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The role of grower collaborative marketing groups in developing countries

Roy Murray-Prior

Muresk Institute, Curtin University of Technology, Western Australia, Australia

Abstract

Purpose of review: The purpose of this review is to analyse whether collaborative marketing groups (CMGs) are an appropriate form to facilitate the marketing of products from smallholders in developing economies. It attempts to identify the conditions under which smallholder farmers will benefit from action to establish a collaborative group to market their products.

Main findings: CMGs may be appropriate when there is a comparative advantage for the group over alternative marketing organisations and trust exists among the members of the group. A range of other enhancing factors (eg, the type of comparative advantage, the type of product, supporting organisations and resources) will influence the group's chances of success and be instrumental in determining which type of CMG will be most appropriate. CMGs should not be used as instruments to implement government policy or to overcome the market failures that constrain rural development.

Directions for future research: Further research is required to identify the relative importance of a range of factors identified as important to group success and into the roles and processes used to facilitate the development of CMGs.

Keywords: collaborative marketing; cooperatives; rural development; developing countries

Abbreviations

BC	Bargaining Cooperative
CMG	Collaborative Marketing Group
GA	Grower Association
ICA	International Cooperative Alliance
IOF	Investor Owned Firm
MC	Marketing Cooperative
NGO	Non Governmental Organisation
NIE	New Institutional Economics

***Correspondence to:** Roy Murray-Prior, Senior Lecturer in Farm Management and Agricultural Extension, Muresk Institute, Curtin University of Technology, Northam, WA 6401, Australia. Tel: +61 8 9690 1595; Fax: +61 8 9690 1500; email: r.murray-prior@curtin.edu.au

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Context for the marketing of smallholder products from developing countries

In conducting a review based almost entirely upon articles published in the last five years, it is sometimes productive to go back in time to see if much has changed. In 1981, Lele [1**] suggested that “cooperatives have a universal appeal as an instrument of poverty alleviation and yet their record has been less than exemplary”. Is this still the case? Lele also suggested that with regard to marketing, credit and production cooperatives, “in the absence of such prerequisites (internal and external), alternative forms of institutional arrangements may be as or more effective than cooperative institutions”. This warning is still relevant today and guides the discussion to follow.

Over the last two decades, the global agrifood industry has changed dramatically as the market shifts from commodities towards differentiated and higher value-added products and the power retailers hold over their supply chains increase. The focus has shifted from competition between firms to competition between value chains. Value chains are increasingly dominated by large international retailers who source products from suppliers around the world so that they can

deliver a consistent products all year around to their consumers. These changes have necessitated greater vertical coordination [2] because of the need to deliver an increasing range of niche products with particular attributes [3], many of which depend on traceability or quality assurance processes along the chain. This has led to a decrease in the importance of spot markets in favour of more direct marketing arrangements [2, 4–6]. Associated with this has been increased concentration in the food retailing sector and centralisation of buying by the larger retailers.

While initially most of these changes occurred in developed countries, developing countries are becoming involved because of the increasing liberalisation of agricultural markets. Multilateral trade agreements signed under the auspices of the World Trade Organisation and bilateral trade agreements between countries have decreased trade barriers and increased the potential for developing countries to compete in world markets. However, trade liberalisation has also opened up their domestic markets to competition from both higher quality producers and lower cost competitors.

Although trade liberalisation has potentially created opportunities for small farmers in developing countries, the increasing emphasis on differentiated products and the vertical coordination required to deliver these products has made it more difficult for smallholders to achieve market penetration. Two key issues are the characteristics of the small farmers themselves and the external environment in which they are embedded. Small farmers in developing countries share a number of characteristics: very small-scale production, poverty, high levels of illiteracy, ill health, and low social and political status and power [1, 7–9]. These constraints alone make it difficult for them to embrace the changes required for them to compete in a global market that requires high levels of management skills, sophisticated production technologies and economies of scale. Furthermore, the ability of farmers to access high value markets is constrained by additional external factors such as: poor transport infrastructure leading to high transport and handling costs; expensive and limited access to physical inputs, credit and information; inferior technology; high transaction costs (search, negotiation and contract enforcement); problems of land tenure; law and order problems; and lack of government and institutional support.

Small farmers in developing countries face a dilemma; trade liberalisation has created an opportunity for them to compete in high value markets, but their personal and environmental constraints make it almost impossible for them to compete. They can't compete on their own because they are too small, which means they must collaborate to compete, otherwise they will continue to be marginalised. This raises the question: in which situations and through what mechanisms are they most likely to succeed from collaboration?

Purpose of review

The purpose of this review is to determine whether collabora-

tive marketing groups (CMGs) are an appropriate form to facilitate the marketing and distribution of products from smallholders in developing economies. It will try to answer the question: under which conditions will farmers benefit from action to establish a collaborative group to market their products? The focus will be on looking forward to create new groups rather than looking back at ways of re-organising old collaborative or cooperative groups as is the focus of much of the literature in industrialised countries.

A CMG is a group of farmers who have organised to collectively market their produce. This is a broad definition that includes other structures such as cooperatives, growers associations (GAs) or partnerships, but its structure may be less formally organised than these groupings. However, much of the review will discuss the features of cooperatives since this grouping is the most common form of CMG.

The International Cooperative Alliance (ICA) defines a cooperative as “an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise” [10]. More specifically, marketing cooperatives (MCs) “buy the agricultural produce of their members and distribute it to the final market, usually after processing the product” [11]. Another cooperative form of CMG that does not involve purchase of the product is a bargaining cooperative (BC) or GA. A BC “is a horizontal arrangement between a collection of farmers ... to bargain with wholesalers (and sometimes retailers) on behalf of members” [4, p. 255–256]. While it may undertake other activities such as quality control, sorting and packaging, it does not take ownership of the product.

