The lack of social capital as an explanation to the demise of large and complex cooperatives


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Abstract

During the last twenty years many traditionally organized agricultural cooperatives have been forced to abandon their business form. Explanations have been put forward, comprising a variety of economic and sociological theories. The present study suggests that the social capital paradigm may add explanatory power when analyzing this development. It is claimed that the problems are due to the members having increasingly little trust in the cooperatives and in each other. The cooperatives’ decision-makers have no instruments for estimating how much social capital is lost when they pursue strategies of vertical and horizontal integration. Therefore they do not consider this loss in their calculations. Thus the problems caused by the cooperatives’ vaguely defined property rights are becoming increasingly serious. This reasoning is summarized into a model, which is influenced by the consumer choice model.

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1. INTRODUCTION

During the last two decades many traditionally organized agricultural cooperatives in the western economies have undergone profound changes (Fulton and Hueth, 2009). Some have transformed into a non-traditional cooperative organizational model, for example by introducing individual ownership by the members (Nilsson and Ohlsson, 2007). Others have disappeared due to mergers or acquisitions (Chaddad and Cook, 2007; Van der Krogt, Nilsson and Høst, 2007). A number of bankruptcies have occurred (Lang, 2006). Some cooperatives have sold a part of their business activities to investors, thus getting a hybrid type of cooperative (Corporate ..., 2000; Van Bekkum and Bijman, 2006). Still others have converted into investor-owned firms (IOFs).

In their attempts to explain the problems of many agricultural cooperatives, researchers have used a wide specter of theories such as agency theory (Cook, 1995), property rights theory (Fulton, 1995), population ecology theory (Bager, 1996), transaction cost theory (Harte, 1997), corporate governance theory (Holmström, 1999), and cultural theory (Hogeland, 2006).

This study suggests social capital theory as a tool for explaining the demise of many agricultural cooperatives. It is posited that large and complex cooperatives are gradually losing social capital; that is, network resources which are not visible to the eye but which nevertheless have an economic impact on these enterprises. The drain of social capital is reflected in less involvement for mutual benefits, less collaboration and members’ decreasing trust in their cooperatives’ leaders, as well as in each other.

The literature comprises fragmented elements of social capital theory in several of the prior explanations. Hence the purpose of this study is to provide a coherent social capital framework for understanding why traditional cooperatives often suffer from problems in the present-day market environments.

The paper is structured as follows. Section 2 presents basic social capital theory. Section 3 explains why social capital should be considered by cooperative decision-makers, in line with financial and human capital. Section 4 points at a gap in literature, namely the problem of social capital drain in cooperative firms, which used to be rich on social capital. The interpretation of social relationships in terms of capital has hitherto been largely non-conceptualized and therefore ignored by cooperative decision-makers. The problem is illustrated in a model. Finally, Section 5 concludes.

2. SOCIAL CAPITAL

2.1. The trust dimension

Putnam (2000: 19) defines social capital as consisting of “social networks [among individuals] and the norms of reciprocity and trustworthiness that arise from them”. He further explains that “Just as a screwdriver (physical capital) or a college education (human capital) can increase productivity (both individual and collective), so too social contacts affect the productivity of individuals and groups".
Trust is an indicator of social capital. If two persons, or a group of people, trust each other and in fact can trust each other, it will be easier for them to engage in productive collaboration characterized by low transaction costs. Besides, it will be easier for them to “forgive” each other and keep on cooperating in case of occasional breaches of trust – similar to the large and almost inexhaustible “trust credits” that exist among old friends, siblings, parents-children or spouses. However, trusting is risky, even when one has abundance of first-hand information about the other person, i.e. confidentiality. This is because a person can only entrust the other person with something valuable in the here and now hoping that the future will show that one’s trust was well-placed. Hence, to trust is to accept vulnerability because one is never sure whether the other can be trusted, or abuse one’s trust, or not being capable to keep his promises. In this sense, vulnerability is the “price of trust” (Barbalet, 2009: 369), implying potential economic, social and emotional costs.

However, it is important to note that trust is affected by supra-individual factors. Risks of being hurt and punished are conditional on social contexts, cultures and institutional set-ups. For example, a cheater or free-rider runs the risk of negative sanctions, either in the form of social sanctions or more formal sanctioning from the state or an organization, at the meso and macro levels (e.g. the cooperative enterprise) (cf. Coleman, 1988; Hardin, 2002: 127ff.; Newton, 2007; Rothstein, 2009: 200ff.).

2.2. Reputational effects

For a business firm to be able to conduct various activities there is a need not only for financial capital, but also for social capital (and human, physical, etc.). In this paper only financial and social capital are considered. To the extent that the firm enjoys social capital, the business partners are likely to comply with the agreements, trusting rather than spending time and energy on expensive control such as formal contracts, information gathering or surveillance. Thereby transaction costs are considerably reduced.

