

EconomEtica

Centro interuniversitario per l'etica economica
e la responsabilità sociale di impresa
promosso dalla Fondazione Italiana Accenture

N.3 January 2009

Giacomo Degli Antoni
ed Elisa Portale

The effect of corporate social
responsibility on social capital
creation: an empirical study on
participation in social
cooperatives

Working papers



The effect of corporate social responsibility on social capital creation: an empirical study on participation in social cooperatives

This paper analysis the effect of corporate social responsibility on social capital by carrying out an empirical study on a specific kind of nonprofit organizations: the social cooperatives. With respect to the previous studies on the relationship between participation in nonprofit organizations and creation of social capital, this contribution reveals two main reasons of interest. The first one concerns the indices of social capital. In particular this paper takes into account all the three main dimensions which characterize the concept of social capital according to the existing literature by analysing the notion of social capital in terms of: relational networks, generalized trust and relational skills. Secondly, this paper considers the operational characteristics of nonprofit organizations and shows the importance of some managerial decisions in fostering the creation of social capital. Two main findings are presented: *i)* a positive impact of the participation in social cooperatives on all the dimensions of members' social capital *ii)* a positive effect of the adoption of CSR good practices on the social capital creation.

Keywords: Social capital, corporate social responsibility, social cooperatives

JEL Classification: M14; L31, Z13

The effect of corporate social responsibility on social capital creation: an empirical study on participation in social cooperatives

Giacomo Degli Antoni*

Elisa Portale♦

1. Introduction

In recent years several contributions have analyzed the relationship between nonprofit organizations and notions usually associated with the concept of social capital. Participation in nonprofit organizations fosters generalized trust¹ (Knack and Keefer, 1997, Brehm and Rahn, 1997, Stolle and Rochon, 1998, Claibourn and Martin, 2000, Knack, 2003, Mayer, 2003, Van der Meer, 2003, Wollebæk and Selle, 2003), civicism (Knack and Keefer, 1997, Mayer, 2003, Wollebæk and Selle, 2003), trust in public institutions (Brehm and Rahn, 1997, Stolle and Rochon, 1998, Mayer, 2003, Wollebæk and Selle, 2003) and different indicators of tolerance, *free riding* and optimism (Stolle and Rochon, 1998).

According to Putnam et al. (1993) nonprofit associations affect social capital because “Internally, associations instill in their members habits of cooperation, solidarity and public-spiritedness. [...] participation in civic organization inculcates

*EconomEtica, interuniversity centre of research, Bicocca University, Milano. Email: giacomo.degliantoni@unimib.it

♦EconomEtica, interuniversity centre of research, Bicocca University, Milano. Email: elisa.portale@unimib.it

The analysis presented in this paper stems from a research conducted within the Equal Project EC.CO.MI (Economia di Condivisione e Microcredito) coordinated by the Department of Economics – University of Padova. We would like to thank all the project’s participants. We wish to thank also Paolo Buonanno, Benedetto Gui, Lorenzo Sacconi, Paolo Vanin for useful comments and suggestion. Our thanks go also to Provincia Autonoma di Trento for financial support in the project “Social capital, corporate social responsibility and local economic development”.

¹ The notion of *generalized trust* is usually related to some notion of *particularized or specific trust*. Knack and Keefer (1997) say ““generalized” as opposed to “specific” trust placed in people one has repeated interactions with.” (Knack and Keefer, 1997, p.1258). Stolle and Rochon (1998) define *generalized trust* “a trust that goes beyond the boundaries of kinship and friendship and even beyond the boundaries of acquiescence” (Stolle and Rochon, 1998, p. 48). Berggren and Jordahl (2006) distinguish between *particularized trust* and *generalized trust* where “the former entails trusting people you know or know something about; the latter trusting most (but not all) people you do not know or know anything about.” (Berggren and Jordahl, 2006, p.143).

skills of cooperation as well as a sense of shared responsibility for collective endeavors.” Putnam states also that “a dense network of secondary associations both embodies and contributes to effective social collaboration” (Putnam et al. 1993, pp.89-90) (Putnam et al. 1993, pp.105-106).²

This paper analyzes the effect of participation in nonprofit associations on members’ social capital and it differs from the previous studies in two main original points. The first one concerns the indices of social capital. The original database used in the empirical analysis has been appositely created in order to measure the effect of membership in nonprofit associations on all the three principal dimensions which characterize the concept of social capital according to the existing literature. In particular, we do not limit our study to the effect on generalized trust and different aspects of civiness, but we also analyse the effect of participation on the creation of cooperative network of relations (according to the social capital approach followed, for example, by Coleman 1988, 1990 and Burt 1992, 2002) and on the relational skills of agents (Glaeser, Laibson and Sacerdote 2000). Secondly, we take into account the operational characteristics of nonprofit organizations and we show the importance of some managerial decisions in fostering social capital creation. We focus our analysis on social cooperatives, a specific kind of nonprofit organisations which play an important role in many industrialized countries and which have a primary role in Italy where we conduct our study.³ Social cooperatives are enterprises with a social goal related

² A different approach is maintained by Olson (1982) who emphasizes some negative effects of associations. Olson argues that private associations pursue special interests of their members and, consequently, generate social costs and reduce social cohesion. In particular, this result a consequence of the fact that only the smaller associations emerge in the society and they defend special interests of small groups. On the contrary, larger organizations, representing the interests of many individuals, are inefficient because of their coordination problems and cannot emerge in the society.

³ In Italy, social cooperatives account for roughly 35% of the nonprofit sector (Borzaga and Tortia 2006). In 2003, social cooperatives were 6.129, they employed roughly 190.000 workers and had 4.5 milliards of euros of total sales (Istat 2006).

either to the goods and services produced or to the attention for a specific kind of workers.⁴ Their ownership and governance rights are assigned to the workers or to a mix of workers and other categories of stakeholders such as volunteers, consumers and financiers. These organizations conjugate features of traditional cooperative enterprises and traditional nonprofit organizations. In fact, they are frequently controlled by the workforce on the basis of the “one man, one vote” rule. However, residual earnings are mostly reinvested in reserves which are not available to members and workers who are entitled to appropriate residual earnings only to a very limited extent. In this perspective, social cooperatives are nonprofit organizations characterized by the distribution constraint (Borzaga and Tortia 2006).

