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## **Agricultural Producer Cooperatives as Strategic Alliances**

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### **Abstract**

In this paper we examine the linkages between four bodies of business-to-business relationship theory (transaction cost analysis, the resource-based theory of the firm (RBV), social network theory and theories of trust and cooperation) to the design and governance of agricultural cooperatives. Defining a cooperative broadly as any type of alliance formed by producers for their mutual benefit, we base the discussion on three types of cooperative; traditional, “new generation” and learning networks. Our main focus is on cooperatives as an alliance between members, but we also discuss alliances between cooperatives

We find that there is a gap in the literature relating to the analysis of alliances with more than two members (such as cooperatives), so the linkages between the theories and cooperative types must be seen as being somewhat tentative. We hypothesise that the RBV, social network theory and trust and cooperation theories are in fact, applicable to multiple-member alliances, but their relevance is likely to become less as the number of members increase.

**Keywords:** agricultural cooperatives, strategic alliances, transaction cost analysis, the resource-based view, social network theory, trust and cooperation, new generation cooperatives, learning networks.

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## **Introduction /Objectives**

Defining a cooperative as any form of alliance formed by agricultural producers for their mutual benefit, the objective of this paper is to examine the linkages between four bodies of theory (transaction cost analysis, the resource-based theory of the firm (RBV), social network theory and theories of trust and cooperation) to the design, governance and operation of three types of cooperative; traditional, “new generation” and learning networks. The approach is also applicable to relationships between individual cooperatives or cooperatives and proprietary companies. Two case studies illustrate both support for the theory and also generate additional insights

The paper begins with a discussion of theories of business-to-business relationships. This is followed by a brief description of the three types of cooperative. The implications of the four selected bodies of theory for the design, governance and management of the three types of cooperatives are discussed. The two case studies are followed by the Overview and Conclusions

## **Theories of Business-to-business Relationships**

### *Introduction*

Business-to-business (B to B) relationships occur in both vertical (supplier/customer relationships) and horizontal dimensions (between firms at the same level in the supply chain). The literature is predominantly focussed on the vertical dimension. In both dimensions, organisational structures range from “arms length” relationships between firms (as in the economic model of perfect competition) to administrative control, where all activities are under the control of one firm (Schaffner, Schroder and Earle, 1998). In between these two extremes lies the reality of most B to B relationships where they are managed through a range of formal or informal contracts and alliances.

Relationship strategy is broadly defined as firms managing B to B relationships to achieve mutually beneficial ends. Child and Faulkner (1998) point out that there appears to be no unified theory or approach to provide the basis for understanding relationship strategy and list eight bodies of theory that provide “useful, but partial insights” (page 17). These eight theoretical perspectives are:

1. Economics:
  - Market power theory
  - Transaction cost economics
  - Agency theory
  - Increasing returns theory
2. Game Theory
3. Strategic Management Theory

#### 4. Organization Theory

- Resource dependence
- Organization of alliances

To this list, we might add further contributions from theories of trust and cooperation, leadership, social network theory. Eisenhardt and Schoonhoven (1996), suggest that failure to include social and strategic explanations creates an impoverished view of alliance formation and management.

Our selection of four bodies of theory is based on their perceived relevance to agricultural cooperatives. However, we recognise that a case could be made for the inclusion of alternative theoretical viewpoints – for example agency theory in the examination of the relationship between the members, board and management of a cooperative.

#### *Transaction Cost Economics*

Transaction cost analysis (TCA) has traditionally been applied to relationships between the firm and its suppliers or customers. Coase (1937) argued that market transactions between independent firms are costly, and that vertical integration may be able to reduce these costs by internalising activities, previously carried out by independent firms, within a single firm (Clemons and Row, 1992). Thus, TCA provides a vehicle for determining the boundaries of the firm that minimise the sum of production, distribution and transaction costs (Williamson, 1971).

Asset specificity is a key dimension of TCA. It occurs when the firm makes sizable investments in assets specific to ongoing relationships with suppliers, customers, or alliance partners (Knoeber, 1989). Once in place, these relation-specific assets generate the incentive for opportunistic behaviour. A balanced investment commitment between the parties to the transaction, contracts designed to discourage opportunism, vertical integration, or a controlling equity in a joint venture seek to limit such behaviour (Williamson, 1979). However, the effectiveness of any type of contract is limited by bounded rationality, adverse selection, moral hazard and difficulties of monitoring and control (Milgrom and Roberts, 1992).

