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# Collective Entrepreneurship: An Emerging Phenomenon in Producer-Owned Organizations

**Michael L. Cook and Brad Plunkett**

This paper introduces and defines the concept of collective entrepreneurship. A review of the defensive single-level rent-seeking objective of traditional agricultural cooperatives is introduced followed by an analysis of recent studies documenting a shift in the objective functions of producers jointly integrating toward more multiple-level rent-seeking entities. This process of shifting from market failure—ameliorating collective action mechanisms toward rent-seeking group action organizations is labeled collective entrepreneurship. The justification for introducing this concept is based on the Olsonian premise that rational, self-interested individuals will not act to achieve their common or group interests without coercion or selective incentives.

*Key Words:* agricultural cooperatives, entrepreneurship

**JEL Classifications:** D23, D72, Q13

The objective of this paper is twofold: 1) to explore the interface between the concept of entrepreneurship and the evolution of the organizational arrangement known as the traditional agricultural cooperative and 2) to inform the debate on the emergence of producer-controlled firms that assume nontraditional organizational forms of governance. Specifically, the paper attempts to develop a platform for discussion of the concept defined as “collective entrepreneurship”—a form of rent-seeking behavior exhibited by formal groups of individual agricultural producers that combine the institutional frameworks of investor-driven shareholder firms and patron-driven forms of collective action. After diagnosing the definition of collective entrepre-

neurship, we explore public policy and strategic management implications of this emergent phenomenon.

Twentieth century economic scholars have generally agreed that the agricultural cooperative form of organization emerges because of problems associated with publicness (nonrivalry or nonexcludability) attributes, problems affected by asymmetric information between providers and customers, or both. More specifically, it can be stated that the “traditional” agricultural cooperative form of organization emerges when one of the three primary conditions placed on the fundamental theorem of welfare economics is violated. Sexton and Staatz (1983) conclude that any one of these violations leads to the emergence of inefficient Nash equilibria. These three forms of violation include asymmetric information, monopsony-monopoly power, and externalities. In the social science literature, existence of any one of these violations leads to consideration of col-

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lective action as a corrective measure. Economists usually proffer mutual vertical integration as a solution to this dilemma. Hierarchy as a solution to this individual self-interest–group efficiency dilemma is fraught with its own challenges—what Miller calls the “social dilemma.” Miller (p. 35) further concludes that hierarchy may or may not afford an “ideal” incentive system to align the individual participant’s incentives with the collective good objective of the group. Recent empirical analysis on the inner workings of agricultural cooperatives (Chaddad, Cook, and Heckle; Hendrikse 1998; Hendrikse and Veerman; Illoopoulos) surface additional incentive alignment challenges regarding residual distribution and risk capital accumulation in this popular form of collective action. This suggests that we would expect to see shifts in the structure of organizational arrangements designed to alleviate the negative consequences of the aforementioned market failure shifts as their patrons become more heterogeneous in their economic preferences. A brief note on the evolution of this dynamic follows.

## **Background**

Most North American agricultural cooperatives originated in the late 1800s and early 1900s because of the aforementioned absence of competitive markets, private goods, or costless information (Goddard; Nourse; Refsell). Spurred by the world agricultural depression following World War I and facilitated by enabling antitrust and state incorporation legislation, agricultural cooperatives slowly but consistently increased their aggregate market shares of inputs sold, farm commodity marketings transacted, and services provided every year from the mid-1920s until the mid-1980s (Cook).