By starting from the variety of ownership structures of social cooperatives and by considering their entrepreneurial character, we focus our attention on the effect of the adoption of CSR good practices on the creation of members’ social capital. In particular we show a positive effect on social capital creation of the multi-stakeholder ownership versus the mono-stakeholder one and of the adoption of CSR formal instruments such as ethical codes and social reports. We are not aware of other previous empirical studies on the effect of corporate social responsibility on social capital formation.⁵

⁴ Social cooperatives were introduced in Italy for the first time in 1991, by Law no. 381. Law no.381 distinguishes between social cooperatives of “type” A, B and A+B. Social cooperatives of “type A” operate in sectors such as social welfare (58% of the social cooperatives of “type A”), Education and research (20.7%), Culture, sport and recreation (13.2%) and Health (7.6%). Activities of the social cooperatives of type B are aimed at favouring the employment of disadvantaged workers (long run unemployed and hard-to-employ workers). To this end, this type of social cooperatives may operate in any industrial, agricultural, commercial activity on condition that at least 30% of their employees are disadvantaged workers. Cooperatives of type A+B combine the characters of both these two types of social cooperatives.

⁵ The attention to the relationship between social capital and CSR is recent but it is starting to assume a significant relevance testified, for example, by the international workshop on social capital, CSR and economic sustainable development held in Trento the 24th and 25th of July 2007. See in particular the contributions by Aoki (2007) and Sacconi and Degli Antoni (2007a,b).

This paper is divided into four sections (introduction and conclusion included). Section 2 presents the original database, the social capital indices and the independent variables considered and discusses the causal relationship investigated in the empirical analysis. Section 3 presents the empirical results. Section 4 summarizes the main conclusions and policy implications.

2. Social capital indices, corporate social responsibility and causal relationship

The empirical analysis grounds on a original database collected through surveys filled in (in the presence of the data collector) by managers and workers of 10 social cooperatives operating in two neighbouring North-East Italian provinces (5 in province of Belluno and 5 in province of Rovigo). Four social cooperatives are of type A, four are B and 2 are A+B. Questionnaires have been filled in by a manager and 5 workers for each cooperative (but in one case workers are only 4). On the whole, the database collects information on 59 subjects: 10 managers and 49 workers. The analysis uses a nonprobability sample which refers to the population of social cooperatives operating in the two provinces considered. The sample has been collected so as to have a balanced number of cooperatives with respect to the three variables: numbers of activity years, dimension and type (A or B). Subjects who filled in the surveys have been randomly selected among the workers characterized by at least three years' service with the cooperative⁶. Questionnaires filled in by manager and workers present some differences

⁶ The small number of observations and the characteristics of the sample do not allow us to extend the empirical evidence to the population of social cooperatives in Italy. However, the robustness of the econometric estimates (section 3) and the originality of the results and of the investigated relationships

due to the intention of investigating different aspects which could be described by respondents. The managers' questionnaire investigates in particular the characteristics of social cooperatives in terms of ownership structure, business organization, dimension. The workers' questionnaire asks in particular about relationship between workers, managers and users.

Five indices of social capital have been created by considering answers from questionnaires. They allowed us to consider the multidimensional character of the social capital notion. It is important to notice that these social capital proxies have been elaborated starting from subjective declarations of interviewees and they are then open to the criticism which concerns this kind of measures however widely used and generally accepted in social capital literature.⁷

2.1 Social capital indices

The five social capital indices are related to the three main dimensions of this notion according to the existing literature: the social capital intended as network of relation, generalized trust and relational skills.

The theoretical point of reference for the first dimension is defined by James Coleman who interprets social capital as a system of social relations which a person can mobilize to realize individual goals. According to this approach, people would partly gathers social capital, for example in the shape of link with relatives, and mostly would

seem to justify the present paper as an explorative analysis which may find confirmation in further analyses on larger samples.

⁷ The main criticism to the indices elaborated from survey questions concerns problems related to the interpretation and to the unanimity of meaning given by the respondents to the questions. In this perspective, for example, Glaeser, Laibson, Scheinkman and Soutter (2000, p.812):stress that: "While these survey questions are interesting, they are also vague, abstract, and hard to interpret".

actively create social capital by striking up friendship and by increasing their social network. Social capital indices related to this dimension are aimed at measuring three aspects:

1. how much participation in social cooperatives increases, in general terms, the relational network of members;
2. the creation of network based on trust and trustworthiness among workers and between them and other people connected with the cooperatives such as users and volunteers;
3. the percentage of friends met through the social cooperative.

The first proxy (*sc_relinc*) of social capital intended as network of relation, is elaborated on the basis of evaluations by respondents, from 1 (complete disagreement) to 7 (complete agreement), with regard to the following statement: “Taken all together, the number of my social relations increased thanks to people met in cooperative”. The average of this variable is equal to 4.2.⁸

The second index of social capital in terms of social network (*sc_nettrus*) refers to two questions:

- “How many volunteers or workers you would ask help to in the following cases:
 - a) to talk about any family problems
 - b) to entrust relatives (children/elderly persons),
 - c) to ask information about job opportunity,
 - d) to take care of the house during vacation time.
- “How many volunteers or workers you have started the following cooperative relations with:

⁸ All the descriptive statistics are in the statistical appendix.

- a) readiness to give a lift between cooperative and home,
- b) reciprocal support or collaboration in activities such as going shopping, to take child or elderly persons to different places
- c) phone calls to ask information or advices,
- d) do not very demanding errands”

The aggregated index of social capital is the standardized⁹ value mean of the 8 answered to the questions reported above for each respondents.

Comparing the single answers given to the questions above, the main value is collected in correspondence with the relationship between co-workers in taking advices and information. Therefore we can list some results:

- Almost 75% of respondents would talk, with at least one co-workers, about her/his familiar problems or s/he would ask for advices to them.
- Almost 70% of respondents would ask for help in finding a new job at least to one co-workers and s/he would ask a lift home.
- More than 50% of respondents has got a good relationship with at least one co-worker such that they could be of help to each other.

Lower but significant are the percentages of co-workers who would support each other in shopping, in taking care of child and elderly persons (41%) or in taking care of the house during vacation time (39%).

