of these two approaches. It also clearly points to the complementary nature between the social capital and contingency approach to study and explain the complex reality of equity capital, especially venture capital financing.

Key Words: Morocco, social capital, venture capital, investment decision process, third-party, technology-based new ventures, tripartite perspective.

1. Introduction

Moroccan private equity industry is one of the predominant players among North African countries. The venture capital firms have become the largest private equity industry in Morocco in recent years despite the tremendous regulatory of hurdles and institutional uncertainties that venture capital firms face. Although the first domestic venture capital organization was set up in 1993, the development of the private equity industry has intensified only after 2006, when the Moroccan government adopted a new scheme to promote venture investments. There were 34 funds registered in Moroccan Association of Capital Investors by mid-2012 managed by 20 private equity firms. However, only 3 venture capital firms were active investors in new ventures in July 2012 (Table.1). Some 8 foreign private equity operate in Morocco. Between 1993 and 1999, private equity firms raised $40 million in funds, a steep increase to $100 million in mid-2000 and $800 million in the end of 2011. During this period, $330 million were invested in more 100 SMEs and $160 million were disinvested.

Table.1. Private Equity Firms in Morocco

	Investment policy	**Location**	**Funds in $ US (Million)**
Financed by governments	All industries	Casablanca and Oujda	30-40
Financed by private individuals	All industries	Casablanca	>20
Financed by public companies	All industries	Casablanca	262-300
Financed by financial institutions	All industries	Casablanca	>330
Foreign	All industries	Casablanca and Rabat	>350

Note. Funds dedicated to Moroccan Association of Capital Investors

The financing of new venture is important because they represent an increasingly important source of new job opportunities. These types of ventures often face the problems of the liability of newness (Stinchcombe 1965) and opacity in terms of available information (Chua et al. 2011) due to the fact that the entrepreneurs in these types of ventures lack tangible assets and cannot rely on customers or large budgets to gain access and acquire initial resources. Debt financing is usually not an option (Denis 2004). Consequently, entrepreneurs tend to rely on other sources of outside equity capital such as a Venture Capital (VC) funds, angel investors and corporate investors. Since what works for large firms may not work for new ventures, there is a need for separate research on new venture equity capital. This study addresses that need.

The specificities of new ventures are often reinforcing the traditional problems of information asymmetry with external financial sources (e.g., Hall and Hofer 1993). One way to solve these problems and uncertainty of equity capital surrounding technology-based ventures regarding, the market, the technology and the organization for new ventures appear to be the use of their social capital with potential investors. However, new ventures will not yet have developed the required organizational social capital. Therefore, entrepreneurs must either use their personal social capital (Bosse 2009, Petersen and Rajan 1994, Uzzi 1999) or, if personal social capital is lacking or insufficient, make use of other actors' social capital (e.g., Arregle et al. 2007).Although, research under the rubric of "social networks" and "social capital" has largely sought to understand how attributes of an actor's social ties are most conducive to the realization of the actor's goals and objectives (Adler and Kwon 2002) and how actor's social ties increases a venture's ability to access valuable and reliable external (financial) resources (e.g., Aldrich and Fiol 1986, Chua et al. 2011, Jenssen 2001, Omri and Frikha 2012).

Indeed, currently available literature reviews reveal that researchers have adopted multiple theoretical approaches on the role of direct and indirect networks in entrepreneurial process (e.g., Groen 2005, Groen et al. 2008). Early research in new venture financing has studied how the dyadic network relationship between the new venture and VCs and triadic relationship through third-parties (Batjargal and Liu 2004, Batjargal 2007, Shane and Cable 2002) increases the venture's ability to acquire equity capital. Additionally, research on the process of VCs has established that a trusted third-party play an influential role in a VCs' deal flow (Fried and Hisrich 1994, Tyebjee and Bruno 1984a) and in a VCs' due diligence process (Batjargal 2007, Fiet 1995). Although it is also clear that this body of literature is fragmented in a number of ways, significant gaps still exist, specifically on the role that social capital structural and relational configurations play for new venture in both the identification of opportunities, and the acquisition of financial resources and, the specific characteristics of actors involved rather than on just that of its entrepreneurial teams which have received little attention.

In this research paper, most of the actors' characteristics affecting the financing technology-based of new venture by VCs have been investigated. Furthermore, the primary purpose of this paper is to propose a theoretical explanation of social capital perspective of technology-based new ventures in accessing equity capital and the way this approach moderated by multiple characteristics of actors involved on the investment decision process of VCs (contingency approach). Using a tripartite perspective, our research is designed to propose a conceptual framework for equity capital acquisition. From the literature, we elaborate hypothesizes and then we explore their validities with empirical case studies. Consequently, we propose that social capital configurations are not similar in their effect, but rather vary with the specific characteristics within the entrepreneurial teams and those related to the actors involved such as third-parties (e.g., VC consultant, technology specialist, friend ...) on VCs investment decisions process.The structure of the paper is the following. Based on the academic and professional literature, we started by a short literature review on the role of social capital in entrepreneurship finance and VC literature in the identification of opportunities and the acquisition of external financial resources.

Firstly, we use a tripartite perspective on acquisition equity capital by new ventures. Secondly, we use a contingency approach regarding the specific characteristics of the actors involved on VCs investment decisions process that influence the efficiency and effectiveness in which entrepreneurial teams can tap into their social capital and, thus act as important moderators of structural and relational social capital configurations. Subsequently, we review the related literature to develop testable hypotheses for each approach. Thirdly, we introduce case studies in six technology-based ventures. Then, we devote the last part to the analysis of the results. Finally, we discuss the results and emphasize conclusions.

