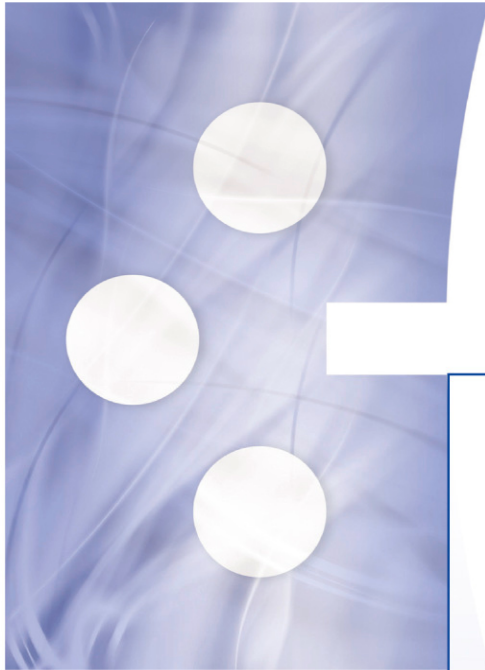


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An entrepreneur's social capital and performance The role of access to information in the Argentinean case

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Abstract

Purpose – The aim of this paper is to analyze the impact of an entrepreneur's social capital on their access to information, and how such access improves the performance of their entrepreneurial project.

Design/methodology/approach – A Structural Equations Model (SEM) is estimated and validated from a database including information from 282 Argentinean entrepreneurs who answered a questionnaire specifically designed for this research. The analysis of this model allowed us to determine the impact of dependent latent variables on the performance of the start-up.

Findings – The performance of an entrepreneurial project depends on an entrepreneur's access to finance, markets and information. Specific dimensions of social capital facilitate access to these resources: the relational dimension facilitates access to information; the resources dimension makes access to finance easier; the structural dimension helps the entrepreneur to access markets.

Research limitations/implications – The sample is not large enough to analyze differences among specific types of entrepreneurial projects: for instance, the role of social capital in industrial and service entrepreneurship (activity sector), the differences between the federal capital, Buenos Aires, and the rest of the country (location), and between female and male entrepreneurs (gender).

Originality/value - Our results help to understand which dimensions of an entrepreneur's social capital facilitate access to information and how these specific dimensions enhance the performance of their project. Hence, this paper has managerial and policy implications for generation of dynamic entrepreneurial projects capable of becoming development drivers.

Keywords Entrepreneur, Social Capital, Information resources, Republic of Argentina

Paper type Research paper

1. Introduction

Entrepreneurship has become a main issue not only for scientific research in management and management change but also in policy design. Since entrepreneurship is a key driver of wealth creation and economic and social development, it plays a key role in developing countries such as Argentina. In these countries, entrepreneurship enhances social cohesion by allowing each person to create their own company, regardless of their personal characteristics or socio-economic profile. However, the existence of a large number of entrepreneurial projects does not guarantee such positive effects: once a new company is created, it must survive and grow to become a dynamic entrepreneurial project capable of generating employment and innovation. Therefore,

the analysis of those factors potentially enhancing the performance of a start-up becomes a relevant issue. For these reasons, the concept of social capital as a performance driver has been widely analyzed in recent literature. This literature shows that social networks might be worthy resources for business development for new or already existing companies. Specifically, an entrepreneur's social networks might help them to detect business opportunities as well as to facilitate access to those resources that are needed for their new business to survive and expand. This paper focuses on the latter issue.

2. Social capital, access to information and performance

Organizations deal with three different sources of value: *financial capital*, such as cash, and bank deposits, investments and credit; *human capital*, including natural skills such as intelligence and other abilities acquired through education or professional experience; and *social capital*, referring to relations with colleagues, acquaintances or contacts which can provide opportunities to access financial and human resources (Burt, 1992; Wu *et al.*, 2009; Wagener *et al.*, 2010; Tihula and Huovinen, 2010). Roughly speaking, social capital refers to social relations among persons generating productive results (Szreter, 2000; Smallbone *et al.*, 2010; Ramírez *et al.*, 2010). Social networks are valuable resources since they facilitate economic activity (Nahapiet y Ghoshal, 1998; Burt, 1992), allow entrepreneurs to be more efficient and access exclusive business opportunities (Batjargal, 2003; Abreu and Grinevich, 2010; Baregheh *et al.* 2009; Meliá *et al.* 2010; Rubalcaba *et al.*, 2010; Toivonen and Tuominen, 2009) and improve innovation (Shan *et al.*, 1994; Powell *et al.*, 1996; Ahuja, 2000; Alpkan *et al.*, 2010; Bonet *et al.*, 2010; Romero-Martínez *et al.*, 2010; Sundbo, 2009; Un and Montoro-Sánchez, 2010; Zhang and Duan, 2010). Other studies show that social capital can also enhance success by strengthening an entrepreneur's status and image of power (Burt, 1992, 1997; Belliveau *et al.*, 1996; Leana y Van Buren, 1999).

In this paper we follow Burt's (1992) approach. In this framework, we analyze social capital from an individual viewpoint: we focus on an entrepreneur's formal or informal links with other agents and the resources that she or he is able to access through these links. (Burt, 1992) relates the concepts of social capital and social network, and shows how the properties of an agent's position in a network might provide her or him with competitive advantages. With these considerations, Burt (1992), Lin *et al.* (1981) and Lin (2001) approach the study of social capital not as a public but a private good. The original contribution of Burt (1992) is that social capital can be managed like other types of capital: individual agents (entrepreneurs) are able to manage their social capital to obtain a 'return on investment' from it. In Burt's analysis, such management refers to an improvement in an agent's position in the network by locating her or himself in preferential points in the network, for instance by becoming the only connection between two isolated groups of agents. To optimize social capital management, the relevant analysis implies the characterization of these network topologies that may provide the agent with preferential locations generating competitive advantage. These ideas have been successfully applied in entrepreneurship literature (Smeltzer, Van Hook y Hutt, 1991; Lin, 2010; Comeche and Loras, 2010) and other management fields. For instance Brown y Butler (1995) analyze the impact of competitors' social networks on the performance of a company and show how the investment of time and resources in the creation and maintenance of such networks is directly associated with growth in sales. Other papers show that the establishment of networks with other companies also enhances performance (Lee *et al.*, 2001) as well as the creation of network alliances to share information, and provide a low level of

redundancy and conflict (Baum *et al.*, 2000; Koschätzky and Stahlecker, 2010; Sebora and Theerapatvong, 2010).

