Collective Entrepreneurship and the Producer-Owned Co-operative

Jos Bijman and Bart Doorneweert

Entrepreneurship is predominantly associated with the activities of an individual agent – the entrepreneur. It has also been related to the concept of firm ownership. This may lead to the conjecture that a firm that is collectively owned is a setting for collective entrepreneurship. However, such reasoning encounters a number of taxing questions. If entrepreneurship is usually related to the individual, how does the collective embody entrepreneurial spirit and lead to effective outcomes? These and other questions will be addressed in this paper, which is mainly based on a review of the literature. The paper starts by providing an overview of the different schools of (economic) thought on entrepreneurship. Subsequently it discusses implications for the conceptualisation of entrepreneurship when it is carried out by a group of firms who jointly own another firm, for instance in a joint-venture. Finally, the notion of collective entrepreneurship will be framed within the context of the producer-owned firm, by considering institutional conditions under which it can be attributed to the agricultural co-operative.

Introduction

While entrepreneurship is considered important for economic development, not much scholarly attention has been given to the issue of entrepreneurship in relation to collectively-owned firms, such as agricultural co-operatives. Entrepreneurship in these types of firms could be called collective entrepreneurship (Cook and Plunkett, 2006). The concept of entrepreneurship is usually considered as an attribute pertaining to individual economic agents, mostly in the form of single-proprietor firms.

The case of the agricultural co-operative is interesting because the co-operative is basically a firm that is owned collectively by multiple single-proprietor firms (ie, farmers). Dijk (1999) even distinguished between entrepreneurship at two levels within a co-operative: individual entrepreneurship at the level of the individual producer-owner and collective entrepreneurship at the level of the jointly-owned firm. While these observations appeal by their intuitiveness, they are not based on a positive definition of entrepreneurship and its relation to the firm. This paper further explores the intuitive notions of entrepreneurship and collective entrepreneurship, to the end of surmising the locus of entrepreneurship within the institutional anatomy of the producer-owned co-operative.

Cook and Plunkett (2006) have been among the first to relate the concept of collective entrepreneurship to the agricultural co-operative. They consider collective entrepreneurship as a new phenomenon for agricultural co-operatives and define it as:

> "a form of rent-seeking behaviour 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." (p421).

In other words, Cook and Plunkett explore the emergence of jointly-owned firms where entrepreneurial activity takes place at different levels of the organisation, notably at the level of the individual member-owners and at the level of the jointly-owned firm, and where the member-owners are both investors in and users of the jointly-owned firm. Their paper places the interaction between complex organisational structures and the concept of entrepreneurship on the academic agenda. However, the paper does not explain what impact these different loci of entrepreneurship have on the coherence and therefore manageability of the collective organisation.

Scholars of theory and practice of agricultural co-operatives have claimed that many of these organisations are restructuring towards more "entrepreneurial" organisational models. Nilsson (1999) presents a typology of co-operative models, making a distinction between the traditional co-operative model and a group of four so-called entrepreneurial models. The latter are different from the traditional model (and from each other) in the financial structure they have implemented in order to attract additional equity capital. Nilsson has named these new structures entrepreneurial models, because when co-operatives seek to become (more) entrepreneurial they need additional risk capital, which they obtain by implementing innovative financial structures. While his typology of co-operative models may be very useful in understanding co-operative restructuring, Nilsson does not define what is entrepreneurial about the new models.

Entrepreneurship in a producer-owned co-operative can reside with the farmers as owners of the co-operative firm, with the managers of the co-operative, or with both. What are the implications for the effectiveness and efficiency of the organisation of locating entrepreneurship at one or the other level in the organisation? Dijk (1999) posits that the double organisational character of the co-operative entails also a two-layer system of entrepreneurship. He then argues that when market conditions for agricultural co-operatives change, as they have in the 1980s and 1990s, the lead in entrepreneurial activities should shift from the members to the co-operative and its managers. The author, however, does not elaborate on what entrepreneurship means in such complex organisational structure, or how a shift in entrepreneurship relates to the allocation of decision rights and income rights.

It is the objective of our paper to further explore the relationship between multi-level entrepreneurship and organisational structure, particularly for organisations that are characterised by joint ownership of assets. We begin, in Section 2, by asking how to define entrepreneurship within economic theory. Section 3 then elaborates on the functional perspective on entrepreneurship. Consequently, we discuss in Section 4 the relationship between entrepreneurship function and structural characteristics of the firm. We also introduce the concept of quasi-entrepreneurship. In Section 5 we discuss the key characteristics of collective entrepreneurship, and show that there are at least two organisational forms in which collective entrepreneurship could reside: the joint venture and the producer-owned co-operative. Section 6 discusses how recent restructuring processes affect entrepreneurship in producer-owned co-operatives. In Section 7 we conclude about the extent to which specific institutional arrangements of the co-operative support entrepreneurship.