Social capital within the staff will mean that the work is better coordinated and that there will be less free-riding, which will lead to better economic performance and a good reputation. Moreover, if customers have trust in the firm, they are willing to pay a higher price and buy larger volumes. In case the capital market has a positive view of the firm, more investors are willing to buy more stock and so at a higher price, and lend more money on terms that are better for the firm. A firm with a good reputation (social capital conducive to symbolic capital) is more likely to attract more qualified staff.

3. SOCIAL CAPITAL IN COOPERATIVES

3.1. The cooperative establishment phase

The number of definitions of cooperatives is large (e.g. Phillips, 1953; Calvert, 1959; ILO, 1965; Münkner, 1974; Roy, 1981; Centner, 1988). Even though none of these definitions explicitly state the concept of social capital, they all indicate that cooperatives are based on the existence of social capital.

The most widespread definition of cooperatives is: “A cooperative is a user-owned and user-controlled business that distributes benefits on the basis of use” (Barton, 1989: 1). The three components of this definition indicate that cooperatives are linked to the concept of social capital. The aim of a cooperative is not to convey capital gains to any owners; it is to create
benefits to a group of members. These benefits should not be distributed in proportion to the amount of ownership but in relation to the members’ patronage. Hence cooperatives are owned by the patrons for the sake of achieving some benefits. Furthermore cooperatives are democratically controlled. The ownership, the distribution of benefits and the control all indicate social relationships between the cooperative and the members as well as between the members. The members are persons of flesh and blood who run their own agricultural enterprises. They are not anonymous financiers.

Practically all cooperatives started on a small scale. There were a small number of founders, most often all living in the same village or a small geographical area. The founders were neighbors and colleagues, and sometimes also relatives. The task of establishing a jointly owned firm was a risky one because everybody thereby would be dependent on each other. If one or a few of the members were shirking, the entire membership would suffer. Therefore trust within the membership was needed, i.e. the level of social capital had to be high. The members were also willing to accept a high degree of social control.

The early members had to finance the newly established cooperative but they were normally not willing to invest a larger amount than was absolutely necessary. For this reason members, especially in the old days, accepted personal liability for the cooperatives’ debts. This is why cooperatives have often had low leverage.

The cooperative was established to adjust a malfunctioning market mechanism, which is to say that the members through their cooperative could reduce the risk-taking in their farm enterprises. Hence, they were not willing to accept large risks within the cooperative enterprise, and so the financial investments were small. The members needed all the capital they could get for investments in their own farm operations.

3.2. Multiplier effect, local embeddedness and formal institutions

To run its business operations, a cooperative needs financial capital. It has to invest in plants, machinery, vehicles, product development, marketing and many other assets. The financial capital is, however, built up on the basis of social capital. The resource base of cooperatives is the social capital that the members have in the cooperatives. All the financial capital that a cooperative has originates in one way or another from the members, often because they have voluntarily abstained from some patronage refunds. The financial capital is hence a kind of conversion of social capital – or the result of a “multiplier effect” – in the sense that members have been willing to supply the cooperative with financial capital. To the extent that social capital is lacking, the financial capital will suffer. Although many of today’s cooperatives are large and have a large amount of equity capital, the social capital basis still holds.

The social capital within cooperatives is also seen in the fact that cooperatives operate within a specific region, namely the region where the members farm. The sales market may be anywhere in the world, but there are always strong connections with the members as concerns the collection of agricultural products. A similar connectedness concerns choice of industry. A dairy cooperative, for example, works with the processing and marketing of milk or milk-related products, and the raw milk is collected from farmer-members within the cooperative’s operating area.

The governance of a cooperative is characterised by social capital as well. The directors are members, elected by the membership whereby each member has equal voting rights (one
member, one vote), and the directors are members. Even the chairman is a farmer-member. With regard to the professional leadership, the CEO (Chief Executive Officer) and the rest of the management team are today recruited from the labor market, but historically (when the cooperatives were still small) one of the members often had the responsibility to take care of the business operations, or the son or another relative to one of the members could function in that position. Until fairly recently it was considered desirable that the CEO should at least have a background in the agricultural sector. In principle, today’s agricultural cooperatives are still run by the members on the basis of their wish to get benefits from the cooperative. Again, social capital is the point of departure in the governance of cooperatives.

An important framework for accumulating social capital in cooperative firms is the formal institutions, i.e., the written “rules of the game”. There are different sets of cooperative principles, such as the Rochdale principles, the Raiffeisen principles and the Schultze-Delitsch principles (Barton, 1989). No matter which set of principles is referred to they all contain a clearly discernable element of ideology even though these principles can also be argued to have an economic rationale (Nilsson, 1989). Likewise it is quite common that people refer to various sets of cooperative values (Craig, 1993; Hakelius, 1996). Both the principles and the values indicate that cooperatives are based on social capital. Many of the principles are socially attractive such as the principles of equal treatment and equal voting power.