The review consists of four sections: reasons for the formation of CMGs; possible reasons for the successes and failures of CMGs in developing countries; developments in the theory of CMGs; and implications for the conditions in which small farmers in developing countries might benefit from establishing a CMG.

Reasons for formation of collaborative marketing groups

The first modern cooperative was established by a group of English weavers from Rochdale in 1844 so that they could buy cheaper food. Since then, the seven principles that define a cooperative and its values in contrast to an investor owned firm (IOF) have been established as [10]: voluntary and open membership; democratic member control; member economic participation; autonomy and independence; education training and information; cooperation among cooperatives; and concern for community. Cooperatives and CMGs do not necessarily follow all these principles, however, the key differences that distinguish their structure from that of IOFs is that members have two roles in the organisation [12]: as patrons (ie, selling or marketing through the cooperative) and as investors (ie, the major source of investment funds). Inherently

these two roles are the source of both the strengths and the weaknesses of CMGs. Traditionally, cooperatives have been established for defensive reasons, but other reasons include taking advantage of government policies and for offensive reasons.

Increase bargaining power – defensive reasons

The defensive reason for establishing cooperatives is an attempt to increase bargaining power in a situation of market failure arising from *ex ante* market power (monopsony or oligopoly), *ex post* market power (“hold-up” or “lock-in”) and asymmetric information [9, 11–13]. Henriksen [14] used the theory of industrial organisation to examine the reasons for the success of cooperative creameries in Denmark at the end of the 19th century. The key findings were that given the technology of the time, cooperatives were ideally suited to overcoming the problems of potential lock-in and asymmetric information. Potential “lock-in” or “hold-up” for a farmer is the situation where the farmer has invested in substantial transaction-specific investments to produce a normally perishable commodity, which they are then required to sell to a monopsonist downstream intermediary or processor [12–15]. In this situation, farmers fear they will be “held up” during the negotiation process and form cooperatives to overcome this problem. As implied by the Danish creameries case, the need to form a CMG is normally associated with an asymmetric information problem in which the downstream intermediary has much better information than the farmer about the costs and quality of the service they are providing [14]. In the modern market, access to the consumer and information about their ever-changing tastes and preferences has enabled retailers to establish a similar position in the market place.

In the case of down-stream processing, an additional driver is that there are often considerable scope and scale economies. These factors encourage farmers to move beyond simple BCs to take advantage of the economic rents associated with processing [11, 13]. Economies of scale and asset specificity are key reasons behind the importance of cooperatives in the dairy processing industry.

Take advantage of taxation and other support offered by government

Other authors [11, 12, 16, 17] have pointed out that in both developed and developing countries, cooperatives have been formed to take advantage of government programs, either because the government has provided legal and taxation advantages for the establishment of cooperatives, or because the government has promoted, supported and often run cooperatives as part of their development programs.

“Entrepreneurial cooperatives” – offensive reasons

Nilson [12] applies the term “entrepreneurial cooperative” to situations where both the patron and investor role are important to members of a cooperative. Cook and Plunkett [13] use the term “collective entrepreneurship” to describe the “rent-seeking behaviour exhibited by formal groups of indi-

vidual agricultural producers that combine the institutional frameworks of investor-driven shareholder firms and patron-driven forms of collective action” (p. 421). The traditional structure of cooperatives has led to a focus on the patron role, often to the detriment of the investor role [12]. The changes to cooperative structures arising from the New Institutional Economics (NIEs) critiques have led to a greater focus on the investor role. New Generation cooperatives and related types are making investments in processing and marketing that aim to make them more efficient than other types of firms and hence to generate Ricardian rents [13]. A farmer member of these cooperatives is therefore able to obtain benefits as a patron and as an investor.

Possible reasons for the successes and failures of collaborative ventures for smallholders in developing countries

The performance of cooperatives in developing countries “has been less than exemplary” [1]. Lele suggests the reasons for this include: a lack of understanding of the actual constraints and solutions facing the poor and consequently cooperatives may not be the best solution; insufficient emphasis on internal prerequisites of leadership, management, experience and technical know-how; and lack of external prerequisites for effective functioning of organisations such as government policies on agricultural pricing, input distribution, infrastructure development and regulatory functions. The reasons for the successes and failures of cooperatives in developing countries have been widely documented, but the focus of this section will be on recent insights.

Success stories

Despite the impediments, there are several success stories of cooperatives in developing countries. Raju [18] discusses the example of the Anand dairy cooperatives in India. A World Bank audit demonstrated that the initial investment showed a 1,200-fold return over a period of 10 years. Raju suggests that the scheme had a major impact on the economic viability of farmers, which led to dairying becoming the major source of employment and income generation, significant improvements in dairy processing and culminated in an assured supply of dairy products to consumers. The key lessons arising from the scheme were:

- Subsistence producers must have easy, low cost access to remunerative market opportunities;
- Begin by developing a successful marketing strategy before organising the producers;
- Design the cooperatives and facilities so they can match supply and demand;
- External resource support is needed for pump priming;
- Establish a distinctive competitive advantage; and
- Have professional managers who involve the members.

However, what ultimately emerged was a hierarchy of cooperatives, leading to centralisation and a lack of unifying iden-

tity. As a consequence, Raju suggests that the federal cooperative structures that emerged became inefficient and unprofitable, becoming a drain on the milk producer members. The problem in this context was to find a federal structure that overcomes the weaknesses that developed.