2. Theoretical Framework

The acquisition of equity capital is one of the crucial steps in any starting up and early stage expansion of many high-risk businesses with high-growth potential. New ventures entrepreneurs often have difficulties to access and obtain external (financial) resources, particularly on higher investment decisions facing more risks related to deal technological, market and organizational uncertainty (e.g., Aldrich and Fiol 1994, Sorenson and Stuart 2001), typically VCs investments. Because entrepreneurs do not generally have traditional means like large established ventures, both with a strong reputation, past references, a bundle of contracts giving greater visibility and medium term capacity easy to mobilize internal and external resources.

The specificities of new ventures often reinforce the traditional asymmetric information problems between entrepreneurs and investors (Hall and Hofer 1993). Because entrepreneurs possess information about themselves and their ventures that investors do not have (Amit et al. 1990, Barry 1994, Gompers and Paul 1995). Several solutions to these problems can be helpful to large established firms but new ventures tend to have to rely on their social capital or "borrow" other actors' social capital in the identification of financial opportunities/resources and in the access to financial resource partners (e.g., Arregle et al. 2007, Bosse 2009).

The organizational theorists have generally proposed that seed-stage investors rely on social relationships to identify and to select which ventures to fund (Venkataraman 1997). In this perspective, researchers found that direct and indirect ties between entrepreneurs and VCs have main effects on investment decisions of investors due to the information transfer benefits that ties generate (Shane and Cable 2002, Shane and Stuart 2002). In addition, Batjargal and Liu (2004) found that strong ties between entrepreneurs and VCs have significant direct effects on investment decisions. Moreover, prior research has revealed the differences in the number of deals that come to VCs through third-parties recommendations (Shane and Stuart 2002, Sheng and Miao 2003, Wells 1974, Tyebjee and Bruno 1984a). However, less attention has been paid to the exact characteristics that make these third-parties most successful in VCs investment decisions process. This is a shortcoming in the literature because many entrepreneurs fail to get the attention of VCs in very early-stage. As a result, new venture has two options, direct access or indirect access in the identification of financial opportunities and the access to financial sources.

Today, prior research on the role of social capital in one part of the VCs investment decision process has provided mixed results of the most effective social capital configurations of actors involved that increase the venture's ability to acquire financial resources. However, some shortcomings can be identified. First of all, the current researches have paid little attention to the specific structural and relational social capital configurations between actors involved on VCs investment decisions process that could increase new venture' abilities to access to financial resource partners and to obtain equity capital (Lockett et al. 2006, Batjargal 2007, Shane and Stuart 2002). Secondly, when are ventures able to get access to financial sources directly and under which conditions do they (have to) rely on third-parties? Finally, is the value that entrepreneurial teams derive from their social capital configurations contingent on characteristics of actors involved in various stages of VCs investment decisions? These questions have received little attention (Batjargal 2007, Fiet 1995, Maula 2001).

After this short review of the literature, firstly we develop the value of social capital perspective and secondly, we study the contingency approach on the identification of financial resources opportunities and equity capital acquisition. Subsequently, we review the related literature to develop explorative hypotheses for each perspective.

2.1. Social Capital and Equity Capital Acquisition

New ventures are a strategic challenge for any country. To start and develop a venture, entrepreneur needs others, advice, experiences and market opportunities they present. This is by weaving social capital and establishing connections with environment (Boyd 1990).

Because entrepreneurs well embedded in networks can gain advantages and valuable external resources in a timely manner that can help the venture to overcome the 'liabilities of newness' problems (Stinchcombe 1965). Since previous studies have provided mixed results on the optimal structural and relational social capital in equity capital acquisition; we turn to one of the central discussions between Burt vs. Coleman views on the mechanisms that foster optimal social capital configurations. On the one hand, there Burt (1982, 1992, 1997, 2005) who claims that optimal network value is created in certain positional network configurations. However, the structural hole theory's Burt predicts that resources flowing through the entrepreneurial team's network is less likely to be redundant, more likely to be novel and more likely to be made available faster if network contacts are themselves not connected to each other. On the other hand, the dense argument's (Coleman 1972, 1988, 1990) describes the redundancy among actors in the external network of the venture. Network density is defined as the extent to which the focal actor's network contacts are themselves connected to each other. This type of networks can provide reputational effects and continuity in access to external resources and may facilitate trust among the people in the network (Coleman 1990) and improves communication (Hansen 1999).

According to Burt (1992), entrepreneur can find potentially profitable opportunities through establishing ties between previously unlinked networks. Thus, sparse networks with few links among contacts are important for discovering opportunities (Burt 1992) and gaining access to resources (McEvily and Zaheer 1999) before others do (Burt 2004). The new ventures that have networks 'rich in structural holes' may be filled with more new information and resources than firms that have fewer 'structural holes'. In contrast, Coleman argues that the quality of information is higher in 'densely' connected networks since the penalty for false and incomplete information is higher. While redundant contacts are then crucial to having continued access to certain resources and persuade external financial sources to invest in venture (Steier and Greenwood 2000, Uzzi 1999);

The 'closure' and 'structural hole' arguments have divergent view on the role of redundancy in external networks in the financial resource identification opportunities. Since Burt stresses the value of the diversity of information and Coleman focuses on the importance of reliability of information, the following rivaling hypotheses, which we refer to as hypothesis.1a 'Burt' and hypothesis.1b 'Coleman' are formulated:

H.1a. The probability of new ventures to identify financial resource partners increases with external networks rich in structural holes.

H.1b. The probability of new ventures to identify financial resource partners increases with dense external networks.

The second tension is regarding the type of contacts that refers to the effectiveness of weak vs. strong ties (Granovetter 1973, 1974, 1992) vs. Burt' arguments). Indeed, after having identified the financial options and financial resource partners, the new venture has to get access to them. In doing so, we claim that this can be done in two ways: directly or through a third-party. When a new venture accesses to the financial sources directly, Burt claims that an existing tie between the new venture and the financial sources is not needed. Weak ties are essential to recognizing new information (Hansen 1999) and identifying and exploiting opportunities (Aldrich and Fiol 1986). Moreover, Batjargal (2007) found evidence in his study that weak ties were positively related to the revenue growth of Russian entrepreneurs. To fulfill the information function, Burt argues that weak ties are most effective in providing information when accessing these actors for a financial request. Since a new venture has limited resources, having many weak ties would be the optimal strategy to get access to a diversity of information on financial opportunities.