3.3. Financial and social capital in IOFs

An IOF operates under different conditions. The stockowners have invested money to get capital returns. For the stockholders it does not matter whether the firm works in one industry or another nor in one country or another, as long as the capital returns are satisfactory. The stockholders of a large corporation with the stock listed at a stock exchange are anonymous to one other. There are no social connections, no personal acquaintance and, as often, no trust. Even at higher echelons of the organizational chart the relationships are “cold”. The board is elected by a general assembly but the voting is proportional to how much stock the stockowners have, i.e. financial capital logic. In many corporations there are a few stockowners with a dominating share of the stock. This group is in control of the firm but it has to consider the minority of stockholders to the extent that the minority may influence the value of the stock.

The social connections are of course not neglected in IOFs but they are subordinate to the financial demands. There must be good social relations within the management team but this is so because thereby a better capital return could be attained – an atmosphere of conflicts would be disastrous. Hence, the social capital within IOFs is subordinated to the financial capital. The employees should be satisfied with their jobs, but that is obtained with the help of good salaries and a good social climate on the working place. The consumers should be as loyal as possible to the firm, which means that marketing communication is important.

3.4. The mechanisms behind the decline of social capital in cooperatives

The demise of many cooperative firms is related to dissatisfaction among the members (Nilsson, Kihlén and Norell, 2009). The cooperatives can no longer meet the members’ demands, and therefore the members increasingly abandon the cooperatives. Thereby the cooperatives get a lower volume to process and consequently they face low capacity utilization, which is costly. When members leave the cooperatives, their allocated capital is
redeemed, whereby the cooperatives’ capital basis is weakened. As members get dissatisfied they also ignore taking part in the governance of the cooperatives, which is to say that the cooperative will to an even less extent work in the interests of the members. It can be seen that there are vicious circles, i.e. the more members who get dissatisfied the poorer conditions will the cooperatives offer the remaining members who then become more inclined to leave the cooperatives (cf. so-called “bank runs”). When member dissatisfaction has reached a certain point, it is difficult to change the development.

A driving factor is that the intensity of competition has increased (Boehlje, Akridge and Downey, 1995). One reason behind this development is the increasing degree of industrialization in primary agriculture, following the introduction of new production technologies and new governance models. The owners and managers of the very large farms do not have the same sense of cooperative belongingness as farmers used to have, and the size of their farming operations imply that they do not have a strong need to reduce their transaction costs by the help of cooperative firms (Ollila, 1989). Because the markets nowadays function better the relative advantage of cooperatives has decreased (Harte, 1997).

To maintain competitiveness on the increasingly competitive markets the cooperatives integrate vertically (forwards) towards the more lucrative and less price sensitive consumer goods markets where there are greater possibilities for product differentiation and market segmentation. Likewise they integrate horizontally, mainly through mergers (Van der Krogt, Nilsson and Høst, 2007). Large size is positive for the attainment of lower average costs through economies of scale as well as economies of scope.

Especially the strategy of vertical integration is resource demanding, i.e. the cooperatives need more capital, and the capital must ultimately originate from the members. The farmer-members are, however, reluctant to supply more capital to the cooperatives (Chaddad, 2001; Richards and Manfredo, 2003). They have better investment opportunities in their own farming operation. Hence, the cooperatives tend to be undercapitalized.

Another characteristic of cooperatives is often said to be risk aversion (Staatz, 1987; Hendrikse, 1998). The members do not invest in their cooperatives to take high risks – on the contrary, they involve themselves to reduce the risk level in their farming operations. Nevertheless, the cooperatives take large risks when following strategies of vertical and horizontal integration, especially as their amount of equity capital is most often limited.

Moreover, to be competitive the cooperatives try to streamline their business operations. This implies that they must have more control of the inputs from the members. The members do, however, not want to be controlled. Hence, the members become more negative towards their cooperatives (Hogeland, 2006). When the cooperative movement started the members took this initiative to get a protection from the “evil” market forces and to remain as independent farm businessmen. Today, the relationship has often been reversed.

The trend towards horizontal integration (large-scale operations) tends to create memberships, which are very large and heterogeneous. The most extreme cases are the transnational cooperatives, having members in two or more countries (Nilsson and Madsen, 2007). As a consequence the members feel more and more alienated (Nilsson, Kihlén and Norell, 2009; Österberg and Nilsson, 2009). The management becomes increasingly autonomous, and the members have limited influence on the cooperatives’ decision making (Hind, 1997; Hind, 1999).
The development described above indicates that many present-day agricultural cooperatives do not operate in ways that this organizational type was built for a hundred years or more ago. They neglect the fact that the cooperatives’ business form is a social construction, which humans have created to get specific problems solved. They seem to believe that the cooperative business form can do all that investor-owned firms do.