On a smaller scale, Holloway *et al.* [19] report on the emergence of collaborative sales organisations amongst peri-urban milk producers in the Ethiopian highlands who supply milk. These organisations are producing benefits for their members, but they conclude that a mix of other inputs is required if these groups are to develop into more sophisticated and widespread cooperative organisations. One input that had a positive effect was visits by extension personnel.

Another area where cooperatives are achieving some success (although this is not universal) is in connection with the marketing of Fairtrade coffee and to a lesser extent organic coffee. Fairtrade coffee is marketed under certification from Fairtrade organisations. They set a minimum price for coffee and if the world price reaches that price they provide a small premium over the world price [11]. Over the last 10 years, world prices have been consistently below the minimum price. Licensed Fairtrade roasters or traders have to fulfil a list of conditions including working through a democratically organised producer cooperative. While the numbers of coffee farmers benefiting from the program are relatively few [11], there is evidence to suggest that it is having a positive effect in some countries such as Nicaragua [16, 20]. Economic improvement occurs through improved prices arising from a higher base price and improved quality which is part of the program. However, there is also evidence [16] that the associated training and social capital building associated with the cooperative movement is having a positive effect on development. Other certification schemes that work through cooperatives, such as organic, are also providing some benefits [21].

While such certification schemes provide an advantage to farmer cooperatives, it does not appear to guarantee success [16]. In Tanzania, the benefits appear to be less than they are in Nicaragua and this is attributed to the contextual factors such as the large size of the Tanzanian cooperative federations which lead to a limited sense of ownership. This sense of ownership and associated communication mechanisms are important for improving the quality of the coffee, which is essential if producers are to maintain a higher price [16]. There is also evidence to suggest that organising farmers into a cooperative with the help of an outside advisor and obtaining Fairtrade or organic certification will not be successful without genuine participation and commitment from farmers [16, 21]. An existing culture of cooperation and trust in the farming community also appear to be beneficial [11, 20, 21]. Nevertheless, authors [16, 20, 21] have criticised the imposition of these certification schemes' from above (eg, organic, Fairtrade, Rainforest Alliance and Starbucks), in contrast with the requirement for participatory decision making by farmer organisations.

Reasons behind poor performance

Historically, in developed countries, cooperatives were formed and were most successful where there was a good defensive justification for forming a cooperative to increase bargaining power in situations of market failure and asymmetric information. While this has also been the primary justification for the formation of cooperatives in developing countries, the reality has often been different [1, 11], with market intermediaries being blamed for low prices when other reasons such as a poor infrastructure are the major cause. Without this comparative advantage over the alternatives, cooperatives will struggle in any environment.

Similarly, their chances of success (and the chances of success for other organisation forms) have decreased due to lack of external prerequisites. These include: a legal and institutional environment to support cooperatives [3, 8, 9]; physical infrastructure such as roads and telecommunication facilities [3, 7, 9, 11, 19]; access to inputs such as seed, fertiliser and chemicals [3, 9, 22]; social services such as education, health and housing [3, 9, 11, 19, 22]; access to credit [7, 8, 22]; and support from extension services on technical and cooperative management issues [3, 9, 22]. Perversely, the lack of many of these factors creates a demand from members for their cooperatives to address them [22]. If they do, it leads to greater complexity for management and control and a lower probability of success [11].

Internal factors have also been important in influencing the sustainability of collaborative groups. A key factor has been trust [7, 11, 20]. Trust in a community can also relate to the social homogeneity of the community, with greater levels of homogeneity and trust having a positive effect on collective effort [8]. Members of a CMG need to trust their organisation and its management and leaders [8, 23–25]. This leads to lower transaction costs and is what provides the collaborative group with an advantage over other forms of organisation. This issue overlaps with the size of the cooperative, as the larger the CMG, the more heterogeneous the membership and the lower the commitment to cooperation [16]. Vertical integration and the amalgamation of cooperatives can have a similar detrimental effect on trust and commitment [16–18].

One of the key cooperative principles is autonomy and independence and there is considerable evidence that in many developing countries, cooperatives have become dependent on government, are creatures of government policy, or have become subject to political interference [11, 16, 17, 21, 26, 27]. Government support can be both a help and hindrance. While the support remains, the cooperative continues, but once the support is removed, the cooperative is likely to collapse [11, 17]. This also applies to support from NGOs. Too much support creates dependency leading to lower levels of motivation and trust in members and internal leaders [7, 11].

Holding management accountable to the members continues to be an issue for CMGs in developing countries [1, 7, 9].

This arises because the democratic structure of CMGs makes it more difficult to control the managers, but illiterate farmers also lack the skills to adequately supervise the activities of professional managers. If local rather than professional managers are used, their lack of education and management expertise will also be a problem. In addition, many developing countries don't have a culture of democracy so farmers have little experience with it.

Developments in the theory of collaborative groups and cooperatives

The key difference between CMGs and IOFs is that farmers are both the patrons and the investors in many CMGs, whereas they are only the patrons of IOFs. The implications of the dual role for efficiency and effectiveness of CMGs and how they are structured with respect to the two roles has been the focus of much research over the past decade, particularly on cooperatives in the developed countries. Much of the work has used NIE theories including transaction cost economics, agency theory and property rights theory as the framework for the analysis. A detailed discussion of these theories can be found in an article by Cook *et al.* [28]. In this section, only a very brief summary will be provided of the issues arising from this analysis including: investment problems, governance problems, differentiated market problems, asset specificity and organisational culture.

