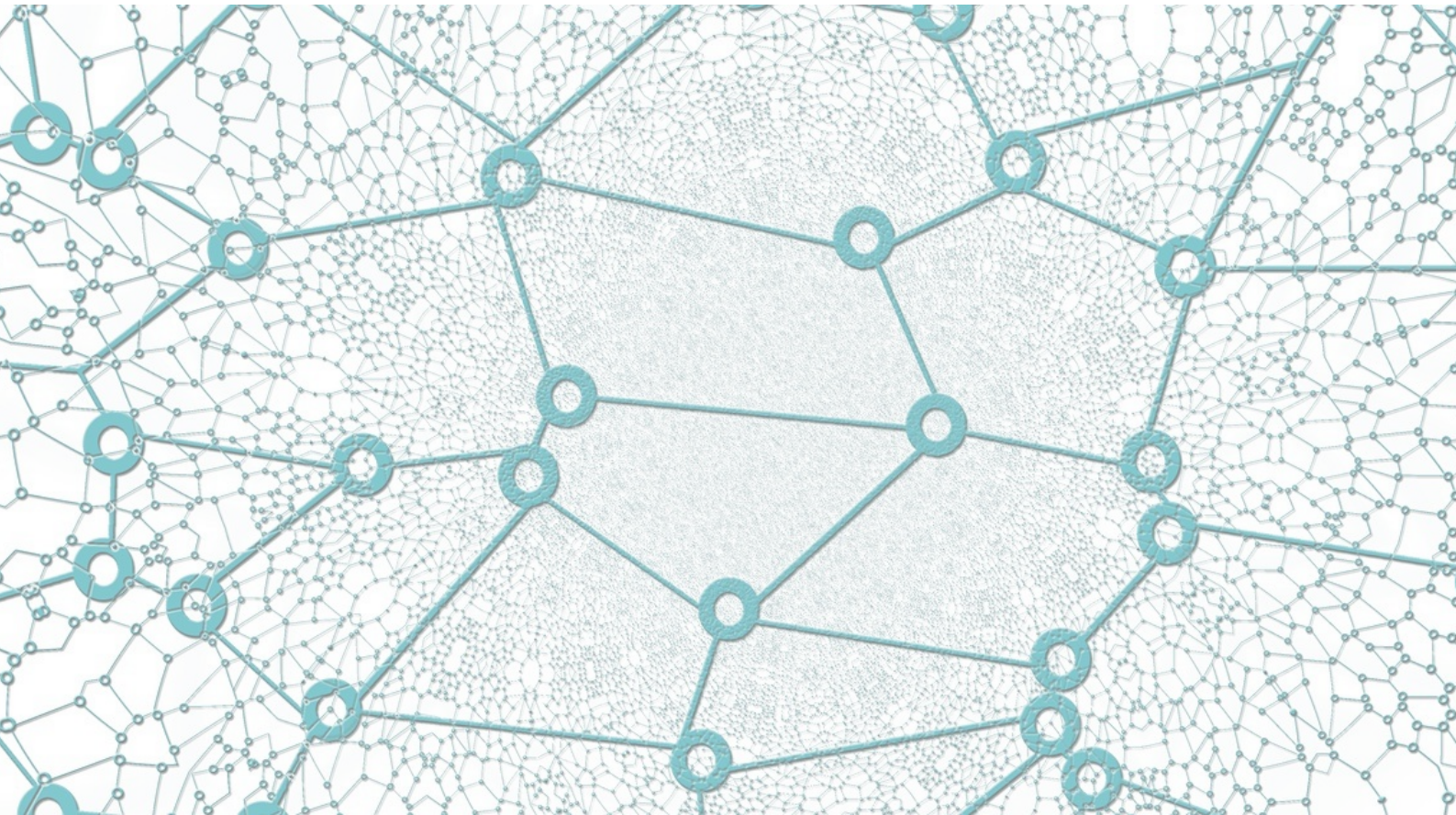


A transaction costs analysis of cooperation among cooperatives: the cases of 'Labcoop' and the network of architecture cooperatives in Barcelona



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Abstract

There is a growth in social and solidarity economy initiatives worldwide and many of them are employee-owned cooperatives. Cooperatives are guided by the cooperative values and these affect human efforts to run a business. Cooperatives are growing in scale and are facing challenges of coordination and governance, and a potential solution is the intercooperation among them. New institutional economics offers tools to explore governance mechanisms through analyses of transaction costs. This study addresses the question of whether cooperative values and intercooperation affect the transaction costs of cooperative governance. For this purpose, two groups of cooperatives in Barcelona with similar values but different ways to approach coordination among cooperatives have been compared. The first group organizes part of its activity within the second-degree cooperative Labcoop and represents and is used as a case of strong intercooperation; while the second group consists of a network of architecture cooperatives and represents a case of weak intercooperation. Quantitative research methods have been combined with a qualitative analysis of seventeen interviews with employee-owners of these cooperatives. Evidence shows that cooperative values undermine the logic of economic maximization, thus reducing opportunistic behavior among employee-owners. Also, homogeneity of values reduce contracting and ownership transaction costs, although not the costs of collective decision-making. Also, intercooperation can reduce the risks of specialization of cooperatives and employee-owners by promoting division of labor and innovation; however, this also increases the costs of decision making and principal-agent control.

Keywords: social and solidarity economy, employee-owned cooperatives, cooperative values, intercooperation, new institutional economics, transaction costs, opportunistic behavior, collective decision-making.

1. Introduction

Since the end of the 20th century there has been a growth in new economic initiatives worldwide in what has been called social and solidarity economy (SSE). These initiatives do not comply with the conventional logic of economics based on competition in the markets to maximize profits and reduce nature to a passive resource (Johanisova and Vinkelhoferová 2019). Instead, they involve collective ownership (democratic, non-hierarchical and consensual decision-making), mutual cooperation and integration in a local socio-ecological context. These initiatives can be organized in different ways and many of them take the form of employee-owned cooperatives, hereafter referred to as 'cooperatives'. Cooperatives in SSE are guided by cooperative values. These values translate into the principles of socially useful and ecologically sustainable product, equitable distribution of value among stakeholders, democratic and transparent management, and a willingness to reproduce the initiatives of SSE (Garcia and Suriñach 2019).

Cooperatives are growing in scale and are facing challenges of coordination and governance, and a potential solution is the cooperation among cooperatives, hereafter referred to as 'intercooperation'. For example, the Catalan SSE is acquiring a significant size and there are calls for boosting intercooperation (XES 2019), strengthening the social market with new tools (Garcia and Suriñach

2019) and questions arise about how to scale up the activity of cooperatives while maintaining the cooperative values (Coraggio 2015, Garcia 2018). Thus, the first objective of this study is to analyze how the cooperative values reduce or increase the transaction costs of cooperatives. Also, the vast literature on hybrid governance and cooperatives has barely addressed intercooperation relations, although they are a core part of the organization of production and define how control over distribution problems is assigned (Sacchetti and Tortia 2016). Thus, the second objective of this study is to analyze how intercooperation reduces or increases the transaction costs of cooperatives and, therefore, under what circumstances is viable.

New institutional economics (NIE) delve into institutional production structures and offers tools to explore governance mechanisms (Coase 1992, Williamson 1996). A key theory within NIE is transaction costs theory, which explains governance efficiency as a function of the ability of organizations to minimize contracting and ownership costs. Thus, this study relies on transaction costs theory to analyze the potential of cooperative values to facilitate governance efficiency (Hansmann 1996). Similarly, the theory is used to assess the efficiency gains of intercooperation and the theory of hybrid governance has been included to understand how various legally autonomous cooperatives do business together, adjust each other with little help from the pricing system and share technologies, capital and services (Ménard 2004). SSE has started to take into consideration certain outcomes or concepts that are within the scope of new institutional economics theory (Fecher and Lévesque 2008). These include asymmetric information, market failures, government and civil society failures and governance theories. Although there are small pools of research about the experiences of SSE cooperative boards and the socialization of accountability practices (VanPeurse et al. 2016), studies applying transaction costs theory to SSE cooperatives are rather scant (Hernández-Espallardo et al. 2013).

The study consists of a comparative case study of two groups of cooperatives in Barcelona with similar cooperative values but different approaches to intercooperation. The first group organizes part of its activity within the second-degree cooperative Labcoop and represents and is used as a case of strong intercooperation; while the second group consists of a network of architecture cooperatives and represents a case of weak intercooperation. These groups of cooperatives were chosen as representative cases using criteria such as type of activity, number of workers and annual turnover. Quantitative research methods have been combined, by means of data exploration, with qualitative research methods, through an analysis of seventeen interviews with employee-owners of these cooperatives. The relevance of this study resides in the contribution of an empirical analysis of cooperatives based on transaction costs economics and the effects that the cooperative values have on these costs. The intercooperation analysis provides an empirical view of how second-degree cooperatives work. This helps to develop hybrid governance studies and produces new tools for the scalability of social and solidarity economy.