All the TCA arguments relating to the limitations of contracts and outlined above apply to horizontal alliances (Gulati, 1998). In addition, alliances that involve sharing information (as is likely in modern alliances) suffer from “the hazard of misappropriation” (Han, 2004) arising from incomplete and vaguely-defined property rights.

### *The Resource-Based View*

In the history of economic thought, the resource-based view (RBV) has its origins in the contributions of Chamberlin (monopolistic competition), Schumpeter (entrepreneurial innovative activity) and Penrose (firms have unique ways of combining resources to generate opportunities for sustained growth) (Chamberlin, 1933; Schumpeter, 1934 ; Penrose, 1959) The RBV argues that resources that are valuable, rare, non-substitutable and, in combination, difficult to imitate are a source of sustained competitive advantage for the firm possessing them (Barney, 1991)

In the context of establishing and managing B to B relationships, the RBV focuses on pooling resources to achieve mutually-beneficial outcomes (Das and Teng, 2000). The RBV focuses on the pooling of dissimilar resources (for example selecting cooperative directors with different types of expertise) but the resources that are pooled may be similar (as in the case of dairy farmers pooling financial resources and milk to establish a processing cooperative).

A key element in the establishment of an alliance is symmetry in the resource exchange process – “firms must have resources to get resources” (Eisenhardt and Schoonhoven, 1996, page137). This symmetry must continue if the alliance is to be sustained (in a similar way to the TCA view of symmetry in investment in relationship-specific assets). The maintenance of symmetry between contributions and rewards underpins the “horizon problem” in the governance of agricultural cooperatives (Cook, 1995)

Alliances have the potential to do more than the simple sharing of resources; they can facilitate the development of new “idiosyncratic resources “which are unique to the alliance and possibly unanticipated at the time of its establishment

### *Social Networks*

Social Network theory proposes that economic activity is always embedded in a social context and that, for researchers, the social and economic dimensions of a business relationship are likely to be confounded. (Granovetter, 1985; Gulati, 1998). BarNir and Smith argue that the importance of a social network to an individual manager lies in; access to information (for example, about potential alliance partners), emotional and tangible support, status (through association with other network members of perceived high status) and a governance mechanism that facilitates trustworthy and predictable behaviour.

Eisenhardt and Schoonhoven (1996) suggest that B to B relationships are established because of strategic needs and their establishment is facilitated by social opportunities. Social networks facilitate alliance formation by enlarging the circle of potential trustworthy partners. This is influenced by the size of the top

management team, the number of previous employers, and the level of position held with previous employers. (Eisenhardt and Schonhoven, 1996). Gulati (1998) observes that often firms identify new opportunities for alliances through their existing relationships and that the manner and extent to which firms were embedded influenced key decisions such as the frequency with which firms entered alliances, choice of partner, type of contract used and evolution of the alliance over time. Positive prior experiences with an alliance partner (or, through the network, the partner's other alliances) creates a favourable environment for the establishment and maintenance of continuing relationships (Gulati, 1995)

Socially embedded ties within an alliance may also facilitate its continuing performance by engendering confidence and trust, and "a natural deterrent for bad behaviour that will damage reputation" (Gulati, 1998, Page 309).

### *Trust and Cooperation*

Trust has been studied from a number of aspects, bringing richness to the understanding of its impact in strategic alliances and cooperative arrangements. However, Rousseau et al. (1998, p394) point that irrespective of the underlying discipline of the authors (psychology to organisational behaviour), confident expectations and a willingness to be vulnerable are critical components of all definitions.

Child and Faulkner (1998), following a number of other authors, identify three perspectives on trust: *calculative*, "based on the assurance that other people will do as they say because the deterrent for violation is greater than the gains and/or the rewards from preserving trust outweigh any from breaking it" (Page 48); *shared cognition* – based on the length and depth of the relationship; and *personal identity* – holding common values.

Like trust, *cooperation*, is defined in various ways. The common thread is that it involves proactive behaviour to achieve mutually beneficial outcomes (Anderson and Narus, 1990; Schroder and Mavondo, 1998). The links between cooperation and trust are that cooperation both engenders trust and requires some degree of trust to initiate it.

Das and Teng (1996) argue that both trust and control are needed to engender a high level of confidence in partner cooperation. Control is achieved through legal structures and contracts. Das and Teng (1996) identify the benefits of trust B to B relationships which, as well as lowering transaction costs, include inducing desirable behaviour, reducing the need for formal contracts and facilitating dispute resolution.