The third index of social capital in terms of network (*sc_perfri*) refers to the question: “on the general number of all people you can consider as friends, which percentage you

⁹ The standardization of the social capital index has been made by considering the following procedure:

$$\frac{x_{ic} - \min(x_i)}{\max(x_i) - \min(x_i)}$$

where: x_{ic} indicates the value i related to the cooperative c . The standardization

process generates standardized indicators with same range of variation between 0 to 1, and it produces a more robust trial in presence of *outliers* (Saisana e Tarantola 2002, p.11).

can link to your affiliation to this cooperative?”. The mean of the answer from respondents is 16,34%.

The second described dimension of social capital follows the Putnam (1993) definition “social trust, norms of reciprocity, networks of civic engagement, and successful cooperation are mutually reinforcing [...] norms and networks of civic engagement contribute to economic prosperity and are in turn reinforced by organized collaboration” (Putnam 1993, p.180) and Fukuyama strengthens (1996, p.26): “Trust is the expectation that arise within a community of regular, honest and cooperative behavior, based on commonly shared norms, on the part of other members of that community” and “social capital is a capability that arise from the prevalence of trust in a society or in a certain part of it”.

The social capital index in term of generalized trust (*sc_trust*) refers to the general question: *what characteristics have you acquired by working for the cooperative?* In relation to the statement “*Trust in others*”. The answer range is 1 (nothing) to 4 (very much). The mean value of the total respondent is 2,4 and the median is 3.

The third dimension of social capital is the one described by Glaeser, Laibson e Sacerdote (2000) as “*individual social capital*” which is referred to an individual human capital connected to the social interactions.

The social capital in this terms is defined as “[...] *a person’s social characteristics including social skills, carisma, and the size of his Rolodex – which enable him to reap market and non-market returns from interactions with others.*” (Glaeser, Laibson e Sacerdote 2000, p.4). Complying to this approach, the creation of the fourth social capital index (*sc_relational*) is connected to the referential question “*How do you think to have improved the following skills by participating to the life of the cooperative?*”

and its answers a) ability in team working, b) ability in understanding others' problems, c) ability in improving connections with people. These abilities are developed by working into the cooperative and they became part of worker's individual experiences and competences. The scale of reference for each answer is from 1 (not at all) to 4 (very much). The index has been constructed as arithmetic mean of the answers for each respondent (the mean value is 3). Analysing each variable of the index the value 3 emerges for all of them and it represents an upper middle level of the appraisal scale (correspondent to "enough"). The percentages associated with the value 3 for each answer are: 67% with regards to the ability in team working, 69% for the ability in understanding others' problems and 62% in relation to the ability in improving connections with people. The percentages associated with the higher value of the appraisal scale (corresponding to 4 – very much) are 19% and 21% respectively.

2.2 Independent variable: the role of corporate social responsibility

The described indices of social capital are referred to each respondent at an individual level of investigation. Other independent variables measured at an individual or at a cooperative level have been considered in the empirical analysis. Concerning the individual level, variables are referred to single cooperative workers: age (*age*); education (*education*) that goes from 1 (no school) to 6 (bachelor degree); and sex (*female*).

Regarding the cooperative level, variables are: cooperative type, selected with a dummy variable A, B, or mixed AB; cooperative area of activity (*area*) that varies from city

(value 1) to national level (value 5)¹⁰; numbers of activity years (*agecoop*); numbers of workers per cooperative (*employees*); adoption of formal instruments of corporate social responsibility (ethical code or social report) using a *dummy* variable (*CSR_standard*); number of stakeholders represented in the cooperative directive board considering volunteers, workers, legal entity, users and their relatives, founders (*multi_stakeholder*)¹¹. The empirical investigation is led by considering also a provincial dummy variable (Rovigo=1 and Belluno=0) which describes where cooperative accomplishes its main activity and another dummy variable distinguishes between answer supplied by workers and managers (*manager_dummy*).

Considering the novelty which characterizes the analysis of the relationship between corporate social responsibility and social capital, the main attention is on the two independent variables: *CSR_standard* and *multi_stakeholder*. Observing the survey results on the variable which describes the adoption of formal instruments of corporate social responsibility, we note that only one cooperative has adopted both the instruments (ethical code and social report), one cooperative has adopted only the ethical code and three of them have adopted only the social report. The second CSR variable regards the number of stakeholders' categories involved in the cooperative directive board. The greater part of the cooperatives has at least 2 categories of stakeholders involved in its directive board (6 cooperatives), 3 cooperatives have only one category of stakeholders involved in the board and only in one cooperative three categories of stakeholders are involved in the board. Moreover "workers" is the most represented category and it is present in 9 of the survived cooperative. The "volunteers"

¹⁰ Other values are: 2 province, 3 region, 4 Nord-East of Italy.

¹¹ The question gives the opportunity to include further categories into the directive board nonetheless it was not used by anyone.

category takes part to 4 directive boards and “users and their relatives” takes part to only one board.

These two variables are aimed at revealing a multi-stakeholder approach to CSR according to which who run a firm (entrepreneurs, directors and managers) have responsibilities that range from fulfilment of their fiduciary duties¹² towards the owners to fulfilment of analogous fiduciary duties towards all the firm’s stakeholders” (Sacconi 2006; 2007 a,b)¹³. This approach to corporate social responsibility seems to present the main theoretical connections with the social capital concept in order to emphasize the capability of CSR in generating social capital.

According to this approach, reputation represents an incentive which promotes the adoption of voluntary CSR standards based on the idea of fiduciary duties towards all stakeholder¹⁴. Compliance with CSR norms generates middle-long term benefit by increasing the reputational capital of the firm even though it could be conducted against the short term personal interests of the ownership¹⁵. The increase in reputation promotes cooperation among stakeholders (including customers) and their willingness to interact with a firm which does not implement opportunistic behaviour. Clear and transparent *standard* indicating the engagement in respecting the CSR model are necessary in order to enable the reputation benefit. A clear standard system allows stakeholders’ evaluation

¹² The notion of fiduciary duties concerns situations where a subject has a legitimate interest but is unable to make the relevant decisions (in the sense that he does not know what aims to pursue, what alternative to choose ecc.). This subject, who is named *trustor*, can delegate decisions to a *trustee* by giving him the power to choose actions and goals. The trustee may thus count on the resources of trustor and select the appropriate course of action. Moreover, the trustor has a claim (right) towards the trustee. On the fiduciary duty concept see also Flannigan (1989).