Entrepreneurship in Economics

Entrepreneurship is a huge conundrum for economic theory. It has long been recognised that the entrepreneurial function is a vital component in the process of economic growth (Baumol, 1968), and one of the "well-springs of economic progress" (Buchanan and Di Pierro, 1980). All the more striking is the absence of entrepreneurship from received theories in economics. Most economics is directed mainly towards solving problems of optimisation, assuming complete information on options in means to ends frameworks and on the outcomes of choice. There is no room for entrepreneurship in such theories where every actor's moves are restricted by the dictates of optimality calculations (Baumol, 1993). Stevenson and Harmeling (1990) even posit that entrepreneurship should be studied in the context of theories of change and best kept out of the theories of equilibrium, implicitly stating that economics is ill-equipped to analyse the phenomenon.

Contrary to these observations there is a growing body of literature which seeks to find ways to incorporate entrepreneurship in economic theory and link it to the theory of the firm (eg Hébert and Link, 1988; Foss and Klein, 2005; Casson, 2005). Based on this literature, the current paper will examine whether entrepreneurship can be attributed to a collectively-owned firm. Specifically, we will focus on attribution in the most complex case of collective ownership, namely the producer-owned firm, where the outcome of the producers' own assets and of the collectively-owned assets is mutually dependent.

Forecasting in economic theory is driven by the premise of the omnipresent force of equilibration which is used to predict outcomes in fitting scarce means to desired ends. Knight (1921) commends this framework for its analytical rigor and explanatory capacity, but challenges it at the same time by stating that equilibrium is the direction in which markets tend to allocate resources, but not necessarily a status which will be reached. Equilibrium is thus a state which is likely never to be reached. Perfect competition would only hold in a situation where the present state of the world would be exactly the same as the future (ie, a static economic environment). In real life this is clearly not the case, as the future is likely to be different from the present and is therefore decidedly uncertain.

Although all future events entail uncertainty to a certain degree, not all future events are equally uncertain. Knight (1921) argues that events that have been recorded to happen, and hold a propensity towards recurrence, can be objectively grouped into fairly homogeneous classes of cases. These instances (eventually) allow for objective description, can be measured, and their anticipation can be expressed in terms of probability statements. They could even be insured against by trading-off the risk of a large loss with the certain payment of smaller fixed sum. These 'insurable uncertainties' form a lesser degree of uncertainty to which the more suitable term of risk should be applied. True uncertainties, however, concern future events whose outcomes cannot be objectively classified and for which there is no basis for assigning probabilities to those outcomes (Langlois and Cosgel, 1993).

The contention that uncertainty is a different entity from risk has some profound implications.[1] Because the fruits of current production can only be enjoyed with future sales of goods, uncertainty influences decision-making in production. In situations where it is difficult to objectively arrive at a classification of possible outcomes, decision-making must be left to personal judgment. Correct judgment of future events will then result in superior allocation of resources, whilst false judgment will lead to loss.

Changes in conditions upset anticipations and create a divergence between costs of production and selling prices, giving rise to the un-equilibrateable phenomenon of profit.[2] Given the nature of profit, judgment cannot be assessed in terms of a marginal product and therefore cannot be traded on the market, nor paid in a wage (Knight, 1921). In order to exercise judgment over the deployment of assets, the decision-maker must have these assets in possession. Judgment is then naturally tied to asset ownership (Foss and Klein, 2005). Consequent to this analogy, profits (or losses for that matter) are the returns to judgment.

Entrepreneurship is thus defined as judgmental decision-making about the deployment of assets in the face of Knightian uncertainty (Foss and Klein, 2005). The agent owning the assets and exercising judgment over the use of these assets is the true entrepreneur. The issue of combining asset ownership and judgmental decision-making brings us from the discipline of economics to that of economic organisation. To understand how entrepreneurship relates to the (economic) organisation of the firm, we must first look in more detail at the characteristics of entrepreneurship.

The Entrepreneurship Function

The concept of entrepreneurship is applied in a seemingly endless variety of ways, not only between scientific disciplines, but even within disciplines. The underlying difference lies in the views that are used to portray entrepreneurship. Foss and Klein (2008) aptly differentiate between occupational, structural and functional views. The first refers to a pure personification, focusing on self-employment. Research is generally related to argued personal characteristics (or traits) that lead to success or failure of entrepreneurial ventures (eg Shane and Venkataraman, 2000). The second approach focuses on firm behaviour, attempting to explain why firms, clusters, sectors or even an economy as a whole can be labelled as entrepreneurial. This type of research takes the concept of entrepreneurship into the domain of strategic management (eg Gartner, 1988; Lumpkin and Dess, 1996). The third category treats entrepreneurship as a function. The merit of the functional perspective is that it allows closer examination of the instinctive notion that the act of entrepreneurship is not provisional on being fully embodied in the entrepreneur. Neither is it solely the expression of (strategic) organisational behaviour. The functional perspective rather considers entrepreneurship as a function which any economic actor may perform.

The functional perspective can be found in various lines of economic thinking on entrepreneurship. In this perspective, entrepreneurship is most commonly considered in terms of functional aspects like management, leadership, alertness, or innovation. Although these aspects support empirical identification of the entrepreneurship function as they have been treated in various research inquiries (see Foss and Klein, 2005) for an overview), they invoke exclusive properties of the actors that exercise the entrepreneurship function. This exclusiveness goes against other empirical observations, which suggest that the exercise of the entrepreneurship function is a context specific phenomenon, induced by specific institutional settings (Thornton, 1999), and thus dependent less on presence of a cohort of actors. So, despite the fact that functional perspective sheds some light on the performance of the entrepreneurship function as exercised by certain actors, it does not fully explain the essence of the entrepreneurship function.

