Competition and Co-operation in Dairy farm Feed Supplies:

Every Player Wins a Prize

By Bill Malcolm

University of Melbourne

Introduction

To run a successful business in modern economies, entrepreneurs need to be very good at what they do: the race goes to the fittest, with the greatest will to win – and, at the same time, entrepreneurs need to be very good at co-operating with those they rely on for inputs or to buy their outputs – I win, you win, we win.

In economics, the theory of the firm holds that firms exist as entities to carry out activities that they can do relatively better than others in the economy. The type of activities a firm engages in, and those activities a firm does not carry out and 'farms out' instead, are determined by whether the firm can do it cheapest or another firm can do it cheaper. This consideration, summarized as comparative advantage and transaction costs, determines the boundaries of the firm, defining and encompassing what the firm does and does not do.

Specialization, doing a few things very well, is one of the keys to the principle of comparative advantage. By harnessing the powers of specialization, dairy farmers for example, can draw the boundaries around their firms and establish relationships- strategic alliances – with suppliers of key inputs such as grain and fodder. Done well, with trust and reliability, increased specialization by dairy farmers in those aspects of production they do best, and co-operation with other firms supplying other aspects of production that these firms do better, can increase competitiveness of dairy farms. Done well, every player can win a prize.

Over time, as the dairy economy in Australia has developed and evolved, the boundaries of dairy farm firms too have evolved. It took little time for dairy farmers right from the start to expand their ownership of economic activity vertically forwards to the processing sector and form horizontal co-operatives at the processing level of the production and marketing chain. Nowadays, good opportunities and good reasons exist for establishing vertical relationships backwards along the production and marketing chain to their feed input suppliers, the feed grain growers and fodder producers.

The Role of Closer Relationships in Business

The relationships needed to create additional net value can take various forms including partnerships, alliances or joint ventures. Alliances will have no effect unless they create additional value for their customers, for example, by reducing the transaction costs associated with obtaining supply or by improving the quality of product supplied.

Linkages or closer relationships between firms in a business system will not always be appropriate, however, they are appropriate in situations where they create additional net value that could not be created as efficiently in any other way. The attributes of agricultural products such as perishability play a role in the nature of the linkages and relationships which develop.

For example, it is no accident that alliances in the form of farmer cooperatives play a dominant role in milk processing and marketing around the world since milk is produced and marketed daily. On the other hand, the highly storable nature of grain means that closer relationships between grain producers and their customers does not, in general, play a significant role in the grains industry. However, there are opportunities for vertical integration, forwards for feed-grain producers and backwards for feed-grain users.

Strategic alliances between firms designed to provide increased vertical coordination are becoming more common in agriculture generally because such arrangements are better-suited to the changing market situation. In the US, Barry (1995) identified seven key factors as the basis for this trend, as follows:

- Consumers' needs have become more specific and the customers more demanding.
- Consumers' preferences have become more specific than traditional price signals in open markets can convey, so retailers use vertical coordination to ensure that product specification meets consumers' demands.
- Some industries such as poultry and pork have developed technologies that provide greater control over product specifications and thus help retailers meet consumers' needs include: reproduction, nutrition, health management, product measurement and biotechnology.
- Information about consumers' needs and product attributes has become more important and more valuable and hence more closely guarded.
- Increased competition and increased capital costs associated with larger firms has provided impetus for further improvements in efficiency and especially for greater utilisation of processing capacity through improved security of supply.
- Risk management is becoming one of the key determinants of profitability in the modern business environment where markets are more dynamic, capital investments are greater, margins are smaller than those of the past, and vertical coordination offers a means to reduce these risks for both processors and producers.
- Producers faced with the need for additional capital expenditure find it easier to raise funds if they have more secure marketing arrangements in place in the form of contracts or closer relationships, and some processors may find that provision of finance to suppliers within a strategic alliance is a cost-effective means of securing supply (Barry 1995).

Strategic alliances offer the opportunity to exploit the complementarities between firms that contribute different component parts to the production and marketing system. Ultimately, the aim of both parties is to manage risks and contain transaction costs. As in all business decisions in the marketing area, what is appropriate depends critically on the precise nature of the product in question.

In general, closer relationships work best when the 'size' of each of the participants is similar. When there is a serious size imbalance between producers and processors or retailers such unbalanced relationships can, unless managed with care, lead to continued conflict and lowered levels of trust. When power imbalances exist, horizontal alliances are useful as a basis for subsequent closer vertical relationships with processors and retailers.

Closer relationships and alliances are not costless. Suppliers lose some control, and mechanisms are needed to share benefits and to keep the relationship functioning efficiently. The general theme in successful alliances is that the need of the dominant party (e.g. the retailer) for consistency and reliability of supply is greater than their incentive to act opportunistically.