Investment problems in cooperatives

Traditional cooperatives have focussed on the patron role of the member because they were designed to correct market failure, but this has suppressed the investor role [12]. Their structure leads to a free rider or common property problem, which arises because new members pay a small fee to join the cooperative and receive the same rights as long-term members [3, 9, 12]. Similarly, the member cannot take advantage of capital growth when they leave. Consequently, there is little incentive for members to invest and when capital is needed for growth, there is a preference for borrowed capital. Since most benefits members receive are based on their level of patronage, there is little incentive for members to invest in the longer term, which leads to what is known as the horizon problem [3, 9, 12]. A third issue is the portfolio problem, which arises because of the diversity of interests between members and between members and managers, which means it is not possible to make investment decisions optimal with respect to their preferences [9, 12]. This leads to economic inefficiency. In combination, these problems lead to difficulties in raising capital both from members and from banks, which can stifle growth and produce suboptimal choices between investment options. Agricultural cooperatives are often constrained in their capital expenditures by the availability of internal funds and that this is correlated with their structural characteristics [29].

Governance problems

Governance problems arise because of the need for the board of a cooperative to supervise management and to protect the

interests of members and stakeholders. Some of the issues here are control, cost and decision-making problems. Control problems arising from the relationship between a traditional cooperative's board and its management are principal-agent situations, because there is no market for equity shares which provides a guide to the manager about future profits [3]. This also means that the board cannot provide equity incentive schemes for managers [9, 11]. Since the investor role is suppressed in traditional cooperatives, it is more difficult to provide the appropriate direction for managers since members obtain most of their benefits through patronage, resulting in a short-term focus rather than the long-term focus required for growth and efficiency. The members of the cooperative board therefore have to spend more time monitoring the affairs of the managers, yet, since the board is made up of elected farmer members, they often don't have the experience or skills to make these decisions [3].

Cost and decision-making problems increase with the size and the heterogeneity of a traditional cooperative [9]. Since the members of the board are elected to serve the interests of the members and members receive their benefits mainly through their patronage (rather than through profits and increased share price as in IOFs), there is greater potential for conflict over objectives, strategies, pricing policies and investments [3, 9, 11]. Members, the board and management may spend considerable time and cost attempting to resolve these issues, which can lead to greater complexity and difficulty in decision making and a decreased focus on efficiency and effectiveness.

Cornforth [30] introduced a multi-paradigm paradox perspective that incorporates a number of theoretical perspectives to highlight the paradoxes, ambiguities and tensions that boards face in governing cooperatives. The paper combines: a democratic or association perspective, agency theory, stewardship theory, resource dependency theory, stakeholder theory and managerial hegemony theory to highlight the tensions for boards between: representative and expert boards, conformance and performance, and controlling and supporting. It calls for the board and managers to have discussions and negotiations about the roles and responsibilities of each in light of these tensions and paradoxes.

New models of cooperation

As a result of the investment and governance problems associated with the traditional cooperative structure, many existing cooperatives have chosen to convert to IOFs, while new and existing cooperatives have adopted alternative structures. Various typologies have been developed to categorise these structures [12, 31, 32]. Nilsson [12] uses a simple model based on the two dimensions of members' involvement in their patron role and members' involvement in their investor role to derive four extreme types. Traditional cooperatives, in which the patron role overshadows the investor role, are successful if they continue to counteract market failure. They have minor property rights problems. Entrepreneurial coop-

eratives, in which members are highly involved in their patron and investor roles, may also counteract market failure and have minor property right problems. This is consistent with the “offensive” cooperative or collective entrepreneurship concept in which group action is taken to achieve Ricardian and monopoly rents [13]. Degenerated cooperatives, in which members have little involvement in the patron or the investor role, are characterised by little capacity to correct market failure and have substantial property rights problems. This type of cooperative is large with many areas of operation; its membership has become heterogeneous and remote from the firm and it faces collapse. Ex-cooperatives are often former degenerated cooperatives that have converted to investor-owned firms. Based on this analysis, the only inefficient form is found to be the degenerated form with its vaguely defined property rights, sizeable unallocated capital and little capacity or opportunity to correct market failures, which leads to minimal involvement and trust of members.

Another typology is based on an ownership rights perspective [31, 32]. This typology makes the distinction between models based on whether ownership rights are restricted to member-patrons or not. The ends of the two branches based on this distinction are traditional cooperatives (membership restricted) and IOFs (membership not restricted). The other forms for the non restricted type are:

- Cooperative with capital seeking entities – investors have ownership rights in separate identity owned or partly owned by the cooperative; and
- Investor-share cooperative – investors receive ownership rights in the cooperative in addition to ownership rights of member-patrons.

Along the restricted ownership rights branch are:

- New Generation cooperatives – ownership rights are tradable and appreciable delivery rights;
- Member-investor cooperatives – returns are distributed in proportion to shareholding in addition to patronage;
- Proportional investment cooperatives – ownership rights are non-transferable, nonappreciable and redeemable, but members are expected to invest in proportion to patronage; and
- Traditional cooperatives – residual return rights are non-transferable, nonappreciable and redeemable. User benefits are distributed in proportion to patronage, but investment may not be proportional to patronage.

This typology focuses on the changes being undertaken by cooperatives to overcome the capital constraint identified as a problem in the traditional cooperative structure [31, 32]. However, these tradeoffs of ownership rights for equity capital may lead to new organisational costs [32], partly related to increased transaction costs [22].