There is a divergence between the attributes of cooperative business and the strategies that these firms pursue (Nilsson and Ohlsson, 2007; Nilsson and Ollila, 2009). The strategies of vertical and horizontal integration are a way to adapt to the developing market situation, but such market orientation is at odds with the member orientation, which is necessary for cooperatives. There would probably be other markets for the cooperatives to adapt to – markets which the members know and understand and for which they are willing to raise capital. These observations indicate that the failing cooperatives are characterized by an imbalanced relationship between financial and social capital.

4. SHRINKING SOCIAL CAPITAL IN COOPERATIVES

4.1. Literature review

Although researchers base their explanations of cooperative problems on various other theories it is easy to identify social capital elements in their explanations. Hence, one may claim that the social capital paradigm is the common denominator for all the explanations, which are presented below.

Cook (1995) suggests a five-step life-cycle model for cooperatives, ranging from establishment to either exiting, restructuring (including choosing a hybrid model, and involving outside co-owners), or shifting (choosing an individualized cooperative model, implying tradable delivery rights). Before the final step is reached the cooperatives are plagued with problems, originating from so-called vaguely defined property rights (VDPR). One such problem is that the members do not want to finance the cooperatives; another one is that the cooperatives make investments that are not in the interests of all farmers; furthermore, members do not monitor the cooperatives thereby handing over the power to the professional managers. These and other VDPR problems follow as the membership becomes so large and anonymous that the members have a tendency to be free riders, the cooperatives business activities expand beyond the horizons of the farmers, the ownership is to a large extent collective – all in all, the amount of social capital that the cooperative has in the minds of the members shrinks.

Fulton (1995), with the use of property rights theory, suggests that the cooperatives have lost their former capacity of being the most crucial link in the value chains. Historically farmer cooperatives were superior as concerns the production of large and homogeneous volumes of high quality agricultural products. This was a consequence of the fact that farmers had trust in their cooperatives whereby they were willing to accept the superiority of the cooperative. Søgaard (1994) supports this kind of reasoning. Today, however, investor-owned competitors have developed techniques for acquiring the same ends, whereby the power has shifted to other links in the value chain, predominantly the retailers and the firms owning the genetic material. The value of the farmers’ trust in their cooperatives has been devalued.
According to Bager (1996), cooperatives constitute one group in the population of formal organizations within an economy and an industry. In the infancy of cooperatives, the number of cooperatives was so large that they formed a tightly connected group, and hence there was “mimetic isomorphism”, such that the cooperatives tended to become similar to one another and dissimilar to other business firms. In those days there was a substantial amount of social capital. Today, techno-economic and institutional changes have resulted in large-scale cooperatives, operating internationally. Thereby the cooperatives are subject to “noncongruent isomorphic pressures”, driving them to adapt to the practices of IOFs. The farmers have social networks not only with other farmers but also with non-farmers. The employees have IOFs as their optional employers, and so have the managers and even CEOs. Most suppliers to the cooperatives are IOFs, and so are their customers. The financial institutions treat cooperatives as they treat IOFs. Hence there is not room for much social capital.

It is generally held that cooperatives are established when a group of economic actors perceive that they can reduce their transaction costs with the help of a jointly owned agent. A condition is that the group of actors has fairly low costs for organizing this firm. This is, however, not as likely today as it used to be (Harte, 1997). The farmers’ potential for transaction cost reduction is less due to modern information technology as well as better transport technologies. Today’s farmers are much larger and much more specialized than previous generations, and thereby they are stronger when they are to act on the open markets. Farming has become a profession like others, which is to say that farmers’ age-old self-identity is withering (Lind, 2011).

Hind states that “co-operatives become more corporate oriented as they develop through time” (1997: 1081) and that “in the later stages of the life cycle, the aspirations of the managers, rather than those of the farmers, are realised” (1999: 536). This is an expression of less social capital.

Holmström (1999) is one of the many researchers who criticize cooperatives on the basis of corporate governance, including poor leadership, poor capital building capacity and poor investments. The core of his criticism is that there is no market for equity capital and hence cooperative decision-makers can not know whether the amount of capital is too large or too small or whether an investment is worth conducting.

Lang (2006) used dominant logic theory and principal-agent theory to investigate the reasons for the transition of Canada’s largest agricultural cooperative. She found that the cooperative was not able to change its existing business logic when the competitive pressure increased. She reports that “management took advantage of the board’s lack of experience as investments extended beyond the farm gate. The principal-agent problem in conjunction with an inaccurate revised dominant logic is the reasonable explanation for the Pool’s failure.” (Lang, 2006: iii). In other words, there was not enough social capital among the members to monitor the management, or among the directors.

