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International Food and Agribusiness Management Review
Volume 17 Issue 1, 2014

Mechanisms for Effective Alliance Management: Insights from a Federated Cooperative Marketing System

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Abstract

Despite their continuing popularity and value-creation potential, strategic alliances fail as often as they succeed. Alliance failure is often attributed to opportunistic behavior by one or more of the partners. This paper draws upon empirical evidence from a successful alliance – a federated cooperative marketing system – to shed light on some of the economic and behavioral strategies and mechanisms that alliances can use to promote effective cooperation among alliance partners. The paper also shows how the alliance management body can generate the resources needed to develop and implement such mechanisms, and make alliance partners buy into these mechanisms.

Keywords: strategic alliances, federated cooperative system, opportunistic behavior, alliance management mechanisms

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Strategic alliances, broadly defined as agreements between two or more firms to cooperate in an effort to accomplish some strategic purpose and work jointly for mutual benefits (Sporleder 1994), are an important organizational form for governing business transactions in the agrifood sector (Sporleder 1994, 2006; Saes et al. 2003; Azevedo and Chaddad 2006; Gall and Schroder 2006; Chaddad 2010; Ng 2011). Historically, farmers have hedged risk and enhanced market access with farmer-owned cooperatives and landlord-tenant sharecropping alliances. Nowadays, small farms engaged in the local food movement use alliances to facilitate information and resource exchange, while seed-developing biotechnology firms and food processing firms use alliances to foster innovation and appropriate its returns, to give but a few examples. As a result, competition is shifting from ‘firms versus firms’ to ‘supply chain versus supply chain’ or to ‘network versus network’ (e.g., Sporleder et al. 2005; Chaddad and Rodriguez-Alcalá 2010).

But what determines alliance performance and ultimately supply chain or network competitiveness? What makes some alliances successful, resulting in risk sharing, information exchange, innovation, and greater returns to scale, and what causes other alliances to fail, such as the famous clash between Monsanto and DuPont over intellectual property rights? Importantly, the business literature (e.g., Kale et al. 2002; Sammer 2006; Arend 2009) reports failure¹ rates of 50 percent or higher, suggesting that alliances more often fail than succeed.

Alliance failure is often attributed to opportunistic behavior by one or more of the partners (e.g., Parkhe 1993a; Zeng and Chen 2003; Hoskisson et al. 2008). In general terms, opportunistic behavior refers to “self-interest seeking with guile” (Williamson 1975, 9). As applied to alliances, opportunism is defined as “behavior by a partner firm that is motivated to pursue its self-interest with deceit to achieve gains at the expense of the other alliance members” (Das and Rahman 2010). That is, partner opportunism denotes any situation in which one partner seeks gain for oneself at the expense of the others and ultimately the alliance. As such, it takes a wide range of forms such as free riding, hold up, moral hazard, adverse selection, and misappropriation of resources, to name but a few (see, for instance, Wathne and Heide (2000) and Das (2004) for specific examples and classifications of opportunistic behavior in interfirm relationships).²

Opportunistic behavior, however, can be overcome. There is a substantial literature on the factors that enhance cooperation in interfirm relationships (e.g., Parkhe 1993a; Gulati and Singh 1998; Adams and Goldsmith 1999; Zeng and Chen 2003; Yaqub 2009). For instance, Zeng and Chen (2003) argue that, among other strategies, alliance partners can improve their chances for cooperation by establishing cooperative norms, creating high identification with the alliance, establishing long-term goals, and making each partner’s action identifiable. However, with the exception of Browning et al. (1995), Cozzarin and Westgren (2000), Dyer and Nobeoka (2000), and Gardet and Mothe (2011), there is little work done on the real-life mechanisms that partners

¹ There are different operationalizations of this term as they relate to alliance stability, survival, and goal attainment.

² The basic logic of these situations is captured in the Prisoners’ Dilemma game (e.g., Albanese and van Fleet 1985; Hill 1990; Parkhe 1993a; Zeng and Cheng 2003; Arend and Seale 2005). As Arend and Seale (2005) argue, the Prisoners’ Dilemma game is “similar to a two-way agency problem; each firm has incentives to defect on the other for its own private advantage (p. 1058)”. We explore the Prisoners’ Dilemma more fully in the main text of the paper.

can use to promote a cooperative norm, to build high group identification within the alliance, to increase the time horizon or to effectively monitor behavior.

The objective of this paper is to examine how a particular alliance has operationalized the solutions to opportunism suggested in the literature. The alliance in question is the Co-operative Retailing System (CRS), a network of 236 independent retail cooperatives in western Canada that own and operate their wholesaler, Federated Co-operatives Limited (FCL). Affiliation with the CRS allows retail cooperatives to strengthen their bargaining position relative to manufacturers through centralized negotiation, and to achieve economies of scale and efficiencies by pooling resources in transportation, promotion and other marketing functions (e.g., price management, the development of private label products). As well, retail cooperative managers can benefit from sharing their experience on what does and does not work, including sharing of successful marketing ideas.

However, these benefits do not ensure cooperation among retailers in the CRS. Retail cooperatives are locally-owned businesses, independent from each other and from FCL. Owned and controlled by local consumers in the community it serves, each retail cooperative is interested in maximizing benefits to its consumer members. Thus, retailers' autonomy in pursuing individual goals gives each one of them an incentive to behave opportunistically in order to appropriate a larger share of the benefit they collectively generate by working as the CRS.

The contribution of this paper is to draw upon empirical evidence from the CRS to shed light on some of the economic and behavioral mechanisms that federated cooperative systems can use to manage member opportunism.³ Federated cooperative systems (i.e., associations of cooperative business firms) are a form of strategic alliance (Gall and Schroder 2006) that is of particular importance to the agrifood sector (Chaddad 2006). However, Hogeland (2002) and Zeuli and Foltz (2005) argue that the opportunism (i.e., failure of member cooperatives to commit to the system) present in such systems is severe enough that the federated business structure is viewed to be inherently inefficient and unstable.⁴ The findings from this study of an alliance of cooperative firms are also applicable to alliances among non-cooperative firms, particularly strategic networks. Strategic networks share a governance function performed by powerful lead firms (Lorenzoni and Ornati 1988) or strategic hubs or centers (Dyer and Nobeoka 2000). These core firms can be represented by a central buyer or supplier that acts as a focal point or one of the partners in a horizontal alliance that has more to gain from the alliance.

The paper also identifies some of the second-order cooperation problems that arise in alliances – namely the lack of incentives by alliance partners to contribute the resources necessary to develop alliance management mechanisms and/or to abide by the decisions made by the alliance

³ The role of incentives and property rights in determining cooperative performance has a long history in the cooperative literature (see Vitaliano 1983; Cook 1995; Fulton and Giannakas 2013).

⁴ The prediction is that the federated structure will be replaced by centralized structures or hybrid structures with federated and centralized characteristics as a way to ensure greater commitment by member organizations and system efficiency.

management body on their behalf – and offers examples of the strategies that can be used to deal with these problems.

The remainder of the paper is organized as follows. The next section uses a game-theoretic framework to describe the cooperation problems that arise among alliance partners and reviews the potential solutions to these problems suggested in the economics, business, and psychology literatures. The section following presents a case study of the CRS, focusing on the cooperation problems that arise among members of the CRS and the business mechanisms that the system has deliberately designed and implemented to address these problems. The final section presents the managerial implications of this research.

Cooperation Problems and Solutions

Cooperation Problems in Strategic Alliances – A Game-Theoretic Approach

Firms form alliances when they expect value-enhancing synergies – by combining resources and capabilities, business partners can achieve their mutual strategic objectives more effectively than if any one partner operated independently (Spekman et al. 1998). At the same time, a situation of mutual interdependence is created, whereby “one party is vulnerable to another whose behavior is not under the control of the first” (Parkhe 1993a, 796). While mutual cooperation is required for partners to fully realize the potential of an alliance, cooperative behavior is not automatic. Business partners exhibit an inherent tendency to cheat to gain at the expense of others (Hennart 1991). This incentive can lead to actions that are individually rational, yet produce a collectively suboptimal outcome – a situation isomorphous to the Prisoners’ Dilemma.