Instead of the functional perspective, which focuses on the personal characteristics of the entrepreneur, Foss and Klein (2008) claim that the essence of the entrepreneurship function lies in judgment. Judgement is not a qualification, as it can be found in any circumstance of decision-making under uncertainty within any actor. Judgment can be exercised independently from other elements of the entrepreneurship function, whether decision-making involves leadership, creativity and innovation, or alertness.

Though the entrepreneur represents the single agent exercising the entrepreneurship function, the latter is not confined to a specific person. Entrepreneurship as a function can be made transferable, for instance through an employment relationship. Effectively, the transfer of the entrepreneurship function entails the delegation of decision-making rights to subordinates, allowing them to exercise their own judgment, though in derived form from the original judgment of the asset owner (Foss, Foss & Klein, 2007).

In sum, entrepreneurship is the function of judgmental decision-making under uncertainty over the deployment of assets. Entrepreneurship is a function rather than an attribute of economic agents, and it is expressed through ownership and control over assets. We now arrive at the question how entrepreneurship can be attributed to the firm, and how this is influenced by its organisational form. To answer this enquiry we need to briefly examine the different facets of ownership and control of the firm.

The Entrepreneurship Function and Organisational form

Ownership of a firm, in an economic sense, is a straightforward phenomenon, implying the possession of property rights over a firm's assets. The exercise of control over those assets is decidedly more complex. Exercising control over assets is practiced through two distinctive activities (Fama and Jensen, 1983), namely decision control (ie, ratification and monitoring of decisions) and decision management (ie, initiation and implementation of decisions). The entrepreneurship function can thus be interpreted as consisting of three different components: ownership, decision control, and decision management. These components can reside with one person, or can be distributed over different people in a complex organisational structure (see Figure 1).

To demonstrate the ramifications of

<table>
<tr><th colspan="4">ß The Entrepreneurship Function à</th><th>Type of Firm</th></tr>
<tr><td colspan="4">Ownership and Control
by
Owner/Manager</td><td>Single Proprietor</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td colspan="2">Ownership
by
Shareholders</td><td colspan="2">Control
by
Managers</td><td>Limited Liability Company
(Ltd)</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td>Ownership
by
Shareholders</td><td colspan="2">Decision Control
by
Board of Directors*</td><td>Decision Management
by
Managers</td><td>Public Limited Company
(Plc)</td></tr>
</table>

Figure 1: The Entrepreneurship Function Divided

* Different legal systems on corporate governance may lead to differences in the composition of the board of directors. What we have in mind is a board of non-executive directors.

organisational form for the entrepreneurship function, we just have to look at the two opposing cases of the manager-owned firm and the publicly listed shareholder-owned firm (the Plc). In the Plc, control is delegated to the managers of the firm to such an extent that the firm's owners exercise decision control to a limited extent (eg via ex post ratification at the Annual Meeting). The board represents the owners and takes up the lion's share of decision control. The managers fully exercise decision management. The entrepreneurship function in the case of the Plc is thus divided over different organisational layers, viz shareholders, board of directors, and managers.

When decision control and decision management are divided between the firm's governing bodies, the owners have fully delegated decision management. This permits the managers to take decisions over asset deployment without bearing any financial risk. Assuming effective control mechanisms that counter moral hazard, managers will direct their decisions to the (expected) demands of the majority of shareholders. As the number of shareholders increases, decision-making will require a larger degree of objective verifiability in order to provide the transparency in decision-making that is required to obtain consent of the shareholders. This requirement for objective verifiability will diminish manoeuvrability regarding taking judgmental decisions. Thus, the effect of having a large number of shareholders is that the firm develops towards a state where uncertainties are avoided.

If the assumption regarding effective control mechanisms is relaxed, managers will have more freedom in decision-making, as shareholders will not be able to assess every step of the management. This situation increases the likelihood that managers will, in pursuit of their own interest, make decisions that deviate from shareholder interests. An example of such deviation is empire-building by managers, as shown by mergers and acquisitions that do not generate value for shareholders. As managers do not bear the ultimate responsibility regarding the results (in terms of the value of the assets they are deploying) of their own actions, they have no incentive to fully scrutinise the basis of their judgment over investment decisions. Although it may seem that they make decisions under uncertainty, these managers are to a large extent personally exempted from any of the possible negative repercussions. We define this type of setting of decision making under uncertainty as quasi-entrepreneurship.

In the case of the manager-owned (or owner-managed) firm, the entrepreneurship function resides exclusively with a single person. This gives rise to entrepreneurship in its purest form. Contrary to the situation of quasi-entrepreneurship, entrepreneurial decision making in pure form provides all incentives for the manager to take the value of the assets and the continuity of the firm into consideration.

Although the entrepreneurship function in a Plc is divided, it can in potential approximate the structure of the entrepreneurship function of the manager-owned firm. Through making structural linkages in decision-making between owners and managers, the different components of the entrepreneurship function can be brought together. In practice this is seen in the case of activist shareholders who demand influence over decision-making at the board room level. It also applies to cases where managers demand a mandate from shareholders for decisions that are fundamentally important to the firm.