Focusing on entrepreneurship literature, several studies show the positive effects of social capital from the very beginning of an entrepreneurial project and also throughout the life of the start-up. Social capital enhances entrepreneurial attitude (Fornoni and Foutel, 2004; Martínez-Gómez *et al.*, 2010; Mas-Verdú *et al.*, 2010) and facilitates the launching of the new company (Hoang and Antonic, 2002). Entrepreneurs participating in robust social networks exhibit a higher success rate when launching their business (Baron y Markman, 2003; Pardo-del-Val, 2010). Moreover, entrepreneurs in social networks with a high loyalty level among members are able to reduce entrepreneurial risks, specifically in those environments with high uncertainty levels (Moran, 2005). De Carolis and Saporito (2006) suggest that entrepreneurial behavior is catalyzed with interaction between the social network and some alternative factors. Other papers show how social capital is able to generate channels that allow the entrepreneur to optimize their efforts to acquire other resources (Oh *et al.*, 2006). Baron and Markman (2003) stress that social capital maximizes the value of other resources: they show the existence of a positive correlation between social capital and the financial success of the new company. In summary, following Cook (2007), we can state that social capital supports business success, since social networks constitute markets. New companies cannot neglect this kind of capital when acquiring resources to survive and grow.

Measuring an entrepreneur's social capital is not an easy task. Literature on social capital presents an evolution of models to this end. Early measurement models were one-dimensional structural models, where an agent's social capital was just measured in terms of their relative position in their social network and the properties that such a position had within the global structure of the network. Some instances of these measurement models are presented in the studies by Nahapiet and Ghoshal (1998), based on the concept of structural holes, and Arribas and Vila (2010), based on preferential attachment network models. Koka and Prescott (2002) add a second dimension to measure social capital, beyond the structural one in the above papers. They introduce a new dimension, which is related to the characteristics of an agent's relations with other agents in the network, such as confidence or experience. This second dimension is called the relational dimension. Finally, Batjargal (2003) introduces a third dimension, the resources dimension, considering the sociological analysis in Lin (2001). Thus, the measurement model proposed by Batjargal (2003) integrates three dimensions of social capital: the first dimension depends on the structure of the network and the properties of the position occupied by the agent in the network (*structural dimension*), the second dimension summarizes the characteristics of the agent's relations such as confidence, duration of the link, etc. (*relational dimension*) and the third dimension measures the value of the resources that networked agents are able to provide (*resources dimension*). These three dimensions are not correlated (Fornoni *et al.*, 2009; Huang *et al.*, 2010; Lin *et al.*, 2010; Rufin and Medina, 2010). Following these results, in this paper we will consider this tri-dimensional measurement model to capture all the relevant properties of social capital.

As mentioned, entrepreneurship literature analyzes the impact of social capital *as a whole* on the performance of entrepreneurial projects. However, and to the best of our knowledge, there is a lack of analysis on the role of each dimension of social capital to cope with the difficulties that entrepreneurs encounter to obtain different types of resources and how this easier access to resources might impact on their project's performance. Our paper is focused on this specific issue: we analyze which of these three dimensions of social capital play a key role in facilitating access to different types

of resources (access to finance, access to markets, access to production and access to information) and have a relevant impact on business performance. Specifically we show how one of the most important ways in which social capital impacts on performance is through its role as a facilitator of access to information.

3. Hypotheses of the research

Jensen and Koenig (2002), Batjargal and Liu (2004) and Hsu (2007) show that entrepreneurs pertaining to social networks containing other agents who are related to venture capital have easier access to finance and investment. Uzzi (1997) establishes that company owners with high social capital also have easier access to finance, even with lower interest rates, and that this fact has a positive impact on the performance of their company. These results motivate the statement of our Hypothesis 1, relating social capital and access to finance:

H1: An entrepreneur's social capital facilitates their access to finance

We are following a multidimensional approach to social capital and our goal is to understand the role played by each of these three independent dimensions. To analyze this issue, we state three additional sub-hypotheses H1.1, H1.2 and H1.3:

H1.1: The structural dimension of an entrepreneur's social capital facilitates their access to finance

H1.2: The relational dimension of an entrepreneur's social capital facilitates their access to finance

H1.3: The resources dimension of an entrepreneur's social capital facilitates their access to finance

Management literature establishes that social capital also has a positive effect on growth in sales (Brüderl and Preusserdof, 1998; Baum *et al.*, 2000; Lee *et al.*, 2001; Soda *et al.*, 2004). Additionally, it supports the entrepreneur in identifying new and better business opportunities (Burt, 1992; Aldrich y Zimmer, 1986), accessing a larger number of markets (Spanos y Lioukas, 2001), designing and implementing a market-oriented strategy (Evans *et al.*, 2001), and in anticipating the future needs and preferences of consumers (Uzzi, 1997). These results lead us to state Hypothesis 2:

H2: An entrepreneur's social capital facilitates their access to markets

This hypothesis generates three different sub-hypotheses H2.1, H2.2 and H2.3, corresponding to each dimension in our model of social capital:

H2.1: The structural dimension of an entrepreneur's social capital facilitates their access to markets

H2.2: The relational dimension of an entrepreneur's social capital facilitates their access to markets

H2.3: The resources dimension of an entrepreneur's social capital facilitates their access to markets

Social capital strengthens relations with suppliers (Asanuma, 1985; Baker, 1990; Uzzi, 1997 and Hitt *et al.*, 2002). Moreover, companies participating in production networks exhibit better performance (Romo and Schwatz, 1995) and higher product innovation rates (Gabbay and Zuckerman, 1998; Pechlaner and Bachinger, 2010). These

results suggest the statement of Hypothesis 3 and its corresponding dimensional sub-hypotheses:

H3: An entrepreneur's social capital facilitates their access to production

H3.1: The structural dimension of an entrepreneur's social capital facilitates their access to production

H3.2: The relational dimension of an entrepreneur's social capital facilitates their access to production

H3.3: The resources dimension of an entrepreneur's social capital facilitates their access to production

Finally, other studies highlight the role of social capital as a facilitator of access to knowledge and information (Koka y Prescott, 2002), as well as the importance of pertaining to a social network to improve information exchange (Uzzi, 1997; Gulatti *et al.*, 2000) and to reduce those costs involved in accessing information (Baker, 1990). Additionally, Smetzer *et al.* (1991) show that both the amount and quality of social capital have a positive effect on access to and optimal use of information. Following these results, we state Hypothesis 4:

H4: An entrepreneur's social capital facilitates their access to information

As in the previous hypotheses, referring to the dimension of social capital, Hypothesis 4 induces three new sub-hypothesis H4.1, H4.2 and H4.3:

H4.1: The structural dimension of an entrepreneur's social capital facilitates their access to information

H4.2: The relational dimension of an entrepreneur's social capital facilitates their access to information

H4.3: The resources dimension of an entrepreneur's social capital facilitates their access to information

4. Research methodology

The universe for this study is defined as those entrepreneurs who launched their business projects between 2000 and 2005 in the Republic of Argentina. We focus on start-ups in this period in order to analyze not only the role of social capital in the creation process but also during their consolidation or failure. This retrospective analysis is a must to fulfill the objectives of this study, even if it might generate some distortions in the information provided by the entrepreneurs, due to memory failures or post-hoc rationalization of past events.

The sample frame was established as a combination of two databases: the Observatory of SMEs, developed by Sepyme (Secretaría de la pequeña y mediana empresa - secretary of SMEs) in cooperation with universities in the province of Buenos Aires, and the general SMEs database of Sepyme. Both databases provide periodical information on SME creation. From this frame, a stratified sample of 300 start-ups was selected. Stratification was designed according to two variables: location of the company (province) and activity sector (aggregated as industrial and service entrepreneurial projects). For each sample unit, four alternative substitutive companies were chosen. Fieldwork was performed from April to July 2008, with face-to-face

interviews in the province of Buenos Aires and telephone interviews in the other provinces. The number of valid questionnaires finally collected was 282. Such a sample size does not allow empirical analysis at provincial or at activity sector levels, but constitutes appropriate material to provide representative results at an aggregate Republic of Argentina level. Specifically, maximum sample error when estimating the proportion of each possible answer to a dichotomy variable in the worst situation ($p=q=50\%$) is 5.8%, assuming a confidence level of 95%.

The research hypotheses stated above have been tested by using the Structural Equations Models (SEM). These models allow the analysis of causality relations among latent variables (variables that cannot be measured directly, but can be observed through other measurable variables). Specifically, we use the LISREL (LInear Structural RELations) model introduced by Jörsekog (1973) and the associated estimation techniques.

5. Results

In this section we present and analyze the structural equation model (SEM) used to test hypotheses H1, H2, H3 and H4. The causal model has eight latent variables that can be organized into three groups. The first group has three latent variables that correspond with the three dimensions of social capital in our model: structural, resources and relational; the second group identifies the difficulties of access and contains four latent variables: difficulty of access to finance, difficulty of access to production, difficulty of access to markets and difficulty of access to information; the third group has a single latent variable, the entrepreneur's performance. Table 1 shows the three sets of variables, the latent variables that each set contains and the name used in SEM. Figure 1 describes the causality relationships between those variables.

Table 1: Latent variables in SEM.

Group	Variables (name in the model)
Social Capital	Structural dimension of the social network (STRUCT)
	Resources of the social network (RESOUR)
	Relational dimension of the social network (RELATI)
Difficulties of access	Difficulties of access to finance (ACCFIN)
	Difficulties of access to production (ACCPRO)
	Difficulties of access to markets (ACCMAR)
	Difficulties of access to information (ACCINF)
Performance	Performance assessment (PERFOR)

To complete the model specification, we need to specify the observed variables that define each latent variable. The observed or measured variables have been taken from the questionnaire following two considerations: their theoretical importance and their practical capacity to measure latent variables, which has been contrasted with an estimation of alternative measurement models. Tables 2, 3 and 4 show the observed variables that measure it for each latent variable.

Figure 1: Specification of SEM. Latent variables and causal relationships between them.

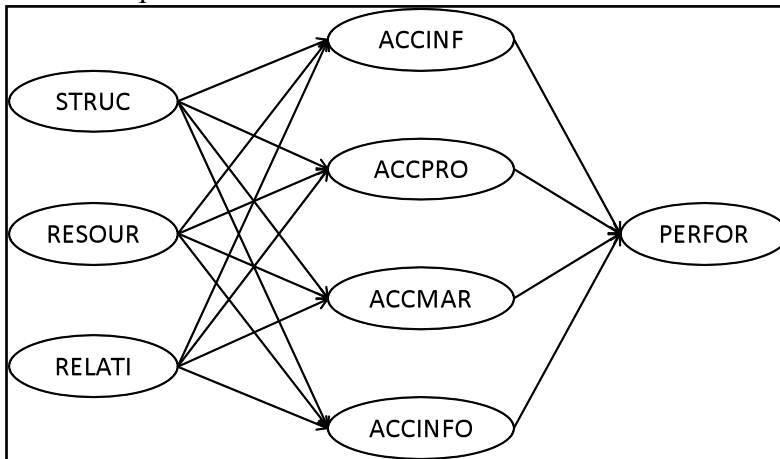


Table 2: Observed variables for each dimension of Social Capital. Latent variables: Structural, Resources and Relational.