The original organizational design of agricultural cooperatives was influenced by a path-dependent set of group action success criteria initiated by the English Rochdale weavers in 1844, an Americanized set of cooperative principles, and specific state and federal institutional constraints. Cooperative founders in the United States translated and reduced the

12 Rochdale principles to three “hard-core” principles: one person—one vote, service at cost, and limited return on equity capital. These three principles were used by most state legislators when they modified their incorporation statutes to include cooperatives. In addition to the three hard-core cooperative principles, most of the 12,500 agricultural cooperatives founded during the 1920s operated under the following rules, policies, and practices: open membership, democratic control, capital formation with residual claimant rights restricted to member patrons, redeemable ownership rights and allocated residuals, residual claims allocated only to member patrons or to the organization on the basis of the discretion of the board of directors, and risk capital contributed in proportion to patronage. The risk capital accumulation systems were limited to passive means (for cost of goods sold-type marketing and multipurpose cooperatives; this meant allocated and unallocated residual was held for working capital purposes and subsequently revolved at book value some years later) and quasi-passive means (for pooled marketing cooperatives this meant capital retains were held for generally shorter periods of time and revolved at book value).

This traditional organizational form is known as the defensive model because it aligned its incentive structure to generate economic rents primarily at the member patron level rather than at the cooperative firm level. The term “defensive” is used to denote that the objective of the joint integration (collective action or cooperative) was to defend the economic position of the patron relative to upstream or downstream transactors. This organizational structure is consistent with the Noursian “competitive yardstick” school of cooperatives, which espoused that the market-oriented reason for collective action was to enhance competitiveness in which markets failed to provide Walrasian equilibrium results. In analyzing the six traditional types of rural cooperatives formed in the early 1900s, Cook analyzed drivers that led to the Farm Credit System, Rural Utilities System, local and regional multipurpose cooperatives, and bargaining and marketing cooperatives and con-

cluded that they were defensive organizational arrangements, with their primary objective focused on countervailing opportunism and holdup situations when markets, over extended periods, failed to function competitively.

This defensive organizational architecture and conservative strategic behavior became institutionalized into a five-stage life cycle that can be segmented into genesis, growth, emergence of internal conflicts, recognition and analysis, and options choice stages. By the mid-1980s, many U.S. cooperatives appeared to be entering the fourth stage of the cooperative organizational life cycle when a significant economic depression unleashed an attack on an overvalued and undercollateralized agricultural sector. This economic challenge at the sector level and the debilitating effect of free rider, horizon, portfolio, and collective decision-making costs at the farm family firm and at the cooperative firm levels forced cooperative leaders to examine and analyze future directions for their jointly owned enterprises.<sup>1</sup> Market shares that had exceeded 30% on an aggregate level for marketing cooperatives and approximately 28% for input cooperatives by the mid-1980s suddenly decreased to approximately 25% in 1986 and 1987. Agricultural cooperatives were confronted with a stark reality—defensive strategies and organizational structures added little value to the patrons' asset base in highly competitive and low-margin markets. Rationalization at the agricultural production, downstream, and upstream agribusiness levels—including cooperatives—became the norm. For the cooperative sector, it was a period of extreme stress and radical change.

### **The Emergence of New Models**

Since the early 1990s a plethora of new cooperative organizational models have emerged in North America, Oceania, and Europe. The design of these models appear to be not only

a reaction to the exogenous environmental influences of globalization, industrialization, consolidation, technological advances, institutional uniqueness of the country or legal environment, and overcapacity in the food sector but also to the intrafirm coordination challenges of redirecting strategy.

In the Netherlands, traditional marketing cooperatives faced problems in responding to the increasing differentiation in demand as well as supply. These forces were the result of fundamental economic changes brought about by the increased competitiveness within the European Union as producers were faced with larger, more demanding, and more segmented consumer markets. From a supply point of view, the change on the demand side forced producers to indicate preferences as how to meet the changing demand scenario. Groups of producers wanted to create a marketing system that would more efficiently serve the new consumer markets, whereas others wanted to maintain the traditional auction price discovery system. Consequently the "old" system advocates have pursued a rationalization strategy by merging auctions and centralizing their limited price discovery-type functions, whereas others have moved toward more federated, vertically integrated, more capital-intensive systems (Hendrikse and Bijman 2002b). Simultaneously, we observe heterogeneous groups of producers experimenting with alternative group action models that attempt to achieve their new investment and marketing objectives. Between 1995 and 2001, 74 new growers' associations were formed in the Netherlands fruit and vegetable sector (Bijman). Most of these new entities have a "return on association investment" performance objective.