In successful alliances both parties have to be able to manage the transition from independence to interdependence, without going from independence to dependence. A grain or fodder supplying firm participates in an alliance with a dairy farmer in the hope of providing increased value for the buyer, and hence can expect more secure outlets and sometimes higher prices for their production. Secondly, they participate because by doing so they can lower their own costs.

One example of such cost reduction is the cost of obtaining information about what customers want: the suppliers in an alliance can obtain clear and reliable market signals much more cheaply than they would if they were not in an alliance.

In a paper about strategic alliances in the red meat industry, Hayes *et al* (1998) suggested that 'experience with alliances in other agribusiness areas has suggested that there are ten major determinants of success in alliances and these are indicated….below':

Ten Relationship Dimensions

Relationship variables	**Views held by potential partners in the alliance**
1. Customer value creation	We can create more value by working together than by working independently
2. Core competencies	Our competencies are complementary and are of real relevance to our target markets
3. Goal compatibility	The goals of our two organisations are well aligned and are unlikely to be in conflict in the future
4. Shared strategic information	Both parties do, and will continue to share strategic information
5. Investments	Both parties are prepared to invest specifically into this relationship
6. Dependency	Both parties are interdependent and aim to further grow the interdependent bonds betweens the two organizations
7. Alternatives	Finding an alternative of equal quality would be difficult
8. Sharing of benefits	We are comfortable that the benefits of this relationship will be shared equitably
9. Opportunism	We are confident that the other party would not act opportunistically, even if they had the opportunity to do so
10. Cultural fit	Both parties have similar values on how customer value will be created

Backward Vertical Alliances in Dairying

Strategic alliances refer to closer relationships and agreements amongst independent firms within a supply chain to co-operate to achieve some strategic end. Strategic alliances are a form of business integration, without the change in ownership of assets usually associated with integration. By harnessing the powers of specialization and comparative advantage, dairy farmers can re-draw the boundaries around their firms and establish relationships- strategic alliances – with suppliers of key feed inputs. Done well, with trust and reliability, increased specialization in some aspects of production and co-operation with other firms supplying other aspects of production, can increase competitiveness. Done well, every player can win a prize.

The simplest vertical alliance in dairying is one between a dairy farmer and feed grain or fodder producer. The additional net value that they would be created would include greater security of supply of specified feedstuffs. The benefits likely to flow to members of such alliances include:

- Improved understanding of customer's needs;
- Lower selling costs through negotiated rates;
- More secure market outlets for grain and fodder meeting specification and hence reduced risks for both the feed and dairy producers.

Traditionally in the Australian dairy industry the majority of farm firms have operated at farm level and one forward vertical stage in the supply chain, processing. If dairy products are produced and marketed using a strategic alliance between one or more stages in the supply chain, the traditional price competition between firms in the alliance is replaced with a negotiated cooperative relationship. The input supplying firm agrees to supply product on the basis of a previously negotiated agreement concerning price, quantity and quality. At a horizontal level in the grain and fodder market, competition rules, thus keeping everyone ‘honest’.

A firm in a production and marketing alliance, such as a grain or fodder producer, has decided to forgo some of its independence to sell a portion of its output wherever it chooses, in order to sell under a pre-arranged agreement to a dairy farmer. Similarly, the purchasing firm, the dairy farmer, has decided to forgo some of their independence to purchase wherever it chooses at the lowest price in order to buy under a pre-arranged agreement. In effect, strategic alliances shift the boundaries of the firms. The buying firm – the dairy farmer -achieves influence over the behaviour of the supplying firm – the grain or fodder producer- and to a lesser extent, the supplying firm gains some influence over the buying firm. Alliances may further the use of existing description language and lead to better information being utilised in price determination.

By their nature, forward contracts always result in the perception of one party 'losing' in terms of the price they received (or paid), even though they presumably gained an offsetting benefit of risk management, the forward knowledge of the price. These reasons may explain why forward contracting of key inputs such as feed has hitherto been relatively limited.

The use of strategic alliances by the dairy, fodder and feed grain industries can improve the competitiveness of participants and the industry overall. First, parties will become more fully

aware of what their clients want and be in a position to focus more precisely their efforts on producing these products. This will influence the production and marketing practices of individual operators. Those changes in production and marketing practices will help participants become more competitive. Strategic alliances could provide a relatively low cost means of putting producers in contact with each other. The feedback provided through such an alliance is unlikely to be available from any other source. Furthermore, some horizontal alliances could develop and choose to be associated with and participate in vertical alliances.