Latent Variables (name in the model)	Observed variables: questions in the questionnaire
Structural (STRUC)	Do you consider yourself a person with a large number of contacts and acquaintances? Just remember and mention the names or pseudonyms of the people you used to consult, ask advice, ask a favor of or just to get their impression about your project. (Excl. partners) Regarding the possibility of having better access to financing, did you have contacts or relationships that somehow provided access? Regarding the possibility of having better markets access, did you have contacts or relationships that somehow provided access? Regarding the possibility of having better access to important information for project implementation, did you somehow have contacts or relationships that provided access? Do you actually ask them for help?
Resources (RESOUR)	Regarding the possibility of access to finance, did you finally use relations or contacts that somehow provided access? Regarding the possibility of access to markets, did you finally use relations or contacts that somehow provided access? Regarding the possibility of access to important information for project implementation, did you finally use relations or contacts that somehow provided access? This person, on what issues could she or he have helped? And finally, has she or he helped you? This person, did you finally use them?
Relational (RELATI)	How much time did you know that person? (years) Type of relationship you had at that time (work / professional, friendship, family, other) With which of these statements can you identify your relationship with this contact?

Table 3: Observed variables for difficulty of access to finance, production, markets and information.

Latent Variables (name in the model)	Observed variables: questions in the questionnaire
Difficulty of access to finance (ACCFIN)	Did you have trouble getting loans from friends or relatives? Did you have trouble getting bank loans?
Difficulty of access to production (ACCPRO)	Did you have trouble finding suppliers? Did you have trouble accessing technology to produce? Did you have problems accessing raw materials? Did you have trouble finding efficient human resources?
Difficulty of access to markets (ACCMAR)	Did you have trouble accessing customers? Did you have trouble accessing a closed market? Did you have trouble accessing distribution channels? Did you have trouble communicating and disseminating the product or service?
Difficulty of access to information (ACCINF)	Did you have problems finding information of the economic, political and social context? Did you have trouble finding information on your sector? Did you have problems accessing information on technology? Did you have problems accessing information on business opportunities?

Table 4: Observed variables for performance.

Latent Variable (name in the model)	Observed variables: questions in the questionnaire
Performance (PERFOR)	If activity has ceased, please indicate month and year Total number of employees today Could you tell us what the degree of turnover was in the year 2007? (Pesos) Profits in the year 2007 (Percentage of Sales)

The specified model consists of five structural causal equations that are shown below (in addition to the measurement sub-models which are not shown in this paper for the sake of brevity):

$$\begin{aligned}
 PERFOR &= \beta_{12} ACCFIN + \beta_{13} ACCPRO + \beta_{14} ACCMAR + \beta_{15} ACCINFO + \xi_1 \\
 ACCFIN &= \gamma_{21} STRUC + \gamma_{22} RESOUR + \gamma_{23} RELATI + \xi_2 \\
 ACCPRO &= \gamma_{31} STRUC + \gamma_{32} RESOUR + \gamma_{33} RELATI + \xi_3 \\
 ACCMAR &= \gamma_{41} STRUC + \gamma_{42} RESOUR + \gamma_{43} RELATI + \xi_4 \\
 ACCINFO &= \gamma_{51} STRUC + \gamma_{52} RESOUR + \gamma_{53} RELATI + \xi_5
 \end{aligned}$$

The first structural equation quantifies the effect of each of the four difficulties of access on performance, and its estimation is given by,

$$PERFOR = -4.78 ACCFIN - 0.89 ACCPRO - 2.57 ACCMAR - 7.02 ACCINFO + \hat{\xi}_1$$

(-8.56)
(-1.02)
(-4.98)
(-9.72)

where, in parentheses and below each coefficient, the value of the t-statistic associated with the significance contrast of the coefficient is shown. This statistic asymptotically follows a Student's t distribution with 54 degrees of freedom.

The first important conclusion is that it is not possible to reject the statistical hypothesis of nullity of the coefficient of the latent variable ACCPRO (difficulty of access to production). Therefore, we should assume the absence of a direct causal relationship of the difficulties of access to production processes on the performance of the entrepreneurial venture. We reject, however, the null hypotheses for the other three coefficients. In addition they have a negative sign, so we can accept the existence of inverse causality of difficulties of access to finance, markets and information on performance. That is, these three difficulties of access are significant barriers that hinder the success of an entrepreneurial project.

The value of the standardized coefficients deserves careful analysis. Based on the most significant impact (ACCINFO on PERFOR) and assigning it a value of 100%, we find that the impact of difficulty of access to financing is 68% and the one for difficulty of access to markets is 37%.