In contrast, Coleman argues that weak ties are important to get access to novel information (Granovetter 1974) but when this novel information is based on complex information and reliable resources, strong ties are more appropriate to transfer that information (Hansen 1999). Though a strong tie may hinder the search for novel information, but it seems to be more effective in generating trust between actors and emotional closeness (Granovetter 1992). Therefore, he argues that existing strong ties with financial sources are necessary when accessing these actors for a financial request. In research on the financing of entrepreneurial firms, Uzzi (1999) found evidence that strong ties were beneficial in getting attractive loans. In addition, regarding university-based start-ups, Shane and Stuart (2002) suggest that when a new venture's founding had an existing relationship with a VCs that pre-dated when the spin-off was founded, the chances of failure were about 70% lower. Consequently, our hypothesis can be formulated as follows:

H.2a. When new ventures have direct access to financial resource partners, the probability of obtaining equity capital increases with the existence of prior weak ties.

H.2a. When new ventures have direct access to financial resource partners, the probability of obtaining equity capital increases with the existence of prior strong ties.

The second option for accessing to the financial resource partners is that, instead of strong or weak ties, when new ventures use third-parties for a financial request. A third-party is defined as an independent contact trustworthiness who is explicitly involved in connecting the venture to financial sources. This trustworthy contact may provide information about qualified entrepreneurs that the decision maker finds hard to observe, such as competence. It helps to screen out unqualified individuals (Fernandez and Weinberg. 1997), increases odds of obtaining equity capital for entrepreneurs by filtering, matching, and trust benefits that mitigate social risks in decisions (Batjargal and Liu 2004) and reduces search and identification costs at the screening stage (Burt 1992, Fernandez and Castilla 2001). Therefore, third-parties are likely to regard highly those teams whom they choose to recommend strongly because they see this as a fulfillment of their social obligations such as meeting their friends' expectations (Shane and Cable 2002).

According to the pure logic of Burt, the access to financial resources partners through a third- party, will be more effective with the existence of prior weak ties. However, Batjargal (2003) support the ambiguous outcome of the strength of ties may also explain why some studies have not been conclusive. Batjargal (2007) support the strong tie claim of Coleman, founding that strong ties are more often activated as referrals source as well. Other studies have discussed the relational dimension not in terms of strength of tie but in proxies such as specific links: partnerships and sponsorship-based (Choonwoo et al. 2001) or direct and indirect ties (Shane and Stuart 2002). Hence, third-party is likely to be more effective when their sources are weakly tied (Burt's view) or strongly tied (Coleman's view) to the new venture. More formally:

H.3a. When new ventures use third-parties to access financial resource partners, the probability of third-party will be successful in obtaining equity capital, if new venture and third party are weakly tied.

H.3b. When new ventures use third-parties to access financial resource partners, the probability of third-party will be successful in obtaining equity capital, if new venture and third-party are strongly tied.

2.2. A Contingency Approach and Equity Capital Acquisition

While entrepreneurs' social capital provide access to financial resources, the specific structural and relational configurations between actors involved will depend on whether entrepreneurial team and third-party characteristics enable their members to take advantage of these resources effectively and efficiently on various stages of VCs investment decisions.

In previous research on entrepreneurship, several authors have found that more prior experience contributes to the ability of entrepreneur(s) to spot new opportunities (e.g., Shane 2000) and to access to external (financial) resources (e.g., Campbell 1992, Shepherd et al. 2000) and more management and prior start-up experience of entrepreneur(s) are more often funded (e.g., Hall and Hofer 1993, Zacharakis and Meyer 1998). However, several authors consistently show that for VCs' evaluation of deal, criteria related to entrepreneurial team characteristics are predominant (Hall and Hofer 1993, Muzyka et al. 1996, Zacharakis and Meyer 1998). Moreover, many authors have shown that several attributes influence the likelihood of obtaining equity capital. Venture age is associated with obtaining external equity capital (MacMillan et al. 1985, Hall and Hofer 1993) as are the founders' work experience and industry specific experience (Hustedde and Pulver 1992) and as founders that have started businesses in the past (Beckman et al. 2007, Cohen and Dean 2005, Franke et al. 2006, Zhang 2007).

In this paper, we hypothesize that the technical aspects of a venture project (product/service/technology, market and financial considerations) have been assessed as strong, we are challenging the underlying assumptions that management (strategy, marketing, finances, HR…), technical/ technological, start-up experience, reputation, cohesion within the entrepreneurial team and also economic characteristics (financial need, ability to access financing) influence the effectiveness of social capital configurations of entrepreneurs in the identification of financial resources opportunities and in the successful acquisition of equity capital.

Thus act as important moderators of social capital on VCs investment decisions process. The hypothesis that we explore in this regard is as follows:

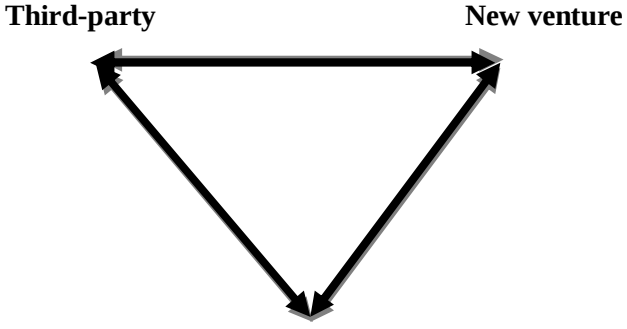
H***4a***. Social capital configurations are more likely to be effective associated with equity capital acquisition for new venture with greater characteristics within the entrepreneurial team.