To better understand how interactions among firms in each alliance stage are captured in Prisoners’ Dilemma-like games, consider the simple example of two symmetric firms participating as equal partners in an alliance that requires costly irreversible commitments by the partners (the assumption of two firms and symmetry is made for ease of presentation; the results derived here also apply to asymmetric N-player games). Each firm can cooperate by investing superior resources (human, tangible and intangible) at cost i_C or they can defect by investing low-quality resources at cost i_D , where $i_C > i_D$. Defection is a private cost saving, whereas the output effect of defection is not private.

The outcome of the alliance improves with better-quality investments. Mutual cooperation (i.e., where partners invest high-quality resources) provides the highest total gross alliance output (P_{CC}). Essentially, the alliance allows firms to collectively generate benefits (e.g., access to complementary resources to reduce production costs, ability to share risks and costs among alliance partners) that are greater than the costs to bring the partner resources together. Single defection provides the second highest output (P_{CD}), while double defection provides the lowest output (P_{DD}). A defective alliance causes firms to collectively and individually waste resources due to a lack of synergies. Essentially, any benefits of bringing the low-quality resources together are well below the opportunity costs of the firms to do so. To ensure that the benefits of any cooperative behavior outweigh its costs, which is consistent with the original reason for the alliance, $P_{CC} - P_{CD} > i_C - i_D$ and $P_{CD} - P_{DD} > i_C - i_D$. Also, to ensure that cooperative behavior enjoys positive complementarities, $P_{CC} - P_{CD} > P_{CD} - P_{DD}$.

Table 1 describes the game. The net payoff to each firm from mutual cooperation, $P_{CC}/2-i_C$, is greater than the net payoff from mutual defection, $P_{DD}/2-i_D$. However, if one firm does not cooperate, while the other cooperates, the non-cooperative partner receives the highest possible payoff, $P_{CD}/2-i_D$, while the cooperative partner receives the lowest possible payoff, $P_{CD}/2-i_C$. That is, $P_{CD}/2-i_D > P_{CC}/2-i_C > P_{DD}/2-i_D > P_{CD}/2-i_C$. Thus, it always pays for a firm to defect, regardless of what its partner does (i.e., in the case of the other firm cooperating, $P_{CD}/2-i_D > P_{CC}/2-i_C$; in the case of the other firm defecting, $P_{DD}/2-i_D > P_{CD}/2-i_C$). Put in game theory terms, defection is the dominant strategy. However, if both firms do so, both are worse off than if they had cooperated (i.e., $P_{CC}/2-i_C > P_{DD}/2-i_D$). In sum, alliance partners face a conflict between maximizing the interests of the alliance as a whole (cooperation with the others to generate maximum benefits for everyone) and maximizing their own interests at the expense of others (acting opportunistically to capture a larger portion of the benefits that the alliance generates), which is the key characteristic of a Prisoners' Dilemma.

Table 1. The Prisoners' Dilemma

		Firm A	
		Cooperate	Defect
Firm B	Cooperate	$(P_{CC}/2-i_C, P_{CC}/2-i_C)$	$(P_{CD}/2-i_D, P_{CD}/2-i_C)$
	Defect	$(P_{CD}/2-i_C, P_{CD}/2-i_D)$	$(P_{DD}/2-i_D, P_{DD}/2-i_D)$

Indeed, an increasing number of authors have used the Prisoners' Dilemma metaphor (most notably Hill 1990; Parkhe 1993a; Zeng and Chen 2003; Arend and Seale 2005; Phelan et al. 2005; Seale et al. 2006; McCarter and Northcraft 2007) to model alliance behavior and the risk of opportunism. Also, Parkhe et al. (1993) conclude, from a survey of senior executives involved in strategic alliances, that many business alliances exhibit Prisoners' Dilemma-type payoffs.⁵

As evidence from the CRS suggests, alliances also suffer from the so-called second-order cooperation (dilemma) problem that has been identified in collective action situations (Ostrom 1990). The second-order problem arises as a result of attempts to solve the original cooperation problem. For instance, one solution to the first-order cooperation problem is the use of selective incentives, as reviewed in the next section. However, the provision of these incentives requires resources, which the various players are likely to be reluctant to provide because of a second-order cooperation problem – since the players can enjoy the benefits of a selective incentive system without contributing to its provision, the system may not be provided. Another solution to collective action problems is to have the individual players turn over authority to a single central decision maker. This strategy, however, is also subject to a second-order dilemma problem. What incentive does an individual player have to abide by the decisions made on its behalf?

⁵ It has been shown that, under certain circumstances, an alliance may represent a coordination or assurance game rather than a Prisoners' Dilemma (see Gulati et al. (1994) and McCarter and Northcraft (2007) for more details).

Potential Solutions

The economics, business, and psychology literatures have suggested a number of potential solutions to the first-order cooperation (Prisoners' Dilemma) problem. A distinction is often made between structural and motivational solutions.

Structural solutions involve changing the fundamental structure of the situation ('the rules of the game'), so that the dilemma is either modified or eliminated. Included among these solutions are mechanisms such as: (a) changing the payoff structure, (b) providing selective incentives, (c) monitoring partner behavior or its outcomes, (d) reducing group size, and (e) drawing boundaries around the collective good.

(a) Payoff structure. Prisoners' Dilemma research indicates that cooperation can be enhanced by increasing payoffs for cooperation and/or decreasing payoffs for defection (e.g., Rapoport and Chammah 1965; Ahn et al. 2001). As Oye (1986) suggested, two possible scenarios may arise. One scenario is when shifts in preferences transform the situation from one class of game into another, fundamentally altering the character of the relationship. For instance, the relationship structure may be transformed from that of a Prisoners' Dilemma to that of a less conflictual game – e.g., the assurance game. The structure of the payoffs in an assurance game-type situation is such that it is best for a player to cooperate when its counterpart cooperates and to defect when its counterpart defects. That is, each player wants to match its counterpart's choice, or, put in game theory terms, the players prefer to coordinate on one of the two equilibria – either both cooperating or both defecting (Weber 2008). Confidence and assurance about others' cooperative actions is what is needed for cooperation to emerge in such a situation (for empirical evidence, see Uzea and Fulton, forthcoming).

The other scenario is when the Prisoners' Dilemma nature of the situation is maintained and only payoff differences change. In particular, if all partners can gain a bigger benefit when they pool their resources than when they are on their own (i.e., if the difference between the payoff from universal cooperation and the payoff from universal defection is larger), they will be more likely to cooperate. Moreover, partners will be more willing to cooperate if little benefit is associated with the single defection behavior (i.e., if the difference between the payoff from single defection and the payoff from universal cooperation is smaller) and little risk is involved in the single cooperation situation (i.e., if the difference between the payoff from single defection and the payoff from single cooperation is smaller).

(b) Selective incentives. As Dawes (1980) pointed out, one of the big challenges in *N*-person dilemmas is that it is often not possible to directly affect others' outcomes and hence shape their behavior. If cooperators could be rewarded for their action and defectors punished, even large-scale dilemmas could be solved. Indeed, one of the key conclusions of the free-rider theory (Olson 1965; Albanese and van Fleet 1985) was the need to use selective incentives in encouraging cooperation among group members. As the name suggests, selective incentives are additional incentives that distinguish between individuals who contribute to the common interests of the group (collective good) and

those who do not. These incentives are used to punish those who fail to contribute their fair share to the collective good (i.e., sanctions) or to reward those who act in the group interest (i.e., rewards).