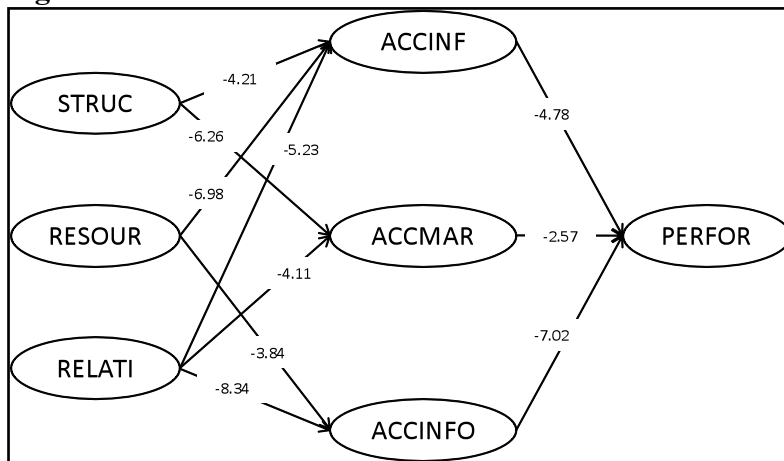
Moreover, the estimation of structural equations concerning the causal relationships of the three dimensions of social capital on the difficulties of access is given by:

$$\begin{aligned}
 ACCFIN &= -4.21 STRUC - 6.98 RESOUR - 5.23 RELATI + \hat{\xi}_2 \\
 &\quad (-3.12) \quad (-5.18) \quad (-3.97) \\
 ACCPRO &= -2.25 STRUC - 3.99 RESOUR + 0.89 RELATI + \hat{\xi}_3 \\
 &\quad (-1.99) \quad (-2.97) \quad (1.04) \\
 ACCMAR &= -6.26 STRUC - 1.12 RESOUR - 4.11 RELATI + \hat{\xi}_4 \\
 &\quad (-4.01) \quad (-0.98) \quad (-2.73) \\
 ACCINFO &= -0.82 STRUC - 3.48 RESOUR - 8.34 RELATI + \hat{\xi}_5 \\
 &\quad (-1.50) \quad (-2.67) \quad (-6.25)
 \end{aligned}$$

From the t-values associated with the coefficients, there is no empirical evidence for rejecting the statistical hypotheses of nullity of the coefficients associated with the causal relationships between RELATI with ACCMER, RESOUR with ACCMAR, and STRUC with ACCINFO. Therefore, we cannot confirm the existence of these three relations of causality and must therefore reject hypotheses H2.3, H3.2 and H4.1. In all other cases the null hypothesis that the corresponding coefficient is zero should be rejected, accepting the existence of the causality relationship raised in hypotheses, H1, H2, H3 and H4 and their corresponding sub-scenarios. The negative sign must be interpreted in all cases as: if there is an increase in the dimension of social capital considered, then the difficulties of access reduce. Table 5 shows the results obtained for all hypotheses.

The relative values of the estimated coefficients, regardless of their signs, and based on the highest coefficient (impact of the relational dimension on the difficulty of access to information) are shown in Table 6. In addition, Figure 2 shows the transmission model of the impact of the dimensions of social capital on performance, where for clarity only significant causal relationships are shown. All references to the difficulties of access to production have been removed because they do not have a causal relationship with performance.

Figure 2: Estimation of SEM.



Beyond the hypotheses, the estimated values of the coefficients of the five structural equations provide relevant information about the ways in which each dimension of social capital affects every one of the difficulties of access, as follows from the first structural equation model:

$$PERFOR = -4.78 ACCFIN - 0.89 ACCPRO - 2.57 ACCMAR - 7.02 ACCINFO + \xi_1$$

(-8.56)
(-1.02)
(-4.98)
(-9.72)

We saw that access to information is the main route of impact on the performance of the venture. Moreover, the dimensions of social capital with the capacity to act as facilitators for such access are primarily the relational (relative value of the coefficient 100%) and to a lesser extent, the resources (relative value of the coefficient 42%). It is possible to affirm that access to valuable information for the project comes mainly from the fact that entrepreneurs have quality links, than the fact that they have a large number of them, regardless of their nature. Since the quality of the links reflects the confidence in the person concerned (the origin of contact, family or friendship, and how long ago the link was established) the model provides a justification for the emphasis in the literature on the presence of business models or entrepreneurs in the surrounding area as a catalyst for the success of the venture. The presence of these close models is positive because they help the entrepreneur to overcome their difficulties in accessing all kinds of information. On the other hand, the model has an important practical implication: it suggests that to properly access relevant information for business, entrepreneurs must focus their efforts not so much on increasing their number of contacts but on establishing and enhancing a lower number of quality links.

Table 5: Summary of the results of the hypotheses raised

Hypotheses' code	Description of the hypotheses	Result
H1	○ An entrepreneur's social capital facilitates their access to finance	ACCEPTED
H1.1	The structural dimension of an entrepreneur's social capital facilitates their access to finance	ACCEPTED
H1.2	The relational dimension of an entrepreneur's social capital facilitates their access to finance	ACCEPTED
H1.3	The resources dimension of an entrepreneur's social capital facilitates their access to finance	ACCEPTED
H2	○ An entrepreneur's social capital facilitates their access to markets	ACCEPTED
H2.1	The structural dimension of an entrepreneur's social capital facilitates their access to markets	ACCEPTED
H2.2	The relational dimension of an entrepreneur's social capital facilitates their access to markets	ACCEPTED
H2.3	The resources dimension of an entrepreneur's social capital facilitates their access to markets	REJECTED
H3	○ An entrepreneur's social capital facilitates their access to production	ACCEPTED
H3.1	The structural dimension of an entrepreneur's social capital facilitates their access to production	ACCEPTED
H3.2	The relational dimension of an entrepreneur's social capital facilitates their access to production	REJECTED
H3.3	The resources dimension of an entrepreneur's social capital facilitates their access to production	ACCEPTED
H4	○ An entrepreneur's social capital facilitates their access to information	ACCEPTED
H4.1	The structural dimension of an entrepreneur's social capital facilitates their access to information	REJECTED
H4.2	The relational dimension of an entrepreneur's social capital facilitates their access to information	ACCEPTED
H4.3	The resources dimension of an entrepreneur's social capital facilitates their access to information	ACCEPTED