There has according to Hogeland (2006) been a cultural transition in the agricultural cooperatives. Towards the end of the 20th century the cooperatives became very large and their operations became increasingly complex. Hence there was a need for highly professional management. Producer commitment and control should be reconciled with efficiency and competitiveness, ultimately resulting in vertical integration. Hence, a dilemma arose: “Cooperatives are the institution that provides ’the common man’, that is, the small farmer, equality in the marketplace. The critical issue was whether producer equality was maintained
by keeping cooperatives small and participatory or commensurate in size, scale, and vision with the large businesses that threatened to overpower farmers in the marketplace” (Hogeland 2006: 71). As a result, producer commitment and influence gave way to nonfarm investments in a “cultural transformation that weakened the symbiotic relationship between farm and cooperative” (Hogeland 2006: 77). The culture that is supportive for the traditionally organized cooperatives becomes successively threatened as the cooperatives expand. “Farmers wanted to use cooperatives to protect their economic independence, but cooperatives needed farmers to be economically dependent on them” (Hogeland, 2006: 67-68).

Fulton and Hueth (2009) claim that the problems of the cooperatives are due to poor management, but if so even the boards of directors must be blamed and ultimately the members, who have elected insufficiently competent directors. There are also “common structural problems associated with cooperatives – such as lack of capital, property right problems and portfolio problems” (Fulton and Hueth, 2009: i).

The observations above are not new. Many decades ago Bakken and Schaars (1937: 533) stated that “Cooperative organizations are occasionally alluded to as self-liquidating corporations. Their success may cause their destruction”. A similar observation was stated by LeVay (1986: 108–109.)

4.2. Social capital in the decision-making process

An explanation to the development may be that social capital hitherto has been ignored as capital both by researchers and by the cooperative decision-makers. The ignorance of this intangible capital in economists’ analyses was first observed by Bourdieu (1979; 1986). In particular it is striking that cooperative enterprises – supposedly the social capital driven enterprises par excellence – have not considered the reduction of social capital as a probable and significant cost as the strategies towards vertical and horizontal integration have been pursued.

Prior researchers have only indirectly alluded to social capital as the “missing link” in understanding the economic performance of traditional cooperatives. They have not used the concept capital and, hence, not explicitly included it in the accounts. Although social capital is not easy to measure (the typical measure being the level of trust) it should have been included in the calculations. As Hogeland (2006) indicates without applying the term social capital, social networks based on norms of reciprocity and trust can be seen as the most essential asset of cooperatives, in comparison to IOFs. In such a perspective, social relations within a firm should not just be assessed as a more or less random configuration of human beings but as a concrete resource, the productivity of which depends on the organizational form. Cooperatives need social capital to be competitive. Therefore, the drain of formerly high stocks of social capital may explain the crisis that many traditional cooperatives have experienced recently.

Within a cooperative, there is a trade-off between financial capital needed for vertical and horizontal integration on the one hand, and its stock of social capital on the other. If a cooperative is not aware of its comparative advantage in terms of social capital, and therefore does not protect it, it risks losing this form of capital in the process of developing into a large-scale enterprise. Consequently, profits from economies of scale and scope may be outweighed by loss of social capital mirrored in less trust among members and between members.
and leaders, alienation and passivity among members, low involvement, weak democratic
governance, private good provision rather than collective good provision, widespread free-
riding, low satisfaction and loss of solidarity. This is not to say that strategies of vertical and
horizontal integration are “wrong” for cooperative enterprises but it should be realized that
these strategies have costs which may not be visible to the eye (and to the accountant) but
which nevertheless affect the cooperative’s economic performance, because these decisions
involve a drain of social capital.

Figure 1 illustrates the development towards weaker social capital in the relationships
between the members as well as between the members and the cooperative firm.

These decision-makers have made decisions concerning vertical and horizontal integration,
which were probably wise and well deliberated at the time of the decision-making. There are,
however, a few problems associated with such decision-making:

- **Time horizons.** The decisions were made on the basis of calculation concerning costs
  and revenues, i.e. they concerned the financial consequences that could be foreseen in
  a short term perspective. The effects that the various decisions may have in a longer
  term were probably not considered. This is especially so as all decision-makers have
  limited time horizons as well, i.e. they are elected or appointed for a few years.

- **Delayed effects.** The reduction of the social capital cannot be seen within the next few
  years after the cooperatives’ investment decisions are made. It may take several years
  until the members realize that the cooperative does no longer work in their best
  interests.

- **Incrementality.** The negative effects that the cooperatives’ decision-making may have
  on the level of social capital take place incrementally. As the change takes place in
  many small steps, the decision-makers have no possibility to link the two to each
  other. On the contrary, the decision-makers are more likely never to realize that
  strategies of vertical and horizontal integration are related to shrinking social capital.

- **Measurability.** It is almost impossible to measure and quantify the amount of social
  capital within a cooperative membership, at least for the decision-makers. What is
  impossible to discern does not exist in the minds of the decision-makers.

- **Populism.** The decision-makers – especially the directors – want to be popular among
  the membership, and therefore they make decisions, which they can successfully
  explain to the members. It is easier to provide explanations about factual
  considerations than to explain diffuse social conditions.

