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# **New Zealand Agribusiness Success: An approach to exploring the role of strategy, structure and conduct on firm performance**

Paper Presented at the New Zealand Agricultural and Resource Economics Society  
Conference 25-27 August 2006

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## **Summary**

This paper presents a framework to explore agribusiness success in New Zealand. The framework provides the basis for historical analysis. It draws on existing theory based on the structure-conduct-performance paradigm but expanded to take account of firm strategy and the analysis of value chains.

Key words: agribusiness, structure, conduct, performance, history

## **1. Introduction**

This paper presents a framework developed to explore the performance of New Zealand's agribusiness during the last 25 years. Since the 1980s, agribusiness in New Zealand has gone through substantial change as a result of internal and sectoral developments and choices, as well as external pressures from customers, governments and ongoing business evolution. In essence, this paper establishes a framework to research business and economic history in a way that will enhance contemporary education, policy analysis, and research.

To date there has been limited writing on the business and economic history of New Zealand, which comprehensively relates to core business and economic debates of the relevant era. This paper argues that research in this domain should explicitly be informed by theory and methods derived from the literature of agricultural economics, supply chain management, marketing, strategic management and more general business research.

The research is motivated by the need for a robust foundation of knowledge concerning agribusiness in New Zealand. It assumes future performance can be enhanced as a result of rigorous analysis of the past. This knowledge of the past can directly impact into tertiary education, policy analysis, and new and ongoing research programmes.

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The paper consists of five sections, and considers three critical framing issues – the nature of agribusiness, the context of New Zealand agribusiness, and how we understand success. Section three addresses the key issue of the impact of strategy, structure and conduct on firm, supply chain, and marketing performance. Section four focuses on the research methodology that will be used to explore the fundamental themes described in section three. The paper finishes with conclusions.

## **2. Framing Issues**

### **2.1 The Nature of Agribusiness**

The focus of this research is agribusiness. This paper does not provide a new definition or repeat an old definition. It draws on the value chain tradition to consider the organisations which link together to provide the mix of services which ultimately transform inputs into outputs demanded by household and industrial consumers.

The research focuses on: input suppliers to farm and orchard businesses, the farm and orchard businesses themselves, processors and post harvest handlers of produce, manufacturers, suppliers of services along the supply/value chain, and marketing organisations. Clearly this approach risks incorporating the majority of economic agents within the New Zealand economy and a research project has to focus on key participants. Key participants will be identified by the size of their activity in the sector, or the significance of the role of the specific agent or organisation.

The agribusiness focus is appropriate given that agribusiness plays a major role in the New Zealand economy. Agribusiness is a critical export engine, and continues to dominate New Zealand's merchandise exports despite significant government initiatives to enhance the development of new industries. Further, agribusiness is critical in underwriting regional and national infrastructure. Successful agribusiness underwrites the provision of manufacturing and private and public service provision in rural areas as well as regional towns and centres. Likewise, the agricultural science capabilities are a core component of our total science capability.

The key features of agribusiness have been debated in the literature. However, it is appropriate to note that agribusiness is characterised by its links to biological production systems and the associated variability. Likewise it is appropriate to note that in many instances it is characterised by long chains, with an hourglass shape, including primary, secondary and tertiary business activity that are distant from the market place.

### **2.2 Context**

Agribusiness success depends not only on the choices of agribusiness firms and organisations, but also on the environment in which they operate. It is appropriate to carefully identify and characterise the trends and shocks which have impacted agribusiness. Four key contextual foci have been identified.

#### **2.2.1 Government Factors**

Economic and political change has substantial impacts for good and bad. Changes in international economic conditions: incomes, exchange rates, energy prices, as well as political changes (eg: trade rules, terrorism and counter-terrorism policies,

monetary and fiscal policies) are all important. Agribusiness participants must be aware of changing views on competition policy, tax policy, government expenditure priorities, environmental, health and employment regulations as they all impact agribusiness success.

### **2.2.2 Business Factors**

Agribusiness evolution and success is part of the wider evolution of business. Individual firms and organisations are adapting on the back of increased wealth, changing market and political conditions, and the evolution of marketing and sectoral organizations. Commercial change in other sectors impacts how agribusinesses evolve.

### **2.2.3 Technical Factors**

Technological change is a critical component of agribusiness success. This is partly a matter of introducing new technologies as a result of scientific research or technical innovation, and partly as a result of organisational response to market conditions. For example, technological change associated with larger lambs in New Zealand has primarily been led by price signals. Technology can influence either agribusiness in general, or merely sectors within it. New generic technologies such as ICT have substantially impacted almost all agribusiness activities while specific advances in precise activities (e.g. vacuum-packing technologies) have had a major impact on particular activities and products.