Another trend identified is the emergence of BCs or GAs because of the perceived inefficiency of traditional cooperatives to provide differentiated products [4, 15, 33]. These developed

in the Netherlands in response to the demand for high-quality products in customer-specific packaging, a situation in which the auction system, organised through a grower-owned cooperative, was not effective [4]. This is consistent with Skyuta and Cook’s analysis [33], which suggests that open-membership cooperatives are less likely to reward members for product-specific investments. These growers associations [GAs] are organised for one particular crop or crop variety with the objective of improving bargaining power [4]. Most are small, use a democratic voting system and all members are treated equally in the distribution of revenues and delivery of output. This means that within a particular quality class, each grower receives the same price. A theoretical model is used to analyse the trade-offs between self-selection and countervailing power in the formation of these associations. Its key findings are that heterogeneous GAs provide strong countervailing power, but can frustrate high-quality growers, while homogeneous GAs succeed in markets that provide significant premiums for differentiated product or when low-quality growers are driven out [4].

Other findings

Using transaction cost analysis, MCs are predicted to be an efficient organisational form provided that the level of asset specificity at the processing stage is relatively low or immediate when compared with the farm-level asset specificity [15]. Conversely, they will become less efficient as the level of asset specificity at the processing level increases.

Trust is an important issue for cooperative success [7, 9, 11]. A survey of Missouri corn and soybean farmers [24] found that trust was significant in explaining the choice to market to MCs rather than IOFs. Farmers also had higher levels of trust and perceptions of honesty and competence in MCs than IOFs. However, James and Sykuta [23] note that greater emphasis on investor incentives may decrease trust in the cooperative because of its effect on perceptions of equality among group members.

Similarly, a study of Dutch cooperatives [34] supports the hypothesis that democratic voting systems were better than variable voting systems in their effect on performance. The caveat here is that the membership of the cooperatives studied was fairly homogeneous. Individualised ownership structures which overcome some of the property rights problems associated with traditional cooperatives were found to enhance performance, which is further evidence of the effect this has on the ability of cooperatives to raise capital. Differential pricing policies were found to have a positive effect on market orientation but not on performance. Most interesting was that cooperative structure seemed to be less important in predicting market orientation and performance than entrepreneurial firm culture, suggesting that it is more important for cooperatives to create conditions to enhance this.

There has been a recent trend for New Generation cooperatives in the USA to be taken over or converted to IOFs [35].

Part of the problem relates to the “thin” market for their stock. Using analyses of investment thresholds and takeover regions, Holland and King conclude that a competitive auction mechanism may be a good option to improve the liquidity of markets for new generation stock and hence make them easier to form and less vulnerable to takeover. Other options such as opening investment opportunities to non farmers are discussed, but it is considered that this might weaken the strong link between ownership and use, which is their key advantage.

Should a CMG be established?

Two factors appear to be critical to the successful establishment of a CMG [11]:

- A comparative advantage for the establishment of a CMG generally arising from a market failure; and
- A reasonable level of trust amongst the members of the community seeking to establish the CMG.

Without a comparative advantage over the alternative forms of marketing, CMGs are doomed to fail because of the inherent weaknesses that may make them less efficient than the alternatives. Success is unlikely unless the group provides strong personal incentives for the members to remain with the group [7]. Situations in which CMGs may have an advantage are when farmers are dealing with monopsony or oligopsony situations; when farmers are making high levels of transaction-specific investments; when there are substantial economies of size associated with processing; when marketing services are not provided by the private sector; and when a cooperative has an advantage in receiving access to higher-priced markets (eg, Fairtrade).

A mistake is often made by many farmers, development workers and NGOs when they blame market intermediaries for problems and inefficiencies with the market and assume they are inefficient or colluding [1, 11]. Instead, the problems often arise from a range of external factors such as poor infrastructure, information and market signals. The solution in these cases is to fix these problems, because the existing systems have developed to deal with the constraints and a CMG will still have to deal with the same problems. Therefore, a detailed investigation is required of the causes of market failure before considering whether a CMG is the solution.

Trust appears to be the glue which allows a CMG to compete with other organisational forms [7, 8, 11, 16, 20, 23–25]. The level of trust in a community is related to the level of social capital in the community and also depends on the level of homogeneity. Trust reduces the investment and governance problems associated with cooperatives.

What type of CMG might be most appropriate?

The choice of structure and function for a CMG in a developing country depends on the level of trust and comparative advantage, but it will also depend on other external and internal prerequisites. Because many external prerequisites such as input and information supplies, transport, storage, process-

ing and other factors of production are missing or in short supply, there is pressure for the CMG to take over these functions [22]. However, since many communities in developing countries have low levels of education and management expertise, they are at a disadvantage in trying to operate complex, multi-enterprise businesses. In addition, increased complexity amplifies the investment and governance problems which appear to be a major cause of cooperative failure in both developed and developing countries. The guiding principle would appear to be to keep it simple and focussed.

The type of comparative advantage provided by the CMG will also be important in determining the structure and function of the cooperative. In situations where there are economies of size from processing and the likelihood of monopsony pricing, then a processing cooperative may be appropriate. However, a range of other factors are also important to success including establishing a successful market strategy, optimum design, professional management and pump priming. Organisations of this type require substantial capital and expertise in their design and operations, and consequently are unlikely to be appropriate without long-term commitment by government or a non governmental organisation (NGO).

In situations of competitive markets, where market failures arise because the existing marketing system does not provide a premium price for small farmers producing differentiated products, there may be an opportunity for a BC. These may range from small cluster bargaining groups [7] to larger GAs [4] and BCs [36]. In this situation, the capital and organisational costs are much smaller because the role of the CMG is limited as it does not buy or undertake any secondary processing, although it may extend to quality control, sorting and packaging. Through consolidating product, focussing on quality and negotiating a fair price, such cooperative groups can provide an opportunity for smallholders to participate in higher-priced markets.