Table 6: Relative values of the estimated coefficients

RELATIONSHIP	COEFICIENT	RELATIVE VALUE
RESOUR on ACCFIN	-6.98	84%
RESOUR on ACCPRO	-3.99	48%
RESOUR on ACCINFO	-3.48	42%
STRUC on ACCMAR	-6.26	75%
STRUC on ACFIN	-4.21	50%
STRUC on ACCPRO	-2.25	27%
RELATI on ACFIN	-5.23	63%
RELATI on ACCMAR	-4.11	49%
RELATI on ACCINFO	-8.34	100%

The second important way of impacting on performance is the difficulty of access to finance. In this case, the three dimensions of capital act as facilitators, the resource component being the most important (relative value of the coefficient 84%), followed by the relational (relative value of the coefficient 63%) and last the structural dimension (relative value of the coefficient 50%). It is noted again that difficulty of access to finance is not as dependent on the level of network connection of the entrepreneur, as the capacity of their contacts to mobilize resources (especially economic) and their motivation to mobilize those resources. With regard to market access, it is facilitated primarily by the structural dimension (relative value of 75%) and

to a lesser extent by the relational dimension (relative value of 49%). Finally, despite not having a direct causal relationship on performance, difficulty of access to production is also facilitated by social capital through its resource dimension (relative value of 42%) and the structural one (relative value of 27%).

In conclusion it should be noted that social capital impacts on the performance of an entrepreneurial project primarily through its resource and relational dimensions and to a lesser extent through its structural component. In addition, the relational dimension acts primarily by helping entrepreneurs to access the information they need to improve the performance of their businesses, while the dimension of resources is primarily a facilitator of access to finance. Thus, all empirical evidence in this article points to the desirability of establishing networks with simple structures but composed of diverse and quality links, according to the suggestions made by Burt (1992), Koka and Prescott (2002) and Arribas and Vila (2010), rather than the indiscriminate development of large with high-density networks.

The values of the goodness-of-fit statistics (Chi-square Statistic, Goodness of Fit Index, and Root Square Mean Error) shown in Table 7 confirm the validity of the model.

Tabla 7: Goodness-of-fit statistics

Chi-square statistic:	
Value	112.10
Degrees of freedom	54
P-value	0.0000
Goodness of Fit Index	0.83
Root square mean error	0.21

6. Conclusion

This paper analyzes and provides evidence on the main channels through which of social capital impacts on performance, quantifying the role of social capital as a facilitator of market access, production access, information access and financial access, primarily discussing the role of access to information. Moreover, this ability to provide better access to resources has been developed from the multidimensional approach of social capital.

From the empirical analysis we can conclude that with respect to hypotheses, H1, H2, H3 and H4 not enough empirical evidence is available to reject the statistical hypothesis of nullity of the coefficients associated with the causal relationships of social capital's relational dimension on access to production nor the resource dimension on access to markets, nor the structural dimension on access to information. Therefore, we cannot confirm the existence of these three causal relationships and we reject hypotheses H2.3, H3.2 and H4.1. In all other cases the null hypothesis that the corresponding coefficient is zero should be rejected, accepting the existence of the inverse causal hypothesis raised in the other groups H1, H2, H3 and H4.

The estimation of SEM, which relates the difficulties of access to finance, production, market and information, provides a number of interesting conclusions. Performance depends primarily on access to information and to a lesser extent on access to finance and markets. However, there is no evidence that performance depends on the difficulty of access to production.

On the other hand, the dimensions of social capital with the capacity to act as facilitators of access to information are primarily relational and resource. It is possible to conclude that access to valuable information comes mainly from the fact that the entrepreneur has more quality links than to the fact that she or he has a large number of them, regardless of their nature. This conclusion has important practical implications because it suggests that to access relevant information properly entrepreneurs must focus their efforts not so much on increasing their number of contacts but on establishing, developing and enhancing a smaller number of quality links.

All the dimensions of social capital show a certain ability to act as facilitators of access to finance, the most important being the resource dimension, followed by the relational one and to a lesser extent the structural dimension. We conclude that access to finance is not as dependent on the entrepreneurs' number of network connection, as the capacity of her or his contacts to mobilize resources (especially economic) and the motivation they may have.

With regard to market access, it is facilitated primarily by the structural dimension and to a lesser extent, the relational one.