2. Conceptual frame

2.1 New institutional economics

New institutional economics focus on institutional structures of production and the tools for exploring the mechanisms of governance (Coase 1992, Williamson 1996). The crucial issue highlighted by the new institutionalists was the methodological individualism: instead of taking on a homogeneous workforce, with a well-defined goal of maximizing earnings per worker, they emphasize individual heterogeneity and selfish behavior (Kalmi 2003). The institutional system has a crucial importance in transaction costs economics (Coase 1992). If transaction costs were negligible, the or-

ganization of economic activity would be irrelevant but, if transaction costs were high, special governance structures would supplant standard market exchange (Williamson 1979).

The variety of transaction costs are defined between the costs of contracting in the market and the costs of the ownership of a firm (Hansmann 1996). The costs of market imperfections can be reduced by assigning ownership to the affected stakeholders in a tradeoff between costs of market contracting and costs of ownership. Cost-minimizing means efficient in the broad meaning of the word in economics to refer to a situation in which there is no alternative arrangement that could make any class of stakeholders better off without making some other class worse off to a greater degree. Transaction costs come from the principal-agent relationship between the owners and these are a sum of the risks of firms in market contracting and the ownership costs: "a firm is a common party to a group of contracts" (Hansmann 2012: 1). Hansmann's transaction costs of contracting are:

- *Simple market power.* The market competition can be limited owing to economies of scale or other factors such as cartelization or regulation. This can affect a group of stakeholders in two aspects: (i) market power over them and (ii) the social costs due to contracting reduction resulting from a price above the cost. The affected stakeholders then have an incentive to own the firms and thereby avoid price exploitation.
- *Ex post market power (lock-in).* Monopolistic exploitation risks can also arise after a stakeholder begins to relate to a firm if, when the relationship began, the firm had a considerable number of competitors. These risks arise where two circumstances are present: if, when entering into the transactional relationship, the stakeholder must make substantial transaction-specific investments and if these transactions extend over a long period of time. In such circumstances the stakeholder becomes locked and loses the protective option of costless exit if the firm seeks to exploit her/him. For instance, developing skills for a particular job and creating relationships with the local social environment are specific investments and these investments generates an increase in transaction costs to change. There is a risk that this professional and personal stagnation could lead to abuse by the firm: the employer is in a position to act opportunistically towards the worker.
- *The risks of long-term contracting.* Contracts between a firm and its stakeholders can not only allocate risks but sometimes also create risks and this is particularly true when contracts have very long terms. If the conditions change during the term of the contract, for example the price or salary specified in the contract, it can produce a substantial unexpected gain for one party and a corresponding loss for the other. A solution to the risks of long-term contracts is making the stakeholders owners of the firm: what the stakeholders lose, they gain it as owners, and vice versa.
- *Asymmetric information, strategic bargaining and communication of stakeholders preferences.* Contracting can also be costly when the stakeholders have better information than the firm concerning matters that bear importantly on transactions between them and vice versa. For example, workers are likely to know more than their employer about the amount of effort they are putting into their work. When workers cannot credibly communicate their preferences to management, costs can arise from strategic bargaining. Reducing asymmetric information reduces opportunistic behavior by the workers and prevents firms from having to adjust wages to offset the risks of this behavior. Each employee-owner has incentives to monitor and put pressure to other workmates not to elude their tasks, incentive largely lacking in an investor-owned firm.
- *Compromising among diverse stakeholder preferences:* Where stakeholders own the firm, they are likely to make decisions collectively by voting in some fashion and voting tends to

favor preferences of median member of the group rather than those of marginal members. Stakeholder ownership can thus offer advantages in selecting an appropriate compromise when stakeholder preferences diverge.

- *Alienation.* There is a market inefficiency of alienation when there are people who are opposed to capitalist companies and they would instinctively prefer to have more cooperative, trusting and altruistic relationships.

The owner is defined as the person who is formally entitled to residual earnings and residual rights of control. Residual earnings stand for the remaining net profits once every stakeholder received his compensation according to the law or contractual agreements. Residual control consists in having decisional power in all circumstances that cannot be ex-ante defined in a contract, due to the limited rationality of the agents or their inability to write binding contracts. Hansmann's transaction costs of ownership are:

- *Costs of controlling managers.* The agency costs of controlling managers is the sum of the costs incurred in monitoring them and the costs of managerial opportunism. Monitoring costs will also depend on the ease of organizing stakeholders for collective action which may, in turn, depend on factors such as the stakeholders' physical proximity to each other and to the firm. When business owners do not exercise effective control over their managers, the managers have an opportunity to malingering or engage in self-dealing transactions.
- *Collective decision-making.* Some differences will simply reflect different judgments about the most effective means to achieve a shared goal, however, more serious differences arise when the outcome of the decision will affect different owners differently. The costs of collective decision-making are then the additional costs that result from the heterogeneity of interests among the owners. These costs are the sum of three sub-costs: (i) costly decisions, when control over the political process may fall into the hands of an unrepresentative minority; (ii) process costs and (iii) conflict resolution costs. The process costs are determined by the heterogeneity of the electorate, such as expected tenure, wealth or risk aversion; the process of obtaining knowledge about the firm and the preferences of other owners; and the time spent attending the meeting and other activities. The precise source of collective decision-making costs is less clear, in particular, it is not obvious whether the main source of these costs lies in the decision-making process or in the nature of the substantive decisions reached.
- *Risk-bearing.* This ownership costs are associated to the right to residual earnings. These are the costs of bearing important risks associated to enterprise, since those risks are often reflected in the firm's residual earnings. Existing literature often attributes a higher degree of risk aversion to a firm's non-investor stakeholders, and employees in particular, than they actually appear to show.

Hansmann's analysis does not provide a direct agenda for empirical testing and this is related to measurement problems (Kalmi 2003). There is relatively little rigorous empiricism on the tradeoffs among the costs of ownership and the costs of contracting but the general patterns of ownership observed allow some broad inferences about the relative magnitudes of these costs (Hansmann 2012). If the class of stakeholders for whom the costs of contracting are highest are also the ones for whom the ownership costs are the lowest, then those stakeholders are unambiguously the most efficient owners. This is often the case for small businesses, for instance, the average size of a cooperative, in France and in Italy is around fifty-five workers and the median size is lower than a dozen workers (Hansmann 1996).

Successfully decreasing transaction costs is the determining criterion for the selection of one or another form of organization on a continuum from the market to vertical integration (Williamson

1985). Hybrid governance theory states that firms are a combination of contracts between the market, under the mechanics of supply and demand and prices as the key to adaptation, and unified firms, where hierarchy makes decisions and adjusts the prices internally (Ménard 2004). All forms of hybrids are based on agreements between legally autonomous entities, without unified ownership, that do business together, adjust each other with little help from the pricing system and share technologies, capital, products and services. Second-degree cooperatives are hybrids because they combine market mechanisms, separate ownership and high-power incentives, with hierarchical instruments; administrative controls, authority and common personnel in a central structure; and they also have democratic governance (Chaddad 2012).

2.2 Social and solidarity economy

The International Cooperative Alliance (ICA) defines a cooperative as "an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise" (ICA 1995: 2). The cooperative form draws inspiration from both Marx, regarding its emergence, and Walras, regarding the production function (Vienney 1994). In Vienney's view, the cooperative is defined as the combination of a group of individuals and an enterprise. It is based on an economic relationship, an enterprise, and an employee-ownership relationship, the social dimension, whose operationalization requires the cooperative values. The cooperative values are thus found in the employee-owners and the cooperative principles are attributes of the cooperative organization (Nilsson 1996). The cooperative values and principles play a role in often heterogeneous employee-owners acting together within their cooperative enterprise. The cooperative values are entirely general and widespread across cultures, they may be best characterized as humanistic values: equality, human rights, freedom, economic justice and mutual assistance. What makes these common values appear to be cooperative is that they have a positive effect on human efforts to run a business in order to achieve common benefits.

In the creation of a cooperative, the interests shared by different actors are brought together and the risks are also shared, since all employee-owners have the same responsibility (Fernández and Miró 2016). In addition, cooperatives generate social values such as the rooting of workers to a territory and are more democratically valuable because power depends on people and not on capital. There are cooperatives that almost coexist without difficulty with capitalist companies and other cooperatives whose purpose is the post-capitalist transformation of society, looking for ways to relate with people and communities based on cooperation and fraternity (Pujol 2010). The cooperative movement is a form of gradual transformation, which can allow harmony between classes and transform capitalism from within, thus avoiding class struggle (Peñalver 2012). The cooperative movement is related to other economies that seek alternative logics to those of the prevailing economy and that have a conception of the human being not as an individual isolated, selfish and competitive, but tending to a cooperative and solidary sociability.