## Three Types of Agricultural Producer Cooperative

### *Traditional Cooperatives*

Cook (1995) provides two economic justifications for the formation of traditional cooperatives; excess supply/depressed prices and market failure (opportunism/holdup). Traditional cooperatives usually involve some degree of vertical integration. Thus their establishment involves their members becoming involved in two new and unfamiliar organizational structures; a horizontal alliance and using that alliance to operate a supply, processing or distribution business.

The shortcomings of traditional cooperatives are primarily transaction cost based and have been documented by Cook (1995) as: free rider problems; the horizon problem (cooperatives are discouraged from making long-term investments because members believe that restrictions on transferability of shares limit the possibility of them achieving a satisfactory return); the portfolio problem (the cooperative's risk/yield profile may not match that of individual members); control problems relating to relationships between the members and board, and the board and management; influence costs problems (the time and effort put in by particular groups of members to influence the board, or perhaps, management directly). Cook (1995) argues that these problems are felt most acutely in multifunctional, diversified regional cooperatives.

### *New Generation Cooperatives*

One variation on the traditional cooperative model that has received considerable attention in the literature is the "New Generation Cooperative" – NGC (Cook, 1995; Katz and Boland, 2002; Fulton and Sanderson, 2002). The term originated in the mid 1990s in the United States and is now widely used in both the US and Canada. The core characteristic of NGCs is that capital is not treated as common property (O'Conner and Thompson, 2001). The elements that distinguish NGCs from traditional cooperatives relate to: closed membership, tradable delivery rights (initially priced to secure the required start-up investment capital), contractual obligations to deliver, and (usually) more focus on value-added niche products than traditional cooperatives (Chaddad and Cook, 2004; Olson et al, 1998; Fulton and Sanderson, 2002; Katz and Boland, 2002).

### *Learning Networks*

Networks are associations of individuals of organisations who share experiences and learn from each other for mutual benefit (Holmlund and Fulton, 1999). Networks are thus distinguished from traditional and new generation cooperatives by their relatively loose structure and limited financial commitment. Collaboration between network members allows them to improve their knowledge base, increase their

adaptive capacity, improve information access and increased opportunities for flexibility, innovation and learning (Kanter, 1994; Barlow and Jashapara, 1998; Newton, 2000).

## **Cooperative Governance and Business-to-business Relationship Theory**

### *Introduction*

This section explores the linkages between the four bodies of theory outlined above and the three types of cooperative. The first point to note is that the theories usually focus on dyadic relationships (recognizing that alliance members are embedded in a number of social networks – Gulati, 1998), while cooperatives have more than two members. The limited literature on multiple-member alliances reflects the business reality that two firm relationships predominate in the universe of alliances (Hwang and Burgers, 1997). However multi-firm alliances that join together for a common purpose have emerged in a number of industries particularly knowledge based industries and research and development alliances. Given the paucity of literature on multi-member alliances, we have made the broad assumption that the theories underpinning the analysis of dyadic strategic alliances apply to alliances with more than two members. The propositions seem, at least, to be intuitively plausible. There is also an argument for including number of members as a variable in any future research.

### *Traditional Cooperatives*

From a TCA perspective, members of traditional farmer cooperatives do not see themselves as competitors. There is little “domain overlap”. Therefore the TCA arguments concerning horizontal B to B alliances have limited relevance in establishing the cooperative. The issues identified by Cook (1995) relate to the on-going governance and management of the cooperative.

Because cooperative membership is, in many cases, fundamentally important to the member’s livelihood a strong control (TCA-based) ethos tends to emerge - the control and influence issues in Cook, 1995. Monitoring and control issues occur at three levels; between members, between members and the board and between board and management. The issues are similar to those that occur in joint ventures where parties seek control through majority ownership or detailed contracts. The cost of managing the three types of relationship is probably higher than in other forms of business and positively related to the number of members.

From an RBV perspective, traditional cooperatives pool similar resources. The purpose of pooling is to achieve economies of scale rather than diversifying and enriching the resource set available to members. The issue of symmetry in the



initial and ongoing resource contribution underlies the “horizon problem” identified by Cook (1995).