Apart from the direct value of the information available about customer requirements and the extent to which product meets those requirements, closer relationships between input suppliers, producers, processors and retailers have the potential to provide all participants with a better understanding of the industry which may lead at least to improved trust and at best to further efficiencies along the chain.

Strategic alliances offer the prospect of reducing the cost of dealing with risk for input suppliers, producers, processors and marketers. Risks would not be eliminated but could be reduced in a range of ways as suggested below:

- By providing input suppliers with a more secure and certain forward price for their output this allow them to budget more accurately and to embark on other efficiency enhancements.
- By securing a specified level of feed inputs at a certain forward price producers would be more assured of their costs and could invest in other efficiency enhancements in their works. These reduced risks could be expected to generate other efficiency improvements by reducing uncertainty.

Strategic alliances may prove to be one of the most effective ways of demonstrating to buyers of inputs or outputs that particular QA procedures have been followed. As consumers' concerns about food quality and safety become more common, QA systems will increasingly become a basis for product differentiation. Strategic alliances will similarly be useful in demonstrating particular attributes of product and could facilitate the introduction of QA systems and ensure that those participating obtained full benefit from their participation.

Most grain and fodder producers who choose to become involved in alliances will initially sell only part of their output through that channel and will therefore be able to compare prices and values from different channels. Once they have developed trust in the alliance they may sell greater proportions of their output through the alliance.

The benefits of supply integration that are made possible by use of strategic alliances are possibly more likely to be captured by large firms than by smaller ones. Since strategic alliances are only established when all parties to the alliance can gain an advantage from their formation, it is likely that larger firms will use strategic alliances more than smaller firms. To the extent that strategic alliances confer a comparative advantage to larger operators, they can be seen as encouraging the big to get bigger and the small to be squeezed out. This will lead to forces for adjustment in any segment where the strategic alliances confer a particular advantage, along with all the other already existing forces for adjustment.

Finally, the opposite of dairy farmers applying the principle of specialization and comparative advantage and trading with other firms beyond the boundaries of the dairy firm is the notion of 'do it all within the firm and be self-sufficient'. This only makes sense if the activity can be done more cheaply within the firm than beyond the firm. Note: 'more cheaply' means after accounting for the costs of doing it yourself, the market value of the home-grown input, and the costs versus benefits of having more or less supply and quality control that may come with doing things within in the boundaries of the firm.

Concluding comment

It is likely that the competitiveness of parts of the dairy and dairy feed grains and fodder industry would be improved by expanded use of co-operation via strategic alliances between different segments of the production and marketing chain. Information is the key.

Alliances will only develop and remain active where they deliver additional net value to customers and greater long term net profits for all participants. Alliances do not occur spontaneously but require careful planning and interaction between partners. Individual businesses involved in an alliance will not channel their entire product through the one alliance until they have developed sufficient trust in the alliance.

The ultimate purpose of all strategic alliances will be strictly commercial and therefore, in principle, the benefits from the development of such alliances will largely be private. As such, there would be no justification in using industry levies and Government funds to develop alliances that could be expected to develop without assistance. The only aspects of alliances that may appear to warrant public support would be those designed to:

- enable research into forms of alliances that might provide greatest overall benefit to industry;
- develop better strategies for generating trust between the participants in the alliance;
- provide information that would ensure that all parties (particularly producers) were aware of the potential benefits from alliances;
- help demonstrate the practicality of alliances and thus encourage their wider use by providing support for establishment of a range of alliances;
- address any area of market failure associated with the further development of alliances
- Strategic alliances, while doing little to change the effects of the fundamental natural and economic forces which shape outcomes in Australian dairy, fodder and grain production, offer the prospect for some businesses in these industries achieving some of the competitive advantage which is necessary to remaining in business.

REFERENCES

Barry, P. J., (1995), Industrialization of US Agriculture: Policy, Research and Education Needs, *Agricultural and Resource Economics Review*, Vol.24:1

Boehlje, M., Akridge, P.and Downey, G., (1995), Restructuring Agribusiness for the 21st century. *Agribusiness International Journal*, Vol.11:6.

Hayes, G., Malcolm, B., Watson, A., O'Keefe, M., and Thatcher, L., Strategic Alliances in the Red meat Industry', *Agribusiness Perspectives*, 1998. at www.agrifood.info.

O'Keeffe, M., (1994), *Vertical Coordination in Agribusiness: A Literature Review*, A Report for the RIRDC.

Schroder, W.and Mavondo, F., (1995), The Industrialisation of Agriculture: Overseas Experience and Implications for Australia, *Australasian Agribusiness Review*,Vol 3:1.

Watson, A S.,(1996). *Principles of Grain Marketing: Some Lessons from Australian Experience*, ACIAR Technical Report No. 38.