Social and solidarity economy is a comprehensive concept referring to a worldwide range of existing economic initiatives that do not comply with the mainstream economic logic of private businesses competing in abstract markets to maximize profits for self-interested consumers, while reducing nature to a passive resource (Johanisova and Vinkelhoferová 2019). Instead, they often involve collective ownership, democratic, non-hierarchical and consensual decision-making as well as mutual cooperation and embeddedness in a local social and ecological context. These socioeconomic initiatives put people's lives at the center, making people's needs and social purpose prevail over capital (Fernández and Miró 2016).

The theoretical work has been concerned with these emerging initiatives, viewed as innovative, such as the concept of the solidarity-based economy and the social enterprise (Laville 1994). SSE takes its inspiration from Polanyi (1944) and defines the economy from a substantive standpoint in reference to activities associated with the production and consumption of goods or services. SSE comes from the economic sociology of Polanyi and Granovetter through the concepts of solidarity and networks and to political sociology through the concept of the public sphere of Habermas (Fecher and Lévesque 2008). There are two ways of defining SSE: the first delimits its field using institutional forms of organization; cooperatives, mutual societies, associations and foundations; the second extends the first definition by including values and features common to these organizational forms.

While the practice of SSE is widespread and has taken many names, the concept is relatively new. The International Network for the Promotion of Social and Solidarity Economy (RIPESS, in French) made up of SSE continental networks, held its first meeting in 1997 in Lima, Peru. Concept and movement gained momentum after the 2001 World Social Forum in Porto Alegre, Brazil. The SSE concept generates much of its energy from the grassroots, supported by academia in Latin America, by José Luis Coraggio (Ecuador), Luis Razeto (Chile) and Euclides Mance (Brasil); as well as in France, by Jean-Louis Laville, and other Francophone regions such as Québec and Francophone Africa (Johanisova and Vinkelhoferová 2019).

In Catalonia, there is a social and cultural history of self-organization and confrontation against authoritarianism (Algarra 2015, Comas 2014, Diez 2013) and this generates the environment to enable the Catalan SSE (Miró and Garcia 2012). During the Second Republic (1931-1936), consumer-owned cooperatives reached their peak and during the Civil War (1936-1939), along with industrial collectivizations, formed a new revolutionary economy. That workers' economy, however, would be cut short by the entry of fascist troops into Barcelona in January 1939. From the 1960s onwards, new cooperatives were timidly set up, some for consumption, agricultural or housing, and since 1976 proliferated employee-owned cooperatives.

In 2001, the book 'The cooperative dimension' (Garcia et al. 2001) served to introduce the global SSE movement in Catalonia, in it was begged that "the transformations that the world will be experiencing in the coming decades are going to bring us closer to a new world society that should be more socially just, more free politically and environmentally sustainable, a society that helps people in the North and the South to be, in short, happier" (Garcia et al. 2001: 10). This book formulates the two strategic objectives for developing SSE in Catalonia: to build the Catalan social market, detailed in the article 'Objective: social market' (Garcia 2002) and to constitute itself as a political subject, which would achieve the constitution of the 'Xarxa d'Economia Solidària' (XES) in 2002, which is the organization that currently is fostering SSE in Catalonia.

The confusion between market and capitalism has made it difficult to debate the role of social market in the development of economical alternatives but "a market allows that, wherever consensus within the political community does not exist, participants still have access to diverse day-to-day material and service needs" (Duran 2019: 141). Little by little, cooperatives are doomed to intercooperate with each other, creating production networks as well as retaining a range of intermediate and final consumers, if they do not want to fall into overexploitation, marginalization, satelization (e.g., becoming franchises of transnationals) or assimilation, explicit or tacit, by the capitalist enterprise (Garcia 2002). The formal network institutions of intercooperation can be exemplified by second-degree cooperatives, which are cooperatives of cooperatives, that are organized through participatory and non-exclusive mechanisms and take into account the objectives and needs of all first-degree cooperatives (Sacchetti and Tortia 2016).

3. Background

3.1 The cooperative values in cooperatives

Investor-owned firms are dominant in the economy in part because, compared to other types of stakeholders, the interests of capital providers (i.e., investors) can be very homogeneous (Benham and Keefer 1991), however, this does not mean that they always choose identical policies (Jensen and Meckling 1979). Vanek (1970) pointed out that cooperatives are as efficient as conventional companies if only neoclassical efficiency concepts, based on resource optimization, are used, but he specified that, if other efficiency criteria were included, cooperatives are more efficient since the real power of self-management lies in incentives for job effort and the quality of work life.

Rochdale pioneers first formulated cooperative principles in 1844, the International Cooperative Alliance updated them in the 'Statement on the cooperative identity' (ICA 1995) and, for this research, the four principles of the Catalan social market will be used (Garcia and Suriñach 2019), which are an adaptation of the previous cooperative principles to the SSE:

- *Socially useful and ecologically sustainable products.* The social market offers only socially useful and ecologically sustainable products made by initiatives of SSE and nearby.
- *Fair prices in an equitable distribution of value among stakeholders.* The social market promotes fair prices, that is the equitable distribution of value between the producing and consuming parties, and also sharing it with the community. The line between consumer and producer may be blurred (Johanisova and Vinkelhoferová 2019) as profits and self-interest tend to be secondary to larger concerns such as equity and solidarity for a decent livelihood and ecological integrity and limits. In the 'big tradeoff' between equity in efficiency, the 'gospel of efficiency' has remained largely dominant, "a post-development world cannot be built with efficiency as its guiding principle" (Malghan 2019: 52).
- *Democratic and transparent management.* The social market is democratically and transparently managed by its stakeholders: producers, consumers and the community. This overcomes the condition, as it includes consumers and the community, that "benefits of participation to one group of stakeholders typically requires denying them to all other groups of stakeholders" (Hansmann 1996: 43). The democratic and transparent management is a value itself since the experience of enjoying political activity may be as a consumption good, the psychological satisfaction from the feeling of being in control and it is a useful training for participation in the democratic political processes of the larger society.
- *Autonomous reproduction of the social market.* SSE not only advocates for improvements at the microeconomic level, but also aims to develop an economic system and abolish capitalism (Garcia et al. 2001). For this reason, there is a fourth principle that promotes the expanded reproduction of the social market, similarly to the Marxist economics concept of 'expanded reproduction'. The social market should be reproduced in an expanded way because it is functional to the interests of complementary economic agents: the overall quality of its goods and services gradually attracts more consumers, which multiplies the evolving producers towards SSE and, by means of solidary investments, generates new SSE communitarian initiatives. Cooperative networks can function as enablers and amplifiers of cooperation values, thus generating positive effects on societies in general (Sacchetti and Tortia 2016). Networks, that reproduce in their praxis and results the values of cooperation, can help achieve a 'critical mass' of cooperative attitudes. The substitution of the micro-rationality of profit for

a social and ecological macro-rationality requires a paradigm shift of civilization, not only in production, but also in consumption, culture, values and lifestyle (Löwy 2019).

The evidence shows that all the cooperatives of this study have high levels of achievement of cooperative principles (Table A1 in the Appendix). In the 'Pam a Pam' evaluation (XES), through qualitative interviews, they score from 2.9 to 4.0 out of 5. The average self-evaluation of the employee-owners of each cooperative, in the 'Balanç Social 2019' (XES), range from 7.7 to 8.6 out of 10 and the overall satisfaction with being a member of their cooperative is 8.9.

In addition, the reproduction of the social market principle promotes intercooperation. The principal-agent relationship is, in this case, between the first-degree cooperatives, the cooperative-owners, and the second-degree cooperative. This relationship entails contracting and ownership costs that affect the owner-cooperatives. This comparative case study also analyzes in what circumstances intercooperation, through second-degree cooperatives, reduces the transaction costs of its cooperative-owners and, therefore, intercooperation is viable.

3.2 The case of the second-degree cooperative Labcoop

Labcoop is a model second-degree cooperative both for the cooperative values it applies and promulgates and for its internal organization. It emerged as a project in 2011 within the ECOS group as a result of the number of requests for advice, the political context of 15M and new public governments interested in SSE. Labcoop's activity is based on consulting and supporting new SSE initiatives, directly (20%) and through public administrations (80%). Nowadays, they are challenged to reinvent themselves since their activity, unique when Labcoop was established, is now also offered free of charge by the administrations and by other new cooperatives.

The ownership of Labcoop, which meets at the governing board and assemblies annually, is made up of: three cooperative-owners, an employee-owner and collaborator-owners with intermittent involvement. The employee-owner and two other employees form the technical team. The technical team and the three cooperative-owners are those who manage Labcoop weekly. Each cooperative-owner has a representative in Labcoop and, together with the technical team, they have all the information about Labcoop's activity and make collective decisions weekly. The representative of each cooperative-owner conveys the strategic issues of Labcoop to the members of her/his cooperative and she/he has autonomy to decide in the debates on operational issues. The technical team performs the commercial work of Labcoop, the management of the projects and its internal management. The technical team does not have a managing function but is delegated by the cooperative-owners.