There appears to be limited research on the role of social networks in the formation and governance of traditional cooperatives. However, it seems likely that social networks would be a key variable in facilitating the establishment of a cooperative and continue to play a role in its ongoing operation (this role may be divisive, as in the case of the formation of rival groups within the cooperative membership).

There is widespread agreement in the B to B relationship literature that trust lowers transaction costs by reducing the negative impact of bounded rationality, relationship-specific investment and opportunism (Child and Faulkner, 1998; Poppo and Zenger, 2002). Madhok (1995) argues that the expected value of a governance scenario based on trust can logically exceed that of one based on preventing opportunism. The extent to which this argument applies to the three types of relationships within a cooperative is an empirical question.

### *New Generation Cooperatives*

New Generation Cooperatives (NGCs) are strongly contract-based. Thus, contract-related TCA issues would be expected to be significant. There may be investment in membership-specific assets required to meet the terms of the contract.

NGCs have a restricted membership of like-minded business people. There is potential for a diverse range of competencies to be brought to the governance of the cooperative through board membership (an RBV viewpoint). Contracts may be used, perhaps with difficulty recognising the TCA issues involved, to utilise supplier diversity (for example in the production of premium wine).

Social networks are likely to be important in establishing a NGC. One of the competencies recognised in selecting board members could be the breadth of their present networks and their ability to establish new ones. The social networks of NGC members can be used to seek new members if required.

On the one hand, a relatively small membership might be expected to facilitate trusting relationships at the three levels discussed above. On the other hand, the contractual nature of the relationship between the cooperative and its members is not one that encourages the development of trust.

### *Learning Networks*

Transaction costs are not seen as a major issue in learning networks as they are a relatively informal type of organisation. There may be an adverse selection issue in that members who see themselves as getting the most benefit from the group are

also those that have the least to contribute. A related issue is on-going reciprocity of member contributions.

Sharing the diversity of member resources and competencies is the basic reason for the establishment of learning networks. They have the potential to generate unanticipated beneficial outcomes - for example identifying a new market opportunity in a production technology oriented network.

As for the other types of cooperative, the establishment of learning networks is facilitated by social networks. Learning opportunities are facilitated by face-to-face contact in an informal environment. Trust and cooperation are needed to “oil the wheels” of information exchange.

The hypothesised relationships between the three types of cooperative and the four bodies of theory are summarised in Table 1.

**Table 1: Linkages Between Strategic Alliance Theory and Cooperative Structure**

Alliance Theory and Key Insights		Type of Cooperative and Distinctive Features		
Theory	Insights	Traditional Distinctive Features: Limited shareholder investment capital. Restricted transferability of shares Rewards according patronage Control and influence costs issues	New Generation Distinctive Features: Closed membership Contractual delivery rights/obligations Tradable delivery rights Significant equity investment in start-up capital. Focus on value-adding	Learning Networks Distinctive Features: Limited financial commitment: Loose structure Importance of : trust, commitment, shared vision, leadership , reciprocity, personal relationships Support from outside “champions”
<b>Transaction Cost Analysis</b>	<p>Alliances seek to internalise exchanges because of high transaction costs.</p> <p>BUT: Contractual alliances generate their own transaction costs:</p> <ul style="list-style-type: none"> <li>- bounded rationality</li> <li>- adverse selection and moral hazard</li> <li>- asset specificity and opportunism</li> <li>- Vaguely-defined property rights</li> <li>- Control issues</li> </ul>	<p><b>Significance: High</b> Deriving mainly from vaguely defined property rights and control issues Asset specificity and opportunism are important in motivating the establishment of traditional coops, but become less important in their ongoing operation</p>	<p><b>Significance: Moderate-High</b> TCA issues in supply contracts. Investment in specialised plant and equipment may be required.. Tradable delivery rights limited by constitution.</p>	<p><b>Significance: Low</b> Possibility of adverse selection. Intellectual property rights issues</p>

Table 1: (Continued).