### **2.2.4 Social Factors**

Social change is important for agribusiness. Changing social expectations impact the choices of asset owners, managers, employees, customers and regulators. Likewise, businesses are increasingly realising the importance of understanding changes in consumer values and beliefs as a critical determinant of long-term demand patterns. These sociometric (measures of changing social values) are important for agribusinesses in all their major markets.

## **2.3 Understanding Success**

Researching agribusiness success highlights the importance of defining success. Without clarity it is impossible to select appropriate indicators of success. The approach taken here falls under the rubric of sustainability. Sustainability assumes continuity. Continuity is possible if the relevant sets of assets exist and are sustained. This suggests that agribusiness is successful if assets appreciate in value through time.

Agribusiness capital can be categorised into four types of capital: financial, human, environmental [more frequently being referred to as natural] and social capital. Financial capital is the net financial assets which provide the basis for ongoing operations and future investments. Human capital is the net people capability which enables the ongoing management and work required to sustain agribusiness activity and investment. Human capital is crucial because if it depreciates, it leads to decisions which may reduce other forms of capital. Environmental capital refers to the underpinning resources of air, water, soil, and related natural resources. They are critical for sustaining production potential, ecosystem and human health, and quality of life. Social and cultural capital is the set of social values and relationships that enables networks to prosper and transactions to function in an efficient manner.

In considering success it is appropriate to consider success in different frames. In the aggregate agribusiness sector, it is a matter of success for individual firms (e.g. a pack house business), industries (e.g. the kiwifruit industry), regions (e.g. the Bay of Plenty) and the nation (New Zealand). Clearly, it is appropriate to have a portfolio of success measures to be used for a range of purposes. AREN (2006a) provides a more substantial discussion of success.

It is important to emphasize that agribusiness success is ultimately dependent upon satisfying consumers. Hence this analysis seeks to pay particular attention to how well consumer aspirations are met. Answering this question requires consideration of firm understanding of consumer aspirations, the responses of firms to that knowledge and our evaluation of the knowledge gained and the firm responses to that knowledge.

### **3. The Impact of Strategy, Structure and Conduct on Performance**

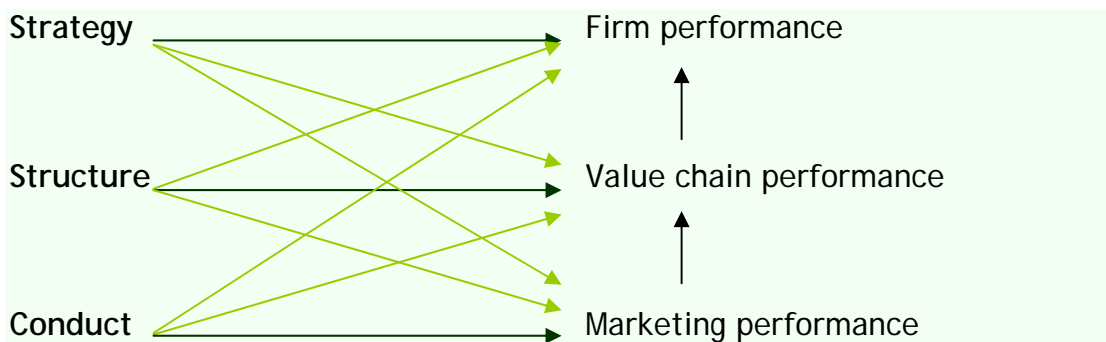
Agribusiness success derives from the strategies pursued, the structures of industries, and how firms and agents conduct themselves. This framework in part derives from the historic industrial organisation literature which focused on structure conduct and performance (e.g. Scherer, 1985). This approach is complemented by the strategic management literature. Key authors here are Porter (1980), with his strategy based view of the firm and Barney *et al* (2001), with their resource based view of the firm. This study seeks to align these frameworks in a way that facilitates understanding of agribusiness success. One of the contemporary mantra within business schools is the claim that “structure follows strategy”, so in this vein the framework considers strategy, structure and conduct.

Consideration of agribusinesses and the literature suggests that strategy is important on multiple fronts. Individual firms pursue strategies. Strategy is important on the farm and the orchard. Strategy is important in processing and manufacturing. Strategy is important in supply chain evolution, and marketing strategy is important. Similarly, structure is important in multiple ways. The structure of individual businesses is critical. The extent of common ownership versus separate ownership and the degree of vertical integration substantially influences conduct relating to internal contracting, external contracting, and many other aspects of conduct. Conduct relates to the full range of business decisions in financing, production, marketing, management and governance. *Ex ante* one would expect strategy and structure will substantially interact with conduct in many places, and the purpose of the research is to explore the nature and strength of such interactions. The nature of the framework is expressed in Figure 1.