The technical team collects the new projects and these are distributed weekly between the cooperative-owners. The projects are distributed as in an internal market and the cooperative-owners apply for the projects that interest them and it is collectively decided how they are distributed. Then, the work teams are formed, increased, consolidated and adapted in each cooperative-owner. In all Labcoop projects, there are always two cooperative-owners or a technician with a cooperative-owner. The average distribution of work in the projects is 80% for the cooperative-owners and 20% for the technical team. If the project is only carried by a cooperative-owner, this project leaves Labcoop and the cooperative-owner keeps it. The second-degree cooperative Labcoop offers its clients a wide variety of specialized services in a centralized way, which is its great value, but its services have a high price because they have to include the double structure of fixed costs. The price paid to the cooperative-owners by Labcoop is the price demanded by the cooperative-owner that charges the most. The wage range of all the employees of each cooperative-owner and the technical team is balanced.

3.3 Hypotheses

This research analyzes the transaction costs of cooperatives. As mentioned in the introduction, the first part of this study tests the potential of the cooperative values to mitigate problems of opportunistic behavior and therefore transaction costs within cooperatives. The second part tests the influence of intercooperation on the minimization (or increase) of transaction costs of managing groups of cooperatives. Table 1 summarizes the transaction costs selected for the hypotheses following Hansmann's distinction between contracting and ownership costs. The ownership costs regarding risk-bearing have not been applied since the cooperatives of this study are not capital-intensive and require little investment.

Table 1 - Transaction costs selected for the hypotheses

Transaction costs	Hypothesis	Cooperatives' transaction costs affected by the cooperative values	Hypothesis	Cooperatives' transaction costs affected by intercooperation
THE COSTS OF CONTRACTING				
Simple market power	1	Decrease		
Ex post market power (lock-in)	1	Decrease	4	Decrease
The risks of long-term contracting	1	Decrease	5	Increase
THE COSTS OF OWNERSHIP				
Asymmetric information in work control and management control	2	Decrease	6	Increase
Collective decision-making	3	Increase	6	Increase

3.3.1 Hypotheses on the influence of the cooperative values in transaction costs

The hypotheses are based on the interaction of two aspects: the effects of the cooperative values and the homogeneity of employee-owners due to these values. Cooperatives, and SSE cooperatives in particular, enjoy certain values, such as fair prices and sustainable products that disregard the logic of economic maximization and, therefore, reduce opportunistic behavior. But they also have others, such as democratic decision-making, that also lead to increases in transaction costs. Also, the cooperative values are relatively unique in the context of capitalist markets, which makes them more prominent and increases the homogeneity of values among employee-owners, reducing opportunistic behavior and transaction costs in making decisions. When homogeneity is greater and employee-owners are increasingly willing to subordinate themselves to the common benefit and show solidarity among themselves, communications among them will be better, the goal formulation process will run smoothly, business management will improve and goals will become more precise (Nilsson 1996). Limiting the problem of opportunistic behavior increases trust among employee-owners and in turn minimizes the risks of 'alienation' and the challenges of 'compromising among diverse stakeholder preferences'.

The risks of 'alienation' disappear in cooperatives that offer their employee-owners more cooperative, altruistic and reliable relationships. The employee-owners have an ideological commitment to the 'cooperative ideal' as an objective itself and they will be willing to make sacrifices to preserve the cooperative form since the values of the employee-owners are the decisive ones and not those of the managers or the employees (Benham and Keefer 1991). Participation by employee-owners in cooperative networks helps to redirect their production according to their cooperative values and minimize their alienation: socially useful products and alternative distribution routes based on solidarity rather than competition (Karyotis 2019).

Homogeneity among employee-owners offers advantages in having an appropriate 'compromise among diverse stakeholder preferences'. Income inequality has long been detected to be reduced among organized workers and egalitarian practices contribute to a "high degree of employee loyalty, a low rate of turnover and absenteeism and low degree of resistance to technological change" (Foulkes 1981: 90). The equitable division rule may serve as a focal point on which agreement can easily be reached (Hansmann 1996: 95): "an employee will accept a lower wage if she/he is among the best paid at the firm, and will require a larger wage if she/he is among the lowest paid".

Hypothesis 1. The cooperative values should reduce the risks in labor contracting related to 'simple market power', 'ex post market power (lock-in)' and 'long-term contracting'.

The cooperative values should reduce the risks in labor contracting as they minimize the opportunistic behavior of current and future employee-owners. These risks are 'simple market power', 'ex post market power' and 'long-term contracting'. Simple market power costs can be substantial in firms and provide a significant incentive for employee ownership to reduce them (Hansmann 1996). Strong cooperative values reduce the risks of not being able to hire paying high wages if the labor market where they operate is limited: being 'a cooperative with values' allows cooperatives to have the desired job profiles even while paying lower wages. Moreover, financial margins in cooperatives benefit the employee-owners (Mersland 2009), due to the principle of equitable distribution, and this can allow cooperatives to pay better wages.

Also, the cooperative values can reduce the perception of labor lock-in and long term commitment risks by future employee-owners. Alignment of values between current and future employee-owners ensure that, later, their commitment will not limit their professional growth or ability to find similar jobs in cooperatives with the same values. Without the cooperative values, employee-owners would not have enough confidence in each other, such as the risks of being fired, to dare to invest resources in a common business (Nilsson 1996).

Hypothesis 2. The cooperative values should reduce the ownership costs related to 'asymmetric information in work control and management control'.

The problem of separation of ownership and control, the agency costs of monitoring the management, is potentially much less acute in cooperatives (Pittatore and Turati 2000). As Williamson says (1985), hierarchy is inevitable in all types of organizations, it holds across national boundaries and is independent of political system. But no authoritarian relationship exists between employee-owners in SSE cooperatives, due to the principle of democratic and transparent management, and hierarchies tend to be heterarchical: horizontal and bottom-up. When employee-owners act as managers, the cooperative values minimize the risks of the principal-agent problem of controlling them.

More importantly for this study, the cooperative values and the homogeneity among the employee-owners, minimize opportunistic behavior and should reduce the risks of asymmetric information. In fact, cooperative principles have been designed to reduce these risks, as people sometimes behave opportunistically and have limited rationality (Nilsson 1996). The homogeneity reduces the costs of enforcing the rules, both when employee-owners do their jobs and when they act as managers: when employee-owners value belonging to the group, then the violation of the cooperative's rules can be informally sanctioned by the others (Benham and Keefer 1991). Employee-owners collect information about their cooperative as a by-product of their activity and have a greater incentive to control their workmates. This is especially important when cooperatives develop idiosyncratic working relationships, when tasks are not separable and individual productivity cannot be assessed (Williamson 1985).

Hypothesis 3. The cooperative values should increase the ownership costs related to 'collective decision-making'.

Cooperatives have additional costs of the process of collective decision-making to ensure that democratic and transparent control of employee-owners is not in risk. In addition, these processes may involve loss of flexibility to change, the Ward effect or the perverse supply reaction, and employment and output can even fall in the case of increased product price (Vanek 1970, Ward 1958). The cooperative values can reduce these costs somewhat as homogeneity and less opportunistic behavior simplify conflict resolution and reduce the risks of control falling into the hands of an unrepresentative minority. From a substantive point of view, these values can improve the means of communication and deliberation, in particular to achieve an inter-subjective understanding of practices consistent with the meaning and values of cooperation (Sacchetti and Tortia 2016). All the costs associated with collective decision-making are important in determining whether a cooperative is viable and how it is organized (Hansmann 1996).

3.3.2 Hypotheses on the influence of intercooperation in cooperatives' transaction costs

Intercooperation can increase some costs of first-degree cooperatives, but it is destined to reduce negative externalities and produce positive externalities (Sacchetti and Tortia 2016). The costs and risks are of three types: transaction, the fact of reaching an agreement and ensuring that it is met; commitment, the need to standardize entails losing specificities; and autonomy, the employee-owners of each cooperative have to give up part of their power (Garcia et al. 2001).

Hypothesis 4. Intercooperation should decrease the cooperatives' contracting risks in labor contracting related to 'ex post market power (lock-in)'.

The reduction of the lock-in risks seems to be the reason that leads first-degree cooperatives to intercooperate. One of the reasons that pushes cooperatives to build external links is the need to find synergies to solve specific production problems through collaborative innovation between cooperative-owners and a larger scale of their services offered. Cooperatives intercooperate to avoid fear of future employee-owners of not joining for fear of labor lock-in and thus offer future employee-owners more potential job opportunities. The creation of intercooperation networks not only can increase the scale of activities, but also cooperative-owners can benefit from a multiplicity of skills and sources of experience that expand the scope of their production (Sacchetti and Tortia 2016).