BCs can also be used to negotiate prices with monopsony buyers or processors [36], but the ability of farmers to do this will depend on whether this is illegal, on whether there is legislation to facilitate this process and just as importantly, whether farmers will receive political and legal protection from intimidation from powerful vested interests. Agricultural bargaining legislation may provide welfare gains provided there is not a high level of grower heterogeneity [36]. By securing a market for their product and providing price advantages for their members, BCs have the potential to increase trust and confidence in group marketing [37]. This could be a first step in creating an expanded CMG which extends into downstream processing in situations where economies of scale and monopsony pricing exist.

Conversely, it appears that CMGs are unlikely to be sustainable in developing countries where: they have been established to implement government programs or receive government subsidies; grass roots participation is lacking; a depend-

ency relationship is established; there is political interference in their operations; and the size of the cooperative grows so that there is considerable diversity in its operations and heterogeneity in its membership.

Directions for future research

Much of the research in this review comes from peer-reviewed journals and internet sources which is a limitation for an investigation of CMGs in developing countries, since much of the work in these countries is at the applied level, and if published, is mostly only available in obscure reports or at best in conference proceedings. Consequently, a considerable proportion of the literature comes from developed countries. However, despite the differences, it is probably fair to say that if, under certain circumstances, a CMG is likely to struggle to succeed in a developed country it will be even less likely to succeed in a developing country.

The comparison between the performance of Fairtrade cooperatives in Africa and South America as discussed in this review is indicative of the benefits to be gained by undertaking case studies of similar cooperatives in different parts of the developing world. This review has tried to develop a list of essential and performance enhancing factors to provide guidance for practitioners facilitating the establishment of CMGs and hypotheses for researchers investigating factors leading to their success. More detailed qualitative and quantitative work is required to delineate which of the factors are essential and the relative importance of the performance enhancing factors. Similarly, further work is required on the roles and processes that facilitating organisations should use in helping small farmers establish collaborative groups. There may be a fine line between “pump priming” and “pumping” with the former enabling the group to become self supporting and the latter creating a dependency.

It appears that small homogeneous cooperatives have some chance of success, but problems arise when hierarchies of cooperatives are created. Further investigation is required on how to structure these hierarchies so they maintain grower loyalty and provide efficient service to their members. Similarly, in situations where farmers face a number of market failures that constrain their operations, we need to investigate how best to structure cooperatives to provide a range of services without them succumbing to investment and governance problems.

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Historical paper that outlines some prerequisites necessary for cooperatives to be successful. Nothing much appears to have changed as many of the recommendations

it makes, such as a critical analysis of the constraints faced by poor farmers, insufficient appreciations of the lack of external prerequisites, and the importance of internal prerequisites such as leadership, management experience and technical know-how, are often still ignored.

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The main emphasis of this paper is the relevance of contract farming for developing countries, but one of the factors is the role of farmer cooperatives in representing the interests of contracted farmers.

- 3 Brennan D. Cooperatives in the agrifood supply chain: a review. In: *Cooperatives: Issues and trends in developing countries*. Trewin R (Editor). Technical Report No. 53; Report of a workshop, held in Perth, Western Australia, 24–25 March 2003. Canberra: Australian Centre for International Agricultural Research; 2004: pp. 40–50.

This article reviews NIEs theory and internal management issues, mainly from developed countries, and their implications for comparing cooperatives with IOFs and draws some conclusions about the relevance of MCs in developing countries.

- 4 Hendrikse G and Bijman J. On the emergence of new growers' associations: self-selection versus countervailing power. *European Review of Agricultural Economics* 2002; 29(2): 255–269.

Using incomplete contracting model, the authors argue that homogeneous growers' associations are strong in terms of countervailing power, but homogeneous GAs best when product differentiation benefits large or when can drive low-quality producers out of the market.

- 5 Hendrikse G and Bijman J. Ownership structure in agrifood chains: The marketing cooperative. *American Journal of Agricultural Economics* 2002; 84(1): 104–119.

This paper uses incomplete contract theory to analyse the impact of ownership structure on investments in a supply chain and suggests conditions where MCs would be the best ownership structure. An example of this is when the farmer's specific investment is high relative to the specific investment by the processor. Using this approach the case of a marketing cooperative for vegetable producers to own the wholesaling operation is not likely to be the first-best ownership.

- 6 Hernandez-Espallardo M and Arcas-Lario N. The effects of authoritative mechanisms of coordination on market orientation in asymmetrical channel partnerships. *International Journal of Research in Marketing* 2003; 20(2): 133–152.

This paper examines the relationship between fruit and vegetable cooperatives in Spain and second-order MCs. It examines market orientation as a result of the downstream leader's use of authoritative mechanisms of coordination.

- 7 Lyon F. Community groups and livelihoods in remote rural areas of Ghana: How small-scale farmers sustain collective action. *Community Development Journal* 2003; 38(4): 323–331.

This paper examines strategies use by resource-poor farmer from remote areas of Ghana to coping with vagaries of markets to investigate preconditions and processes whereby cooperation can be built up.

- 8 Mannon SE. Risk takers, risk makers: Small farmers and non-traditional agro-exports in Kenya and Costa Rica. *Human Organization* 2005; 64(1): 16–27.

This paper is not so much about the role of collaborative groups in marketing grower's product, but about how the responses of farmers in developing countries to risks affect their relationships with exporters and contribute to their exclusion from the export sector.

- 9 Ortmann GF and King RP. Small-scale farmers in South Africa: Can agricultural cooperatives facilitate access to input and product markets? St. Paul, MN, USA: Department of Applied Economics, University of Minnesota. Staff Paper P06-4. 2006.

This report investigates the appropriateness of cooperatives as an organisational form for smallholders in South Africa. It discusses the theory of cooperatives, experiences with cooperatives and recommends some strategies for improving their likelihood of success.