¹³ Other corporate social responsibility lines are suggested by: Freeman (1984, 2000) and Freeman and Evan (1990) who adopt a multi-stakeholder approach in a managerial perspective; Jensen (2001), who supports the *shareholder’s value* maximization approach by stressing that this approach is able, in the long run, to solve problems and take into account also the interests of stakeholder that the stakeholder approach to CSR wants to satisfy; Baron (2005) who interprets the decision of adopting practices aimed at considering interests of subjects different from shareholders as a kind of philanthropy.

¹⁴ Sacconi (2006 e 2007a,b).

¹⁵ Compliance with the governance voluntary norm based on CSR could imply, for example, a surplus release in behalf of stakeholder.

of the firm's behavior in specific situations by comparing *ex ante* explicit statements and behaviour. Therefore the statements of principles has to be formulated in a general form in order to embrace concrete situation not specifically *ex ante* foreseeable. The reputation advantage will be obtain if the firm behaves in conformity with its CSR statements. On the contrary, if stakeholder observes an opportunistic behavior of the firm, they may decide to sanction it by avoiding to cooperate. Ethical codes and social reports are the main voluntary standards adopted in a CSR perspective which allow the creation of reputation. The ethical code is a formal statement of the organization's values and it sets out general principles of behaviour which must characterize firm's decisions. The ethical code contains indications about the behavioural procedures which must be adopted by the firm in different situations and delineates the procedures to determine whether a violation of the code occurred. The social report compares the intentions expressed in the ethical code and the real behaviour of the firm. One of the variables (*CSR_standard*) considered in the empirical analysis is based on the adoption of CSR voluntary standard.

The CSR voluntary standard adoption is a long process which involves stakeholders in a complex dialogue with the firm's management. It is an essential point in order to balance all the stakeholders' interests and in order to identify the shared principles which must characterize the firm's behavior according to the CSR principles. Therefore, stakeholder engagement is crucial in making possible the adoption of a social responsibility good practice by the firm. For this reason, the second CSR variable considered in the analysis consists in the evaluation of the number of stakeholders' categories involved in the cooperative decision board (*multi_stakeholder*).

The idea is that the stakeholder engagement which characterizes the CSR process and the effective adoption of a governance model based on CSR, also ratified by the adoption of formal standards, are two elements which can enhance the three forms of social capital considered in our analysis.

Firstly, stakeholder engagement in the CSR process increases dialogue and meeting occasions between stakeholders and the management of the firm. The meetings are usually aimed at balancing the stakeholders' conflicting interests. The effective implementation of a CSR governance model means that the meetings among the firm and its stakeholders and their dialogue have been successfully performed and they may have represented favorable situations in terms of network relations enlargement (social capital in terms of network).

The success in the adoption of CSR good practices implies also that the firm and its stakeholders decided to trust each other on the basis of voluntary agreements. If the agreements are respected, (and with respect to the firm the agreements' observation may be represented by the inclusion of many categories of stakeholders in the directive board), then agents may increase their trust that voluntary agreements may be successfully even though they concern conflicting interests. It could positively affect agents' social capital in terms of trust.

Finally, meetings between stakeholders and management in order to define CSR criteria and principles demand abilities in mediation with other contractors involved. This process requires specific relational skills and, at the same time, it fosters their creation through a *learning by doing* trial (social capital in terms of relational skills). One of the main objective of the empirical analysis in chapter 3 is to test the theoretical links

between the CSR variables and social capital creation by measuring the impact of the two indices of CSR on the respondents' social capital.

3. Empirical analysis

The empirical analysis uses ordered logit with regard to the two social capital indices which range from 1 to 7 according to an ordinal scale and OLS in relation to the other three indices. In all the regressions we cluster standard errors by considering which cooperative the workers come from. We assume that the observations are independent cross groups, but not necessarily between groups (workers belonging to the same cooperative). Regressions are conducted by referring to all the sample of workers and managers when we analyse the indices of trust and relational skills, while they refer only to the sample of workers for the three indices of social capital in terms of cooperative networks¹⁶.

Table 1 shows the results obtained with regard to the indices of social capital intended as network of relations.

Dummies which take into account the different types of cooperatives (*CoopA* and *CoopAB*) tell us that workers involved in the cooperatives of type A included in our sample increase their social networks more than workers who belong to the other cooperatives. We can not find in the literature a theoretical explanation for this result which opens interesting questions about the peculiar characteristics of A cooperatives which may generate this important empirical result related to social capital creation.

¹⁶ The questionnaires filled in by managers contain a lot of questions related to the organization's characteristics. In order not to make the questionnaire too long, we decided not to include all the questions included in workers' questionnaires in managers' questionnaires. For this reason we could not elaborate all the social capital indices in relation to the managers.

Respondents belonging to the cooperatives considered in our sample with more employees declare a lower agreement with regard to the positive impact of membership in the cooperative on the possibility to meet new friends and declare a lower percentage of friends met through the cooperative than respondents involved in cooperatives with less workers. This result could indicate a better performance of smaller and probably less hierarchical organizations in favouring the creation of friendly relations among members. The age of the cooperatives is positively associated with their capacity of affecting relational networks of their workers while the size of the area where the cooperative operates has an ambiguous effect because it is positively associated with the index named *sc_nettrus* and negatively with the index *sc_relinc*.

The decision to adopt CSR formal instruments positively affects social capital in terms of cooperative networks. In particular, the adoption of CSR formal instruments is statistically significant with respect to the creation of cooperative relations based on trust and trustworthiness between workers and other cooperatives' members such as volunteers and other workers (*sc_nettrus*). The effect of the adoption of at least one CSR instrument (ethical code or social report) is to more than double the value of the variable *sc_nettrus* (equation 4).