Hypothesis 5. Intercooperation should increase the contracting risks of first-degree cooperatives related to 'long-term contracting'.

There are three types of long-term risks that cooperative-owners face when intercooperating: over-specialization, relaxation and that the second-degree cooperative becomes a burden on them. Over-specializing is a risk because intercooperation is likely to promote division of labor among cooperatives. Relaxation can be risk when the reduction in vulnerability that intercooperation entails can loosen tension to achieve the objectives of the cooperative-owners and reduce their ability to innovate (Garcia et al. 2001). Also, if there are situations where the second-degree cooperative is not able to find new projects for a while, the second-degree structure could not be maintained.

Hypothesis 6. Intercooperation should increase the first-degree cooperatives' ownership costs related to 'asymmetric information in work control and management control' and 'collective decision-making'.

Intercooperation should increase all costs of ownership of first-degree cooperatives due to the larger organizational structure, a more complex organization, the double level of collective decision-

making and the less homogeneity expected among cooperative-owners. Once a degree of efficiency in production is reached, organizational efficiency is the most contributing factor to the cooperative-owners' stance towards the relationship (Hernández-Espallardo et al. 2013). The ownership costs from intercooperation are 'asymmetric information in work control and management control' and 'collective decision-making'.

Asymmetric information can increase the ownership costs in work control and the management control of the second-degree cooperative. Incentives to opportunism and monitoring efforts of others increase in larger organizations and this implies higher costs regarding asymmetric information (Mersland 2009). Employees of cooperative-owners can have less incentive to improve, the 1/N problem, since, in an organization with N employee, an employee gets only 1/N of the returns to his increased effort (Hansmann 2012). This can lead him to act more opportunistically and not sufficiently involved. Cooperative-owners also have incentives to control second-degree management and the overall monitoring costs in intercooperation should be high.

Intercooperation should also imply higher costs related to collective decision-making: process, unrepresentative decisions and conflict resolutions. The costs of collective decision-making process grow in a more complex organizational structure and an increase in production scale: who the voters are, what their characteristics are, who controls the agenda, what the constitutional constraints are and how many people vote (Benham and Keefer 1991). The costs of unrepresentative decisions can come from leadership problems if first-degree cooperatives compete to lead the group and, there is also the possibility, that one of the cooperative-owners may act opportunistically and wants to appropriate the benefit of others (Garcia et al. 2001). Ongoing dialogue can reduce the conflict resolution costs and lead to the possibility of collectively developing intermediate governance structures and non-exploitative contracts (Sacchetti and Tortia 2016).

4. Methodology

4.1 Comparative case study selection

The comparative case study was conducted in Barcelona, the capital city of Catalonia, in northeastern Spain. In accordance with the objectives and the literature reviewed, the criteria used to select the cases included an environment of cooperatives with a high achievement of the cooperative values and groups of cooperatives in the same sector that intercooperate among them or have the potential to intercooperate. Barcelona meets the criteria perfectly (Fernández and Miró 2016):

- There is an emerging social and solidarity economy, promoted by the 'Xarxa d'Economia Solidària', made up of 4,718 socioeconomic initiatives (2.8% of the city) that employ 53,000 people (8% of the city) and represents an economic volume of € 3.75 billion (7% of the city).
- There are 861 cooperatives that represent 18.2% of the city's SSE initiatives, of which 77% are employee-owned cooperatives.
- There are 20 second-degree cooperatives. The most notable are: CLADE (5,130 workers and an annual turnover of € 278 million), TEB (670 workers, € 12 million) and ECOS (107 workers, € 7 million), of which Labcoop is a part.
- Catalan cooperatives represent 0.8% of the firms in Catalonia and contribute to the 3% of GDP. Catalonia is the Spanish region with more cooperatives (4,212 out of 20,206) and the third in number of employed people (41,323 out of 277,390), after the Basque Country and Andalusia.

- Catalan cooperatives are 94% of the services sector, 86% have less than 20 employee-owners, 30% have an annual turnover between € 50 000 and € 250 000 and 32% between € 250 000 and € 1 000 000.

The sample of this comparative case study includes two groups of cooperatives: the network of four architecture cooperatives (ARCH1, ARCH2, ARCH3 and ARCH4) and the group of three cooperatives in the Labcoop organization (LAB1, LAB2 and LAB3). These seven cooperatives are representative of cooperatives in Barcelona in 2020, since they have the most common characteristics of cooperatives in SSE (Table 2): are cooperatives of the service sector, have an average of 12.9 workers (from 9 to 18), are balanced between women and men, the average annual turnover is € 352 000, a wage of 11.98 gross € per hour (from 9.00 to 14.37) and the average wage scale is 1.31.

Table 2 - Characteristics of the study cooperatives and Labcoop

	Workers	Women workers	Male workers	Annual turnover (thousands of €)	Wage average (gross € per hour)	Wage scale	Interviewees
ARCH1	14	8	6	432	14.23	1.71	ARCH1W1, ARCH1W2
ARCH2	9	5	4	202	9.32	1.43	ARCH2W1, ARCH2W2
ARCH3	15	7	8	431	10.67	1.00	ARCH3W1, ARCH3W2
ARCH4	11	8	3	154	9.00	1.00	ARCH4W1, ARCH4W2
ARCH cooperatives average	12.3	7.0	5.3	305	10.81	1.29	
LAB1	14	7	7	639	12.15	1.19	LAB1W1, LAB1W2
LAB2	9	5	4	213	14.10	1.63	LAB2W1, LAB2W2
LAB3	18	13	5	390	14.37	1.21	LAB3W1, LAB3W2
LAB cooperatives average	13.6	8.3	5.3	414	13.54	1.34	
Cooperatives overall average	12.9	7.6	5.3	352	11.98	1.31	
Labcoop	3	2	1	334	11.93	1.13	LAB.W1, LAB.W2, LAB.W3

Notes: Data from 'Balanz Social 2019' (XES). <http://mercatsocial.xes.cat/>

Decision making in these cooperatives is done by consensus. Management positions rotate and must always be held accountable to all employee-owners. Labcoop cooperatives offer consulting services and the selected architecture cooperatives offer participatory urban planning, a consulting activity similar to the one offered by Labcoop. Labcoop first-degree cooperatives carry out part of their activity independently and another part is organized within the second-degree cooperative Labcoop. The network of architecture cooperatives have once collaborated among them on some projects but do not have a stable organization. All these cooperatives actively participate in the development of SSE: they carry out the XES audits ('Pam a Pam' and 'Balanz Social') and participate annually in the Solidarity Economy Fair of Catalonia (FESC, in Catalan).

4.2 Data collection

Quantitative research methods have been used, through exploration of various types of data, and qualitative research methods, an analysis of semistructured interviews, which provide a broad overview of the research problems. To collect information, semistructured interviews were conducted with 17 participants. Interviewees were distributed as follows: 2 employee-owners from each of the 7 cooperatives and 3 participants from the Labcoop technical team. The interviewing process was conceived as an exploratory study. Standardized questions indicate the magnitude of the different processes under analysis rather than seeking statistical significance. At the same time, open-

ended questions provide qualitative information to back up the narrative and was subsequently coded. These interviewees provided information about aspects of the cooperative values, transaction costs in their cooperatives and additional transaction costs resulting from intercooperation.

Each interview lasted approximately 60 minutes and was conducted in April and May 2020. The interviews were carried out during the lockdown of the coronavirus crisis and that is why they were done online and with extra questions about how this crisis affected each cooperative. For clarity, the questions posed to employee-owners were adapted with non-technical terms. They were asked various questions about each topic and, sometimes, they were told data regarding their cooperative, in order to obtain more specific information regarding transaction costs. Informed consent was obtained from all participants included in the study and for this reason the interviewees and the cooperatives have been anonymized.

All interviews had the same structure (Table A2 in the Appendix): democracy and transparency, labor relations, and services offered and market. The first part was about collective decision-making and the effects of asymmetric information on both work control and management control. The second part dealt with labor relations and how they are affected by the risks of simple market power, ex post market power, long-term contracting and risk-bearing. The third part discussed the influence of labor lock-in in intercooperation, the services offered and about the reproduction of the social market.

4.3 Analyzing the influence of the cooperative values and intercooperation

When analyzing the data, categories of variables have been identified, that could be helpful for future studies, by directly comparing results from quantitative data collection with results from qualitative data collection. The analysis of context was supplemented with secondary data: XES audit reports of 'Balanç Social 2019' and 'Pam a Pam'. The cooperative values and the case of second-degree cooperative Labcoop, as an intercooperation model, are presented in the background section. And then an argumentation was made about how the cooperative values affect the transaction costs of cooperatives as well as what costs and benefits intercooperation entails.