In conclusion, we argue that firms in which decision-making is a shared responsibility between the owners and managers are entrepreneurial. Firms that allocate all responsibilities regarding decision initiation and implementation to the managers and most of decision ratification and monitoring to the board hold quasi-entrepreneurial characteristics, as this firm has a high chance of either resorting to uncertainty avoidance or to inefficient allocation of resources.

Now that we have defined entrepreneurship and the entrepreneurship function, and have related those concepts to the governance structure of the firm, we may proceed to present in more detail what it means to have entrepreneurship (a) reside with a group of people and (b) reside at different but highly interdependent levels in the organisational structure.

Collective Entrepreneurship in the Producer-Owned Co-operative

We use the term collective entrepreneurship when the decisions about deployment of assets are taken not by an individual but by a group of people and where the assets over which the group decides are jointly owned by the members of the group. Joint decision-making implies that it is not the judgment of the individual that applies, but the combined judgment of a group of individuals. From organisational behaviour theory it is known that group decision-making has potential advantages as well as disadvantages, and works best under certain conditions.[3]

Besides joint decision-making over jointly-owned assets, there are a number of other characteristics of collective entrepreneurship. First, the jointly-owned venture is an economic entity that has economic relations with the co-founders, who provide resources such as labour, skills, knowledge, experience and capital, in exchange for some share of the benefits that enterprise generates. Second, there is an organisational relationship among co-founders, and between co-founders and jointly-owned firm. The co-founders have implemented a governance structure for collective decision-making. Finally, collective entrepreneurship involves interpersonal relationships. Collaboration is often embedded in existing social and personal relationships with friends, neighbours, family, or other community members. A classic example of collective entrepreneurship is a joint venture (JV). A joint venture can be defined as a legally independent firm owned by two or more partners who have provided equity and other assets, share in the profits (or other benefits) generated by the jointly-owned firm, and jointly control the firm (Child et al, 2005). Joint ventures are often found in the construction industry, where construction companies together work on large housing or infrastructural projects.

Another example of collective entrepreneurship is the producer-owned co-operative. In traditional perspectives on the economic behaviour of (marketing) co-operatives, the producer-owned co-operative is conceptualised as a joint vertical integration of otherwise autonomous firms (eg, Emelianoff, 1948; Phillips 1953).[4] One organisational layer consists of the group of individual member-firms. This group has established a jointly-owned firm (the second layer) for performing economic activities in support of the members. Decision-making in the co-operative firm lies with the group of member-firms. The co-operative firm, in this perspective, is a dependent firm which does not have an entrepreneurial function itself. A second perspective considers the co-operative as an independent firm (eg, Savage, 1954; Helmberger and Hoos, 1962), with its main objective of maximising benefits for its owners. Savage (1954: 532) states that "individual farmers pool certain of their entrepreneurial functions and in doing so they authorised a collective body to perform these functions for them." A third, and more recent, perspective considers the co-operative as a coalition of firms (eg, Staatz, 1983; Cook, 1995; Hendrikse and Bijman, 2002). In the coalition of firms approach, entrepreneurship is located both at the level of the members and at the level of the co-operative. At the farm level, the owner (the farmer) has to decide individually, using her individual judgment in the face of uncertainty, about the deployment of the farm assets. At the co-operative, however, deployment of assets is traditionally decided by a governing body representing the collective interests of members.

The key characteristic of the system of collective entrepreneurship in co-operatives is that the deployment of the assets individually owned by the member and the deployment of the jointly-owned assets in the co-operative are interdependent.[5] This means that to obtain the best result the decisions of the individual members and the decisions of the co-operative need to be coordinated. Such alignment requires intensive information exchange between individual members and co-operative as well as an efficient and effective joint decision-making structure. It is this need for intensive coordination between the decisions of members and those of the co-operative that makes collective entrepreneurship in co-operatives into a real challenge.

To further explain what collective entrepreneurship within an agricultural co-operative means, it may be helpful to compare it to the joint venture. There are at least five differences (see Table 1). A first difference lies in the time scope of the jointly-owned firm and therefore the investment horizon of both the owners and JV. Joint ventures are often established for a specific project and therefore have a temporary life. Co-operatives, to the contrary, are usually established for the long term, as farming itself

Table 1: Comparing organisational characteristics of co-operative and joint-venture

	Co-operative	**Joint-Venture**
Investment horizon	Long term	Medium and short term
Type of assets and resources owners have	Similar	Complementary
Number of owners	Large (up to thousands)	Small
Equity capital	Collectively owned	Individually owned
Decision rights	Collective, democratic	Proportional to share
Interdependence between members and co-operative	High	Medium to low

is an economic activity with a long-term perspective. Second, in a joint venture the emphasis is often on combining complementary assets and/or on sharing the risks of innovation. In a co-operative, the functional emphasis is usually on benefitting from economies of scale and scope, which requires some homogeneity among the owners. Third, there is a difference in the number of owners; a JV usually just has a few owners, while a co-operative may have thousands of owners. A fourth difference lies with the character of the equity capital. In co-operatives it is common to have the equity capital collectively owned, while the capital provided by the owners of a JV is strictly individual. Collectively owned equity capital cannot be withdrawn from the co-operative, while an owner of JV may sell his share in the company.