As stated in the review of the literature, it is a common practice in the private equity industry for entrepreneur(s) and VCs to get connected through third-parties who recommend founders and investors to each other (Shane and Stuart 2002). Furthermore, in the entrepreneurship context, several research have implicitly claimed that the success mentoring during entrepreneurial firm's process will depend on whether the characteristics of third organization (e.g., incubators and business consultants) such as expertise industry of venture and functional and business background that enable venture to access reliable and critical resources. While higher uncertainty between entrepreneurial teams and investors lead new venture to use third-party in accessing and raising (financial) resources, the effectiveness of contact trustworthiness will depend on whether third-party characteristics enable team members to access reliable and critical resources. Indeed, the role that third-party can play in funding venture, has been widely acknowledged in entrepreneurial finance literature, but the specific characteristics that make one third-party recommendations more successful than another have received little attention. In corporate finance, for example, studies on financing focus on the Initial Public Offering (IPO) have showed how firms with prominent strategic alliance partners and organizational equity investors go to IPO faster and have higher valuations than firms that lack those connections (Stuart et al. 1999). According to Chang (2004) the reputation of VCs and strategic alliance partners lead to shorter times to IPO. In addition, many consultants and corporate finance brokers work on a fee basis and get paid when a proposition gets funded. For this purpose, the third-party can have an ownership-stake in the new venture; it can also have a short term economic interest when a proposition gets funded.

In highly uncertain environments, especially private equity, trusted third-party is a key necessary element that lead to greater pools of actors (Fernandez et al. 2000), by facilitating matching which may be conducive serve as information filters about venture projects and ideas and as sources of advice including technology, preparation of the business plan, and places to seek funding. The filtering may reduce search and identification costs at the screening stage (Burt 1992, Fernandez and Castilla 2001). In summary, we propose that business and functional background, industry-specific expertise; reputation and financial and economic interest in the venture or in the fund characteristics within the third-party influence the effectiveness of its social capital configurations in accessing to financial resource partners and raising successfully equity capital, —when the entrepreneurial team would otherwise find very difficult to access and if their personal social capital is lacking or insufficient —thus act as important moderators of entrepreneurs social capital on VCs investment decisions process. More formally:
H.4b. Social capital configurations are more likely to be effective associated with equity capital acquisition for new venture when third-party with greater characteristics is used.

3. Research Framework

Based on the preceding arguments, the research framework with a triangle made up of the new venture, the financial resource partners and the other partner (third-party) for this study is presented in Figure 1.
Figure.1. Research framework



3.1. Methodology

Six technology-based new ventures were selected that shared some common characteristics from an initial shortlist of 10 Moroccan technology-based ventures backed or not by Moroccan VCs. In this study, we have a special interest in their first years because they are often considered as the archetype of the venture with a strong entrepreneurial spirit (Davidsson 1989). For each of these ventures, we had at least one introductive contact (at least one-hour open-ended interview with the founder/manager). Then, we used an additional short questionnaire, in order to score their positional network structure and the strength of relationships they had (1) to financial sources they mentioned during the interview; and (2) to third-party involved in getting the venture connected to a specific financial resource and (if so) who this trusted third-party was. The cases can then also be considered as 'typical cases' (Yin 2003). In table.2, a brief overview is provided of the data collected for each case; later in next subsection, we provide interviews and short questionnaire procedure.

Table.2. Summarizes the data collected for each case

	Case A	**Case B**	**Case C**	**Case D**	**Case E**	**Case F**
Interview with	X	X	X	X	X	X
Short questionnaire	X	X	X	X	X	X
ventures website	X	X	X	X	X	X
VC firms website	X	X	X	X	X	X

3.2. Case Studies

Interviews: In addition to the venture and VCs firm websites, the entrepreneurs were interviewed in order to be able to ask specific questions about the (direct and indirect) role that social capital play in financing their ventures. As well as the focus on the new venture, the interviews were also conducted by asking firstly, about an entrepreneur's motivation to start a venture and importance of willingness to grow, and his goals and priorities for the venture. Secondly, questions about financial needs, financial raising and ownership stakes. Finally, we asked about entrepreneurial team education level, team cohesion, educational and business background (strategy, marketing, finances, HR…), educational, and technological background and start-up experience. Therefore, additional information was needed on the networks of opportunities and acquisition equity capital.

For example, entrepreneurs were asked when and how they identified and accessed the financial resource partners. We also asked them to indicate whether there was a third-party involved in getting the venture connected to a specific resource partners and (if so) who this third-party was. In addition, if entrepreneurs have addressed to the third-parties during financing process of venture, they were asked when and how they identified their third-parties. Consequently, by asking the specific characteristics of successful third-parties involved in connection, meeting and valuation of new venture with financial resource partners. [Questionnaire: After the interview, the entrepreneurs were asked to fill in a short questionnaire to score their positional network structure and the strength of relationships they had to actors (finance sources and third-parties) mentioned during the interview]. Since we intend to extend the findings of this paper to a larger data set, we choose to use existing measures that are used to measure these network characteristics. For the positional part of the network, we used the name-generator technique (consistent with past studies e.g., Aldrich and Fiol 1986, Renzulli et al. 2000).

The name-generator asks entrepreneurs to mention five or less financial sources contacted. After that, we ask entrepreneurs specific questions about the third-parties they relied upon and discussed important issues with during the financing process. This tool was extended by asking the entrepreneurs to score how well these people know each other on a four-point scale. For the measurement of the relational social capital between actors, the assessment of 'tie strength' as proposed by Granovetter (1973) was used. Consequently, this research follows the initial measure of tie strength as proposed by Granovetter, who used the indicators of 'intimacy', 'frequency' and 'length of the contact'. Ranging from weak to strong, the indicator for intimacy is measured with the four categories 'not at all', 'very little', 'somehow 'and 'very well'. Frequency is measured on a four-point scale 'never spoken before', 'once per year, 'once per month' and 'once per week'. Finally, duration is measured in a similar trend as the number of years the relationship has existed. In our explorative study, we also tried to test the value of these three variables on the acquisition of equity capital.