5. Results

5.1 The influence of the cooperative values in transaction costs

No 'alienation' and an absolute 'compromise among diverse stakeholder preferences' have been detected in all the cooperatives interviewed. There is a widespread feeling that their job is safer and better than elsewhere. The logics of economic maximization and opportunistic behavior of the theory of transaction costs is not the only factor that guides the decisions of the employee-owners, the interviewees point out that there are more important risks such as not being happy or not being satisfied with the work they do:

"If I was a self-employed person I think I wouldn't be so happy, there would be things I wouldn't like. It's more comfortable, less risky, but unhappiness is a long-term risk, not being where you think you should be." (ARCH3W1)

"My financial expectations are a personal risk that is decreasing every time. I put more value on other things like the work I do. ARCH2 has become so incarnated in my life that the economic issue is a risk but to be solved within this same framework." (ARCH2W2)

Result 1. The cooperative values reduce labor contracting risks.

The cooperative values reduce all risks in labor contracting by offering employee-owners job security and good working conditions: "with the degree of precariousness and lack of labor rights that most salaried workers have, I think I'm much safer within LAB1. I know they will not leave me hanging like it could happen in any private company" (LAB1W2). The cooperative values reinforce the sense of belonging, facilitating the management of the differences between employee-owners, the pleasure of teamwork and personal affection: "another thing that makes the cooperative work, and I think very seriously, is that there is affection among the people who make it up" (LAB1W1).

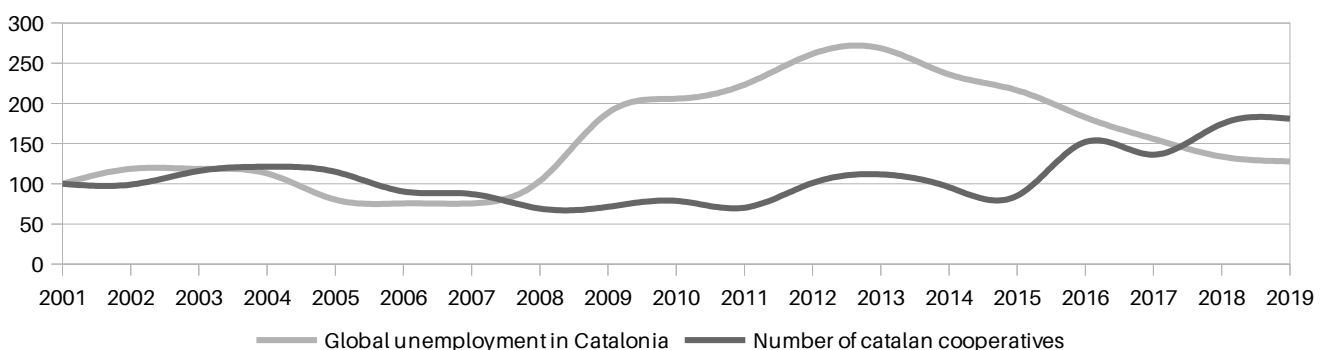
All this means that the employee-owners accept lower wages in exchange of the job security that the cooperative offers them: "I haven't felt as much security in other companies as I do now, despite having a much lower salary. I feel calmer, I have no worries that 'the boss' will decide to fire me at any time" (ARCH1W2). In addition, employee-owners are aware of social justice, which underlines the cooperative principle of 'fair prices in an equitable distribution of value among stakeholders'. Although it is difficult for them to find the balance, they seek good wages guaranteeing fair prices for all clients:

"The fact that we do things in a group means that, in the end, we receive less salary. We spend a lot of time on projects and we charge clients little. I'm also afraid that if we raise the prices of projects there will be people who couldn't afford them." (ARCH4W1)

"If I look at the side of salaries, I think we are cheap and, if I look at the side of the client, I think we are expensive. Both views are good, it depends on where we look. This criterion of justice is difficult to resolve in the economic and social framework in which we move." (LAB1W2)

The level of global unemployment in Catalonia is an indicator of more bargaining power ('simple market power') of all existing companies, including cooperatives, over current and future employee-owners. Data analysis shows that an increase in 'simple market power' (2008-2013) does not provide an incentive for employee ownership to avoid price exploitation and social costs (Figure 1). Since the creation of the 'Xarxa d'Economia Solidària' in 2002, little by little and especially in recent years (2015-2019), the cooperative values have expanded and boosted employee ownership regardless of 'simple market power'. This means that these risks are not the ones that have the most weight within cooperatives' risks in labor contracting.

Figure 1 - Evolution of global unemployment in Catalonia and the number of Catalan cooperatives



Notes: Year 2001 = 100. 'Unemployment rate' (Idescat) and 'Statistics of cooperative societies' (Idescat). <https://www.idescat.cat/>

Interviewees pointed out that, although they had other better paid job offers, they preferred to stay in cooperatives with values. It reduces the costs of cooperatives related to 'simple market power': "I could work in a very wide labor market but the cooperative values make me reduce the market where I would like to work" (LAB2W2). It has been detected that a cooperative has high simple market costs, as it cannot hire expert profiles because they offer low wages to guarantee the cooperative values: "It is difficult for us to find experienced people who agree to charge less in ex-

change for working with the cooperative values. All the people we hire must have very little experience, very little training or be highly motivated with the job" (ARCH1W1).

The risks associated with 'ex post market power' are also reduced in cooperatives since the values of democratic control by their employee-owners allow them to develop professionally as they wish: "many times the services we offer are not impositions that come from the market but personal or collective desires that we have" (LAB1W2) and "everyone has very different concerns and we try everything" (ARCH4W2). Also, since there is a large social market, the employee-owners can switch to another cooperative with the same values until they find one that fits better: "we are in an environment where there is rotation between cooperatives, people move in an area where they know they will be comfortable" (LAB2W1).

Finally, shared cooperative values reduce the uncertainty between employee-owners and this leads to a decrease in the risks of 'long-term contracting'. Employee ownership implies that all employees have the last word on how to manage the cooperative and, above all, their goal is to secure their jobs and the quality of labor environment: "we are all co-responsible for the project; we approach it collectively and above all what we do is protect the cooperative and jobs. Basically, the cooperative is the jobs, not the dividends that shareholders expect" (LAB2W1).

Result 2. The cooperative values reduce the ownership costs related to 'asymmetric information in work control and management control' even though the transparent management principle makes employee-owners more demanding.

The cooperative values reduce opportunistic behavior in the work performed by employee-owners because of the trust between them and the value of belonging to the group: "we organize ourselves through self-management of work based on the principle of trust. Everyone has to self-regulate their work" (LAB2W2). All cooperatives interviewed use computer tools to externalize and objectify personal and collective control of their work and this self-regulates opportunistic behavior:

"For years we have had project management programs that go by the hour and measure everyone's dedication. If someone doesn't reach the goals we are understanding, we think it's more about the project than the person." (ARCH3W1)

"I think it works, the dashboard is used to monitor, above all, reproductive tasks. People are already being monitored at each week's meeting on how they work. I think that these tools serve to make visible whether we have been focused or not, if we did what we wanted or not..." (LAB1W1)

Also, the transparent management principle makes employee-owners more demanding and, sometimes, there are discrepancies about how their work is recorded: "there is a lot of room for improvement, our problem has been not having analyzed it before" (ARCH3W2) and "we are many and each of us has very different dynamics of scheduling and managing the projects" (ARCH4W2).

Finally, there are practically no agency costs in the cooperatives interviewed since their management belongs to all the employee-owners and the cooperative values prevent them from managerial opportunism: "at the operational level, there are people who develop some issues but, at the decision level, we decide all together" (LAB3W1).

Result 3. The cooperative values increase the ownership costs related to 'collective decision-making' and cooperatives seek to minimize them without losing collective control.

In all the cooperatives interviewed, collective decisions are made by consensus to ensure the principle of democratic and transparent management. This implies that the ownership costs related to 'collective decision-making' are very high due to the costs of the process but, on the contrary, it implies that there are practically no conflict resolution costs and no costly decisions made by a non-representative minority: "we have full confidence that we are aligned on the issues we're working on. Sometimes, I don't totally agree with a decision they make and nothing happens" (ARCH4W2).

Decision making by consensus involves high costs by having the entire staff dedicated to it for a long time. Most of the cooperatives interviewed have systematized this process but, for some cooperatives, this still implies a very high cost: "we spend a lot of time making decisions. We all want to have an opinion on everything. It is very difficult for us to delegate and this makes it a bit dense" (ARCH4W1). One of the strategies that cooperatives use is the separation of the type of meetings: weekly meetings to coordinate projects and monthly meetings for strategic and corporate decisions. In addition, there are circumstances in which decisions have to be made urgently and the trust that exists among the employer-owners allows their execution in time. For example, LAB1 have the 'peu dret' mechanism, which consists of summoning all the present employee-owners at that moment to stand up in order to make an urgent decision. Another strategy followed is to delegate research and discussion of a topic to a group of employee-owners and then bring it up for a collective decision with the details worked out.