Chaddad and Cook (2004a) develop a property rights-based taxonomy of seven emerging cooperative organizational models. The authors characterize these models on the basis of various organizational attributes, including ownership structure, membership policy, voting rights, governance structures, residual claim rights, distribution of benefits, and the strategy-structure interface. In addition to the traditional cooperative model, their re-

<sup>1</sup> For greater detail regarding intrafirm coordination conflict during this period, see Chaddad and Cook (2004a), Cook, Iliopoulos, Porter and Scully, Staatz (1987), Vitaliano.

search found six other organization models that are becoming increasingly prominent in the Organisation of Economic Co-operation and Development agricultural sectors. These models include proportional investment models; member investment cooperatives including subgroups that offer participation units, cooperative capital units, and redeemable preference shares; new-generation cooperatives; cooperatives with capital-seeking entities, including equity-based strategic alliances, trust companies, and subsidiaries; investor-share companies, including preferred stock cooperatives, nonvoting common stock organizations, investor participation share models; and finally, conversion to investor-owned firms. Their article identifies numerous examples and describes minicases for each of the models described.

Merrett and Walzer explore in considerable depth the aforementioned emerging new cooperative models—particularly the new-generation cooperative. Through archival and survey research methods, they analyze 120 new-generation cooperatives (NGCs). The difference between the new-generation cooperative and the traditional cooperative is in the property rights structure. The NGC has a more clearly defined membership policy (closed or well defined), a secondary market for members' residual claims, patronage and residual claimant status restrictions, and enforceable member precommitment mechanisms. This is in contrast to traditional cooperatives, whose property rights structure is characterized by open membership, capital generated through earnings from patronage, and illiquid ownership rights. Their findings support the rationale for founding new-generation cooperatives to be more "offensive" than "traditional defensive" to be consistent with the premise of this paper.

Chaddad and Cook (2004b, forthcoming research) explore cooperatives exiting the patron-owned form of ownership in a broad array of industries, including insurance, credit unions, financial exchanges, savings and loan associations, and agricultural cooperatives. A number of their findings relate to the defensive-offensive organizational structure issue.

They found that 1) waves of demutualization often follow disruptive institutional changes; 2) in general, organizational structure changes were efficiency enhancing; 3) conversion ameliorates perceived financial constraints; 4) conversion provides members access to unallocated equity and reserves; 5) conversion is related to weak governance systems; 6) demutualization is creating cooperative hybrids; and 7) institutional innovation might prevent future waves of demutualization.

These aforementioned studies are a smattering of empirical, anecdotal, and research case analyses documenting the emergence of more offensive or investor-driven types of patron-owned firms. The following section explores in greater depth what is meant by the term "offensive type of cooperative."

### **Rent Seeking at the Farm or Cooperative Level**

Economic rents are returns to a (quasi) fixed factor that are in excess of the level required to keep the resource in its current use. The basis for rent generation rests on factor heterogeneity and an absence of competitive pressures that would otherwise lead to rent dissipation, at least in the short run (Peteraff). Monopoly rents arise from a restriction of output as opposed to Ricardian rents, which arise from an inherent scarcity of supply of an input factor. Resource heterogeneity is consistent with both monopoly and Ricardian rent generation frameworks.

Monopoly models have in common the supposition that cooperatives in favorable positions possess downward-sloping demand curves. Heterogeneity in this framework can arise from spatial competition or product differentiation and intraindustry mobility barriers that differentiate groups of firms from each other, so that even homogeneous firms can earn monopoly rents (e.g., regulatory barriers). Many monopoly models are strategic in that cooperatives take into account the behavior and relative position of their rivals.

As stated previously, earlier waves of collective action in the form of agricultural cooperatives arose chiefly to counter the extrac-

tion of monopoly rents from farmers by farm input suppliers or marketers of farm products. From Williamson's point of view, this avoiding of opportunism is the organizational response by producers justifying the formation of cooperatives. Vulnerability to opportunism can be usefully segmented into three components: *ex post* contractual "holdup," *ex ante* market power, and asymmetric information problems, all three implying the ability to extract monopoly rents (Hansmann; Hendrikse and Bijman 2002a).