References

- Abreu, M., Grinevich, V., Kitson, M. and Savona, M. (2010), "Policies to enhance the 'hidden innovation' in services: Evidence and lessons from the UK", *Service Industries Journal*, Vol. 30, No. 1, pp. 99-118.
- Ahuja, G. (2000), "Collaboration networks, structural holes, and innovation: A longitudinal study", *Administrative Science Quarterly*, Vol. 45 No. 3, pp. 425-457.
- Alpkan, L., Bulut, C., Gunday, G., Ulusoy, G. and Kilic, K. (2010), "Organizational support for entrepreneurship and its interaction with human capital to enhance innovative performance", *Management Decision*, Vol. 48, No. 5, pp. 732-755.
- Arribas I. and Vila, J.E. (2010), "Guanxi Management in Chinese Entrepreneurs: A Network Approach", working paper 8, BBVA Foundation, Bilbao, Spain.
- Asanuma, B. (1985), "The organization of parts purchases in the Japanese Automotive Industry", *Japanese Economic Studies*, Vol.13, No. 4, pp.32-78.
- Baker, W. (1990), "Market Networks and Corporate Behavior", *American Journal of Sociology*, Vol. 96, No. 3, pp. 589-625.
- Baregheh, A., Rowley, J. and Sambrook, S. (2009), "Towards a multidisciplinary definition of innovation", *Management Decision*, Vol. 47, No. 8, pp. 1323-1339.
- Baron, R., and Markman, G. (2000), "Beyond social capital: how social skills can enhance entrepreneurs' success", *Academy of Management Executive*, Vol. 14, No. 1, pp. 1-15.
- Batjargal, B. (2003), "Social Capital and entrepreneurial performance in Russia: a longitudinal study", *Organization Studies*, Vol.24, No. 4, pp. 535-556.
- Batjargal, B. and Liu, M. (2004), "Entrepreneurs' access to private equity in China: The role of Social Capital", *Organization Science*, Vol.15, No. 2, pp. 159-172.
- Baum, J., Calabrese, T., and Silverman, B. (2000), "Don't go it alone. Alliance formation and start-up in Canadian biotechnology", *Strategic Management Journal*. Vol. 21, pp.267-94.
- Belliveau, M., O Reilly, C. and Wade, J. (1996), "Social capital at the top: Effects of social similarity and status on CEO compensation", *Academy of Management Journal*, Vol. 39, No. 6, pp. 1568-1594.
- Bonet, F.J.P., Peris-Ortiz, M. and Gil-Pechuan, I. (2010), "Integrating transaction cost economics and the resource-based view in services and innovation", *Service Industries Journal*, Vol. 30, No. 5, pp. 701-712.
- Brown, B. and Butler, J. (1995), "Competitors as allies: A study of entrepreneurial networks in the U.S wine industry", *Journal of Small Business Management*, Vol.33, pp.57-66.
- Brüderl, J. and Preisendorfer, P. (1998), "Network Support and the Success of Newly Founded Businesses", *Small Business Economics*, Vol. 10, No. 3, pp. 213-225.
- Burt, R. (1992), *Structural Holes: The social structure of competition*, Harvard University Press, Cambridge.
- Burt, R. (1997), "The contingent value of social capital", *Administrative Science Quarterly*, Vol. 42, No. 2, pp. 339-365.
- Comeche, J.M. and Loras, J. (2010), "The influence of variables of attitude on collective Entrepreneurship", *International Entrepreneurship and Management Journal*, Vol. 6, No. 1, pp- 23-38.
- Cook, P. (2007), "Social capital, embeddedness and market interactions: An analysis of firm performance in UK regions", *Review of Social Economy*, Vol. 65, No. 1, pp. 79-106.
- De Carolis, D. and Saparito, P. (2006), "Social capital, cognition and entrepreneurship opportunities: A theoretical framework" *Entrepreneurship Theory and Practice*, Vol. 30, pp. 41-56.
- Evans, P., Puick, V. and Barsous, J. (2001), *The global challenge framework for international human resource management*. Mc Graw Hill, New York.
- Fornoni, M. and Foutel, M. (2004), "El círculo virtuoso: Capital social-emprendedores", in Roig, S.; Ribeiro, D.; Torcal, V.R.; de la Torre, A. y Cerver, E. (Ed.), *El emprendedor innovador y la creación de empresas de I+D+I*, Valencia: Universitat de Valencia, pp. 421-431.
- Fornoni, M., Ribeiro, D. and Vila, J. (2009), "El Capital Social y su impacto en la performance del emprendedor", Valencia: Universitat de Valencia, Spain.
- Gabbay, S. M and Zuckerman, E.W. (1998), "Social Capital and Opportunity in Corporate R&D: The Contingent Effect of Contact density on mobility expectations", *Social Science Research*, Vol. 27, No. 2, pp. 189-217.
- Gulati, R., Nohria, N. and Zaheer, A. (2000), "Strategic Networks", *Strategic Management Journal*, Vol. 21, pp. 203-215.
- Hitt, M., Lee, H. and Yucel, E. (2002): "The importance of social capital to the management of multinational enterprises: Relational networks among Asian and Western firms Asia pacific", *Journal of Management*, Vol. 19, No. 2-3, pp. 353-373.