A last difference between JVs and co-operatives relates to the control that owners have over the company. In a JV, the share in the control of the company is directly proportional to the capital each co-founder has contributed. Co-operatives, however, apply democratic decision-making, with each member having one vote regardless of the amount of capital she has contributed to the co-operative. While decision rights are not distributed strictly according to the one-member-one-vote system in all countries[6], deviations from this system only allow for a small number of votes per member. Co-operatives applying proportionality have been keen to avoid too much decision rights in the hands of individual members.

As to the relationship between decision-making in co-operatives and entrepreneurship, two observations are appropriate. First, in the producer-owned co-operative, commitment of owners to the decision-making process has always been high (Borgen, 2001; Österberg and Nilsson, 2009). With the shift from producer orientation towards customer orientation, there is a risk of reduced commitment which may lead to lower entrepreneurship. Some co-operatives are addressing the problem of reduced member commitment by reinforcing member participation in decision-making. For instance, several large co-operatives in The Netherlands have installed a so-called member council in between the general assembly and the board of directors. By granting the member council more decision-making rights over important investment decisions, member-owners are more directly involved in key decision-making processes.

Another issue relates to the impact of a heterogeneous membership on the efficiency and effectiveness of the decision-making process. Heterogeneous views among a group of owners of jointly-held assets may have several implications for the outcome and efficiency of the decision-making process. The more heterogeneous the judgments, for instance about what constitute good investment projects, the more difficult the decision-making process. The impact is particularly dependent on the options that owners have to withdraw their ownership share. Following Hirschmann (1969), we argue that when exit (ie, selling one's share in the jointly owned assets) is difficult, owners are more likely to participate in the decision-making process ('voice'). This is typically the case in agricultural co-operatives as members do not (or cannot) easily withdraw; they have invested in their co-operative over many years, their shares may not or not easily be transferred, and alternative trading partners may not be available. The commitment of members to engage in decision-making about the deployment of the assets they jointly own leads, in our approach, to stronger entrepreneurship. Similarly, co-operatives where decisions are increasingly made by managers, without involving the member-owners, have become less entrepreneurial.

A major difference between the joint venture model and the co-operative model of collective entrepreneurship remains. The activities of the joint venture are usually not crucial for the viability of the parent companies. Although at its establishment the activities of the joint venture were directly related to the activities of the parent companies, it is usually no problem when, over time, the joint venture develops non-related activities, as long as these are profitable. Thus, in a joint venture the activities of the jointly-owned firm and those of the parent firms are not necessarily interdependent and the relationship between parents and jointly-owned firm often turns into a pure financial participation (which can then be sold). In the co-operative model, however, the relationship between members and the co-operative continues to be a complementary one, where the performance of the individual members depends on the quality of the services provided by the co-operative and the performance of the co-operative depends on the quality of the products that members deliver.

One may wonder why a co-operative, being a collective action body, should be entrepreneurial, that is, should engage in new and risky activities. According to the 'zero contribution thesis' as developed by Olson (1965), no rational, self-interested individual will contribute to the group interests, even when such co-operation would be beneficial to all members of a group. For the co-operative this would imply that no member would be willing to invest capital in joint innovative activities like product and market development or even invest time and effort in participating in the governance of the co-operative. However, in reality many co-operatives engage in entrepreneurial projects, particularly when they operate in a competitive market environment. Several explanations can be found that challenge the zero contribution thesis. First, members are not necessarily self-interested individuals. Often, norms of reciprocity, trustworthiness and solidarity have developed in (small) communities. Successful self-organisation can draw upon these norms and the likely presence of local leaders in most community settings (Ostrom, 2000). Second, free riding may be contained by social mechanisms like care about reputation and the risk of ostracism. Third, boards of directors often constitute farmers that have received more education and have larger farms than the average member. These farmers have often become successful by being entrepreneurial with their own farm and they are likely to extend their entrepreneurial spirit to decision-making in the co-operative. For example, Jones (2004) has found that the presence of wealthy participants encourages the formation of co-operatives. In sum, Olson's zero contribution thesis has been challenged by both theoretical and empirical research on factors that affect the likelihood of successful collective action.

Restructuring of the Agricultural Co-operative

Collective entrepreneurship is a phenomenon typically associated with agricultural co-operatives. The combination of asset ownership in the co-operative, owned by a group of producers, formally associated in the co-operative society, and the traditional organisational feature of joint decision-making, makes the co-operative a perfect candidate for collective entrepreneurship. However, co-operatives have experienced a number restructuring processes over the last decades, which have affected the extent to which they can still be labelled as entrepreneurial. These restructuring processes can be summarised under the headings of internationalisation, customer orientation, and introducing hybrid ownership forms.