Consequently, much of the wave of cooperative investment in the earlier 20th century can be thought of as strategic investment: of ensuring that by being on both sides of the transaction, farmers could reduce the expected costs that might otherwise arise from opportunistic behavior. The primary objective is not likely to be return on capital *per se* at the cooperative level, but to safeguard on-farm returns. In other words, this defensive strategic investment can be thought of as a real option. Brealey and Myers describe real options as options found in real assets that managers, for instance, exercise to mitigate loss. The true return of a project is therefore the discounted cash flow plus the value of the option embodied in the asset. The pertinent real option embodied in the defensive cooperative asset can be characterized as the value of follow-on investment opportunities at the farm level. A defensive cooperative investment could be thought of as a call option, in that the value of a successful initial cooperative investment could underpin a much larger payoff from subsequent investment at the farm level. This is because the farmer could avoid expected loss to his farm-level discounted cash flow that could arise by a supplier or procurer's future strategic choices. The value of the real option would then be a function of the probability of an adverse outcome because of the exercise of market power by a trading partner and the value of the wealth that the farmer has at risk. A farmer member can rationally earn a low return at the cooperative level if his expected on-farm return is high.

Not all agricultural cooperatives have remained "defensive" in orientation. Historical-

ly, most single-commodity cooperatives started as minimally capital-intensive bargaining cooperatives and then evolved into marketing/processing cooperatives attempting to bypass investor-owned firms to avoid monopsonistic rent extraction. Over time, these cooperatives acquired processing and distribution facilities and invested in intangible assets such as brand names. They sought to leverage their defensive reason for formation into offensive rent extraction. Influenced heavily by Aaron Sapiro, a strong proponent of the Capper-Volstead Act, which permitted limited immunity to antitrust prosecution, these quasi-offensive-oriented cooperatives attempted to extract some degree of economic rents.

These cooperatives also sought scale and scope economies to generate Ricardian rent by assembling superior productive factors that are in limited supply (i.e., they could be fixed factors that cannot be expanded or quasi-fixed in that they cannot be expanded rapidly). These resources are scarce in the sense that they are insufficient to satisfy demand (e.g., the ability to coordinate complex transactions). Firms with these resources earn economic profits. Firms with inferior resources enter production to satisfy demand. In equilibrium, these higher cost firms will earn only break-even profits. Consequently, Ricardian frameworks focus on generating and holding these Ricardian rents by an internal strategy to foster a unique combination of superior resources relative to other firms in the industry. This combination of Ricardian and monopoly rent-seeking behavior through group action operating under the cooperative umbrella defines an "offensive" cooperative or producer-owned entity.

The aforementioned *ex post* 1990 group action epitomizes the behavior and organizational structure of an offensive cooperative. Their structure, more amenable to capital formation (upfront equity capital in the form of delivery rights or some other appreciable and tradable asset), their exit ability (transferability of their delivery rights or immediate redeemability of the capital investment at a market value [e.g., new-generation cooperatives or Fonterra in New Zealand]), and their closed membership create the environment that assures that pro-

ducer rent extraction at the cooperative level will benefit the farmer not only as a user (defensive objective of mitigating on-farm expected losses) but also as an investor (offensive objective of a cooperative-level return on investment).