Tab.1 Social capital in terms of cooperative networks

<i>Equation</i>	<i>1 (Ologit)</i>	<i>2(Ologit)</i>	<i>3(OLS)</i>	<i>4(OLS)</i>	<i>5(OLS)</i>	<i>6(OLS)</i>
	<i>sc_relinc</i>		<i>sc_nettrus</i>		<i>sc_perfri</i>	
age	0.065 (0.046)	0.076 (0.051)	-0.001 (0.003)	-0.001 (0.003)	1.090 (0.912)	1.128 (0.950)
education	0.104 (0.333)	0.039 (0.415)	0.005 (0.016)	0.003 (0.018)	-7.449 (5.358)	-9.811 (7.617)
female	-0.272 (0.472)	-0.441 (0.531)	0.004 (0.039)	0.002 (0.040)	8.000 (11.133)	7.516 (11.063)
CoopAB	-2.080*** (0.521)	-2.286*** (0.508)	-0.112*** (0.026)	-0.113*** (0.027)	-7.917 (7.148)	-16.552 (9.107)
CoopB	-2.513*** (0.409)	-3.031*** (0.527)	-0.092** (0.034)	-0.100** (0.043)	-34.567*** (8.003)	-36.595*** (8.986)
employees	-0.014*** (0.002)	-0.013 (0.001)	0.000 (0.000)	0.000 (0.000)	-0.201*** (0.007)	-0.196*** (0.007)
agecoop	0.158*** (0.033)	0.163*** (0.027)	-0.002 (0.003)	-0.002 (0.003)	0.501 (0.400)	0.712*** (0.185)
area	-0.259* (0.153)	-0.060 (0.197)	0.063*** (0.010)	0.066*** (0.010)	4.913 (4.101)	2.823 (4.609)
CSR_standard	0.206 (0.360)	0.522 (0.345)	0.126*** (0.019)	0.132*** (0.017)	-9.037 (9.326)	3.230 (12.961)
multi_stakeholder	1.077*** (0.142)	0.306 (0.307)	0.084*** (0.020)	0.070*** (0.019)	22.569*** (5.396)	10.457 (14.536)
provincial dummy		-1.187** (0.479)		-0.020 (0.028)		-9.805 (9.499)
constant			-0.087 (0.150)	-0.059 (0.153)	-29.050 (42.272)	4.925 (55.802)
cut1	2.213 (2.178)	0.756 (2.316)				
cut2	3.275 (2.162)	1.838 (2.374)				
cut3	4.124 (2.246)	2.694 (2.392)				
cut4	4.931 (2.269)	3.496 (2.474)				
cut5	5.601 (2.180)	4.169 (2.383)				
cut6	6.938 (2.135)	5.524 (2.324)				
R ²			0.558	0.559	0.500	0.502
Pseudo R ²	0.064	0.069				
Root MSE			0.128	0.130	20.162	20.395
Prob > χ^2	0.000	0.000				
Number of obs.	49	49	49	49	41	41

Robust standard errors in brackets. * Significant at 10%; ** significant at 5%; *** significant at 1%.

Moreover, the more the number of stakeholders' categories involved in the ownership of the cooperative are, the higher the impact is on social capital indices considered in table 1, even though in two cases out of three the effect is not robust to the inclusion of the provincial dummies (this effect of provincial dummies does not come up in any of the following estimations). With respect to the quantitative aspects, we find out that a standard deviation increase in the variable *multi_stakeholder* is associated with a increase in the dependent variable *sc_nettrus* by 0.248 standard deviation (equation 4)¹⁷. Finally, no variables measured at an individual (*age, education, female*) level are statistically associated with creation of social capital intended as cooperative network.

Tables 2 and 3 consider the effect respectively on social capital in terms of relational skills and generalized trust. Results are coherent with the ones reported in table 1. Cooperatives dummies reveal that cooperatives of type A produce more social capital than other types of cooperatives also with regard to the other two dimensions of social capital. The number of workers is negatively associated with both the index of social skills and with the index of generalized trust. The age of the cooperatives positively affects the creation of social skills and generalized trust. The size of the area where the cooperative operates is not significantly correlated with the creation of social skills while it seems to affect positively the generalized trust. The creation of social skills is positively affected both by the adoption of a formal CSR instrument and by the number of stakeholders' categories involved in the decisional processes. Only the multi stakeholder ownership and not the adoption of ethical codes or social reports seems to

¹⁷ An objection related to the association between the adoption of CSR practices and social capital creation could concern a selection bias problem. This problem could arise if cooperatives endowed with CSR instruments and practices would be able to attract people with more pro-social behaviours than other cooperatives. However we assume that the adoption of CSR practices does not have a key role in attracting more pro-social persons. In fact, the existence of specific managerial characteristics such as the effective multi-stakeholder ownership are usually unknown before entering in the organization. Moreover, it is credible that the social character in general of social cooperatives is the key factor which attracts pro-social persons and not specific managerial elements.

impact on social capital in terms of generalized trust. The result presented are robust to the introduction of provincial dummies (equations 2 in both the tables), of the dummy which consider if the respondent is a manager or if s/he is a worker (equations 3) and of both of these type of dummy variables (equations 4). The effect of the adoption of a formal instrument of CSR on the index of social skills is quantifiable in a 7.6 percent increase (equation 4 table 2).

Tab.2 Social capital in terms of social skills

<i>Equation</i>	<i>1 (OLS)</i>	<i>2(OLS)</i>	<i>3(OLS)</i>	<i>4(OLS)</i>
age	0.004 (0.006)	0.005 (0.007)	-0.004 (0.006)	-0.003 (0.007)
education	0.194 (0.127)	0.221 (0.124)	0.120 (0.128)	0.148 (0.124)
female	-0.064 (0.177)	-0.040 (0.182)	0.045 (0.151)	0.061 (0.154)
CoopAB	-0.719*** (0.195)	-0.698*** (0.143)	-0.623** (0.194)	-0.611*** (0.156)
CoopB	-0.511 (0.095)	-0.397*** (0.052)	-0.466 (0.114)	-0.366*** (0.061)
employees	-0.003*** (0.001)	-0.004*** (0.001)	-0.003*** (0.001)	-0.004*** (0.001)
agecoop	0.031* (0.014)	0.030** (0.011)	0.028* (0.015)	0.027** (0.012)
area	0.078 (0.056)	0.018 (0.047)	0.087 (0.056)	0.031 (0.049)
CSR_standard	0.370*** (0.111)	0.244*** (0.060)	0.330** (0.109)	0.219*** (0.064)
multi_stakeholder	0.249** (0.090)	0.517*** (0.076)	0.235** (0.094)	0.479*** (0.082)
provincial dummy		0.391*** (0.071)		0.378*** (0.209)
manager_dummy			0.403* (0.202)	0.354 (0.081)
costant	1.239 (0.664)	0.611 (0.668)	1.748 (0.699)	1.149 (0.697)
R ²	0.246	0.272	0.284	0.304
Root MSE	0.533	0.530	0.525	0.523
Number of obs	59	59	59	59

Robust standard errors in brackets. * Significant at 10%; ** significant at 5%; *** significant at 1%.