- Hoang, H. and Antonic, B. (2002), "Networked-based research in entrepreneurship: a critical review", *Journal of Business Venturing*, Vol. 18, No. 2, pp. 145-300.
- Huang, J.Y., Chou, T.C. and Lee, G.G. (2010), "Imitative innovation strategies: Understanding resource management of competent followers", *Management Decision*, Vol. 48, No. 6, pp. 952-975.
- Hsu, D. (2007), "Experienced entrepreneurial founders and venture capital funding", *Research Policy*, Vol. 36, pp. 722- 741.
- Koschatzky, K. and Stahlecker, T. (2010), "The emergence of new modes of R&D services in Germany", *Service Industries Journal*, Vol. 30, No. 5, pp. 685-700.
- Jenssen, J. and Koenig, H. (2002), "The effect of social networks on resource access and business start-ups", *European Planning Studies*, Vol. 10, No. 8, pp. 1039-1046.
- Koka, B. and Prescott, J. (2002), "Strategic Alliances as Social capital: a multidimensional view", *Strategic Management Journal*, Vol. 23, pp. 795-816.
- Leana, C. and Van Buren J., (1999), "Organizational Social Capital and Employment Practices", *Academy of Management Review*, Vol.24, No. 3, pp. 538-555.
- Lee, C., Lee, K. and Pennings J., (2001), "Internal capabilities, external networks, and performance: A study on technology based ventures", *Strategic Management Journal*, Vol.22, No. 6-7, pp. 615-640.
- Lin, N., Ensel, W. and Vaughn, J. (1981), "Social resources and strength of ties: Structural factors in occupational status attainment", *American Sociological Review*, Vol. 46, No. 4, pp. 393-405.
- Lin, C.H. (2010), "In search of e-service value: Technology-exploitation vs. certainty-seeking online behaviours", *Service Industries Journal*, Vol. 30, No. 8, pp. 1377-1400.
- Lin, N. (2001), "Building a Network Theory of Social Capital. En Lin, N., Cook, R. y Burt, S. (Ed.), *Social Capital: Theory and Research*, Aldine de Gruyter, New York.
- Lin, E., Lin, T.M.Y. and Lin, B.W. (2010), "New high-tech venturing as process of resource accumulation", *Management Decision*, Vol. 48, No. 8, pp. 1230-1246.
- Martinez-Gomez, V., Baviera-Puig, A. and Mas-Verdú, F. (2010), "Innovation policy, services and internationalisation: the role of technology centres", *Service Industries Journal*, Vol. 30, No. 1, pp. 43-54.
- Mas-Verdu, F., Soriano, D.R. and Dobon, S.R. (2010), "Regional development and innovation: The role of services", *Service Industries Journal*, Vol. 30, No. 5, pp. 633-641.
- Meliá, M.R., Pérez, A.B. and Dobón, S.R. (2010), "The influence of innovation orientation on the internationalisation of SMEs in the service sector", *Service Industries Journal*, Vol. 30, No. 5, pp. 777-791.
- Moran, P. (2005), "Structural vs relational embeddedness: Social Capital, and managerial performance", *Strategic Management Journal*, Vol.26, No. 12, pp. 1129-1151.
- Nahapiet, J. and Ghoshal, S.(1998), "Social Capital, Intellectual Capital and the organizational advantage", *Academy of Management Review*, Vol.23, No. 2, pp.242-266.
- Oh, H., Labianca, G. and Cheng, M. (2006), "A multilevel model of group social capital", *Academy of Management Review*, Vol. 31, No. 3, pp. 569-582.
- Pardo-del-Val, M. (2010), "Services supporting female entrepreneurs", *Service Industries Journal*, Vol. 30, No. 9, pp. 1479-1498.
- Pechlaner, H. and Bachinger, M. (2010), "Knowledge networks of innovative businesses: An explorative study in the region of Ingolstadt", *Service Industries Journal*, Vol. 30, No. 10, pp. 1737-1756.
- Powell, W., Koput, K. and Smith-Doerr, L. (1996), "Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology", *Administrative Science Quarterly*, Vol. 41, No. 1, pp. 116-146.
- Ramírez, A.R., Orejuela, A.R. and Vargas, G.M. (2010), "New perspectives for the managerial entrepreneurship", *International Entrepreneurship and Management Journal*, Vol. 6, No. 2, pp. 203-219.
- Romero-Martínez, A.M., Ortiz-de-Urbina-Criado, M. and Soriano, D.R. (2010), "Evaluating European Union support for innovation in Spanish small and medium enterprises", *Service Industries Journal*, Vol. 30, No. 5, pp. 671-683.
- Romo, F. and Schwartz, M. (1995), "Structural embeddedness of business decisions: A sociological assessment of the migration behavior of plants in New York State between 1960- 1985", *American Sociological Review*, Vol. 60, No. 6, pp. 874-907.
- Rubalcaba, L., Gallego, J. and Hertog, P.D. (2010), "The case of market and system failures in services innovation", *Service Industries Journal*, Vol. 30, No. 4, pp. 549-566.
- Rufin, R. and Medina, C. (2010), "Market delimitation, firm survival and growth in service industries", *Service Industries Journal*, Vol. 30, No. 9, pp. 1401-1417.
- Sebora, T.C. and Theerapatvong, T. (2010), "Corporate entrepreneurship: A test of external and internal influences on managers' idea generation, risk taking, and proactiveness", *International Entrepreneurship and Management Journal*, Vol. 6, No. 3, pp. 331-350.
- Shan, W., Walter, G and Kogut, B. (1994), "Interfirm Cooperation and Startup Innovation y de Biotechnology Industry". *Strategic Management Journal*, Vol.15, No. 5, pp. 387-394.
- Smallbone, D., Welter, F., Voytovich, A. and Egorov, I. (2010), "Government and entrepreneurship in transition economies: The case of small firms in business services in Ukraine", *Service Industries Journal*, Vol. 30, No. 5, pp. 655-670.
- Smeltzer, L., Van Hook, B. and Hutt, R. (1991), "Analysis of the Use of Advisors as Information Sources in Venture Startups", *Journal of Small Business Management*, Vol. 29, No. 3, pp. 10-16.
- Soda, G., Usai, A. and Zaheer, A. (2004), "Network memory: the influence of past and current networks on performance", *Academic of Management Journal*, Vol. 47, No. 6, pp. 893-906.
- Spanos, Y. and Lioukas, S. (2001), "An examination into the causal logic of rent generation: Contrasting Porter's competitive strategy framework and the resource-based perspective". *Strategic Management Journal*, Vol. 22, pp. 907-934.
- Sundbo, J. (2009), "Innovation in the experience economy: A taxonomy of innovation organisations", *Service Industries Journal*, Vol. 29, No. 4, pp. 431-455.
- Szreter, S. (2000), "Social capital, the economy, and education in historical perspective" in Tom Schuller (ed.), *Social Capital: Critical Perspectives*, Oxford University Press, Oxford, pp. 56-77.
- Tihula, S. and Huovinen, J. (2010), "Incidence of teams in the firms owned by serial, portfolio and first-time entrepreneurs", *International Entrepreneurship and Management Journal*, Vol. 6, No. 3, pp.249-260.
- Toivonen, M. and Tuominen, T. (2009), "Emergence of innovations in services", *Service Industries Journal*, Vol. 29, No. 7, pp. 887-902.
- Un, C.A. and Montoro-Sanchez, A. (2010), "Public funding for product, process and organisational innovation in service industries", *Service Industries Journal*, Vol. 30, No. 1, pp. 133-147.
- Uzzi, B. (1997), "Social structure and competition in interfirm networks: The paradox of embeddedness", *Administrative Science Quarterly*, Vol. 42, No. 1, pp. 598-621.