### Collective Entrepreneurship?

When examining research cases and surveys of the emergence of new producer entities, the perception is that these groups are entrepreneurial—very alert to new opportunities, innovative regarding organizational structure, experienced risk takers, and charismatic in leveraging their personal social capital. In reviews of the entrepreneur literature, these characteristics and attributes are used to describe competing schools of thought regarding theories of entrepreneurship. From Baumol to Casson to Foss and Klein, the academic literature explores different schools of entrepreneurial thought. In addition to the three dominant threads of economic thinking about the subject (Schumpeter's idea of the entrepreneur as an innovator, Kirzner's idea of entrepreneurship as alertness, and Knight's idea of entrepreneurship as judgment under uncertainty), Klein and Cook's exploration of T.W. Schultz human capital adjustments to disequilibria approach might inform the phenomenon of recently emerging producer-owned and -controlled entities. However, none of these approaches addresses the complexities added when multiple principals rather than single individuals engage in an entrepreneurial exercise. It is often taken for granted that groups of individuals with common economic interests are expected to act on behalf of their common interests, much as single individuals are expected to act on behalf of their personal interests.

This opinion about group behavior is based on the assumption that individuals in groups act out of their own self-interest. But Mancur Olson, in his seminal piece on the logic of collective action, stated that "... unless the number of individuals in a group is quite small, or unless there is coercion or some other special device to make individuals act in

their common interest, *rational, self-interested individuals will not act to achieve their common or group interests*" (Olson, p. 2). This intuitive yet paradoxically counterintuitive observation surfaces frequently when analysis of the emergence of these recently formed producer-owned organizations is conducted. The common assumption among economists and management specialists that groups tend to further their interests is consequently unjustified, at least when it is based on the premise that groups act in their self-interest because individuals do. Given this observation and the overlapping behavioral characteristics and attributes of the entrepreneurial schools, it becomes clear that our understanding of the formation of offensive or entrepreneurial group collective action is less than complete.

From an organizational economics and managerial science point of view, this entrepreneurial and group action quandary appears to merit our attention. The phenomenon also deserves attention from public policy makers who explore the welfare consequences of incentives and disincentives for collective action either for reasons of correcting market failure or for rural economic development policies.

Our suggestion is that we identify this phenomenon as "collective entrepreneurship" and define it as the process of designing, financing, and incorporating a path-dependent collective (rather than sole or corporate) action form of multiple-level rent generation. Designing includes the process of aligning incentives between the decision makers, residual claimants, and property rights. Financing refers to the process of forming estimates of future events in situations in which there is no agreement on the probability of succeeding or losing. Incorporating includes the process of legally acknowledging the joint deposit of "skin in the game"; that is, each member has personal wealth at risk. Path-dependent collective action implies that the entity or entrepreneurial action is an organizational innovation based on a past organizational form from which the new entity arose. Numerous characteristics of the former organizational arrangement are included in the new organizational architecture. Multiple-level rent generation suggests that

economic rents, whether entrepreneurial, monopoly, or Ricardian, are sought at multiple levels, and these levels have common principals and residual claimants.

We propose that the emergence of jointly owned patron-controlled entities seeking rents at multiple levels exhibiting group innovation attributes, opportunity-seeking behavior, and uncertainty-bearing characteristics be analyzed as a separate and unique phenomenon defined as "collective entrepreneurship."

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## References

Baumol, W.J. "Entrepreneurship in Economic Theory." *American Economic Review* 58(1968): 64-71.

Bijman, W.J. "Essays on Agricultural Cooperatives: Governance Structure in Fruit and Vegetable Markets." Ph.D. dissertation, Rotterdam School of Management, Erasmus University, Rotterdam, The Netherlands, 2002.

Brealey, R., and S. Myers. *Principles of Corporate Finance*. New York: Irwin McGraw-Hill, 2000.

Casson, M.C. *The Entrepreneur: An Economic Theory*. Oxford: Martin Robertson; 2<sup>nd</sup> ed., Edward Elgar, 1999.

Chaddad, F.R., and M.L. Cook. "Understanding New Cooperative Models: An Ownership-Control Rights Typology." *Review of Agricultural Economics* 26,3(2004a):348-60.

\_\_\_\_\_. "The Economics of Organization Structure Changes: A U.S. Perspective on Demutualization." *Annals of Public & Cooperative Economics* 75,4(2004b):575-94.