Tab.3 Social capital in terms of generalized trust

<i>Equation</i>	<i>1 (Ologit)</i>	<i>2(Ologit)</i>	<i>3(Ologit)</i>	<i>4(Ologit)</i>
age	0.032* (0.017)	0.362** (0.017)	0.058 (0.049)	0.070 (0.049)
education	0.809 (0.502)	0.952** (0.486)	1.056 (0.725)	1.287* (0.685)
female	0.068 (0.338)	0.139 (0.360)	-0.256 (0.582)	-0.265 (0.585)
CoopAB	-5.017*** (0.778)	-4.982*** (0.594)	-5.436*** (1.177)	-5.522*** (1.029)
CoopB	-4.007*** (0.571)	-3.589*** (0.440)	-4.186*** (0.519)	-3.780*** (0.469)
employees	-0.021*** (0.003)	-0.024*** (0.003)	-0.021*** (0.003)	-0.025*** (0.004)
Agecoop	0.289*** (0.045)	0.287*** (0.043)	0.304*** (0.053)	0.308*** (0.057)
Area	0.530*** (0.189)	0.318* (0.191)	0.462** (0.204)	0.191 (0.256)
CSR_standard	0.512 (0.522)	0.040 (0.299)	0.714 (0.618)	0.212 (0.321)
multi_stakeholder	2.435*** (0.325)	3.708*** (0.500)	2.478*** (0.334)	3.976*** (0.739)
provincial dummy		1.719*** (0.452)		1.991*** (0.624)
manager_dummy			-1.168 (1.901)	-1.500 (1.912)
cut1	10.013 (2.763)	13.080 (3.390)	11.763 (4.701)	15.783 (5.492)
cut2	11.869 (2.948)	15.023 (3.604)	13.635 (4.874)	17.768 (5.706)
cut3	16.013 (2.697)	19.227 (3.480)	17.854 (4.947)	22.084 (5.918)
Pseudo R ²	0.218	0.235	0.227	0.248
Prob > χ^2	0.000	0.000	0.000	0.000
Number of obs.	59	59	59	59

Robust standard errors in brackets. * Significant at 10%; ** significant at 5%; *** significant at 1%.

Since our dependent variables refer to the single agents, while the independent ones are measured at an organizational level, endogeneity problems should not affect our results. On the contrary, some variables such as the working climate, cohesion and feeling among workers could simultaneously determine the creation of social capital and the decision made by the organization to implement good practices of CSR. In order

to take into account this possibility, we consider in our sensitivity analysis a variable (named *working_environment*) which approximates working climate and quality of relations among workers. The sensitivity analysis is carried out by introducing the following control variables¹⁸ in the regressions 4 of table 1, table 2 and table 3.¹⁹

1. *Volunteers*: number of volunteers in the cooperative.
2. *Meetings*: how often parties, trips and discussion groups are organized by the cooperative;
3. *Years*: number of years the respondent have spent in other nonprofit associations;
4. *Collaboration*: degree of collaboration among workers and between them and managers according to the evaluation given by the respondent using a 7 level scale;
5. *Months*: number of months the respondent have worked in the cooperative;
6. *Connections*: dummy which takes value of 1 if the respondent meets people with relational difficulties through her activity in the cooperative;
7. *Training*: arithmetic mean of 4 dummy variables which takes the value of 1 if the respondent attended training courses respectively on: management of relations with users, mission of the cooperative, human resource management and various aspects connected with human resource management.
8. *Autoscrel*: arithmetic mean of the evaluations given by the respondent (using a 7 level scale) with regard to: a) the importance attached by cooperative's workers

¹⁸ The first 4 control variables are included in all the regressions presented above, the other 5, which can not be elaborated in relation to the managers (see footnote 15) are included only in the estimations reported in table 1 which have been conducted only by considering the sample of workers.

¹⁹ We consider for the sensitivity analysis only the regressions where the *provincial_dummy* and the *manager_dummy* (in case the sample includes also the managers of the cooperatives) are included. For this reason, we do not consider the regressions in which *sc_relinc* and *sc_perfri* are the dependent variables because in these cases the introduction of the *provincial_dummy* eliminates the effects of the two CSR variables (see table 1).

to the creation of spirit of cooperation among cooperative's members and b) the creation of relational links between cooperative's members and local community (two aspects strictly related to the concept of social capital);

9. *Working_environment*: dummy which takes the value of 1 if the respondent declares that s/he did not have difficulties to be accepted in the cooperative by other members.

Tab. 4 A Sensitive analysis with control variables

	(OLS) <i>sc_nettrus</i>		(OLS) Social capital in terms of social skills		(Ologit) Social capital in terms of generalized trust	
	Coefficient of CSR_ standard	Coefficient of multi_ stakeholder	Coefficient of CSR_ standard	Coefficient of multi_ stakeholder	Coefficient of CSR_ standard	Coefficient of multi_ stakeholder
Volunteers	0.031 (0.027)	0.662*** (0.109)	-0.114 (0.165)	2.415*** (0.616)	-0.481 (0.582)	8.026*** (1.751)
Meetings	0.079*** (0.018)	0.059*** (0.012)	0.043 (0.112)	0.441*** (0.075)	-0.153 (0.437)	3.907*** (0.729)
Years	0.162*** (0.020)	0.063*** (0.015)	0.184** (0.071)	0.503*** (0.110)	0.367 (0.323)	3.923*** (0.768)
Collaboration	0.121*** (0.016)	0.052* (0.027)	0.238*** (0.051)	0.379** (0.129)	0.029 (0.405)	3.766*** (0.675)
Months:	0.138*** (0.019)	0.042 (0.032)				
Connections	0.128*** (0.015)	0.079*** (0.023)				
Training	0.131*** (0.019)	0.072** (0.027)				
Autoscrel	0.143*** (0.016)	0.069*** (0.018)				
Working_environment	0.111*** (0.030)	0.077*** (0.024)				

Robust standard errors in brackets. * Significant at 10%; ** significant at 5%; *** significant at 1%.