- (c) **Monitoring.** To the extent that information asymmetry (e.g., information regarding the unobservable effort that partners need to contribute to an alliance) exists in a relationship, it is possible for a party to defect without being detected. Monitoring of either a partner's behavior or its outcomes can, at least partially, overcome this problem (e.g., Heide et al. 2007). There are at least two reasons why monitoring may reduce defection. First, from a behavioral perspective, the monitoring process itself may place uncomfortable social pressure on a party and thereby increase the motivation to cooperate (Murry and Heide 1998). Second, from an economic perspective, monitoring enhances the ability to detect defection and to match rewards and sanctions to the partner's behavior (Celly and Frazier 1996).
- (d) **Group size.** Numerous studies have found that cooperation declines as group size increases, particularly in infinitely iterated Prisoners' Dilemma games (see Franzen (1994) for a review). Increasing group size may make it harder to shape others' behavior and make it easier to defect anonymously (Dawes 1980). The costs of organizing can also increase as group size grows – i.e., groups can find it harder to communicate and coordinate their actions (Olson 1965). These studies suggest that cooperation can be made more likely by reducing group size.
- (e) **Boundaries.** When players face the dilemma of how much to take from a collective good so that it continues to exist, the solution is to draw some kind of boundary around the collective good. Hardin (1968) argued for the establishment of an external authority to regulate who has access to the collective good or how players are to withdraw resources from the collective good.

Motivational solutions, in contrast to structural solutions, focus on changing partners' perceptions of the social environment (e.g., expectations of other partners' behavior; feelings of group identity, trust) and therefore their motivation for cooperation. These solutions include mechanisms such as: (a) selecting the 'right' partners; (b) establishing long-term goals or "extending the shadow of the future"; (c) improving communication; and (d) fostering a group identity among partners.

- (a) **Selection.** Perhaps the most straightforward way of managing opportunism is to select exchange partners *a priori* that are not opportunistically inclined or are inherently cooperative with respect to a particular task (Orbell and Dawes 1993; Hitt et al. 2000).
- (b) **Long time horizons.** Experimental research has shown that the longer people interact in a Prisoners' Dilemma, the more likely they are to cooperate (e.g., Roth and Murnighan 1978; Dal Bó 2005). The influence of such a time horizon on cooperative behavior has also been observed in field studies (e.g., Heide and Miner 1992; Parkhe 1993a; Das and Teng 1998).

There are several potential explanations for why longer time horizons can be effective in enhancing cooperation among partners. First, longer time horizons allow partners to realize the importance of cooperation through the experience of the undesirable consequences of defection (Pruitt and Kimmel 1977). In other words, it takes time for all partners to fully understand that they are in a dilemma situation.

Second, a longer time horizon provides more opportunities to develop trust among partners. As pointed out by Gulati (1995, 1998), trust develops over time as a consequence of opportunities to share information and learn about each partner's tendency toward trustworthy behavior. To the extent that people gain reputations for cooperation/trust, the risk of cooperating with them declines and this encourages cooperative strategies.

Third, in a long-term relationship, partners are more likely to have opportunities to reciprocate other partners' behavior (Parkhe 1993a). A typical example of reciprocal behavior is represented by the tit-for-tat strategy, which consists of starting with cooperation and then being responsive to other partners' behavior so as to "reward" cooperation by cooperation and "punish" defection by defection (Axelrod 1984). Through such expectations of reciprocity – and the anticipated gains from cooperation versus defection – the future casts a shadow back upon the present, affecting current behavior patterns. A longer "shadow of the future" (Axelrod 1984, 126) enhances cooperation by increasing the net present value of a cooperative strategy relative to the net present value of a defective strategy.

- (c) **Communication.** Research has shown that communication increases cooperation significantly in Prisoners' Dilemma situations (see Balliet (2010) for a meta-analytic review). The communication effect is also well accepted in the alliance literature (e.g., Kanter 1994; Doz 1996).

The Prisoners' Dilemma literature provides a number of potential explanations for the communication effect. First, group discussion of the dilemma helps people understand the nature of the dilemma better, so that all realize the negative consequences associated with universal defection and the positive outcomes of universal cooperation (Dawes 1980). Second, discussing the dilemma provides information on what choices others in the group say they are willing to make, thus establishing group norms and introducing conformity pressures in favor of collective choices (Deutsch and Gerard 1955). However, the extent to which a cooperative norm increases cooperation depends on how much a member identifies with the group (Chen 1997). Third, discussion and interaction foster trust among group members. Talking about decisions may cause group members to believe that others are committed to making cooperative choices, and enhanced trust, in turn, reduces the perceived risk involved in making cooperative choices oneself (Messick and Brewer 1983). Fourth, group discussion fosters group identity. In fact, Dawes (1991) argued that the most important effect of communication comes from eliciting group identity.

(d) Group identity. Making group identity salient has been shown to increase cooperation in Prisoners' Dilemma situations (e.g., Kramer and Brewer 1984, 1986; Goette et al. 2006). One effective way to build identity with the group is to make all group members aware of intergroup competition, so as to create the feeling that all members within the group share a common fate (Tajfel and Turner 1979). The business literature confirms that partners feeling a sense of common fate or facing a common enemy are more likely to cooperate (e.g., Hamel 1991).

One explanation for the identity effect is that group identity creates a sense of cohesion that increases the probability that group members take group interest into account when making their own decisions (Dawes et al. 1988). Along the same lines, Kramer (1991) argued that through identification, a member's identity becomes coupled with the group. This coupling process increases the member's concern for the well-being of the group and, consequently, the willingness to cooperate with other group members.

However, Karp et al. (1993) argued that the effect of group identity stems from a belief in the interdependencies of group members and expectations of reciprocity among the members. That is, it is the belief in future reciprocal exchanges between members, they argue, that moderates the temptation to defect and encourages cooperation. The expectation of in-group reciprocity seems to serve as a very deep heuristic that shapes people's strategic decisions (Brewer 1981).

To conclude, the studies reviewed in this section all provide evidence that the various structural and motivational mechanisms can address opportunism. They do so by transforming the partners' payoff function so that collective and individual goals are aligned. The purpose of this paper is to see whether successful alliances actually do use these mechanisms and, if so, how they operationalize them. The next section draws upon empirical evidence from the CRS to show that these mechanisms are being used and to provide examples of the operational ways of implementing them in a business setting.

Achieving Cooperation in the CRS

Methodology

A qualitative case study methodology was employed to examine the cooperation problems that arise among members of the CRS, as well as the manner with which they have been dealt. Qualitative research methods have been found particularly valuable when addressing strategy questions that require a comprehensive, in-depth understanding of such complex phenomena as interfirm relationships from the perspective of those who are living them – the managers (Parkhe 1993b; Barr 2004). The case study approach makes it possible to take a closer look at the phenomenon and consider it from a holistic perspective in order to study its unique characteristics and complexities (Yin 2009). The qualitative research paradigm, including the case study, has been previously recognized as an important research approach for the agribusiness sector (e.g., Sterns et al. 1998; Saes et al. 2003; Bitsch 2005; Abatekassa and Peterson 2011).

As mentioned earlier, the CRS is a network of 236 autonomous retail cooperatives across western Canada that own and operate their wholesaler, FCL. These retailers, in turn, are owned by more than 1.5 million individual cooperative members. The retail cooperatives in the CRS vary in size from Calgary Co-op – the largest retail cooperative in the CRS, with annual sales of just over \$1.097 billion in 2011 (Calgary Co-operative Association Limited 2012) – to cooperatives like Elm Creek Co-op, which made \$8.87 million in sales in the same year (Elm Creek Co-operative Oil and Supplies Limited 2012).

FCL provides central wholesaling, manufacturing, and administrative services to its member retailers. Specifically, FCL supplies retail cooperatives with a variety of products including food, petroleum, crop supplies, livestock feed, and general merchandise. Of these products, FCL manufactures petroleum, feed, and lumber and plywood products. As well, FCL provides member retailers with a wide range of support services including recruitment, industrial relations and training, retail accounting, advertising and printing, communications and legal services, member relations, and retail facilities project planning and construction. FCL has two wholly-owned subsidiaries – Consumers' Co-operative Refineries Limited (CCRL), a petroleum refining/heavy oil upgrader facility and The Grocery People Limited (TGP), a grocery wholesaler and fresh produce supplier.