5.2 The influence of intercooperation in cooperatives' transaction costs

Result 4. Intercooperation is used by cooperatives to reduce the cooperatives' risks in labor contracting related to 'ex post market power (lock-in)'.

Second-degree cooperatives are spaces that allow collaborative innovation and internal training based on a multiplicity of skills. Intercooperation expands the scope of services of cooperative-owners and provides prestige for all stakeholders. Employee-owners like to face these challenges, as that gives them more job security and strengthens their loyalty to the intercooperation project. For example, intercooperation allows large projects that first-degree cooperatives would not be able to do alone, projects with a high risk of innovation and permanent internal training with the contribution of different experts (LAB2W1, LAB2W2). All these potentialities have facilitated intercooperation among Labcoop cooperatives and allowed them to offer a differentiated, larger and more competitive services in the social market:

"There are services offered from Labcoop that other entities, including the cooperative-owners themselves, cannot offer on their own. We can take on very global projects and work them as micro-projects. It is the character of Labcoop and what gives its strength: by contracting a single entity the client gets four entities, experts and recognized in their field, that work well with each other." (LAB.W2)

Greater intercooperation would allow architecture cooperatives to achieve larger projects that alone cannot offer, with greater social impact and a higher economic return. The limits to intercooperate are clear, such as the full autonomy of its first-degree cooperatives and a clear division of specialties:

"When there is a clear specialization between the two teams it is very easy to come together. If others asked us to work as a team to do the same, they wouldn't bring us anything new. We would like to work with other cooperatives but we need to find ways to complement each other." (ARCH1W1)

Result 5. Intercooperation does not increase the first-degree cooperatives' risks of 'long-term contracting' if the organization of the second-degree cooperative is bottom-up.

No long-term contracting risks have been identified because SSE cooperatives consider intercooperation as a peer-to-peer organization with bottom-up management. For example, Labcoop technicians proposed a strategic change and the cooperative-owners chose to maintain their own objectives: "Labcoop technicians wanted to bet on new services, but first-degree cooperatives were conservative and made the original Labcoop identity prevail" (LAB.W3).

All cooperatives have been asked if intercooperation involves more or less specialization. In all cases they have indicated that specialization is positive and none have considered that this spe-

cialization leads to a limitation of their activity. Finally, the risk of a second-degree cooperative being a burden is associated only with the costs of entrepreneurship and excessive costs of ownership, but not with unforeseen long-term costs.

Result 6. Intercooperation increases ownership costs of first-degree cooperatives but external leadership and clear prior protocols make those costs more bearable.

Intercooperation implies an increase of the costs of ownership of asymmetric information and collective decision-making. This involves either charging more to the client or lower wages: "Labcoop is expensive. You are charging the client a double structure: the structure of Labcoop and the structure of their first-degree cooperatives" (LAB.W1).

Some architecture cooperatives are clear about "more shared information would help us to intercooperate more" (ARCH2W1). For example, this shared information would prevent them to offer services to the clients of other cooperatives or know which municipalities do not have SSE cooperatives involved to offer their services. But other architectural cooperatives point out that this shared information must be governed by a prior intercooperation protocol so that the other cooperatives cannot take projects that one already has: "in the current scenario, competition is high and can be problematic" (ARCH1W1). Also, it should be transparency of wages and not a big salary difference between cooperatives:

"If we get together with another cooperative, there is a transparency issue that needs to be addressed. If I cannot know how much the other person charges, it would be strange. If the difference was very high, there would be the risk that someone would want to go to the other cooperative doing the same work." (ARCH2W1)

The cooperative-owners consider that Labcoop transparency mechanisms are sufficient although they can never be the same compared with the ones in their first-degree cooperatives. There is a level of transparency that only can be achieved by the proximity and trust: "there is no 100% trust like there can be in a first-degree cooperative" (LAB1W2). The confidence that is given to the delegates for intercooperation must be high since the complete transfer of information is impossible: "The main failure of representation is that the transmission of information about what is happening in other spaces is not always easy. And even more if you don't want to double or triple your efforts" (ARCH3W2).

The high level of work control makes it easier for Labcoop cooperatives to share projects in a second-degree cooperative. They have a continuous monitoring of the individual performance of their workers and Labcoop technicians have reinforced it: "The monitoring processes are working very well. It is also true that many times the technical team has to put pressure on the cooperative-owners" (LAB.W3). Labcoop daily operational decisions are made by the technical team. These decisions can be made due to a knowledge of the interests of the cooperative-owners and are always validated afterwards. There is a slight conflict of interest in which the technical team carries out its work to develop the goals of the cooperative-owners but also to secure their job:

"One of the drawbacks is that the technical team is a judge and a jury. They are concerned that Labcoop has to survive to keep their job, but at the same time they want Labcoop to survive because the cooperative owners want it, because it is their project and because they are betting on it." (LAB.W1)

The collective decision-making process is carried out by consensus in the Labcoop second-degree cooperative and this implies an effort in the costs of the process, but it reduces unrepresentative decisions costs and the costs of conflict resolution. Efficiency is not limited by the consensus format: "the decision-making model in Labcoop is through consensus and this goes against agility. There is confidence and all opinions can be expressed. But if there is an urgent decision, calls are made and the delegates decide" (LAB.W2). The same happens with the delegates of the first-degree

cooperatives regarding their workmates, the operational decisions are made with total confidence but the political and strategic decisions are consulted with them:

"At the weekly Labcoop meeting there are highly operational decisions. If there are political decision assemblies, I invite all LAB3 members to come. If there is something important, I will comment on it, but if it is day by day, no, because it would be a bombardment of information. It would not be efficient." (LAB3W2)

Intercooperation can lead to conflicts that affect the owner-cooperatives if they are not organizationally strong enough before intercooperating. These conflicts may come from non-representative leaderships of the delegates or of one of the cooperative-owners. In these cases, external support would be very necessary to adjust it:

"To participate in a larger body, the people of the cooperative must first be strong at the organizational level. This proposal to bring together different people, different organizations, with different interests, with different ways of being, of acting... is a challenge." (ARCH2W2)

"For the profiles we have, egocentric and masculine, a network of competition could be created that could go against intercooperation. This is likely to happen and should be a process accompanied by an outsider, which involves more expenses." (ARCH2W1)

6. Discussion

The first objective of this study was to know to what extent the values of social and solidarity economy cooperatives affect governance transaction costs. Evidence shows that these cooperatives have homogeneous values, even though they operate in different sectors. This confirms the uniqueness of SSE cooperative values and the interest of studying them as a specific phenomenon: "ARCH2 has become so incarnated in my life that the economic issue is a risk but to be solved within this same framework" (ARCH2W2). As illustrated, SSE cooperatives challenge the rational actor model on which the theory of transaction costs is based: decision-making is done by consensus, management positions rotate and the employee-owners are concerned about limiting their wages to guarantee fair prices for all customers. As it has been noted: "I'm also afraid that if we raise the prices of projects there will be people who couldn't afford them" (ARCH4W1). These values disregard the logic of economic maximization and, therefore, reduce opportunistic behavior. Also, these values create homogeneity among employee-owners and thus facilitate consensus about the business model and how to achieve common benefits. All this implies that other theories are needed where rationality is collective and is not based only on economic efficiency but also ecological and social efficiency.

As also shown, cooperative values imply a reduction in transaction costs. There is a widespread feeling in the cooperatives studied that employee-owner work is safer and better than elsewhere; it avoids job alienation and provides compromise among employee-owners preferences: "many times the services we offer are not impositions that come from the market but personal or collective desires that we have" (LAB1W2). The specificity of cooperatives in social and solidarity economy limits the labor market in which current and future employee-owners prefer to work. Being 'a cooperative with values' allows cooperatives to have the desired job profiles even while paying lower wages. Also, the cooperative values reduce opportunistic behavior, the agent-principal problem, in the work performed by employee-owners due to the trust between them and the value of belonging to the group, and there are no agency costs. It reduces ownership costs related to asymmetric information, even though the transparent management principle makes employee-owners more demanding.

On the other hand, it has also been found that these same values can also increase transaction costs due to the principle of democratic management. This principle requires more complex de-

cision-making processes and important work needs to be done in cooperatives to optimize these processes "we spend a lot of time making decisions, we all want to have an opinion on everything" (ARCH4W1). Despite the limitations mentioned before, the theory of transaction costs is also valid because it is drawing attention to a key operational aspect of cooperatives.

The second objective of this study was to study the scalability of the cooperative model and to what extent intercooperation (i.e., second-degree cooperatives) can facilitate it. As shown, an important reason in favor of intercooperation is the reduction of risks related to professional stagnation. Intercooperation fosters collaborative innovation and internal training based on a multiplicity of skills, which involves an extension of the scope of services offered by cooperatives and brings prestige to all stakeholders: "what brings us the most to be at Labcoop is the ability to innovate, it is an investment for us, there, gray matter from different disciplines and different ways of doing things come together" (LAB2W1). That said, intercooperation can also entail an increase in ownership costs. Potential ways to reduce these costs are the support of external leadership and clear prior protocols.