Other variables included are: age, education, female, CoopAB, CoopB, employees, agecoop, area, provincial dummy and, in equations 2 and 3 which include data related to managers, manager_dummy (only in .

The rows in table 4 report the coefficients and the standard errors of the independent variables *CSR_Standard* and *multi_stakeholder* when a control variable was introduced into the basic relation analysed in regression 4 of table 1 (with respect to the dependent variable *sc_nettrus*),

of table 2 (with respect to the index of social capital in terms of social skills) and of table 3 (with respect to the index of social capital in terms of generalized trust). When the variables *CSR_standard* and *multi_stakeholder* were statistically significant before the inclusion of control variables, they remain significant at least at 10% level except in a very limited number of cases related to the variable *CSR_standard*. In particular the statistical significance of the variable *CSR_standard* disappears when we consider the variable *Volunteers* with respect to the dependent variable *sc_nettrus* and the variables *Volunteers* and *Meetings* with respect to the index of social skills.

4. Conclusions and policy implications

The empirical analysis carried out in this paper presents some original results on the positive relationship between participation in nonprofit organizations and the creation of social capital. We find out that managerial decisions play a very important role in determining the impact on social capital of organization's workers. In particular, our analysis focuses on CSR practices and shows that the decision to adopt CSR formal instruments and to implement a multi-stakeholder ownership can positively affect the social capital creation. The empirical result concerning our sample also stresses that, both smaller organizations, (in terms of number of employees), and organizations which have operated longer (in terms of year of business) generate more social capital.

We identify three main reasons which may explain the positive association between the social capital and CSR practices, intended both as adoption of CSR formal instruments and as multi-stakeholder ownership.

1. The implementation of CSR good practices needs a long process made by several meetings among stakeholders and between them and the organization. It gives to the workers of cooperatives the possibility of meeting other people and, if the CSR practices are successfully implemented, it is likely that these meetings end up in cooperative personal relations.
2. The implementation of CSR practices needs reciprocal trust even with subjects (i.e. various categories of stakeholders) who have conflicting interests. In case the CSR agreements results are good, subjects verify that voluntary agreements may be realized even though people have conflicting interests. It could increase their propensity to trust.
3. Meetings aimed at implementing CSR practices require relational skills by agents, for example in terms of ability to mediate with others. The adoption of CSR practices could favour, by a process of learning by doing, the formation of specific relational skills which represent a dimension of the social capital concept.

Given the positive effect of social capital on many economic variables such as economic growth (e.g. Knack and Keefer 1997; and Zak and Knack 2001); government performance (e.g. Putnam 1993; Easterly and Levine 1997; and La Porta et al. 1999); human capital (e.g. Coleman 1988; Goldin and Katz 1999); and financial development (e.g. Guiso, Sapienza and Zingales 2004), the role of CSR in promoting the creation of social capital seems to indicate the opportunity of a policy strategy aimed at fostering the adoption of CSR practices by organizations. In this perspective, two strategies could for example be implemented: the inclusion of the adoption of CSR practices among the criteria requested to obtain public works contracts and the elaboration of fiscal

incentives which allow the deduction of the costs connected with the adoption of CSR instruments.

We have already stated that the small number of observations and the characteristics of the sample do not allow us to extend our empirical evidence to the whole population of social cooperatives in Italy. However, considering the sensitivity analysis which does not undermine the robustness of our results and the originality of the findings, the present paper seems to be an interesting step forward in the analysis of the relationship between CSR and social capital which may be extended by considering the opportunity of conducting other analyses both on larger samples and, in particular, on other types of nonprofit and forprofit organizations.

References

- Aoki M. (2007), The role of Social norms in institutional change, paper presented at the international workshop on "SC, CSR and sustainable economic development", Trento, 24-25 July 2007
- Baron D.P. (2005) Corporate Social Responsibility and Social Entrepreneurship, *Research Paper Series n° 1916, Stanford, Graduate School of Business*.
- Berggren N. e Jordahl H. (2006), Free to Trust: Economic Freedom and Social Capital, *Kyklos*, Vol.59, N.2, pp.141-169.
- Borzaga C. and Tortia E. (2006), Worker Motivations, Job Satisfaction, and Loyalty in Public and Nonprofit Social Services, *Nonprofit and Voluntary Sector Quarterly*, 32, 225-249.
- Brehm J. e Rahn W. (1997), Individual-Level Evidence for the Causes and Consequences of Social Capital, *American Journal of Political Science*, Vol. 41, N.3, pp.999-1023
- Burt, R. (1992). *Structural Holes*. Cambridge, Mass.: Harvard University Press.
- Burt, R. (2002). "The Social Capital of Structural Holes." in M.F. Guillen, R. Collins, P. England, and M. Meyer (eds.), *The New Economic Sociology*, New York: Russell Sage Foundation.
- Claibourn M.P.e Martin P.S. (2000), Trusting and Joining? An Empirical Test of the Reciprocal Nature of Social Capital, *Political Behavior*, Vol. 22, N. 4, pp.267-291
- Coleman J.S. (1988), Social Capital in the Creation of Human Capital, in "American Journal of Sociology", vol. 94, pp. 95-120
- Coleman J.S. (1990), *Foundations of Social Theory*. Cambridge, Harvard University Press
- Easterly, W. and R. Levine (1997). Africa's growth tragedy: policies and ethnic divisions, *The Quarterly Journal of Economics*. CXII: 1203-1250
- Flannigan, R. (1989), "The Fiduciary Obligation", *Oxford Journal of Legal Studies*, 9, 285-294.
- Freeman, E. (1984), *Strategic management, A Stakeholder Approach*, Pitman, Boston.