As a second-tier cooperative, FCL is controlled through a democratic decision-making process by the 236 retail cooperatives it serves. FCL's member retailers are divided into 15 electoral districts, with each district entitled to one representative on the FCL's Board of Directors. Retail cooperatives are represented at FCL's Annual Meeting through the appointment of delegates (retailers are eligible for up to six delegates, depending on their annual purchases from FCL). Through this system, member retailers can influence the way their organization is run, and the type of goods and services offered.

The CRS case is insightful because of the decision in the 1970s to retain a federated structure and to eschew a centralized structure that would have created a single decision-making body. As a result, the CRS does not have access to the control instruments that characterize integrated structures, and therefore has had to find alternative ways to promote cooperation among its otherwise autonomous members.

The data for this study was obtained from semi-structured interviews and internal documents, and was collected between March and July 2008. A total of ten interviews (see Table 2) were conducted with executives and elected members of the Board of Directors of FCL, and Calgary and Saskatoon Co-ops. The Calgary and Saskatoon Co-ops were chosen because of their size. Calgary Co-op (Calgary, Alberta) is the largest retail cooperative in the CRS, with annual sales of just over \$1.097 billion in 2011 (Calgary Co-operative Association Limited 2012). It accounts for a significant share of FCL's sales – for instance, in 2008, Calgary Co-op accounted for 25 percent of FCL's food sales. Saskatoon Co-op (Saskatoon, Saskatchewan) used to be the second largest retail cooperative in the CRS at the time of the study and ranked third in 2011 when it made \$313.8 million in sales (Saskatoon Co-operative Association Limited 2012). The larger size of these two cooperatives makes them the most likely to act opportunistically (for instance, the smaller cooperatives are less likely to be courted by other wholesalers).

An extensive review of the literature focusing on the behavior of the CRS over time was undertaken, along with the review of the literature on potential solutions to the first-order cooperation (dilemma) problem, in order to develop the interview guide. Following are some of the key questions that were included in the guide.⁶

- What are the key coordination issues that arise in the CRS?
- What impact does a lack of coordination have on CRS performance? How important is opportunism by local retail cooperatives?
- How is opportunism and lack of coordination minimized within the CRS?
- Please describe your relationship with other retail cooperatives in the CRS.
- Please discuss the implications you think the financial crisis of the early 1980s had on the relationships among members of the CRS.

Table 2. Interview Data Collection

Interviewee position and organization	Interview date
Chief Executive Officer, FCL	April 10, 2008
President of the Board of Directors, FCL	April 15, 2008
Vice-President Corporate and Legal Affairs, FCL	April 17, 2008
Vice-President Retail Operations, FCL	April 17, 2008
Senior Vice-President Human Resources, FCL	April 18, 2008
Vice-President Consumer Products and Logistics, FCL	April 30, 2008
Vice-President Agro-Products, FCL	April 30, 2008
General Manager, Saskatoon Co-op	April 30, 2008
Chief Executive Officer, Calgary Co-op	July 15, 2008
Director and Board Chair, Calgary Co-op	July 15, 2008

The semi-structured interview format allowed consistency in questions across interviewees (hence, their responses could be compared and contrasted), while also permitting follow-up questions to explore participants' responses more thoroughly. It also allowed for the research question to be answered without imposing on interviewees. For instance, to determine whether or not the CRS has used the various mechanisms suggested in the literature to deal with opportunism, a broad question – “How is opportunism minimized within the CRS?” – was asked. Participants' responses were subsequently classified according to the various mechanisms suggested in the literature review.

Ten interviews proved to be sufficient to gain an understanding of the strategies and mechanisms that the CRS – led by FCL – has implemented to promote cooperation among member retails. Indeed, by the time of the last interview, the same themes were emerging again and again. The choice of senior executives may bias the results; others in the system may have different views. However, the views expressed are those of the people making the decisions over the last 30 years (out of the ten interviewees, eight had been with the CRS for more than three decades) and capture the way they see the problem (or at least the way they have expressed the problem to outsiders and to themselves).

⁶ The interview guide is available from the authors upon request.

Interviews took between one and two hours and were conducted in person at the interviewee's place of business. To ensure an accurate rendition of the responses, the interviews were audio recorded and subsequently transcribed. Transcripts were then forwarded to the interviewees for review, editing, and approval.

A substantial body of secondary data was also used. Access was gained to the FCL Annual Reports for the period 1978-2007 and to the FCL weekly Bulletin for Co-op General Managers for the period July 2007-July 2008. The FCL Annual Reports provided comprehensive data on the financial performance of FCL, the patronage refunds FCL paid to member retailers in cash and/or allocated to them as additional equity, and the strategic decisions FCL made with regard to the reinvestment of retained savings, while the Bulletin for Co-op General Managers provided complementary information on the various programs that FCL developed for the retailers.

The data from these two sources were analyzed and coded to identify common themes using content analysis procedures (Strauss 1987). Validity was secured by using multiple data sources (Yin 2009). The statements and views of respondents who represented different organizations in the CRS (i.e., the alliance management body – FCL – and alliance partners – Calgary and Saskatoon Co-ops) and organizational positions were compared and contrasted, and documentary evidence was used to verify the validity of the data.

Results: Opportunism in the CRS

Interviews with CRS executives and documentary evidence revealed three main forms of opportunistic behavior by the retailers: (1) decision to shirk on quality maintenance of the Co-op brand name (e.g., allow their store quality or their customer service quality to degrade); (2) decision to purchase from outside suppliers instead of patronizing FCL; and (3) decision to over-expand through loans that retailers guaranteed with their shares in FCL (see Table 3).

Table 3. Opportunism in the CRS

Forms of opportunistic behavior	Occurrence
➤ Retailers' incentive to shirk on quality maintenance of the Co-op brand name	ongoing
➤ Retailers' incentive to purchase from outside suppliers instead of patronizing FCL	ongoing
➤ Retailers' decision to over-expand through loans they guaranteed with their shares in FCL	late 1970s – early 1980s

First, the Co-op brand name is a signal to customers of the quality of the products and services that retail cooperatives offer and, as such, is the major strategic asset that differentiates retail cooperatives in the CRS from their competitors.⁷ However, because of the collective good nature of the Co-op brand name, the benefit to a local retail of maintaining its quality is less than the benefit to the CRS – that is, while retail cooperatives receive the benefit in their local market of brand quality maintenance, they cannot capture the benefits that accrue to the other retailers. As a

⁷ See Norton (1988) for a discussion of the role of the brand name in differentiating outlets in a franchise system from outlets in other franchise systems or independent businesses in the same industry.

result, each retail cooperative has an incentive to free ride on the efforts of other retail cooperatives, and to consequently under-develop and under-maintain the Co-op brand name. Such opportunistic behavior creates spillover effects that are experienced by the other retail cooperatives in the CRS – customers that have a bad experience in one Co-op store are likely to believe that other Co-op stores will provide a similar bad experience. In short, if quality control decisions are made independently, retail cooperatives are likely to be worse off than if they had cooperated to develop and maintain the Co-op brand name.

The general manager of Saskatoon Co-op, the second largest retail cooperative in the CRS at the time of the study, speaking about the importance of retail cooperatives contributing to the quality maintenance of the Co-op brand name, stated: *“Our cooperative is surrounded by lots of small retails within 25 miles of the city [...] and if they do badly in one small retail, it affects our membership here in our cooperative. Customers perceive us to being the same; they know we are two separate companies, but they want that continuity. And when one of them does not follow the programs, it makes customers start doubting the whole system. Customers lose that trust level we have built up (General Manager, Saskatoon Co-op).”*

Retail cooperatives also have the freedom to purchase from other suppliers besides their wholesaler, FCL. This gives each of them an incentive to operate outside the system when they receive better offers on wholesale merchandise. This opportunistic behavior negates the economies of scale and countervailing power the CRS could provide if it had access to all the business of the local retails. As a result, the total system profits will be smaller than what the CRS could generate if retails were to operate inside the system (the implicit assumption here is that there are economies of scale so that when all retails patronize their wholesaler, the result is lower prices than what a retail could obtain from outside the system; otherwise, there would be no sense for the CRS to exist).