Co-operatives have become larger and more international, making it more difficult for the co-operative to engage all members in the decision-making process (Nilsson et al, 2009;

Nilsson and Ollila, 2009). The larger the co-operative, the more layers of representation and delegation between the individual member and the board of directors and managers. Large co-operatives increasingly mimic the corporate governance structure of Plc's. This implies a lower level of entrepreneurship in the co-operative similar to what we have discussed above on entrepreneurship in firms with complete separation of decision control and decision management. Also in co-operatives one may see the dilution of entrepreneurship as managers either avoid making risky investments or will increasingly pursue their own interests.

Over the last decades, agricultural co-operatives have become more customer oriented, increasing their effort of responding to customer demands (Kyriakopoulos et al, 2004). As customer orientation requires knowledge and skills of marketing, the judgment of the (marketing) managers has become relatively more important than the judgment of the member-owners. If this shift in strategic orientation means that owners and managers no longer jointly decide on future projects, it may lead to quasi-entrepreneurship.

In response to the development towards more customer orientation, which often involves new product development, co-operatives have developed hybrid ownership structures in order to be able to attract additional equity capital. Co-operatives in Europe and North-America have developed new ownership structures to strengthen member willingness to invest in the co-operative or to invite external investors (Cook, 1995; Nilsson, 1999; Chaddad and Cook, 2004). Inviting non-members to become owners could be a threat to entrepreneurship when these new owners have different interests than the members. Having diverging interests among the owners will either lead to laborious decision-making or it will lead to managers taking advantage of the situation by pursuing their own interests.

Finally, while existing co-operatives become larger through merger processes and internationalisation, at the same time many new producer-owned co-operatives are being established.[7] This trend is a response to new market opportunities, such as for nature conservation and for regional specialties, as well as to changes in the institutional environment such as the introduction of the EU legislation on producer organisations in the fruits and vegetables industry (Duponcel, 2006). In addition, the growth of incumbent co-operatives as well as the development towards product differentiation has led to a desire among members to form new small groups, in order to bargain with the co-operative managers to obtain favourable treatment for their specific products. The latter development can be seen among large fruit and vegetable marketing co-operatives, where each small group represents a separate crop. While the co-operative may not like this growth of new member coalitions, it does lead to a regaining of control over entrepreneurship by farmers. This development could even lead to the situation where the co-operative involves entrepreneurship at three levels: at the level of the individual producer, at the level of the producer group, and at the level of the co-operative. This organisational structure may look complicated, but by consistently applying the principle of subsidiarity it may actually strengthen total entrepreneurship.[8]

Conclusions

The question whether producer-owned firms are entrepreneurial has often been mentioned but seldom studied. Also the question whether entrepreneurship resides with the members or the co-operative firm has been raised, but not clearly answered. Without pretending to provide the final answers, the objective of this paper is to shed light on the issues of entrepreneurship and collective entrepreneurship in producer-owned firms.

We have defined entrepreneurship as the function of judgmental decision-making over the deployment of assets in the face of uncertainty. Entrepreneurship is a function rather than an attribute of economic agents, and it is expressed through ownership and control over assets. In other words, entrepreneurship requires that the owners of the assets and not just the managers make the decisions about the use of the assets. A firm that allocate all responsibilities regarding decision initiation and implementation to the managers and most of decision ratification and monitoring to the board hold quasi-entrepreneurial characteristics, as this firm has a high chance of either resorting to uncertainty avoidance or to inefficient allocation of resources.

In making a comparison between the joint venture and the co-operative, we have concluded that the key differences lie in the long-term perspective of the co-operative, the often high interdependence between co-operative and member activities, and the democratic decision-making regardless of the amount of capital an individual member has contributed to the co-operative. As Hansmann (1996) has argued, these characteristics give members a strong incentive to be engaged in the governance of the co-operative. It is the high commitment to and active involved in the decision-making process that generate real entrepreneurship in the co-operative. If not, that is if decisions-making is left to professional managers, co-operatives risk to slide off into the same quasi-entrepreneurship that troubles so many publicly listed companies.

An important conclusion is that entrepreneurship can very well reside at different levels of the co-operative organisation. Members have their own firms and make individual decisions as to investment and activities; in addition, they collectively decide on the deployment of assets at the level of the co-operative. This subsidiary decision-making structure requires active participation of the member-owners in decision making at the co-operative level. As we have argued above, it is this strong member involvement that generates collective entrepreneurship in the producer-owned firm.

The paper only begins to unravel the concept of collective entrepreneurship in producer-owned co-operatives. One issue for further study that is both important and promising in terms of useful results deals with the decision-making processes within the association of owners of the producer-owned firm. When the membership becomes more heterogeneous, and particular groups of members are formed, an interesting dynamics of coalition building will appear. The implications of this political process for entrepreneurship are, to our contention, a fruitful direction for further research.

The Authors

Jos Bijman (PhD) is assistant professor in management and organisation at Wageningen University, Department of Management Studies. Most of his research deals with the role of co-operatives and other producer organisations in value chains/supply chains, both in developed and developing countries. Specific research projects focus on organising quality improvement in African food chains, quality improvement and co-operative governance in Brazil, entrepreneurship and new co-operatives in China, and linking smallholders to the biofuel markets in Brazil and Mozambique. Bart Doorneweert is a researcher at LEI Wageningen-UR. He has both first hand expertise on co-operatives as a social entrepreneur in a co-operative start-up in India, as well as academic expertise through research and policy advice on co-operative governance and co-operative entrepreneurship.