It is appropriate to explore the relationship between strategy, structure, conduct and performance at the level of the firm, along the value chain, and in terms of the final market. This exploration involves consideration of the links between strategy, structure and conduct and links between the external environment and choices about strategy, structure and conduct. Careful attention has to be paid to the identification of strategies. Strategies may be defined in terms of: generic strategies (e.g. high volume, low cost); highly specific strategies based on unique production or market conditions; or decisions that are not strategies at all, but rather a form of rhetoric

concerning opportunities or constraints. A key factor in considering strategies is identifying how strategies impact firm choice and subsequent performance, (e.g. does the strategy influence decisions about plant size and location, or anything else?) It is critical to identify indications of pursuing a particular strategy as seen in investment decisions, staffing policies or other tangible signs. This approach to research can reveal rhetoric concerning strategy which is inconsistent with strategy in practice.

Figure 1: Strategy, structure, conduct and performance



Similarly, consideration of structure involves exploring the links between strategy, conduct, and the business environment. Identification of alternative structures is paramount. Questions must be asked such as, is there a cooperative or an investor owned firm in a particular place? Is the operation structured as a profit centre or a cost centre? A key challenge is to get beyond organisational labels and identify the nature of a structure in business and economic terms. This leads to identifying how structures impact firm choices and subsequent performance. A classic illustration is how structure impacts procurement policies. Misalignment between KPIs and policies for firms and their business units can result in individual business units achieving their KPIs at the expense of the firm overall or individual business units investing scarce resource in getting around firm policies. The historical nature of the study highlights the importance of indications of structural stability or change. One such example would be consideration of changing membership rules over time.

Consideration of conduct involves not only consideration of choices, but their links to strategy, structure and the business environment. A key aspect of understanding conduct is identifying management ethos and commitments, e.g. valuing research. The critical task is identifying how conduct impacts firm performance, e.g. speed of product development. It is particularly important to find indications of consistency or inconsistency in conduct e.g. ongoing investment in research.

#### 4. Research Methodology

The research method guiding this research is based upon three approaches: First, the research team is committed to case study analysis to explore the relevant research questions with participants in the industries. Second, the team is committed to grounded research methods to the extent that the team starts with no hypotheses to test and is open to explore the issues wherever the conversation and data take us.

Third, the research team draws on its wealth of experience in academic research, industry participation, and as such explores relationships and concepts with questions which derive from a contemporary and historical understanding of agribusiness.

The key first step in the research has been an extensive programme of brain storming. On at least three occasions the whole research team has got together for day long sessions and debated and probed contemporary understandings of agribusiness and agribusiness research. This discussion led to the consideration of strategy, structure, and conduct. It also led to a focus on four sectors in the first instance: kiwifruit, venison, sheep meat, and dairy.

Subsequent to brainstorming, the research has focused on analysing the literature and secondary data. The literature review has focused on two key information sources. The team sought to identify and read every article on these NZ industries published in an academic journal. Likewise we have sought to identify the complementary professional business and government publications and conference papers which relate to these industries (AREN 2006b).

Secondary data analysis focused on international trade statistics and agricultural and horticultural production statistics. This secondary data provides low level indicators of the agribusiness environment and agribusiness success as seen in industry expansion and profit trends and fluctuations (AREN 2006c).

This research also includes a significant programme of interviews to gather primary data. These interviews with a breadth of industry participants involve informal consideration of perceptions concerning industry champions, economies of scale and market power, government policy, industry structure, management conduct, innovation, value chain development, information flows, firm strategy, market strategy, market research and branding. The big questions to each participant are “What is your story?” and “What is the evidence for your story?” (AREN 2006d).

Participants to be interviewed include farmers and orchardists, manufacturers and marketers, executives, board members, consultants and government officials. The research is built around a common framework for analysis, but recognises that individuals’ knowledge reflect particular periods of history and particular knowledge about their core set of activities and varying degrees of knowledge about the industry as a whole.

When the interviews and analysis are complete the results will provide a platform for formal consideration of specific hypotheses and issues using both quantitative and qualitative methods

## **5. Conclusions**

This research is the first comprehensive analysis of New Zealand agribusiness since Hussey, D (1990). It draws on a breadth of research traditions without abandoning the existing canon of work. It will provide robust background material to underpin related research and facilitate education programmes and policy analysis. One stream of work will involve further analysis of venison, kiwifruit, dairy and the sheep meat sectors. Another stream of work will explore other agribusiness activity including apples, beef, seeds and wool.

## **Acknowledgment**

The authors would like to acknowledge the financial support of AGMARDT.

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