Chaddad, F.R., M.L. Cook, and T. Heckelei. "Testing for the presence of Financial Constraints in US Agricultural Cooperatives. An Investment Behavior Approach." *Journal of Agricultural Economics* 56,3(2005):385-97.

Cook, M.L. "The Future of U.S. Agricultural Cooperatives: A Neo Institutional Approach." *American Journal of Agricultural Economics* 77(December 1995):153-59.

Foss, N.J., and P. Klein. "Entrepreneurship and the Economic Theory of the Firm: Any Gains from Trade?" *Handbook of Entrepreneurship Research*. A. Rajshree, S. Alvarez, and O. Sorenson, eds., Springer, Dordrecht, Germany, 2005.

Goddard, E. "Factors Underlying the Evolution of Farm-Related Cooperatives in Alberta." *Canadian Journal of Agricultural Economics* 50(2002):473-95.

Hansmann, H. "Cooperative Firms in Theory and Practice." *The Finnish Journal of Business Economics* 4(1999):387-403.

Hendrikse, G.W.J. "Screening, Competition, and the Choice of the Cooperative as an Organizational Form." *Journal of Agricultural Economics* 49,2(1998):202-19.

Hendrikse, G.W.J., and J. Bijman. "Ownership Structure in Agrifood Chains: The Marketing Cooperative." *American Journal of Agricultural Economics* 84,1(2002a):104-19.

\_\_\_\_\_. "On the Emergence of New Growers' Associations: Self-Selection Versus Countervailing Power." *European Review of Agricultural Economics* 29,2(2002b):255-69.

Hendrikse, G.W.J., and C.P. Veerman. "Marketing Cooperatives: An Incomplete Contracting Perspective." *Journal of Agricultural Economics* 52,1(2001):53-64.

Iliopoulos, C. "A Study of Property Rights Constraints in U.S. Agricultural Cooperatives: Theory and Evidence." Unpublished Ph.D. dissertation, University of Missouri-Columbia, 1998.

Klein, P.G., and M.L. Cook. "T.W. Schultz and Human-Capital Approach to Entrepreneurship." *Review of Agricultural Economics*, Vol. 28 (September 2006).

Merrett, C.D., and N. Walzer. "A Survey of New Generation Cooperatives." *A Cooperative Approach to Local Economic Development*. C.D. Merrett and N. Walzer, eds. Westport, CT: Quorum Books, 2001.

Miller, G. *Managerial Dilemmas: The Political Economy of Hierarchy*. Cambridge: Cambridge University Press, 1992.

Nourse, E.G. "The Economic Philosophy of Cooperatives." *American Economic Review* 12(1922):577-97.

Olson, M. *The Logic of Collective Action: Public Goods and The Theory of Groups*. Cambridge: Harvard University Press, 1965.

Peteraff, M.A. *The Cornerstones of Competitive Advantage: A Resource Based View*. Discussion Paper 90-29, Kellogg Graduate School of Business, Northwestern University, 1993.

Porter, P., and G. Scully. "Economic Efficiency in Cooperatives." *Journal of Law and Economics* 30(October 1987):489-512.

Reffell, O. "The Farmers Elevator Movement." *Journal of Political Economy* 22(1914):872-95.

Sexton, R.J. "The Formation of Cooperatives: A Game Theoretic Approach with Implications for Cooperative Finance, Decision Making, and

Stability." *American Journal of Agricultural Economics* 68,2(1986):214-25.

Staatz, J.M. "The Cooperative as a Coalition: A Game-Theoretic Approach." *American Journal of Agricultural Economics* 65,5(1983):1084-89.

—. "Recent Developments in the Theory of Agricultural Cooperation." *Journal of Agricultural Cooperation* 2(1987):74-95.

Vitaliano, P.J. "Cooperative Enterprise: An Alternative Conceptual Basis for Analyzing A Complex Institution." *American Journal of Agricultural Economics* 65(December 1983):1078-83.

Williamson, O.E. *The Economic Institutions of Capitalism: Firms, Markets and Relational Contracting*. New York: Free Press, 1985.