- Freeman, E. (2000), "Business Ethics at the Millennium", in *Business Ethics Quarterly*, 10, 1, 169-180.
- Freeman, T. and W.M. Evan (1990), "Corporate Governance: A Stakeholder Interpretation", *The Journal of Behavioural Economics*, 19, n. 4, pp. 337-359.
- Fukuyama F. (1995), *Trust. The Social Virtues and the Creation of Prosperity*, London, Penguin
- Glaeser E.L., Laibson D., Sacerdote B. (2000), *The Economic Approach to Social Capital*, NBER (Cambridge MA) Working Paper Series, n. 7728
- Glaeser E., Laibson D., Scheinkman J., Soutter C. (2000), Measuring Trust, in *The Quarterly Journal of Economics*, vol.CXV, 3, pp.811-846
- Goldin C., Katz L.L., 1999, Human Capital and Social Capital: The Rise of Secondary Schooling in America, 1910-1940, *Journal of Interdisciplinary History*, 29, 4, pp. 683-723.
- Guiso, L., P. Sapienza and L. Zingales (2004). The Role of Social Capital in Financial Development, [The American Economic Review](#). 94: 526-556.
- Istat (2006), *Le cooperative sociali in Italia – Anno 2003*.
- Jensen, M.C. (2001), "Value Maximization, Stakeholder Theory, and the Corporate Objective Function", *Journal of Applied Corporate Finance*, 14 (3), 8-21.
- Knack S., Keefer P. (1997), Does Social capital have an economic payoff? A cross country investigation, in "The Quarterly Journal of Economics", CXII, pp.1251-1287
- Knack P. (2003), Groups, growth and trust: Cross-country evidence on the Olson and Putnam Hypothesis, in "Public Choice", 117, pp. 341-355
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. Vishny (1999). The Quality of Government, *Journal of Law, Economics and Organization*. 15: 222-279.
- Mayer N. (2003), Democracy in France: Do Associations Matter?, in Hooghe M. e Stolle D. (2003) (eds) *Generating Social Capital Civi Society and Institutions in Comparative Perspective*, Palgrave Macmillan
- Olson, M. (1982). *The Rise and Decline of Nations*. New Haven: Yale University Press.
- Putnam R., Leonardi, R and anetti R. (1993), *Making Democracy Work: Civic Traditions in Modern Italy*, Princeton University Press
- Sacconi, L. (2006), "A Social Contract Account For CSR as Extended Model of Corporate Governance (I): Rational Bargaining and Justification", *Journal of Business Ethics*, Special Issue on Social Contract Theories in Business Ethics, 259-281.
- Sacconi, L. (2007a), "A Social Contract Account for CSR as Extended Model of Corporate Governance (II): Compliance, Reputation and Reciprocity", *Journal of Business Ethics*, 75 (1), 77-96.
- Sacconi, L. (2007b), "CSR as a model of extended corporate governance, an explanation based on the economic theories of social contract, reputation and reciprocal conformism", in F. Cafaggi, *Profiles of self-regulation*, Kluwer Academic Press; Electronic publication SSRN (March 2004); http://papers.ssrn.com/sol3/papers.cfm?abstract_id=514522.
- Sacconi L. e Degli Antoni G. (2007a), "Social capital and CSR: A theoretical analysis (Part I): concepts and definitions", Paper presented at the international workshop on "SC, CSR and Sustainable Economic Development, Trento, 24-25 July 2007
- Sacconi L. e Degli Antoni G. (2007b), Social capital and CSR: A theoretical analysis (Part II): Modelling cognitive social capital and CSR as preconditions for sustainable networks of relational cooperative relations, Paper presented at the international workshop on "SC, CSR and Sustainable Economic Development, Trento, 24-25 July 2007

- Saisana M., Tarantola S. (2002), State-of-the-art Report on Current Methodologies and Practices for Composite Indicator Development, European Commission Joint Research Center, EUR20408EN, http://farmweb.jrc.cec.eu.int/ci/Document/state-of-the-art_EUR20408.pdf
- Stolle D. e Rochon T. (1998), Are all associations alike?: Member diversity, associational type and creation of social capital, *American Behavioral Scientist*, 42, pp. 47-65
- Van der Meer J. (2003), Rain or Fog? An Empirical Examination of Social Capital's Rainmaker Effects, in Hooghe M. e Stolle D. (2003) (eds) *Generating Social Capital Civi Society and Institutions in Comparative Perspective*, Palgrave Macmillan
- Wollebæck D. e Selle P. (2003), The Importance of Passive Membership for Social Capital Formation, in Hooghe M. e Stolle D. (2003) (eds) *Generating Social Capital Civi Society and Institutions in Comparative Perspective*, Palgrave Macmillan
- Zak, P.J. and S. Knack (2001). Trust and Growth, *Economic Journal*. 111: 295-321

Appendix 1. Summary statistics

<i>Variabili</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std.Deviation</i>	<i>minimum</i>	<i>maximum</i>
sc_reline	49	4.224	1.907	1	7
sc_nettrus	49	0.179	0.172	0	0.788
sc_perfri	49	16.415	24.608	0	100
sc_trust	59	2.424	0.855	1	4
sc_relational	59	2.994	0.559	1	4
age	59	39.478	9.676	21	73
education	59	4.172	0.812	1	5
female	59	0.582	0.490	0	1
CoopAB	59	0.203	0.406	0	1
CoopB	59	0.407	0.495	0	1
area	59	2.407	0.812	2	4
agecoop	59	20.034	6.726	9	29
employees	59	75.797	70.054	20	271
CSR_standard	59	0.508	0.504	0	1
multi_stakeholder	59	1.797	0.610	1	3
povincial_dummy	59	0.508	0.504	0	1
manager_dummy	59	0.169	0.378	0	1

Control variables:

<i>Variabili</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>minimum</i>	<i>maximum</i>
years	59	4,314	5,297	0	20
volunteers	59	2,339	2,898	0	8
meetings	59	0,798	0,746	0	1,963
collaboration	59	5,091	0,919	2,5	7
months	49	95,755	101,983	6	514
training	49	0,296	0,278	0	1
connections	49	0,796	0,407	0	1
autoscrel	49	5,792	1,241	2	7
working_environment	49	0,714	0,456	0	1