According to Marsden and Campbell (1984) friendship ties a measure of closeness or intensity was the best indicator of strength, whereas frequency and duration were weaker predictors. In fact, it could be that intimacy is much more effective than length of the relationship. The assessment of the relevance of the different variables will enable us to select the most relevant variables for a quantitative study later.

4. Results and Analysis

In this section, we focus first of all on the direct effect of structural social capital of entrepreneurs in the six cases, the most effective relational configurations and we analyze the most effective relational configurations of third-party on equity capital acquisition, especially, VC. Second, we focus on the contingent effect of social capital of entrepreneurs in accessing to financial resource partners and acquisition equity capital. The findings in the case studies are summarized in tables 3-15. Tables 5-15 can be found in the appendix.

3.3. Social Capital and Equity Capital Acquisition

The network of Case B could be labeled as small, homogeneous and interconnected at the time of start-up. It is very dependent on its initial three finance sources interconnected for network development (see table.3 next page). Additionally, table.7 shows how B stills relies on a five strongly-tied third-parties involved on VCs process. Also, when looking at table.8, one can say that third-parties involved and finance sources are mainly strongly interconnected. When looking at the financial structure of Case C, one can see that they use three different finance sources (table.3), but C had difficulties in accessing to finance sources (three other finance sources contacted with entrepreneur alone without success to obtain funding). In fact, the entrepreneur wants to grow fast but he was not able to raise other financial sources beyond its direct initial contact. As table.9 shows how C stills relies on a three strongly-tied third-parties involved on VCs investment decisions process. The interconnectivity among external contact in Case C was scored as somehow and very well intimate (table.10). Case F had a similar situation to B and C. It is dependent on two external financial sources and third-parties that they are mainly strongly interconnected (see tables 15-16). In theoretical terms, C, B and F could be labeled as having a 'closure type of network' at the time of start-up.

In contrast, the network structure of Case A could be described as bigger and more diverse when compared to the other case studies. In a theoretical sense, we would label their networks as 'structural hole' networks because entrepreneurial team in Case A was able to identify financial opportunities and to access to financial resource partners directly without using third-parties. As table 5 shows how entrepreneurial team stills relies on weakly-tied third-parties involved in VCs investment decisions process, especially on evaluation phase'.

Table.3. Direct and Indirect Access' Entrepreneurial teams to Financial Resource Partners

Cases	**Finance sources**	**Finance success (Yes /No)**	**Access options (Direct/ Indirect)**	**Third-party involved on phase origination**	**Entrepreneurial team – Third-party Ties**			**Entrepreneurial team – Financial resource partners Ties**			**Third-party – Financial resource partners Ties**	**Third-party success Yes/No**
					Contact Intimacy	Contact Frequency	Contact Length in years	Contact Intimacy	Contact Frequency	Contact Length in years	Contact intimacy	
Case A	Venture capital (1)	Yes	Direct access	***	***	***	***	***	***	***	***	***
	Venture capital (2)	Yes	Direct access	***	***	***	***	***	***	***	***	***
	Government program	Yes	Direct access	***	***	***	***	***	***	***	***	***
	Other government program	No	Direct access	***	***	***	***	***	***	***	***	***
	Entrepreneurial team loan	Yes	***	***	***	***	***	***	***	***	***	***

Case B	Venture Capital (3)	No	Direct access	***	***	***	***	***	***	***	***	***
	Informal investor	Yes	Indirect access	Family	well	monthly	>7	very little	yearly	>2	very well	yes
	Venture capital (1)	Yes	Indirect access	Friend	very well	yearly	>10	***	***	***	very well	yes
	Entrepreneurial team loan	Yes	***	***	***	***	***	***	***	***	***	***
Case C	Venture Capital(1)	No	Direct access	***	***	***	***	very well	yearly	>1,6	***	***
	Venture Capital (2)	No	Direct access	***	***	***	***	somehow	yearly	>0, 5	***	***
	Informal investor	No	Direct access	***	***	***	***	very little	yearly	>0, 25	***	***
	Manager at company	Yes	Indirect access	Family	very well	monthly	>2,5	very well	monthly	>10	very well	yes
	Venture Capital (4)	Yes	Indirect access	VC Consultant	somehow	yearly	>1	very little	yearly	>0,5	very well	yes
	Personal loan	Yes	***	***	***	***	***	***	***	***	***	***
Case D	Venture capital (1)	Yes	Direct access	***	***	***	***	***	***	***	***	***
	Government program	Yes	Direct access	***	***	***	***	***	***	***	***	***
	Entrepreneurial team loan	Yes	***	***	***	***	***	***	***	***	***	***
Case E	Venture capital (5)	No	Direct access	***	***	***	***	somehow	monthly	>1	***	***
	Venture capital (6)	No	Direct access	***	***	***	***	not at all	monthly	>0,1	***	***
	Manager at company	Yes	Direct access	***	***	***	***	very little	yearly	>3	***	***
	Personal loan	yes	***	***	***	***	***	***	***	***	***	***
Case F	Innovation International program	Yes	Direct access	***	***	***	***	***	***	***	***	***
	Venture capital (2)	Yes	Indirect access	Manager at VC firm	very well	monthly	> 2	somehow	yearly	> 4	very well	yes
	Entrepreneurial team loan	Yes	***	***	***	***	***	***	***	***	***	***

Also, when looking at the interconnectivity among their external contact, one can see that just one external financial source who was strongly tied with other external contact's Case A and scored as very well intimate (table.6). Case D could be described as a similar situation to Case A (table.11).