<b>The Resource Based View (RBV)</b>	<p>Focus on exchanging and pooling firm resources that are rare, non-substitutable and, in combination, difficult to imitate. Importance of symmetry in the exchange of resources Possibility of synergistic development of “idiosyncratic resources” unique to the alliance.</p>	<p><b>Significance: Low</b> The members of traditional cooperatives provide two types of resources: investment capital (usually limited) and raw materials. Neither of these have the characteristics of resources in the RBV</p>	<p><b>Significance: Moderate</b> Contracts can facilitate the supply of differentiated raw materials requiring unique resources A relatively small number of members may facilitate their unique competencies contributing to the governance of the cooperative</p>	<p><b>Significance: High</b> The RBV is the fundamental reason for learning networks. Conversely, if members’ resources are <u>not</u> heterogeneous, the learning network is likely to fail. Possibility of real synergy in the sharing of ideas</p>
<b>Social Networks</b>	<p>Economic activity is always embedded in a social context. Social networks provide: access to information, emotional and tangible support, status. Facilitates trust-worthy and predictable behaviour. Social networks facilitate alliance formation by enlarging the circle of potential trustworthy partners and facilitate alliance performance by engendering confidence and trust</p>	<p><b>Significance: Low</b> May make some contribution at the establishment stage. Becomes increasingly less important as membership increases and the cooperative matures and becomes more diversified</p>	<p><b>Significance: Moderate</b> Like-minded business people in a rural community are likely to have multiple network linkages. Similarity in status may be significant. Social networks may facilitate expansion</p>	<p><b>Significance: Moderate-High</b> Social networks facilitate the establishment and ongoing operation of learning networks. Given the individualistic and sometimes lonely nature of farming, the emotional support component may be significant</p>
<b>Trust and Cooperation</b>	<p>Key ideas: Confident expectations and a willingness to be vulnerable Dimensions of trust :  <ul style="list-style-type: none"> <li>- Calculative</li> <li>- Shared cognition</li> <li>- Affect-based (friendship, shared values)</li> </ul> Cooperation: Proactive behaviour to achieve mutually-beneficial outcomes</p>	<p><b>Significance: Low</b> At a fundamental level, members place their trust in the concept of a cooperative as a way of marketing their output. This trust is however, more of a religious nature than a behaviour that meets any of the three dimensions of trust. Cooperative members certainly behave in a way that seeks to achieve mutually beneficial outcomes when the cooperative is established but “cooperation” in this sense is limited in the ongoing operation</p>	<p><b>Significance: Low-moderate</b> Confident expectations and a willingness to be vulnerable are required for the cooperative to be established. A relatively small number of like-minded members of similar status should facilitate trust and cooperation. On the other hand, in a similar fashion to traditional cooperatives, institutionalizing arrangements for the supply of raw materials and trading delivery rights diminishes both the need and motivation for trust and cooperation between individual members and also between members and the cooperative.</p>	<p><b>Significance: High</b> Good potential for trust and cooperation based on shared cognitions and values. Opportunities for pre-emptive cooperative behaviour (cf Prisoners’ Dilemma Game) and “Tit For Tat”.</p>

The implications and conclusions from Table 1 are discussed following two case studies.

## **Two Case Studies**

The following case studies provide examples of two different types of cooperatives each with their own distinctive features and highlight a number of the insights developed in Table 1. Tatura Milk Industries was established as a traditional cooperative that has taken on many of the feature associated with New Generation Cooperatives such as value adding, reliance on information sharing alliances and investment in specialised resources.

Riverine Plains was established as a learning (through practical on farm research) and knowledge sharing network. Members have a very limited financial commitment to the group but place a high value on social networks, trust and cooperation. The sharing of resources in the form of technology, know-how, information and at times emotional support (eg unfavourable seasonal conditions such as drought when more complex decision making is required) being the core principles of the network.

### *Case Study 1:*

#### **Tatura Milk Industries: Competitive Advantage Through Alliances**

Tatura Milk Industries (TMI) was established in 1907. It has remained an independent cooperative in the face of increasing concentration through mergers and acquisitions. Exports comprise 60 percent of sales.

Tatura Milk Industries (TMI) could be described as a traditional cooperative that has reshaped itself. TMI have attempted to address some of the shortcoming of traditional cooperatives by incorporating some aspects of new the generation cooperative model, it is a defined member cooperative with all members being active shareholders. The active membership rule ensures that producers are able to redeem shares on exit, at an independently-determined valuation, overcoming the problem of share transfer associated with traditional cooperatives. A further distinctive feature of TMI has been its willingness to commit to a strategic network through a series of strategic alliances. These alliances have focused on value added products. The alliances that have been developed include knowledge based R&D alliances with Tatua a New Zealand Dairy Cooperative, Ingredia a dairy processor based in France, and Andadis a biomedical company in Australia. TMI has sought out these alliances to complement their own strategic position in the market and build on their capabilities, including access to milk supply and specialist colostrum collection techniques as well as particular processing expertise.