- 10 International Cooperative Alliance. Statement on cooperative identity. 1995. [<http://www.ica.coop/coop/principles.html>]

- 11 Milford A. Coffee, co-operatives and competition: The impact of Fair Trade. Bergen, Norway: Chr. Michelsen Institute; 2004.

This report examines experiences with agricultural cooperatives in developing countries and then uses a case study of the coffee industry in Chiapas, Mexico to examine the success of Fair Trade cooperatives. It finds that the support and premiums provided by Fair Trade are fundamentally important to increasing the chances of economic and social success of the cooperatives and to increasing competition in the market place.

- 12 Nilsson J. Organisational principles for co-operative firms. *Scandinavian Journal of Management* 2001; 17(3):329–356.

This paper investigates the explanations for when cooperatives are inefficient based on agency and property rights theories and seeks remedies for this inefficiency. Provides a detailed, yet practical discussion, of the advantages and disadvantages of cooperatives and situations in which they are likely to be appropriate and inappropriate. Suggests criticisms of cooperatives are justified for a cooperative type that does not fit the rationales and preconditions for cooperatives, although this may include many existing cooperatives.

- 13 Cook ML and Plunkett B. Collective entrepreneurship: An emerging phenomenon in producer-owned organizations. *Journal of Agricultural and Applied Economics* 2006; 38(2): 421–28.

This paper reviews the shift from market failure ameliorating or defensive agricultural cooperatives towards rent seeking collective actions they define as collective entrepreneurship.

- 14 Henriksen I. Avoiding lock-in: Cooperative creameries in Denmark, 1882–1903. *European Review of Economic History* 1999; 3: 57–78.

This paper is an historical analysis of the development of cooperative creameries in Denmark (1882–1903). It uses the theory of industrial organisation to investigate reasons for their success in this industry compared with other industries and suggests given the technology cooperatives overcame the problems of potential lock-in and asymmetric information.

- 15 Hendrikse GWJ and Veerman CP. Marketing cooperatives and financial structure: a transaction costs economics analysis. *Agricultural Economics* 2001; 26(3): 205–216.

A transaction costs approach is used to evaluate whether a marketing cooperative is an efficient organisational form to address two hold-up problems: postharvest hold-ups of perishable products and attractive terms on outside investment funds. The MC is not able to address both problems in differentiated product markets which require high level of asset specificity at the processing stage.

- 16 Pirotte G, Pleyers G and Poncet M. Fair-trade coffee in Nicaragua and Tanzania: A comparison. *Development in Practice* 2006; 16(5): 441 – 451.

This article compares implementation and effects of Fair Trade coffee in Nicaragua and Tanzania and finds that it has strengthened the cooperative movement in Nicaragua but less so in Tanzania. They suggest the local context in particular the role of the state, links with local and international NGOs and the cooperative models adopted are important factors.

- 17 Oktaviani R. 2004. Economic rationale, challenges for and future development of cooperatives in Indonesia. In: *Cooperatives: Issues and trends in developing countries*. Trewin R (Editor). Technical Report No. 53; Report of a workshop, held in Perth, Western Australia, 24–25 March 2003. Canberra: Australian Centre for International Agricultural Research; 2004: pp. 78–84.

- 18 Raju KV. Changing environment and dairy cooperatives in India. In: *Cooperatives: Issues and trends in developing countries*. Trewin R (Editor). Technical Report No. 53; Report of a workshop, held in Perth, Western Australia, 24–25 March 2003. Canberra: Australian Centre for International Agricultural Research; 2004: pp. 32–39.

This article outlines the lessons from the success of the Anand pattern dairy cooperatives in India and discusses emerging issues and problems for the cooperatives in particular with cooperative federalism.

- 19 Holloway G, Nicholson C, Delgado C, Staal S and Ehui S. Agroindustrialization through institutional innovation: Transaction costs, cooperatives and milk-market development in the east-African highlands. *Agricultural Economics* 2000; 23: 279–88.

Reports results of Tobit analysis of marketable surplus to explore the effect of household-level transaction costs and the choice of production technique on the decision of peri-urban milk producers in the highlands of Ethiopia to sell fluid milk to MCS. They conclude institutional innovations must be accompanied by a mix of other inputs such as infrastructure, knowledge and asset accumulation.

- 20 Utting-Chamorro K. Does fair trade make a difference? The case of small

coffee producers in Nicaragua. *Development in Practice* 2005; 15(3): 584–599.

This paper investigates extent to which Fair Trade increases living standards of coffee producers in Nicaragua and finds it is limited by debt problems faced by cooperatives, lack of government support and volatile international coffee prices.

- 21 Gonzalez AA and Nigh R. Smallholder participation and certification of organic farm products in Mexico. *Journal of Rural Studies* 2005; 21(4): 449–460.

This paper discusses the implementation of organic and other speciality coffee certification schemes in Mexico (in particular for coffee) to argue that much of the success of these schemes in the past has been due to their democratic decision-making processes and that many of the new programs being implemented allow little room for farmers to be involved in the implementation of the schemes particularly at the levels of certification and marketing.

- 22 Elsner DM, Cruz B and Canedo M. Small farmers economic organisations and public policies. London, UK: Department of International Development; 2005.

This report uses 4 case studies of small farmers economic organizations in Bolivia. The varied nature of their roles and activities and their lack of legal recognition are severe constraints to their operations.

- 23 James HS and Sykuta ME. Property right and organizational characteristics of producer owned firms and organizational trust. *Annals of Public and Cooperative Economics* 2005; 76(4): 545–580.