However, as Case A, Case D has only the same two external financial sources (table.3) that they are strongly tied (table.12). The results also show that A and D were able to identify financial resource partners and to obtain equity capital directly without using third-parties (table.3). In Case E, the entrepreneur has only one external financial resource with his personal loan, this is not because he was not able to identify other financial opportunities but the entrepreneur does not want others. At start-up (2007), the entrepreneur in Case E had contacted more than five financial sources at the time of start-up, but he didn't find among these different financial sources specialized in his business (table.13-14). In conclusion, the two cases (A and D) spanning 'structural holes' are able to identify the financial resource partners directly without using third-parties (except case E, but this had another reason) than cases B, C and F which could be labeled as having a 'closed network'. Taking into account the exploratory nature of our study, results show that the hypothesis.H1a is more exploratory than the alternative hypothesis.H1b. Thus networks 'rich in structural holes' will be beneficial in the identification of equity capital, particularly VC.

After discussing our explorative results about structural sense of entrepreneurs' social capital, we will now discuss our results regarding relational sense. In fact, the unconnected venture has two options in access to financial resource partners, direct access or through third-party. In six cases of seven direct access cases (successful acquisition fund), financial resource partners did not know the entrepreneurs before they were contacted by entrepreneurial teams with a financial request (table.3). Among this, three for three events on direct access, VCs did not know entrepreneurial teams before. Arguably, the prior strong ties between entrepreneurial teams and financial resource partners are not needed in equity capital acquisition when new venture accesses directly. In summary, when new venture accesses directly to VCs, an existing tie with a financial request, a weak tie between new venture and financial resource partner will be sufficient to get successful equity financing.
Our exploratory finding confirms that Burt's logic (hypothesis H2a) seems to be more powerful than Coleman's logic (alternative hypothesis H2b) in the acquisition of equity capital directly. The last proposition concerns the most effective type of ties for the access and the acquisition of financial resources through third-parties. As analyzed above, three cases studies were largely dependent on third-parties. Among these cases studies, we found five events in which a third-party was used to access to financial resource partners (Table.3). Our results show that ties contacts with third-parties were scored as very well/well intimate and were quite frequent (once per week or once per month). The length of a relationship seems to play a minor role for a third-party. Therefore, when new ventures use third-party to access financial resource partners, the probability of third-party will be successful in obtaining equity capital if new venture and third-party are strongly tied. Therefore, we emphasize that hypothesis H3b will be more exploratory than alternative hypothesis H3a.

As we can develop on literature review, many currently available researches on entrepreneurial finance does not offer many insights into (1) how do the structure types and relational networks configurations influence entrepreneurial teams' abilities to identify and access to financial resource partners on higher-risk investments? (2) When are ventures able to get access to financial sources directly and under which conditions do they (have to) rely on third-parties? (3) Is the value that entrepreneurial teams derive from their type's social capital configurations contingent on characteristics of actors involved on the stages of VCs investment decisions? The next subsection poses the question about the relevance and salience of structure types and relational networks configurations on the identification and acquisition of financial opportunities/ resources in contingent situations that provide a better complete our understanding.

3.4. A Contingency Approach and Equity Capital Acquisition

The present exploratory and cases-based study, first explored that the structure type of the network proxy by network 'structural holes' in which entrepreneurial teams are embedded, has a significant effect on identifying financial resource partners, especially, VCs. Our cases studies result in some insight on entrepreneurial team's characteristics, we found that the teams are characterized by diverse experiences difference of each venture. Arguably, the identification and the accessing equity capital by new venture is likely to depend on the characteristics of all actors involved rather than on just that of its entrepreneurial teams. In addition, and much more important, this study proposed that social capital configurations are not similar in their effect, but rather vary with management, start-up, technical/ technological experience, cohesion team, reputation, educational level of entrepreneurial team and also economic considerations (financial needs). In table.4 below summarizes the characteristics of A- F at start-up.

Our finding on the main effect of social capital approach, firstly, in cases B, C and F, show that entrepreneur' external contacts (third-parties and finance sources) are connected to each venture and also to each other with a high level of inter-connectedness among all the contacts involved. Secondly, results suggest that weak ties seem to be more effective when new venture accesses directly to financial resource partners. As we can see in four events that entrepreneurs in case B and C were contacted directly for financial sources, even though knowing before they had difficulties to obtain successful equity capital. Secondly, results indicate that third-parties in cases A; D did not play an important role, especially on VCs' 'origination' and 'first meeting' phases than Case C and (even more so) B. Despite this analysis, there are differences on characteristics of entrepreneurial teams in each technology-based venture, for example, as table.4 shows, entrepreneur in case C had a mediocre management and start-up experience with extensive technical/ technological experience and higher educational level.

Table.4 summarizes the characteristics of cases studies

Attributes	Typical items	Case A	Case B	Case C	Case D	Case E	Case F
	- Team size	3	3	1	3	1	2
	- Management experience: Educational and business background (strategy, marketing, finances, HR…)	++	+	-	++	-	+
	- Technical/technological experience	++	++	+	+++	+	++
Cultural	- Start-up experience	+	-	-	+	+	-
	- Education level of the entrepreneur(s)	+++	+++	+	+++	+	++
	- Team cohesion	+++	+++	-	++	-	++
	- Positive attitude towards growth,	+	+	+	+	-	-
Strategic	growth as one specific objective						
	- Market reputation of entrepreneur(s)	+	-	+	-	+	+
	- Level of investments needed	++	++	+++	+	+/-	+
Economic	- Ability to access financing directly	+	-	+	+	+	+
	- Dependence on third parties	+	-	-	+	+	-
Social	- SH/Closure (at Start-up)	SH	Closure	Closure	SH	SH	Closure
	- Technology partners	+	-	+	+	+	-

SH=Structural holes

Additionally, entrepreneurial team in case B had a great cohesion team but they had mediocre management experience (strategy, marketing, finances, HR…). Entrepreneurial team's characteristics in Case F are similar to case B. In contrast, entrepreneurial teams in Case A and D are characterized by a greater cohesion/ complimentary team with more educational and business background experience in management positions and in start-up before being part of the starters' team. In addition, they had worked in the market for a long time, they were able to increase building up a reputation. While the entrepreneur in case E had difficulties on the acquisition of equity capital at the time of start-up because he has another reason, after his first start-up, he quickly developed its skills and networks and spent time on establishing and maintaining contacts to create trust with larger partners (clients, suppliers, consultants and governments). In conclusion, we interpret these results as strong support for our claim that the social capital configurations is more likely to be effective associated with equity capital acquisition for new venture with greater management (strategy, marketing, finances, HR…), technical/ technological, start-up experience, reputation, cohesion team and economic characteristics within the entrepreneurial teams (hypothesis.4a).