References

Arrow, K J (1951) “Alternative Approaches to the Theory of Choice in Risk-Taking Situations.” *Econometrica*, 19(4): 404-437.

Baumol, W T (1968) “Entrepreneurship in Economic Theory” *The American Economic Review*, 58(2): 64-71. (Papers and proceedings of the Eightieth Annual Meeting of the American Economic Association).

Baumol, W T (1993) “Formal Entrepreneurship Theory in Economics: Existence and Bounds” *Journal of Business Venturing*, (8): 197-210.

Bekkum, O F van and Dijk, G van (1997) *Agricultural co-operatives in the European Union: trends and issues on the eve of the 21st century*. Assen: Van Gorcum.

Bijman, J and Hendrikse, G (2003) “Co-operatives in chains: institutional restructuring in the Dutch fruit and vegetables industry” *Journal on Chains and Network Science*, 3(2): 95-107.

Borgen, S O (2001) “Identification as trust-generating mechanism in co-operatives” *Annals of Public and Co-operative Economics*, 72 (2), 209-28.

Buchanan, J M and Di Pierro, A (1980) “Cognition, Choice, and Entrepreneurship” *Southern Economic Journal*, 46(3): 693-701.

Casson, M (2005) “Entrepreneurship and the Theory of the Firm” *Journal of Economic Behavior and Organisation*, 58: 327-348.

Chaddad, F R and Cook, M L (2004) “Understanding new co-operative models: An ownership-control rights typology.” *Review of Agricultural Economics*, 26(3): 348-60.
Child, J, Faulkner, D and Tallman, S (2005) *Co-operative Strategy. Managing Alliances, Networks and Joint Ventures.* Second Edition. Oxford: Oxford University Press.
Cook, M L (1995) “The Future of US Agricultural Co-operatives: A Neo-Institutional Approach.” *American Journal of Agricultural Economics,* 77: 1153-1159.
Cook, M L, and Plunkett, B (2006) “Collective Entrepreneurship: An Emerging Phenomenon in Producer-Owned Organisations” *Journal of Agricultural and Applied Economics,* 38(2): 421-428.
Dijk, G van (1999) “Evolution of business structure and entrepreneurship of co-operatives in the horti- and agribusiness” *Finnish Journal of Business Economics,* 48(4): 471-483.
Duponcel, M (2006) *Role and importance of producer organisations in the fruit and vegetable sector in the EU.* Presentation at the CAL-MED second workshop, Washington DC (available at: http://ec.europa.eu/agriculture/capreform/fruitveg/slides_en.htm).
Emelianoff, I V (1948) *Economic Theory of Cooperation. Economic Structure of Cooperatives*. Washington, DC.
Fama, E F and Jensen M C (1983) “Separation of Ownership and Control” *The Journal of Law and Economics*, 26(2): 301.
Foss K, Foss, N J and Klein, P G (2007) “Original and Derived Judgment: An Entrepreneurial Theory of Economic Organisation” *Organisation Studies,* 28 (06): 1-20.
Foss, N J, and Klein, P G (2005) “Entrepreneurship and the Economic Theory of the Firm: Any Gains from Trade?” Alvarez, S A, Agarwal, R and Sorenson, O (eds), *Handboook of Entrepreneurship Research; Interdisciplinary Perspective*, New York, Springer, pp55-80.
Foss, N J and Klein, P G (2008) *Entrepreneurship: from Opportunity Discovery to Judgment*, Centre for Strategic Management and Globalization, Copenhagen Business School.
Gartner, W B (1988) “‘Who is an Entrepreneur?’ is the wrong question.” *American Journal of Small Business*, Spring: 11-32.
Greenberg, J and Baron, R A (2008) *Behavior in Organisations 9e*. Upper Saddle River, NJ: Pearson/Prentice Hall.
Hansmann, H (1996) *The ownership of enterprise*. Cambridge, MA / London: The Belknap Press of Harvard University Press.
Harris, A, Stefanson, B and Fulton, M (1996) “New Generation Co-operatives and Co-operative Theory” *Journal of Co-operatives,* 11: 152-22.
Hébert, R F and Link, A N (1988), “In search of the Meaning of Entrepreneurship” *Small Business Economics*, 1(1): 39-49.
Helmberger, P and Hoos, S (1962). “Cooperative Enterprise and Organization Theory” *Journal of Farm Economics,* 44(2): 275-290.
Hendrikse, G and Bijman, J (2002) “Ownership Structure in Agrifood Chains: The Marketing Cooperative” *American Journal of Agricultural Economics,* 84(1): 104-119.
Hirschmann, A O (1969) *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organisations, and States.* Cambridge: Cambridge University Press.
Jones, E C (2004) “Wealth Based Trust and the Development of Collective Action” *World Development,* 32(4): 691-711.
Knight, F H (1921) *Risk, Uncertainty, and Profit*. Houghton Mifflin Company.
Kyriakopoulos, K, Meulenberg, M and Nilsson, J (2004) “The impact of co-operative structure and firm culture on market orientation and performance” *Agribusiness,* 20(4): 379-96.
Langlois, R N and Cosgel, M M (1993) “Frank Knight on Risk, Uncertainty, and the Firm: A new Interpretation” *Economic Enquiry,* 31: 456-465.
Lumpkin G T and Dess, G G (1996) “Clarifying the Entrepreneurial Orientation Construct and linking it to Performance” *The Academy of Management Review,* 21(1): 135-172.
Milgrom, P and Roberts, J (1995) “Complementarities and fit. Strategy, structure, and organisational change in manufacturing” *Journal of Accounting and Economics,* 19(2-3): 179-208.
Nilsson, J (1999) “Co-operative Organisational Models as Reflections of the Business Environments” *Finnish Journal of Business Economics,* 48(4): 449-470.
Nilsson, J and Ollila, P (2009) “Strategies and Structures in the European Dairy Co-operative Industry” *Journal of Co-operative Studies*, 42(2): 14-23.
Nilsson, J, Kihlén, A and Norell, L (2009) “Are Traditional Co-operatives an Endangered Species? About Shrinking Satisfaction, Involvement and Trust” *International Food and Agribusiness Management Review*, 12(4): 103-123.
Olson, M (1965) *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.
Österberg, P and Nilsson, J (2009) “Members’ Perception of their Participation in the Governance of Co-operatives: The Key to Trust and Commitment in Agricultural Co-operatives” *Agribusiness. An International Journal,* 25 (2): 181-197.
Ostrom, E (2000) “Collective action and the Evolution of Social Norms” *Journal of Economic Perspectives*, 14(3): 137-158.
Phillips, R (1953) “Economic Nature of the Cooperative Association” *Journal of Farm Economics*, 35: 74-87.
Roberts, J (2004) *The modern firm: organisational design for performance and growth* Oxford: Oxford University Press.
Rumelt, R P (2005) “Theory, Strategy, and Entrepreneurship” in: Alvarez, S A, Agarwal, R and Sorensen, O eds, *Handbook of Entrepreneurship Research; Interdisciplinary Perspective*, Dordrecht: Springer.