Finally, the results have shown that the theory of transaction costs is limited by cooperative values and, in addition, cooperatives entail other costs and benefits not included, such as production costs or benefits for the local socio-ecological context. This theory has had practically no empirical development and this may be because transaction costs are intangible and difficult to measure, collecting both qualitative and quantitative data appears to be the most effective way of dealing with these type of costs.

7. Conclusions

Urban commons initiatives have reemerged in many cities around the world, particularly in Barcelona, and many of them have taken the form of employee-owned cooperatives. This new wave of economical alternatives has been called social and solidarity economy. Cooperatives are growing in scale and are facing challenges of coordination and governance, and a potential solution is intercooperation. In this context, the research questions were about how the cooperative values affect the transaction costs of cooperatives as well as what costs and benefits intercooperation entails. Through interviews and quantitative analysis, a comparative case study has been carried out between two groups of cooperatives in Barcelona with similar cooperative values but different approaches to intercooperation among them.

The results of this study show that the cooperative values and employee-owner homogeneity imply an overall reduction in the transaction costs of cooperatives, but the costs of collective decision-making process are their cornerstone. If the ownership costs of intercooperation can be reduced through external support and clear prior protocols, intercooperation will reduce the risks of professional stagnation through collaborative multi-skill innovation and expand the scope of production of cooperatives. Further research should cover the effects of the cooperative values and intercooperation in capital-intensive cooperatives, which entail more long-term contracting risks and greater risks beared by the employee-owners.

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Appendix

Table A1 - Achievement of the cooperative principles

	ARCH1	ARCH2	ARCH3	ARCH4	LAB1	LAB2	LAB3	AVERAGE
Overall satisfaction of being a member of the cooperative**	8.8	8.5	8.7	10.0	8.7	8.4	8.9	8.9
SOCIALLY USEFUL AND ECOLOGICALLY SUSTAINABLE PRODUCTS								
'Pam a Pam' evaluation (XES) average* (out of 5)	3.8	3.5	2.8	2.3	3.3	1.8	2.8	2.9
Social transformation	4	4	4	3	5	2	4	3.7
Open source	3	3	1	0	3	0	1	1.6
Territorial rooting	3	3	2	4	2	3	3	2.9
Environmental sustainability	4	4	2	3	3	2	3	3.0
Waste management	5	5	5	2	4	1	3	3.6
Energy efficiency	4	2	3	2	3	3	3	2.9
Principle of respect for the environment** (out of 10)	8.8	6.9	7.5	8.0	7.2	8.4	7.8	7.8
FAIR PRICES IN AN EQUITABLE DISTRIBUTION OF VALUE AMONG STAKEHOLDERS								
'Pam a Pam' evaluation (XES) average* (out of 5)	3.7	3.3	2.7	2.3	4.7	1.3	3.7	3.1
Feminist perspective	4	5	3	2	4	0	5	3.3
Social cohesion	2	0	0	1	5	0	1	1.3
Wage range and working conditions	5	5	5	4	5	4	5	4.7
'Balança Social 2019' self-assessment (XES) average** (out of 10)	8.0	6.7	7.2	8.2	8.4	7.7	7.9	7.7
Principle of equality	9.1	8.6	7.9	9.0	9.6	9.4	8.9	8.9
Salary rating	6.4	4.3	5.7	6.5	7.1	5.6	7.8	6.2
Degree of stability that their work gives them	8.6	7.3	8.1	9.0	8.6	8.2	7.1	8.1
DEMOCRATIC AND TRANSPARENT MANAGEMENT								
'Pam a Pam' evaluation (XES) average* (out of 5)	4.3	4.7	4.7	3.7	4.3	2.7	3.7	4.0
Internal democracy	5	5	5	5	5	2	5	4.6
Personal development	5	5	4	3	5	3	5	4.3
Transparency	3	4	5	3	3	3	1	3.1
'Balança Social 2019' self-assessment (XES) average** (out of 10)	8.9	7.7	7.8	9.7	8.9	8.7	8.6	8.6
Principle of internal democracy	9.2	8.8	8.3	9.5	9.4	9.4	8.4	9.0
Participation in the general running of the organization	8.9	6.4	8.9	10.0	8.7	9.2	9.2	8.8
Conflict resolution in the cooperative and quality of leadership	8.7	7.8	6.3	9.5	8.6	7.6	8.3	8.1
AUTONOMOUS REPRODUCTION OF THE SOCIAL MARKET								
'Pam a Pam' evaluation (XES) average* (out of 5)	3.7	3.3	2.3	2.7	4.7	3.0	3.0	3.2
SSE suppliers	2	3	1	3	4	3	3	2.7
Intercooperation	5	5	5	4	5	4	4	4.6
Ethical finance	4	2	1	1	5	2	2	2.4
'Balança Social 2019' self-assessment (XES) average** (out of 10)	8.6	7.4	8.2	9.3	7.4	7.7	8.1	8.1
Degree of satisfaction that their work provides them	8.6	7.4	8.1	10.0	7.4	7.6	8.6	8.2
Internal training and professional growth opportunities	8.6	7.3	8.3	8.5	7.4	7.8	7.5	7.9

* 'Pam a Pam' evaluation (XES) from a qualitative interview. From 0 (non-achievement) to 5 (maximum achievement). <https://pamapam.org/>

** Average self-assessment of the employee-owners in 'Balança Social 2019' (XES). From 0 to 10. <http://mercatsocial.xes.cat/>

Table A2 - Interview model

Questions	Topic
DEMOCRACY AND TRANSPARENCY	
1 Describe me, briefly, the collective decision-making model of [COOP]. Why do you have this model? Is it efficient enough in these times of rapid changes? What would you improve to make it as efficient and democratic as possible?	Collective decision-making
2 <i>LAB</i> : What are the pros and cons of delegating [COOP] representatives to Labcoop? What kind of decisions can they make without consulting [COOP]? <i>ARCHI</i> : What would be the pros and cons of delegating [COOP] representatives to a coordination space between architecture cooperatives? What kind of decisions could they make without consulting [COOP]?	Asymmetric information in management control
3 <i>LAB</i> : What mechanisms do you use to promote Labcoop transparency? How does this transparency foster democratic control of Labcoop? <i>ARCHI</i> : What mechanisms do you use to promote external transparency? How could this external transparency foster coordination between architecture cooperatives?	Democratic and transparent management
4 Do you have trouble controlling the contributions and effort of your coworkers to adjust to the global benefits of [COOP]? How do you approach it?	Asymmetric information in work control
LABOR RELATIONS	
5 Have you had to make changes in wages and / or the price of services in the current crisis? In relation to what has been done in the other [LAB / ARCHI] cooperatives, the solution has been understood and accepted by all the employee-owners of [COOP]. Do you consider the balance between salaries and the price of services for customers fair?	Fair prices in an equitable distribution of value among stakeholders
6 What is the structure of the labor market in your sector? Is it very or little concentrated in a few companies? How does this affect you? In the current crisis, do you think that [LAB / ARCHI] cooperatives protect working conditions better than other companies in the same sector? For what reason?	Simple market power
7 Is your cooperative specialized in any way among the [LAB / ARCHI] cooperatives? Do you think this is crucial to the survival of [COOP] in this crisis? <i>LAB</i> : Do you think being in Labcoop has led you to more or less specialization? Do you think this is positive for [COOP]? <i>ARCHI</i> : If there was some kind of coordination between architecture cooperatives, would this lead to more or less specialization? What do you think would be better for [COOP]?	Ex post market power (lock-in)
8 <i>LAB</i> : What do you expect Labcoop ownership will bring to you in the long-term? What makes you think it will be like this? <i>ARCHI</i> : What does [COOP] have for its workers to want to stay in it whether things are going well or badly? How would this situation change if you were organized with other architecture cooperatives?	The risks of long-term contracting
9 Are the risks you are taking by joining [COOP] consistent with your willingness to take risks? If you worked elsewhere, would you take fewer risks?	Risk-bearing
SERVICES OFFERED AND MARKET	
10 Which are the main services you normally offer? How do they improve society and enable a sustainable future? What do you mean by sustainable future?	Socially useful and ecologically sustainable products
11 <i>LAB</i> : How competitive is the cooperative consulting services market and what improvements do you see in managing it through Labcoop? <i>ARCHI</i> : How competitive is the participatory urban planning services market and how does this affect [COOP]? Which pros and cons do you see in creating stable coordination structures with other similar architecture cooperatives?	Intercooperation: Ex post market power (lock-in)
12 How do you think [COOP] contributes to the survival of your social and solidarity economy in the current crisis?	Autonomous reproduction of the social market.