Therefore, as described above, for accessing and acquisition equity capital by new venture is likely to depend on the characteristics of all actors involved (e.g., third-parties, investors) rather than on just that of their entrepreneurial teams. We predict that the effectiveness of social capital into entrepreneurial team's external advice network would be particularly beneficial when the characteristics' third-parties are greater. In a strategic sense, the results show that third-parties are more important when accessing financial resource partners of higher-risk investments, typically VCs investments. For example, third-party seems to be more important to access to formal and informal investors, other companies and participation companies than to access a government grant. Second, in terms of economic considerations, third-party seems to be more important when the amounts invested are higher. In a cultural considerations sense, third-party is more important when the knowledge required for the investor is more complex when considering an investment. This last finding also supports the theoretical claim that third-party plays a more important role in technology-based ventures.

Another interesting finding is that the effectiveness of the third-parties seems to be dependent on their characteristics or organization source. When analyzing the results, we found that the third-party expertise in information retrieval, editing the business plan will make available some funding for entrepreneurs. In addition, the experience of the third-party facilitates the process investment of the financial resource partners.

Therefore, the third-party oriented technology on specific sector of venture seems to be more important on the acquisition of financial resources, especially VC financing. In addition, the third-parties played a crucial role when they recommend their venture backed to another financial resource partners or government program. In summary, therefore we interpret these results as strong support for our claim that the social capital configurations are more likely to be effective associated with equity capital acquisition for new venture with greater business and functional background, industry-specific expertise; reputation and financial and economic interest in the venture or funds characteristics within the third-party involved on VCs investment decision process (hypothesis.4b).

4. Discussion and Conclusion

The present study explores the relationship between social capital of entrepreneur(s), the identification of financial resources opportunities and the access to financial resource partners in contingent situations. We review the social capital and VC literatures by using a tripartite perspective to explore if social capital approach can alone fully understand and explain the complex reality of equity capital, especially VC or whether a contingency approach is better suited. However, by considering how social capital increases the ability of a new venture to access financial resource partners and to obtain financial equity capital on higher-risk investments, typically VC financing, we provide a strong and consistent theoretical rationale for positive direct and indirect effects of entrepreneur(s) social capital on VC financing acquisition. In addition, and more importantly, this study explored under which conditions the effectiveness of social capital configurations is contingent on actors' attributes involved in VCs decision investment stages rather than on just that of its entrepreneurial teams.

Results from this exploratory study, firstly, show that technology-based new ventures whose entrepreneurial teams are embedded in social capital 'rich in structural holes',–measured by level of inter-connectedness among all the actors involved–, enjoy higher probability to identify equity capital such as VC (Ha1). This finding is consistent with previous research that Structural holes can enhance the identification of opportunities (Burt 1992, Burt 2000, Burt 2004), offers benefits through timing, which is crucial for the identification of entrepreneurial opportunities and exploratory learning (Rhee 2004), reach out to a large network of referrals (Burt, 1992), and extend the social capital theory by applying the structural hole argument to technological-based venture financing. Secondly, this study showed that when new ventures access directly to financial resource partners, particularly, VCs, the probability of the new venture obtaining financial resources increases with the existence of prior weak ties between new venture and financial resource partners (H2a) while when new ventures access indirectly to financial resource partners by using third-parties, the probability of third-party will be more effective on acquisition of financial resources increases with the existence of prior strong ties between new venture and third-party (H3b). Our findings more accurately captures under which contact options (direct or indirect) that the effect of ties weak vs. strong may increase the probability of a new venture obtaining financial resources. In contrast, prior research has provided mixed findings on which direct or indirect relational capital social configurations (e.g., Jenssen 2001, Batjargal and Liu 2004, Batjargal 2003, Batjargal 2007, Shane and Cable 2002, Shane and Stuart 2002) that have effects on the process funding.

These primary results of the analysis pose the question of the relevance and salience of social capital in the identification and acquisition of financial opportunities/ resources in contingent situations. In addition, and more important, this study showed that social capital configurations are not similar in their effect but rather vary with the factors relating to entrepreneurial teams and third-parties that involved in decision financing process. Exploratory results for this study show that greater management, technical/ technological and start-up experience with higher education level and reputation in the market and greater cohesion within entrepreneurial teams moderate the effect of social capital configurations (H4a). These findings confirm our general proposition that social capital configurations effects are not uniform but rather contingent on the attributes of the entrepreneurial team and third-party. Although prior research on entrepreneurship have confirmed that the effectiveness of certain network configurations are moderated by specific characteristics of actors that involved in the stage of the entrepreneurial process (Groen 2005, Groen et al. 2008).

Early VC research established that third-party referral play an influential role in a VC's deal flow (e.g., Tyebjee and Bruno 1984b, Fried and Hisrich 1994) and in a VC's due diligence process (e.g., Fiet 1995, Batjargal 2007), although the specific characteristics that make the one third-party more successful than the other have received little attention (e.g., Batjargal and Liu 2004, Lockett et al. 2006, Batjargal 2007). In addition, this study showed that the effectiveness of social capital relational of third-party is contingent on their management experience, technical/ technological expertise, and reputation in the market and economic and financial interest in the fund or venture (H4b). Similarly, results from studies on referrals seem to be more effective when the referral source is more prominent (e.g., Stuart et al. 1999, Janney and Folta 2006), has more expertise (e.g., Baum et al. 2000, Reuber and Fischer 2005) and is strongly tied to the financial resource partners (e.g., Batjargal 2007). Our exploratory findings suggest that new venture that started with greater cohesive team with more diversity experience are better able to access to VCs directly leading to higher levels of new venture equity capital, while new venture that start by entrepreneur «solo» or entrepreneurial team with mediocre experience benefit from third-party.