TMI has an extended alliance network. Each alliance is unique in its own way but each is based on a strong foundation of trust. This supports Gulati (1998) who argues that firms having prior alliances are more likely to enter into new ones

The alliance with Tatura is based on resource complementarity, with Tatura having a very strong research and development philosophy which supports the TMI strategy of focusing on value added product. These similarities in philosophy, background, size and focus on value-added products, have contributed to the development of a strong trusting relationship based on mutual understanding and respect that has facilitated openness in information sharing and knowledge transfer. Social network theory contributes much to understanding the impetus for such an alliance. Social networks can serve as important basis for enforceable or deterrence based trust (Burt and Knez, 1995). This shared understanding motivates “good behaviour” by both parties as each partner is aware that the other has much to lose from behaving opportunistically and in turn enhances confidence in each other (Gulati, 1998).

The alliance with Ingredia, a French cooperative was formalized in 2004. Ingredia is a similar sized farmer based processing cooperative that also focuses on value added products particularly in the functional foods area. Ingredia were keen to develop a relationship with TMI as changes in the dairy industry in France threaten the sustainability of current milk flow volumes. The attraction for both companies in developing the alliance was the similarities in background size strategy and philosophy. Ingredia have strong R&D capabilities while the processing capabilities of TMI complement their R&D focus. The initial alliance provides a platform for future shared innovation.

The alliance with Anadis exhibits a number of characteristics consistent with the RBV as discussed by Barney, (1991) whereby the alliance creates a set of resources that met the conditions necessary to develop a sustained competitive advantage through resource sharing ie valuable (colostrum is high value) rare (has been difficult to access) imperfectly imitable (patented colostrum harvesting technology) and colostrum is without substitutes. TMI's share purchase injected over \$4.25 million into Anadis and provided security of cash reserves. Again the Anadis philosophy, which is based on the belief that intellectual property is better developed and commercialisation is faster with the assistance of other “clever” organisations fits well with that of TMI. Similar to TMI, Anadis have formed several strategic alliances. A key feature of the Anadis alliance is the “Anadis – Tatura Innovation Engine Room (ATIER)”, a collaborative web to co-develop new products. The relationships fostered in this group are considered crucial to the success of the alliance. Through the strong trusting, committed relationships that develop at this level, measurable outcomes that contribute to financial success are ensured. Corporate level relationships whilst still essential for alliance success produce less tangible outcomes and will not result in sustainable profitable outcomes without successful new product development.

Overall the success of TMI alliances can be attributed to strong leadership that supports the alliance philosophy at all levels and through all functions of the company. Alliances are developed in engineering, processing, technical, commercial and logistical functions as well as in the corporate and marketing/sales areas.

Governance structures have become increasingly varied, catering for broad diversity in alliances. Contracts and trust both contribute to predictable behavior (Gulati, 1998). The governance structures adopted by TMI generally involve formal contracts. However one executive commented at interview that:

“contracts remain in the bottom draw where they belong – once you reach for the contract the relationship is effectively over”

The familiarity developed through prior alliances has enhanced trust which has enabled TMI to rely less on formal structures. Similarly Barney (1991) acknowledges the contribution of social factors in his discussion on “social complexity”. Whilst several firms may all possess the same physical technology only one firm may possess the social relations, culture and traditions to fully exploit the relationship. In the case of TMI, these personal social relations occur at a number of levels which is consistent with the view developed by Granovetter (1985) who stated that it is not only at the top levels that firms are connected by networks of personal relations, but at all levels where transactions must take place.

### *Case Study 2:*

#### **Riverine Plains Inc – Knowledge Network**

Riverine Plains Inc (RPI) was established in 1999. Total membership is 200. The group's establishment recognised the need to develop research capability and knowledge sharing. It is supported by government agencies and a University.

RPI exhibits distinctive features associated with learning networks; limited financial commitment, relatively informal structures strong personal relations, shared vision, trust and focused leadership. The focus of the group is articulated as follows:

- Establishment of a proactive farmer group to coordinate and initiate research
- Consolidation of fragmented groups across the region
- Development of a group which was able to attract leading farmers who valued their membership of the group
- Attract funding to support meaningful research.
- Support the economic and social development of rural communities

The synthesis of these objectives resulted in the following mission statement for the group:

*“Farmers promoting excellence in farming systems by providing quality information, leading research and sharing ideas for the economic, environmental and social benefit of the Riverine Plains.”*

The success of the group can at least in part be attributed to the strong drive commitment and enthusiasm from the leaders in ensuring the momentum of establishment was maintained, along with outside assistance from government and a University (Trechter and Murray-Prior, 2003).