This paper examines the relationship between perceived trust among cooperative members and the organisational characteristics of their firm. The norm of equality and homogeneity of members interests have a positive correlation with trust whereas structures designed to improve member investment incentives appear to have a negative effect.

- 24 James HS and Sykuta ME. Farmer trust in producer- and investor-owned firms: Evidence from Missouri corn and soybean producers. *Agribusiness* 2006; 22(1): 135–153.

This paper presents results of the extent to which trust and perceptions of honesty and competence were factors explaining the choice of Missouri corn and soybean farmers to market to cooperatives rather than investor-owned firms. Cooperatives received higher ratings these variables than investor-owned firms.

- 25 Kitts A, Pinto da Silva P and Rountree B. The evolution of collaborative management in the Northeast USA tilefish fishery. *Marine Policy* 2007; 31(2): 192–200.

This paper explores the role of social networks and trust has helped an association of fishermen to create a management regime that reduces the race to fish, improves safety at sea and provides a more stable and fresh supply of fish. Social networks and trust among the fishermen involved is necessary for this to succeed.

- 26 Karami E and Rezaei-Moghaddam K. Modeling determinants of agricultural production cooperatives' performance in Iran. *Agricultural Economics* 2005; 33(3): 305–314.

This article uses survey data to analyse the performance of agricultural production cooperatives in Iran in satisfying the 'needs' of farmers. Cooperative structure and government support factors were the most important factors.

- 27 Ozdemir G. Cooperative-shareholder relations in agricultural cooperatives in Turkey. *Journal of Asian Economics* 2005; 16(2): 315–325.

This paper reports study of three major cooperative types in turkey. Finds the more active cooperatives have greater involvement and stronger relationships with members, their members have better understanding of cooperative philosophy and that training is required in cooperative principles.

- 28 Cook ML, Chaddad FR and Iliopoulos C. Advances in cooperative theory since 1990: A review of agricultural economics literature. In: Hendrikse GWJ (Editor) *Restructuring agricultural cooperatives*. Haveka: Erasmus University Press. 2004: 65–90.

This paper reviews 21 economic theoretical articles analysing agricultural cooperatives published since 1990 and categorises them by their dominant theoretical approach into: firm extension, coalition and nexus of contracts.

- 29 Chaddad FR, Cook M and Heckelet T. Testing for the presence of financial constraints in us agricultural cooperatives: An investment behaviour approach. *Journal of Agricultural Economics* 2005; 56(3): 385–397.

This study tests the hypothesis that agricultural cooperatives are unable to acquire

sufficient risk capital to finance profitable investment opportunities and concludes that their capital expenditures are significantly affected by the availability of internal funds.

- 30 Cornforth C. The governance of cooperatives and mutual associations: A paradox perspective. *Annals of Public and Cooperative Economics* 2004; 75 (1): 11–32.

This paper uses a variety of theories proposed to analyse the role of boards in the private sector, extends then to analyse boards of cooperatives and mutual associations. It then discusses the paradoxes, tensions and ambiguities faced by these boards and suggests ways these problems might be overcome.

- 31 Chaddad FR and Cook ML. Understanding new cooperative models: An ownership-control rights typology. *Review of Agricultural Economics* 2004; 26(3): 348–360.

The authors develop a typology of organisation models based on residual claim and control rights and use it to suggest how non-traditional cooperatives might overcome the financial constraints of traditional cooperative structures.

- 32 Cook ML and Chaddad FR. Redesigning cooperative boundaries: The emergence of new models. *American Journal of Agricultural Economics* 2004; 86 (5): 1249–1253.

This article describes and analyses organisational design initiatives adopted since the mid 1990s and outlines a typology of cooperative models based on residual claim and control rights.

- 33 Sykuta M and Cook ML. A new institutional economics approach to contracts and cooperatives. *American Journal of Agricultural Economics* 2001; 83(5): 1271–1277.

This paper outlines a conceptual framework and hypotheses for analysing the effect of ownership structure of the contractor on the efficiency of contracts with producers.

- 34 Kyriakopoulos K, Meulenbergh M and Nilsson J. The impact of cooperative structure and firm culture on market orientation and performance. *Agribusiness* 2004; 20(4): 379–396.

This paper investigates whether cooperative structure (defined by control, ownership and cost pricing policy) or cooperative firm culture (defined by risk-taking attitude, innovative leadership, flexible bonding mechanisms, proactive strategy) have an effect on market orientation and performance based on an empirical investigation of Dutch cooperatives. Findings suggest an entrepreneurial culture has a far greater impact on market orientation and performance than structure.

- 35 Holland SJ and King RP. Trading Mechanisms for New-Generation Cooperative Stock: The Architecture of Organizational Formation and Demise. *American Journal of Agricultural Economics* 2004; 86(5): 1262–1268.

This paper uses a dynamic, heterogeneous agent model of market for New Generation cooperative stock to investigate how stock trading rules and procedures affects New generation cooperative formation and takeover. Increasing liquidity in share markets make it easier for New generation cooperatives to form and make existing ones less vulnerable to takeover.

- 36 Hueth B and Marcoul P. Information sharing and oligopoly in agricultural markets: The role of the cooperative bargaining association, *American Journal of Agricultural Economics* 2006; 88(4): 866–881.

Uses theoretical analysis to show that in imperfectly competitive markets agricultural bargaining legislation can lead to potential welfare gains in total and for growers.

- 37 Lazzarini SG, Chaddad FR and Cook ML. Integrating supply chain and network analyses: The study of netchains. *Journal on Chain & Network Science* 2001; 1(1): 7–22.

The main focus on this paper is on introducing the concept of netchain analysis. Can be useful in analysing the interdependencies involved with the operations of cooperatives.