4.3. Vaguely defined property rights in traditional cooperatives

Many of the researchers who explain the demise of traditional cooperatives argue that the fact
that the property rights are not specified bear a large part of the blame. Cooperatives have so-
called “cooperative property rights”, which imply that there is no market for the shares
(residual claims) (Vitaliano, 1983).
In the early days of the cooperative movement the vaguely defined property rights posed, however, no problem. Those cooperatives – just as many of today’s small cooperatives – had the same “cooperative property rights”. The conditions were, however, different from those that characterize the present-day cooperatives with large and differentiated business operations and large and heterogeneous memberships.

Table 1 presents a comparison between traditionally organized (collective) cooperatives that are large and complex (extensive horizontal and vertical integration) and those which are small and simple (only member-related operations). It shows that the problems of vaguely defined property rights may be large in the large and complex cooperatives but small in the other category. In latter ones have good conditions for a large stock of social capital as the members to a great extent know each other, have an overview of the cooperatives business operations and have relationships with the leading decision-makers. The opposite holds true in the large and complex cooperatives.

[Table 1 here or somewhat below]

4.4. Model of cooperative demises

The next step is to develop a model of the cooperative demises. The basis for this analysis is the consumer choice model, well-known in the neo-classical economic theory. Hence the graphical illustrations consist of indifference curves and budget constraint curves. The following presentation does, however, not concern consumers who try to allocate their budgets on consumption alternatives in an optimal way. It deals with cooperative and investor-owned firms that use budgets consisting of social and financial capital for performing various business activities in an optimal way, given that these activities require different sets of capital.

All activities to be performed need the use of different types of capital. Capital is here classified as financial capital and social capital – human capital, physical capital and others are excluded. The activity may be the establishment of a factory, the leadership of a firm, control of a management, investment in new products or new markets, etc. It is evident that these activities require financial capital, i.e. investments for the construction of buildings, purchase of machinery, employment of staff, conducting research, etc. At the same time social capital is necessary; otherwise, the employees would not be motivated to work efficiently, the management group would not unite about decisions, the buyers would not have enough trust in the firm to buy its products, investors would no dare to invest in the firm, etc. Hence, both types of capital are always needed, no matter what task is to be performed.

The two types of capital may, however, be deployed in various proportions. It is possible to exchange one for another, though not completely so – only to some but not specified extent. A firm may use little financial capital for advertising campaigns, relying more on the word-of-mouth communication among its circle of customers. A firm may employ a promising person at a relatively low salary, provided that this person is proud of working for a well-reputed firm. A CEO who is trusted by the Board of Directors may get relatively poor investment proposals accepted. It may be possible to get customers to conduct certain kinds of services for free or the same services could be bought from the market.
Hence, the two types of capital may be transformed, or “converted” (Bourdieu, 1986), from one to another. It is possible to “buy” one type of capital by “paying” with the other type of capital.

This reasoning is illustrated in Figure 2. The curves “a” and “b” stand for activities, which demand different amounts of total capital. Activity “a” requires a larger amount of capital whereas activity “b” requires less capital. On curve “a”, two situations are marked, saying that this activity can be executed with either a large amount of social capital and less financial capital \((s_1;f_1)\) or the other way around \((s_2,f_2)\).

The curves approach the axes asymptotically but never cross them. This means that both types of capital are needed regardless of the activity. It is seen that a firm will suffer from large costs if one of the capital types is very scarce. To balance a very small amount of social capital the firm has to use an extremely large amount of financial capital, and vice versa.

The proportion of the two types of capital, needed for a specific purpose, is contingent on the firm’s costs for obtaining financial capital versus obtaining social capital. As the curves in Figure 2 are fairly curvilinear, the transformation is quite unequal, i.e. the actor must give away a large amount of financial capital to get a limited amount of social capital, and vice versa. If the curves were straighter, the two types of capital were valued more equally. The last option, i.e. if the curves had a convex shape instead of the concave shape as in Figure 2, would be impossible just as a completely straight line. In both occasions, the curves would cross the axes.

The curves in Figure 3 express the amount of capital that a firm has available for conducting a specific activity, i.e. they are the budget restrictions for firms “A” and “B”. Because there are limits as to how much capital the firm has, these curves cross the axes.

The capital that an actor has can be transformed from one capital type to another. It is possible to buy social capital by paying with financial capital and vice versa. Figure 3 shows how an actor may use different combinations of capital when conducting activities “a” and “b”. When such transformations are made, there are costs associated with the transformation itself, i.e. transaction costs. These are, however, not included in this analysis.

Again the budget restriction curves may have different shapes, depending on which “exchange rates” there are for the firms wishing to transform one type of capital into the other. These curves may in principle also be straight lines, which would mean that both types of capital were valued just as much when the firms are to make the transformations. If so, the firm would get one unit of social capital by paying with one unit of financial capital and vice versa (if the two capital types were to be measured in one way or another). This would, however, not be found in reality.