This form of opportunism was a real issue in the CRS in the late 1970s and during the 1980s. In the early 1980s, FCL distinguished between active and inactive (in terms of purchasing from FCL) members and strongly encouraged those members unlikely to become active to terminate their membership (FCL 1981). In 1986, the FCL Board’s Membership Committee raised the question of whether retail cooperatives should be required to achieve a minimum level of purchases to qualify for payment of expenses for delegates attending the FCL Annual Meeting. In 1989, participants at the FCL Annual Meeting adopted a bylaw amendment that required retails to purchase at least \$50,000 of goods before FCL would provide expense allowances and per diems for their delegates.

The third form of opportunism that was mentioned in the interviews was the over-expansion by retail cooperatives in the late 1970s and early 1980s that was financed by loans that the retails guaranteed with their shares in FCL. The negative real interest rates and high consumer demand of the 1970s encouraged retail cooperatives to borrow money and build expensive malls, using their shares in FCL as collateral for their loans. Retail long-term debt had increased 272 percent over the period from 1974 to 1981 (Fairbairn 2003). In 1982, retails had only 32 percent member equity – that is, the consumer members’ stake in the retails was less than one third of the assets, with the rest being covered by loans, accounts owed to the cooperative and the like (Fairbairn 2003). Each retail believed that if it were to experience financial hardship, then FCL (i.e., the

other retails) would bail it out. A FCL manager of the day recalls: “There was a mindset in the system [...] that as long as there was any money available anywhere [...] there never would be a time when a retail cooperative would be allowed to disintegrate” (as cited in Fairbairn 2003, 39). As a consequence, the retails collectively took on a debt level that could not be supported by the system; indeed, with the economic slowdown and the high interest rates of the early 1980s, the magnitude of this debt almost drove FCL and the CRS to bankruptcy in 1982. One FCL board member of the day recalls: “As high interest rates hit at that time, a lot of those loans became very dicey as to whether they could be repaid. Federated had so many liens – liens against the shares – had they all been called, or gone bad, the entire CRS would have collapsed” (as cited in Fairbairn 2003, 29).

Results: Mechanisms for Achieving Cooperation in the CRS

The financial crisis that the CRS experienced in the early 1980s created an opportunity for FCL to take a leading role in the CRS. In addition to having an overview of the entire system, given its direct ties with each retail cooperative, FCL had a direct interest in seeing that the retails regained their financial health, since without their purchases, FCL could not survive financially. Because FCL did not have enough money to pull all retails out of their problems, they decided to help those cooperatives that would allow the total system to survive, while closing others. When FCL’s plan led to tangible improvements taking place in the activity of insolvent retails and the system as a whole year by year, FCL gained retails’ credibility and was accepted as the leader⁸ of the CRS (Fairbairn 2003).

As the leader of the CRS, FCL was instrumental at promoting robust cooperation among the retails following the financial crisis of the 1982. They did that by developing programs that alter retails’ incentives and counter opportunistic behavior, and by gathering the resources needed to develop such programs. As will be seen, the strategies and mechanisms chosen by FCL to deal with opportunistic behavior closely match those suggested in the literature.

Today, the CRS is a strong business organization. Figure 1 illustrates the evolution of FCL’s real sales and net savings over the 1978-2011 period. As illustrated, FCL went from being on the brink of financial collapse in the early 1980s to record sales and profits year after year during the 1990s and 2000s. Since the financial crisis of 1982, FCL’s real sales to the local retails have grown at an annual rate of 4.8%, while real net profits have grown at an annual rate of 20.4%.

⁸ While FCL plays the leading role in the CRS, it is important to acknowledge that the CRS is not a totally top-down driven system. Rather, the retails influence the decisions that FCL makes through their representatives on FCL’s Board of Directors and their delegates to FCL’s Annual General Meeting, among other avenues. Ketilson (1991) documented the existence within the CRS of countervailing power which enables the retails to not only maintain control over their organizational decision making, but also have input into FCL’s decisions.

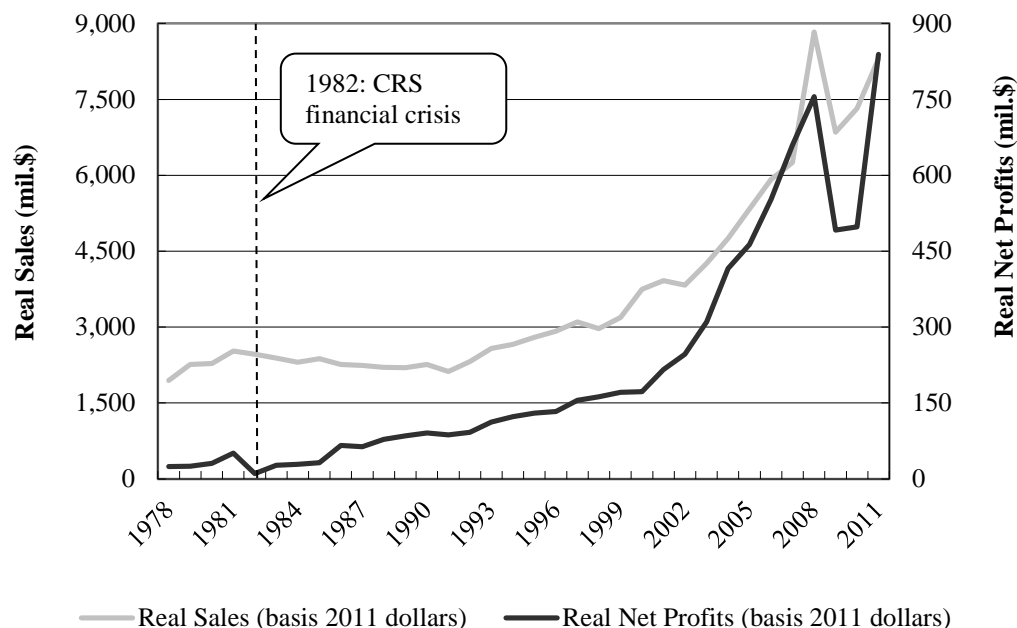


Figure 1. Evolution of FCL's Sales and Net Profits, 1978-2011 (2011 constant dollars)

Source. Authors' own calculations based on data from FCL Annual Reports 1978-2011.

The 2008-2009 economic recession that affected retail businesses across Canada generated a decline in FCL's sales and net savings in 2009 and 2010 compared to the record year of 2008. However, the CRS came through the recession quite strong – the organization established a new record in terms of profits in 2011. With sales of \$8.3 billion and net profits of \$839 million, FCL was the largest non-financial cooperative in Canada (The Globe and Mail Report on Business Magazine 2012) and the second largest business in Saskatchewan in 2011 (Saskatchewan Business Magazine 2012).

Table 4 summarizes the mechanisms that FCL has developed and implemented to promote cooperation among retails along two dimensions – shirking on quality and purchasing from outside suppliers. As discussed above, these two dimensions represent opportunities for opportunistic behavior by member retails at the current time. As suggested in the literature, FCL has developed mechanisms for: (a) changing the payoff structure; (b) providing selective incentives; (c) monitoring behavior or its outcomes; (d) selection of the 'right' partners; (e) improving communication; (f) reducing group size; (g) fostering high identification with the group; and (h) increasing the time horizon. The strategy of drawing boundaries around the collective good, as will be discussed below, was used to deter further instances of opportunistic borrowing (remember, this borrowing was at the core of the financial crisis the CRS experienced during the early 1980s).