Discussions with past and current members of the executive committee indicate that the leadership team had existing social networks and that these existing networks influenced the opportunity, motivation and willingness to pursue the formation of the new network. This is in line with research by Granovetter (1985), Eisenhardt and Schoonhoven (1996) Gulati (1998) and BarNir and Smith, (2002) relating to alliances and social networks provide support for this finding.

RPI has continued to develop and grow over the last five years. Strong commitment, open communication and support from external agencies are cited as the principal reasons for this continued success. This is consistent with Harris et al (1995), Bessant et al (2003) and Trechter and Murray-Prior (2003). Membership enthusiasm and support is maintained through frequent communication.

*“One of Riverine Plains’ main achievements has been the quality of information it has been able to present, both through a range of seminars and an annual publication”*

Social networks and emotional support, that are important features of the Riverine Plains group, are achieved through a number of mechanisms including field days, seminars, local farm tours and an annual tour to other areas.

This in turn contributes to trust which is essential to the successful operation such a large group. Decision making and management of the knowledge generating agenda is in the hands of the executive committee and therefore members need to trust that opportunistic behaviour will not take place, outcomes will benefit the majority and cooperation continue long term<sup>1</sup>.

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<sup>1</sup> Whilst the case studies outlined above are not typical of case study research as defined by Yin (1992) they are designed to illustrate insights developed through the literature review. Further quantitative and qualitative analysis is required to test the hypotheses developed from Table 1.

## **Overview and Conclusions**

The important insights from the literature review and the two mini-case studies can be summarised:

- Transaction cost analysis (TCA) is a major contributor to our understanding of design and governance issues in traditional cooperatives. New Generation Cooperatives (NGCs) incorporate governance mechanisms which seek to overcome the TCA problems of traditional cooperatives, but the contractual relationship between members and the cooperative generates a new set of TCA-related issues. TCA becomes less relevant to the design and governance of Learning Networks.
- The Resource-based view (RBV) is highly relevant to the analysis of alliances between cooperatives (whether traditional or NGCs) as illustrated by the TMI case. The RBV also provides the underpinning for learning networks. However, the Riverine Plains case shows that learning networks can be beneficial to members without an active and reciprocal exchange of ideas amongst members. When the network was established, “leading farmers” shared their experiences with the group as whole, but as the group matured, it appears that its main purpose has been to provide a vehicle for regionally-focussed research through government agencies. This knowledge is available equally to all members and the reciprocity of exchange between members, implied by the RBV has become less important. However, reciprocal exchange of ideas still occurs at an informal level through the networking that occurs at seminars, field days etc.
- Social networks are a key element in the formation and maintenance of inter-organisational alliances by TMI. Building and maintaining alliances is seen as an embedded competence (in the RBV sense) in TMI and included in the appointment criteria for successive CEOs. It seems likely that social networks are important in the establishment phase for all three types of cooperative.
- Trust and cooperation are seen as important for the on-going operation of the alliances established by TMI and become a basic requirement for the operation of more “open-ended” alliances such as the one with Tatura. As far as trust between members is concerned, legal and institutional arrangements reduce both the need and opportunity for it in all three types of cooperative. (Even in the Riverine Plains case, where we would expect trust and cooperation to be fundamental, members have, in a sense, been happy to distance themselves from each other and leave the running of the network to the governing committee with the support of the two (quasi) government



representatives. However, the significance of informal networking should not be underrated).

- Related to the previous point, we speculate that there is a relationship which might be called the cooperative “law of large numbers”, which is based on the idea that, for TCA-type reasons, generating trust, cooperation and reciprocity has a cost and that this cost will increase as the size of the group increases.
- The cases bring to mind the importance of other factors we have not discussed in any detail, but are clearly significant; in particular the importance of leadership and “champions”, not only at the Board level, but also at the operational level (where committed people from government and universities can play an important role).

Table 1 provides the basis for the development of testable hypotheses. The segments of the matrix for which a particular theory is seen to be moderately to highly significant, along with the volume of previous research in this area, indicate opportunities/priorities for future research. For example, the application of the RBV and social network theory to learning networks appears to be an attractive research opportunity and there is limited prior research in this area.

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