For example a social movement has plenty of social capital but little financial capital. This social movement needs financial capital to conduct activities for its members, but the sacrifices for getting this financial capital are large. Perhaps the members of this social movement have to make large sacrifices in terms of tedious money-collecting activities.
Correspondingly investor-owned firms, which are based on financial capital, need social capital for motivating their staff to work efficiently, but they may attain this through paying high salaries.

Figure 4 is an amalgamation of Figure 2 and 3. It shows the optimal solution when firms “A” and “B” are to perform activity “a” and “b” using their respective configurations of social and financial capital. The figure shows the optimal use of the two forms of capital for both actors. Actor A, who has more total capital (or capital volume, cf. Bourdieu 1989), can perform activity “a” by deploying social and financial capital in proportions s₁ and f₁. This combination is optimal as with any other combination of social and financial capital firm “A” would not be able to conduct the activity “a”. Firm “A” would have to use a larger amount of resources for activity “a”.

The curves in Figure 2, 3 and 4 are mirrored, i.e. equal along both axes. This is an unlikely situation. Normally the curves lean towards one or the other of the two axes depending on the type of activity and the resource base that the actor has. Some activities require that more social capital is deployed, whereas others require more financial capital. This situation is shown in Figure 5. Here the curves for needed capital are skewed.

The four curves in Figure 5 express the sets of capital that are needed for conducting different types of activities. The curves Act₁ (social) and Act₂ (social) stand for activities of a social character, with Act₁ (social) being more resource demanding than Act₂ (social). Both these curves lean more towards the vertical axis, which is to say that the activities can more easily be performed with social capital than with financial capital; nevertheless, both types of capital are needed. A corresponding reasoning can be done for the two curves Act₁ (financial) and Act₃ (financial).

If, for example, the activity is to convince a group of individuals to do something, one may use arguments (social capital) or pay them for doing this (financial capital), but the former option will probably require a larger amount of total capital. This is shown in the curves Act (social). If, on the other hand, the activity is to produce a physical good, financial capital might be more efficient that social capital, as is shown in the curves Act (social).

Similarly, the curves in Figure 6 are skewed. This is so because the ability to raise capital of the two kinds depends on the type of firm. Two types of firms are considered. Cooperative firms are based on social relationships between the members and the members’ trust in each other (horizontally, or “bridging” social capital) and in the leadership (vertically, or “linking” social capital) (Robison and Flora, 2003). Hence, a cooperative has better access to social capital than an investor-owned firm. Investor-owned firms are likely to have owners who are anonymous to one another, i.e. there is no social glue. On the other hand their owners are owners because they invest financial capital.

Figure 7 combines Figure 5 and 6. In this figure, only the two curves for activities, which require much financial capital, are included. This is so to demonstrate that cooperatives, with
their (historic) prevalence of social capital, are hampered in such an environment. It appears from Figure 7 that to perform activity 1, the cooperatives’ optimal solution is to deploy the amount of capital in Co-op2, which results in the use of $X_1$ financial capital and $Y_1$ social capital. The investor-owned firm can perform the same activity with the use of the total capital amount contained in IOF1, provided that capital is used in the proportions $x_2$ and $y_2$. However, the investor-owned firm’s total capital in IOF1 is smaller than the cooperative’s total capital Co-op2, which gives the investor-owned firm a competitive advantage over the cooperative. If the investor-owned firm was able to use the same total amount of capital as the cooperative does, this investor-owned firm would be able to perform activity2. The cooperative has no ability to handle activity2.

[Figure 7 here or somewhat below]

In the case the activity would have been of a kind that is well suited for social capital, the cooperative would have been better off than the investor-owned firm. For the sake of simplicity this is not shown in Figure 7, but it is easy to understand as in that case the curves would be the reversed.

A traditionally organized cooperative is – and especially was – a grass-root organization. Individuals gathered to pool the few resources they had, which is to say that they knew each other, had trust in one another and were determined to, and able to, work together. In this way social capital became the hard rock on which the cooperatives were built. The opposite holds true for investor-owned firms. The investors have normally no social relations. People who are anonymous to one another invest financial capital for the sake of getting capital returns.

5. CONCLUSION

This study suggests that a social capital theoretical framework may contribute to explain why many of the large and complex traditionally organized, agricultural cooperatives have failed during the last couple of decades. The strategies towards far-reaching vertical integration and horizontal integration have created a gorge between the members and their cooperatives, which until recently have been rich on this particular form of capital. This has led to less mutual trust and less face-to-face interaction between rank-and-file members, as well as between members and leaders, implying less involvement among members, less pride of one’s cooperative, weakened democratic governance, and more difficulties in solving collective action problems. Hence, the withering of “soft” values contained in a stock of social capital has serious impact on these enterprises’ economic performance.

This does, however, not mean that the cooperatives should abstain from strategies of vertical and horizontal integration. The changing markets very often require value-added processing of the agricultural products. Without such expansion the cooperatives might not be competitive enough.