Table 4. Mechanisms for Countering Opportunistic Behavior in the CRS

Mechanisms for	Opportunistic behavior by retail cooperatives	
	<i>Shirking on quality maintenance of the Co-op brand name</i>	<i>Purchasing from outside suppliers instead of patronizing FCL</i>
<i>Changing the payoff structure</i>	n.a.	Common flyer program; Patronage refund system; Discount and rebate program
<i>Providing selective incentives</i>	Subsidy programs; Ag Team program; Succession planning	Subsidy programs; Ag Team program; Reaching out programs; Support services; Succession planning
<i>Monitoring behavior or its outcomes</i>	Store checklists and customer checks; Retail advisors	Price management system; Retail advisors
<i>Selecting the 'right' partners</i>	Assistance with general manager hiring; Succession planning	Assistance with general manager hiring; Succession planning
<i>Improving communication</i>	Group training programs; Commodity clinics; Tours of successful U.S. retailers; Trade shows; Committees; Meetings	Group training programs; Commodity clinics; Tours of successful U.S. retailers; Trade shows; Committees; Meetings
<i>Reducing group size</i>	District and regional organization of the CRS	District and regional organization of the CRS
<i>Fostering group identity</i>	Group training programs; Commodity clinics; Tours of successful U.S. retailers; Trade shows; Committees; Meetings; Succession planning; Marketing programs	Group training programs; Commodity clinics; Tours of successful U.S. retailers; Trade shows; Committees; Meetings; Succession planning; Marketing programs
<i>Enlarging the time horizon</i>	Patronage refund system	Patronage refund system

Mechanisms for changing the payoff structure. Perhaps the most obvious way to encourage retails to patronize their wholesaler is to increase their payoffs for operating inside the system. FCL has used the common flyer program, the patronage refund system, and the discount and rebate program to do just that. In the *common flyer program*, FCL plans the layout and composition of a store flyer that all retail cooperatives in the CRS can use to feature grocery promotions and price discounts (a smaller version of this flyer – i.e., a pantry flyer – is developed for the small retail stores). To be eligible to use the flyer, retails must inform FCL on the quantity they need of the grocery items included in the flyer three months out. FCL conducts the negotiations with suppliers on behalf of all the retails. FCL negotiates not only a price for the product, but also an advertising program, as suppliers are keen to have their brands featured in the store flyer. As a result, retails benefit not only from volume rebate dollars, but also from advertising dollars, when they purchase groceries through FCL.

As well, retails receive *patronage refunds* when they do business with FCL. In particular, FCL uses the patronage refund system to distribute part of their net savings to member retails in proportion to their patronage. Patronage refunds can be significant – e.g., in 2008, the patronage

refund rates varied from a low of 5.3 percent on groceries to a high of 12.4 cents a litre on fuel – providing retails with strong incentives to cooperate in dealing with their wholesaler.

Moreover, retails are eligible for *discounts and rebates* when they purchase petroleum products from FCL. Unlike the patronage refunds, the discounts and rebates are given at the time of purchase, and are used to effectively reduce retails' costs in certain markets and to allow them to match their competitors' prices. A senior FCL manager explained: "*Individually, we would be crushed by the competition if we did not have an overall CRS program to help retails in the event of price wars. If a retail was on its own, with no system support, all that the competition would have to do in each little community is drop the price and put the pressure on until that retail went out of business because they could not afford to stay in it anymore. Then, they could effectively come back with their price in this community and move on to the next one. Over time, we would simply be out of business* (Vice-President Agro-Products, FCL)." Through the support it provides in situations of price wars, the discount and rebate program increases retails' payoffs from purchasing petroleum products from FCL.

Mechanisms for providing selective incentives. Selective incentives represent a closely related strategy that has been used to encourage cooperation among retails in patronizing their wholesaler, and in developing and maintaining the Co-op brand name. FCL has used subsidy programs, the Ag Team program, reaching out programs, a wide range of support services, and succession planning to reward those retails that contribute to the common interests of the system.

With its *subsidy program*, FCL provides a subsidy of 50 percent of the total cost of petroleum assets to any retail cooperative that wishes to upgrade or expand its gas bar, bulk plant, or card lock, or to build a new one. In addition to the grant, FCL also finances the other 50 percent of the cost interest free over a 25-month period and assists retails in the construction of the project. However, to have access to the program, retails must purchase their petroleum products from FCL and keep their standards up in terms of store quality and service. In short, the grants, interest-free loans and project assistance are private benefits given to the retails as an inducement to contribute towards collective benefits – the competitiveness of FCL and the quality of the Co-op brand name.

The *Ag Team program* is another example of tying retails' access to a private benefit with the contributions needed to supply collective benefits. The Ag Team program involves suppliers and retail cooperatives working together through FCL. By taking part in the Ag Team, suppliers receive input from the retails as to what is required by the end user and are able to develop the best programs for them. Because suppliers value the marketing opportunities that the Ag Team program creates, they have an incentive to contribute funds that FCL can distribute to the retails. However, to be part of the Ag Team and to participate in marketing funds, retails must purchase crop supplies through FCL and meet certain requirements with respect to their facilities, the training of their staff, customer contact and customer files. Thus, the Ag Team program enhances cooperation among retails in patronizing FCL, and in preserving and promoting the Co-op brand name.

Also, to support local marketing and sales activities for seed and farm equipment product lines, FCL provides retails with *reaching out funds* that are made available by suppliers. Because

payments are based on retailers' fall buymart bookings with FCL, the reaching out funds can be viewed as a private benefit given to retailers as an inducement to contributing toward a collective benefit – the competitiveness of FCL.

Moreover, FCL provides the retailers with a wide range of *support services*, including human resource support (i.e., assistance with general manager hiring, and training for managers, board members, and staff), assistance in merchandising and operations, and audit and accounting services, at a cost that is less than what could be obtained elsewhere. However, to have access to these services, retailers must patronize FCL: *"We [FCL] provide just a whole myriad of services in behind. If one [retail cooperative] wants to go elsewhere, those services are no longer available to you. Now, if you come back, we will provide them again. But that is all part of the parcel or the package. And that is why I think retailers stay with us – we have got so many of those programs in place and they recognize the value of those things. Where else would they get it? You can go to another wholesaler, for example, and buy, but that is all you are going to do because you are just going to buy that item; there is no other support services..."* (CEO, FCL)." These support services thus encourage retailers to patronize FCL.

Succession planning (i.e., the promotion of competent general managers to larger retailers in the system) also provides private benefits to retailers. In particular, the opportunity for promotion makes small retail cooperatives more attractive to outside managers (prospective candidates) relative to stores in other retail chains and gives large retail cooperatives a proven set of candidates. However, to take part in succession planning, retailers need to cooperate with the others in patronizing their wholesaler, and in developing and maintaining the Co-op brand name.

Monitoring mechanisms. Effective implementation of these selective incentive mechanisms requires that FCL distinguish between retailers that contribute to the common interest of the system and those that do not. FCL has used the price management system, retail advisors, and store checklists and customer checks to monitor retailers' behavior. The *price management system*, which is meant to coordinate pricing across the CRS, also allows FCL to detect whether retailers purchase from outside suppliers: *"We [FCL] will know if they [retail cooperatives] are selling stuff they are not supposed to, because it will give us a report saying: here is items that are not authorized to sell in the stores* (Vice-President Consumer Products and Logistics, FCL)." The *retail advisors* that FCL hires to assist retailers in merchandising and operations also play a monitoring role in the CRS. By getting directly involved in multiple aspects of the retailers' activity, as well as in discussions at the board and general manager level, retail advisors are able to detect whether retailers shirk on quality maintenance of the Co-op brand name or purchase from outside suppliers instead of patronizing FCL: *"Retail advisors are really the eyes and ears out there for the region managers ... and it is usually through them that we [FCL] get the feedback* (Vice-President Retail Operations, FCL)." Moreover, FCL runs *store checklists and customer checks* to monitor how retailers maintain their facilities and the quality of the service they give to their customers.

Selection mechanisms. A more straightforward strategy than monitoring retailers' behavior to detect defection is to select retail general managers *a priori* that are inherently cooperative. Assistance with general manager hiring and succession planning are two mechanisms that FCL has used to attract and retain those managers with a cooperative orientation in the CRS.