In summary, this study contributes to the new venture's social capital and VC literature by providing an optimal combination of these two approaches. The last analysis clearly points to the complementary nature between the social capital and contingency approach to study and explain the complex reality of equity capital, especially VC financing. With the conceptual development and empirical findings, we provide a new explanation for the association between effectiveness of social capital configurations and VCs investment decisions. Finally, taking into consideration the exploratory dimension of this paper, the results are consistent with prior observations that the actor's social capital has positive effects, although indirectly, on higher investment decisions facing more risks, typically VCs investments.

Appendices

Case. A

Table.5 Main third-parties involved on VCs investment decision process

	Entrepreneurial team - Third-parties Tie		
	Contact intimacy	**Contact frequency**	**Contact length in years**
Manager at company	somehow	monthly	> 2
Technology specialist	very Little	weekly	> 1
Law specialist	very Little	weekly	> 0,5

Table.6 Interconnectivity between Finance sources and Third-parties

	Venture capital(1)	**Venture capital(2)**	**Government program**	**Manager at company**	**Technology specialist**	**Law specialist**
Venture capital(1)	XX	very well	very well	very well	very well	not at all
Venture capital(2)	XX	XX	-	-	-	not at all
Government program	XX	XX	XX	-	-	-
Manager at company	XX	XX	XX	XX	-	-
Technology specialist	XX	XX	XX	XX	XX	-
Law specialist	XX	XX	XX	XX	XX	XX

XX = Not applicable
- = No relation

Case. B

Table.7 Main Third-parties involved on VCs investment decision process
Entrepreneurial team- Third-parties Tie

	Contact intimacy	**Contact frequency**	**Contact length in years**
Family	very well	montly	>7
Friend	very well	yearly	>10
Manager at company	very little	yearly	>0,6
Technology specialist	somehow	half-yearly	> 1
Law specialist	very well	weekly	> 2

Table.8 Interconnectivity between Finance sources and Third-parties

	Informal investor	**Venture Capital(3)**	**Friend**	**Family**	**Manager at company**	**Technology specialist**	**Law specialist**
Informal investor	XX	-	-	very well	-	-	-
Venture Capital(1)	XX	XX	very well	-	very well	very well	very well
Family	XX	XX	XX	-	very well	somehow	-
Friend	XX	XX	XX	XX	-	-	-
Manager at company	XX	XX	XX	XX	XX	somehow	-
Technology specialist	XX	XX	XX	XX	XX	XX	-
Law specialist	XX	XX	XX	XX	XX	XX	XX

XX = Not applicable
- = No relation

Case. C

Table.9 Main Third-parties involved on VCs investment decision process
Entrepreneurial team – Third-parties Tie

	Contact intimacy	**Contact frequency**	**Contact length in years**
VC Consultant	somehow	yearly	> 1
Technology specialist	very well	yearly	> 5
Law specialist	very well	weekly	> 2

Table.10 Interconnectivity between Finance sources and Third-parties

	Manager at company	**Venture Capital(4)**	**VC Consultant**	**Technology specialist**	**Law specialist**
Manager at company	XX	somehow	--	--	-
Venture Capital(4)	XX	XX	very well	very well	very well
VC Consultant	XX	XX	XX	very well	very well
Technology specialist	XX	XX	XX	XX	-
Law specialist	XX	XX	XX	XX	XX

XX = Not applicable
- = No relation

Case. D

Table.11 Main Third-parties involved on VCs investment decision process Entrepreneurial team – Third-parties Ties

	Contact intimacy	Contact frequency	Contact length in years
Manager at company	somehow	monthly	> 1,5
Technology specialist	very well	monthly	> 4
Law specialist	not at all	never spoken before	-

Table.12 Interconnectivity between Finance sources and Third-parties

	Venture capital(1)	Government program	Manager at company	Technology specialist	Law specialist
Venture capital(1)	XX	very well	very well	very well	-
Government program	XX	XX	very well	-	-
Manager at company	XX	XX	XX	somehow	-
Technology specialist	XX	XX	XX	XX	-
Law specialist	XX	XX	XX	XX	XX

XX = Not applicable
- = No relation

Case. E

Table.13 Main Third-parties involved on VCs investment decision process Entrepreneurial team – Third-parties Tie

	Contact intimacy	Contact frequency	Contact length in years
Manager at company	very little	yearly	> 2
Technology specialist	very little	yearly	> 4
Law specialist	-	-	-

Table.14 Interconnectivity between Finance sources and Third-parties

	Manager at company	Manager at company	Technology specialist	Law specialist
Manager at company	XX	-	-	-
Manager at company	XX	XX	very well	-
Technology specialist	XX	XX	XX	-
Law specialist	XX	XX	XX	XX

XX = Not applicable
- = No relation

Case. F

Table.15 Main Third-parties involved on VCs investment decision process
Entrepreneurial team – Third-parties involved on VC decision process

	Contact intimacy	**Contact frequency**	**Contact length in years**
Manager at VC firm	very well	monthly	> 2
Technology specialist	somehow	monthly	> 1
Law specialist	somehow	yearly	> 0,5

Table.16 Interconnectivity between Finance sources and Third-parties

	Innovation program	**Venture Capital**	**Manager at VC firm**	**Technology specialist**	**Law specialist**
Innovation program	XX	very well	very well	somehow	-
Venture Capital	XX	XX	very well	very well	very well
Manager at VC firm	XX	XX	XX	very well	very well
Technology specialist	XX	XX	XX	XX	-
Law specialist	XX	XX	XX	XX	XX

XX = Not applicable
- = No relation

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