Savage, J K (1954) "Comment on Economic Nature of the Cooperative Association" *Journal of Farm Economics*, 36: 529-534.
Shane, S and Venkataraman, S (2000) "The Promise of Entrepreneurship as a Field of Research" *The Academy of Management Review*, 25(1): 217-226.
Soboh, R A M E, Lansink, A Oude, Giessen, G and Dijk, G van (2009) "Performance Measurement of the Agricultural Marketing Cooperatives: The Gap between Theory and Practice" R*eview of Agricultural Economics,* 31(3): 446-469.
Søgaard, V (1994) *Farmers, cooperatives, new food products*. Aarhus, Aarhus School of Business.
Staatz, J M (1983) "The Cooperative as a Coalition: A Game-Theoretic Approach" *American Journal of Agricultural Economics* 65(5): 1084-1089.
Stevenson, H and Harmeling, S (1990) "Entrepreneurial Management's Need for a more 'chaotic' Theory" *Journal of Business Venturing,* (5):1-14.
Thornton, P H (1999) "The Sociology of Entrepreneurship" *Annual Review of Sociology*, 25: 19-46.

Notes

1 The concept of uncertainty is difficult to grasp. We are still to face a great debate on modes of describing uncertainty and individual behaviour in making choices. Opponents to the concept of Knightian uncertainty, notably Arrow (1951), argue that Knight's uncertainties seem to have a lot of similarity with ordinary probabilities, especially in the sense that Knight describes how uncertainties are reducible by the consolidation of many cases, analogous to the law of large numbers.

2 It should be noted that the notion of profit contrasts with the concept of rent. In ascertaining economic rent, productivity of different resources or of a resource in different uses are compared (Rumelt, 2005). The common treatment of rent is to ascribe it fully to the scarce factor, and then to treat that factor as separately owned, so that rent becomes part of the firm's costs. If the scarce factor is then traded, rents are capitalised and no profit is shown, corresponding to the zero-profit condition of neoclassical theory. Rents, unlike profits, would persist in static equilibrium.

3 According to Greenberg and Baron (2008: 407) group decision-making works better than individual decision-making when the group is composed of a heterogeneous collection of experts with complementary skills who can freely and openly contribute to the group's product.

4 See Soboh et al (2009) for a brief overview of studies that use different perspectives on the economic behaviour of agricultural marketing co-operatives.

5 Interdependency means that there are complementarities between two activities. Doing more of activity A has a positive effect on the performance of activity B (Milgrom and Roberts, 1995).

6 This decision-making model is still advocated by the International Co-operative Alliance (ICA; www.ica.coop), while many European countries allow proportional voting (Bekkum and Dijk, 1997).

7 See for instance Bijman and Hendrikse (2003) for a discussion on the rise of many small producer associations and co-operatives in the fresh produce industry in the Netherlands in the 1990s.

8 We may have to differentiate between co-operatives engaged in marketing of fresh products and co-operatives in processing of agricultural products. According to Søgaard (1994), processing co-operatives are less inclined to engage in vertically-coordinated product innovation involving primary producers, in other words are less inclined to promote innovation-oriented entrepreneurship by their members.