In particular, FCL's *assistance with general manager hiring* involves all the stages of the hiring process from reviewing the position description and making recommendations on the kind of skills to be required from a candidate to getting involved in the actual interview. Through this process, FCL aims to ensure not only that the managers that are being hired are good professionals, but also that they have a perspective on the entire system – i.e., they see themselves as part of the CRS and not just the manager of a particular retail cooperative – and will likely cooperate with the other retails for the common benefit of all. Moreover, the *succession planning* process allows an opportunity to promote the general managers of smaller retails who have shown a disposition to act in the common interest of the system.

Communication mechanisms. Like other organizations, FCL has created numerous opportunities for communication among retails to promote cooperation, including: group training programs, commodity clinics, tours of successful U.S. retailers, trade shows (i.e., buymarts and Marketing Expos), committees (e.g., Executive Management Committee), and a wide range of meetings (e.g., spring district meetings, fall regional meetings, the Annual Meeting of FCL). Moreover, retail managers communicate during the meetings they themselves organize and to which they invite FCL personnel – the two key examples are the *Fairmont Conference*, which is organized annually by the Co-operative Managers' Association, and the annual *Co-operative Financial Managers' Association Meeting*.

Communication is expected to enhance cooperation among retails, for instance, by ensuring that each retail has the same understanding of the dilemma that they collectively face, helping retails see the whole picture (both advantages and disadvantages) of cooperation and defection, and reinforcing the desirable outcome of universal cooperation (i.e., CRS success) and the undesirable outcome of universal defection (i.e., CRS failure). For instance, FCL often reviews the history of the financial crisis of the early 1980s. By emphasizing the cause of the crisis – i.e., opportunistic behavior by retail cooperatives – FCL makes the new retail decision-makers conscious of the negative consequences of defection and of the importance of working together with the other retails for the long-term benefit of the system.

Discussion of the dilemma may also provide retail decision-makers with information on what choices other retail decision-makers in the CRS say they are willing to make, thus establishing group norms and conformity pressures in favor of cooperative choices. Alternatively, talking about decisions may cause retail decision-makers to believe that others are committed to make cooperative choices. Enhanced trust, in turn, reduces the perceived risk involved in making cooperative choices oneself, hence, fostering cooperation among retails.

Mechanisms for reducing group size. Communication among the 236 retail cooperatives in the CRS is made easier by the *district and regional organization* of the system. In particular, the 236 retail cooperatives have been divided into 15 electoral districts to facilitate the democratic decision-making process through which retails influence the way FCL is run, and the type of goods and services offered. In turn, the 15 districts have been organized into five regions. Thus, before meeting on a total membership basis to make decisions, retails meet at the district and regional level. Apart from making it easier for the retails to communicate, the district and regional organization of the CRS is expected to enhance cooperation among retails by also

increasing the visibility of individual actions and enabling the districts and regions to use social inducements to enhance collective actions.

Mechanisms for creating group identity. A less obvious strategy that FCL has used to promote cooperation among retails is to foster a system identity among them. The communication mechanisms described earlier and the succession planning system that FCL uses are mechanisms that induce retail cooperatives to identify with the system. They do this by exposing retail managers and directors to a system-wide perspective. The *Annual Meeting of FCL*, for instance, is an effective mechanism for enhancing a common understanding among delegates that they are part of a larger group – the CRS: “*When I first got elected, there was a little bit of an anti-Federated sentiment because we just understood that they are our wholesaler and we are Calgary Co-op. I do not know if a lot of us understood what the big picture was. Then I went to one of FCL’s Annual General Meetings and that was just kind of like: wow, we are part of this whole bigger picture ... (Director and Board Chair of Calgary Co-op).*” Also, the *succession planning system* gives retail general managers a system-wide perspective: “*General Managers have moved around lots; like myself – this is the eighth time I have moved in 30 years. And we understand that this whole thing [the CRS] is the same (General Manager, Saskatoon Co-op).*”

The communication mechanisms also contribute to the creation of a shared identity among retails by providing them with an opportunity to socialize and network: “*Apart from the work that happens, the opportunity to network with other general managers and the CEO of FCL is important. As a young general manager, you feel that you are the only manager that has ever had retail problems. At my first conference [the Fairmont Conference] in 1991, I had the opportunity to sit with the CEO of Calgary Co-op at that time. It was a great learning opportunity to talk to him and other seasoned general managers around the table. I found out that I was not the first person to experience retail problems. I received some advice and a few phone numbers so that I could call them. That was important to me; it made me feel like I belonged (CEO, Calgary Co-op).*” Through this process, these meetings induce retail general managers to feel a oneness with or a belongingness to the system. Also, by allowing retail cooperatives and FCL to come together in a social setting, meetings and trade shows contribute to creating and nurturing a sense of ‘groupness’ among them: “*The Co-op Marketing Expo has been one of the strongest team-building relationship-forming parts of our organization (Vice-President Retail Operations of FCL);*” “*The Expos bring everybody together and they make you feel like you are part of a bigger system (General Manager, Saskatoon Co-op).*”

Finally, the communication mechanisms (e.g., group training programs) foster a common identity among retails by allowing them to discover that they all face similar problems (e.g., they compete against the same competitors): “*When the Board of Directors from Saskatoon Co-op gets mixed into a training course with other Boards of Directors from other retails, it really opens your eyes up saying: yes, we are big, but we have got the same problems that Colonsay Co-op [Colonsay is a small community in Saskatchewan, Canada] has got (General Manager, Saskatoon Co-op).*” When retails understand that they share a common fate, it is expected that they more strongly identify with each other: “*I believe our system has come a long way in terms of communicating more openly both the good news and the bad news. I think the more that we communicate the stronger that identity grows (CEO of Calgary Co-op).*”

Coordinated action by the retailers in adopting the various marketing programs (e.g., programs regarding store layout, signage and décor, Co-op[®] product programs, the common flyer program, and the unique price management system) that FCL puts forward also contributes to the creation of a shared identity. The *programs regarding store layout, signage and décor* contribute to the creation of a visual identity across the CRS. Moreover, when retailers share the same (*computer*) *pricing system, store flyer, and private label products*, it is expected that they get a sense of being part of a system.

This sense of shared identity is expected to enhance cooperation among retailers by creating a sense of cohesion that increases the probability that system members will take the common interest of the CRS into account when making their own decisions. Alternatively, strong identification with the CRS is expected to lead to the coupling of a retailer's identity with the system. This coupling process, in turn, increases the retailer's concern for the success of the CRS and, consequently, the willingness to cooperate with the other system members: "*When you look at where **the CRS** came from back in the early 1980s to where **we** are today, **our success** could not have happened without working together for the benefit of all* (CEO, Calgary Co-op, emphasis added)." Indeed, this CEO thinks of Calgary Co-op as a member of the CRS and perceives the success of the system as Calgary Co-op's. Through this process, identification with the CRS is expected to lead retailers to work together for their mutual benefit. Finally, identification with the system may increase retailers' awareness of their interdependencies and strengthen their expectations of future interactions. These expectations likely moderate retailers' temptation to defect and encourage cooperation.

Mechanisms for increasing the time horizon. By their nature, interactions among retail cooperatives in the CRS are repetitive. Retailers have joined the CRS to gain countervailing power against their suppliers, and to benefit from economies of scale in warehousing, transportation, promotion and other marketing functions. Moreover, once a retail cooperative joins the CRS and contributes its share of investment in FCL, it cannot costlessly withdraw from membership. Only under certain circumstances and with the approval of FCL's Board of Directors may retail member shares in FCL be redeemed. As a result, a situation of repeated interactions emerges among retailers.

The *patronage refund system* further raises retailers' costs of withdrawing from membership in the CRS and increases the time horizon over which retailers are likely to interact. As discussed earlier, FCL uses the patronage refund system to distribute part of their net savings to retail cooperatives in proportion to their patronage. However, only a certain share (e.g., 81 percent in 2010) of the patronage refunds is returned to retailers in cash, the rest being allocated to them in the form of additional equity in FCL. This patronage allocation adds to the retailers' initial investment in FCL, hence increasing the amount of money a retailer would forfeit should it decide to step out. Moreover, FCL uses the retained savings to develop new programs for the retailers or reinvests them to grow the business. The retained savings, together with the return on their investment, are a cost for the retailers that choose to step out from the CRS. The significant amount of retained savings (e.g., \$146.3 million of the \$498 million net savings in 2010) and the high rate of return on their investment provides retailers with strong incentives to continue their membership in the CRS into the future.