Crucial for the cooperatives’ decisions about vertical and horizontal integration is that the decision-makers are aware of any potential loss or gain in social capital. As it is, cooperatives’ decision-makers have no instruments for estimating how much social capital is lost when they pursue strategies of vertical and horizontal integration and therefore they do not consider this potential loss or gain in terms of social capital in their calculations. Thus, future research should try to establish adequate instruments for estimating the level of social capital within an
organization such as a cooperative enterprise so that this value is considered in any cost-benefit analysis.

This is also to say that the decision-makers cannot be blamed for the development. They have done what was necessary to do at the time of the decision-making. The development is a consequence of the increasing large scale of agricultural enterprises, the intensified competition due to the process of globalization and technological advances.

REFERENCES


Table 1. The problems of vaguely defined property rights in cooperatives with varying degrees of vertical and horizontal integration

<table>
<thead>
<tr>
<th>Traditional cooperative with far-reaching vertical and horizontal integration</th>
<th>Traditional cooperative operating only in member-related businesses</th>
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<tbody>
<tr>
<td><strong>The free-rider problem</strong></td>
<td>A homogeneous membership and small joint assets imply low free-rider problems. A new member benefits from the firm’s existing assets, but the existing members may gain from letting new ones join freely. Thanks to the new member the volume increases, whereby economies of scale can be reaped. When members withdraw, they cannot take with them the wealth to which they have contributed during their period of membership, but they have still benefited from their membership in terms of favourable market exchanges. Further, a cooperative that operates solely by improving badly functioning markets will have limited capital so the withdrawing member will lose only a small amount.</td>
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<td>In a large membership where members are anonymous to each other, each individual may think that something wrong is happening and that somebody has to take action, but “somebody else” should do that. Free riding may be seen also as the individuals’ investment behavior, Furthermore, members may understand that the cooperative’s survival may be threatened by a reduced volume but each of them say that others should be more loyal, not themselves.</td>
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<td><strong>The horizon problem</strong></td>
<td>Due to a homogeneous membership and a low level of investments, the efficiency losses resulting from the horizon problem may be overshadowed by the fact that members enjoy better functioning markets during their period of membership. In addition, the homogeneous membership includes strong social and economic interdependencies, whereby members tend to have longer time horizons. Members’ utility-maximising behaviour can therefore reach beyond a person’s own lifetime. If the cooperative works only with member-related activities, it is likely that its undertakings will consist of simple and stable business functions. Such activities change so little over time that the horizon problem declines.</td>
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<td>It can not be excluded that the members understand that the cooperatives’ cooperative status is threatened but they might think that this does not matter very much because the problems will not be really serious until the specific member has retired.</td>
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<td><strong>The portfolio problem.</strong></td>
<td>If a cooperative’s operations strengthen the members’ market position and there is trust between the members, the portfolio problem is less potent. If the membership is homogeneous and if the cooperative firm operates only in the problematic market, all the members will benefit from all the investments and operations in the firm. The firm is not engaged in diversified activities. The activities of the firm are straightforward, becoming less capital-intensive and stable over the years. Hence, it does not matter very much that the unallocated capital is inflexible or that owner-shares are not transferable.</td>
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<td>With a large and heterogeneous membership and with diversified and complex business operations the cooperative makes many investments which are not in the best interests of all members. This may not only create conflicts within the membership, but it may also give rise to dissatisfaction and alienation.</td>
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<td><strong>The monitoring problems</strong></td>
<td>Neither the follow-up problem nor the decision-making problem is significant under the high member-commitment that is likely if the membership is homogeneous and the cooperative is successful in correcting the market failures that the members may face. The proceeds from the member’s investments are in the form of improved trading conditions, whereby their investments result in positive gains.</td>
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<tr>
<td>Because members are anonymous to each other they remain passive even though they are aware of the rising problems of the cooperatives. The individual does not know what is happening, has weak incentives to take action and does not want to use his or her own resources to organize a resistance movement.</td>
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</tbody>
</table>
$T_0$–$T_1$: Increased economic performance without drain of social capital
$T_1$–$T_2$: High economic performance without any significant drain of social capital
$T_2$–$T_3$: Stagnated economic performance with increased drain of social capital
$T_3$–$T_4$: Lowered economic performance due to significant drain of social capital

Figure 1. The development of financial and social capital as a traditional cooperative expands and becomes increasingly complex
Figure 2. Transformation of capital needed for performing activities.

Figure 3. Amount of social and financial capital available for an actor to perform activity “a” and activity b.
Figure 4. Optimal use of capital by an actor performing various activities.

Figure 5. Transformation of capital needed for performing activities that require different combinations of financial and social capital.
Figure 6. Cooperatives’ and investor-owned firms’ sets of social and financial capital.

Figure 7. Cooperatives’ and IOFs’ optimal use of capital for conducting activities, which are best conducted with financial capital.