The reinvestment of retained savings plays a particularly important role in promoting cooperation in the CRS. For instance, some of the most important investments that FCL has made since the early 1980s were targeted at growing the petroleum operations, which have been a strength for the CRS. These investments included a long stream of expansions at the Co-op Refinery (owned by an FCL subsidiary) and the NewGrade Energy Inc. upgrader. Interest in the future potential benefits to be generated by these investments (e.g., new efficiencies from the refinery's larger production volume, extra earnings for the refinery from upgrading heavy crude oil to the light, sweet crude it uses in production) has provided retails with incentives to cooperate in patronizing FCL for their petroleum purchases, and in preserving and promoting the Co-op brand name. Apart from establishing long term goals among retails, these investments are expected to also promote trust by signaling calculations of payoffs from universal cooperation stretching well into the future.

It must be mentioned that apart from the mechanisms that FCL has put in place to deter opportunistic behavior by retail cooperatives, there have also been changes in the competitive environment that diminished retails' incentives to act opportunistically. In particular, consolidation in the food and petroleum industries reduced retails' incentives to purchase from outside suppliers, as they would have to patronize their competitors. As well, increasing competition in retailing reduced retails' incentives to shirk on quality maintenance of the Co-op brand name, as retails had to differentiate themselves through service and quality rather than through price: *"To my mind, that is what is going to differentiate us [the CRS] from the rest of the pack – service and more service and more service and a great shopping experience. Because as big as we are, we are very small when it comes to the other companies. So, if we wanted to go head and head on price, we were dead in water; we would not survive (CEO, FCL)."*

Mechanisms for drawing boundaries around the collective good. These mechanisms were specifically targeted at resolving the problem of over-expansion that created the 1982 financial crisis. One way to view the over-expansion by retail cooperatives in the late 1970s and early 1980s is that there was a lack of well-defined property rights over FCL's assets. In particular, because retail cooperatives could borrow as much money as they needed to build new stores and could guarantee their loans with their shares in FCL, each retail cooperative viewed the solvency of FCL, and with it the CRS, as a common property, a resource that could be exploited. As a result, each of the retails took on a debt level that together could not be supported by the CRS; the magnitude of this debt almost drove the entire system to bankruptcy in 1982. To avoid such a situation from happening again, FCL made each retail responsible for its debt. That is, credit was no longer a common pool good that retails could exploit. Put it in property rights theory terms, FCL changed the residual control rights among retails (Barzel 1989). This, in turn, changed their incentives. The retails were willing to accept FCL's decision because of the critical situation that they and the system were in.

Concluding Discussion

With more and more firms involved in strategic alliances, there is a growing recognition of the need for an understanding of how alliances can be effectively managed to promote effective cooperation among business partners (Ireland et al. 2002; Culpan 2009; Kale and Singh 2009). While much of the published research considers the factors that may foster cooperation in

interfirm relationships, the literature is short on the actual procedures that firms use. This paper, based on a case study of the CRS, provides examples of the mechanisms that can be used to implement these theoretical solutions in a business setting. In particular, the paper presents practical ways for alliances – led by a focal firm – to alter partner firms' payoffs, to provide private rewards, to monitor behavior or its outcomes, to establish long term goals among partners, and to build high group identification within the alliance. While a few of the mechanisms identified in this study of the CRS (e.g., the patronage refund system) can be used only in cooperative alliances, most of them are applicable to other types of alliances as well.

A common feature of many of the mechanisms used in the CRS is the provision of a private economic benefit for the retailers that cooperate. For instance, retail advisors, who play a monitoring role in the CRS, provide retailers with sufficient improvements in operational efficiency (e.g., through market intelligence, dealing with problem managers, hiring new management) that the retailers are prepared to accept the oversight that the advisors are also carrying out. Similarly, retailers willingly go on study trips to the U.S., which have been shown to foster retailers' identification with the CRS, because they are paid for by FCL. As a result, the successful solution of the cooperation problem in alliances requires not only that a dedicated strategic alliance function exists, as argued by Dyer et al. (2001), but also that this alliance management body has the ability to accumulate the resources needed to develop mechanisms that alter partners' incentives. Certainly, developing and implementing such alliance management strategies is advantageous only to the extent that the costs of doing so are lower than the benefits accruing from cooperation.

Obtaining the resources needed to develop and implement alliance management strategies requires the solution of a second-order cooperation problem – i.e., providing an incentive for alliance partners to contribute resources and enticing alliance partners to abide by the decisions made by the alliance management body (Ostrom 1990). This study shows that FCL has addressed these second-order dilemma problems by creating a number of resource generating opportunities. Through the patronage refund system, FCL retains part of the benefits that retail cooperatives collectively generate as the CRS. The resources that it retains can then be used to provide selective incentives and to build identity (indeed, Knoeber and Baumer (1983) have previously argued that the patronage refund system is a way of solving the dilemma that cooperative members face when it comes to investing in their organization). FCL also uses the scale of the CRS to attract resources from suppliers – i.e., suppliers value the marketing opportunities that the CRS offers and are willing to contribute marketing funds and to pay to participate in the Co-op Marketing Expo, which is also a significant identity building exercise for the CRS. Furthermore, FCL has found ways to have the retailers voluntarily contribute resources. For instance, FCL organizes the Marketing Expo exclusively for the retailers and the system suppliers. This exclusivity makes the Expo attractive to the retailers, which are thus willing to pay to participate in it.

Another important finding is that successful alliance management mechanisms are deeply integrated into the partners' marketing and operational activities. In addition to exchanging the goods and services required in retail operations, these activities are also used to manage relationships to counter opportunistic behavior and to facilitate the development of a common perspective. The integration of alliance management mechanisms into day-to-day operations

keeps the cost of managing the alliance to a minimum and is also more likely to generate retail acceptance.

Moreover, the integration of these mechanisms into the operational activities means that the costs and benefits of participating in activities that encourage cooperation are immediately apparent to local managers in straightforward and easy-to-understand financial terms. This financial impact creates an obvious incentive for managers to participate. In addition, the presence of a clear financial impact may give managers greater power in their relationship with boards. Because local boards are often the ones pushing for greater autonomy or more local control, giving managers greater power may be advantageous in promoting cooperation.

The results also suggest that firms need to use non-economic mechanisms alongside economic mechanisms to deter partner opportunism. The non-economic (behavioral) factors appear to be complementary to the economic ones in enhancing cooperation in interfirm relationships – i.e., fostering partner firms' identification with the group appears to have greater success when paired with economic incentives and vice-versa. The high failure rate of strategic alliances may suggest that business partners place too much emphasis on the economic mechanisms for alliance management and little or no emphasis on the non-economic ones. A more in-depth analysis of this relationship between the economic and non-economic mechanisms is a subject for further study. For instance, a stated preference methodology, such as conjoint analysis or discrete choice modeling, could be employed to examine retail cooperatives' heterogeneity with respect to the value they attach to the various programs that FCL uses to change retailers' material incentives and to manage their identity.

Finally, the analysis in this paper also suggests that the use of single, stand-alone mechanisms to deal with cooperation problems is not common. Instead, it is expected that firms will use a number of mechanisms to tackle the problems, likely suggesting that these problems are both important to business success and difficult to address.

This study is not without limitations. First, due to the fact that it is a case study, statistical generalizations cannot be made based on the study's findings. Second, as in any case study based research, it is difficult to establish a cause and effect relationship. Third, due to the study's limited geographical scope, the insights from this study may not be generalizable and applicable in other areas with different economic and market conditions. Despite these limitations, however, the present study contributes towards a better understanding of the forms that opportunism may take in alliances and the business mechanisms that firms can use to manage partner opportunism.

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