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STRATEGIC PLANNING AND ISSUE IDENTIFICATION

*An Exploratory Study of
New Zealand Agribusiness Firms*

**A thesis presented in partial fulfillment
of the requirements for the degree of
Masters of Agricultural Economics**

Massey University

Palmerston North, New Zealand

LUKMAN MOHAMMAD BAGA

1994

O you who believe!
be careful of (your duty to) Allah,
and let every soul consider what it has sent on
for the morrow,
and be careful of (your duty to) Allah;
surely Allah is Aware of what you do

(Holy Qur'an, 59:18)

Dedicated to: Dewi and Azka

ABSTRACT

Economic liberalization which occurred in New Zealand after the mid-1980s has increased competition and accelerated the pace of change in the agribusiness environment. Agribusiness firms in New Zealand, over the last decade, have experienced the impact of environmental changes. One of the managerial skills that agribusiness managers needs in an increasingly turbulent environment is strategic planning, which include the capability to identify and monitor strategic issues of most concern to the firm's livelihood.

This study reports on an exploratory survey of 57 agribusiness firms throughout New Zealand, over the period October 1992 - February 1993. This study explores the extent of use of formal strategic planning processes by agribusiness firms in New Zealand, and examines whether the use of strategic planning has a positive effect on a firm's performance during the economic liberalization period. This study also identifies strategic issues regarded as important by the sample agribusiness decision-makers. In addition, this study investigates the possibility that the relative concern for these strategic issues may vary across important firm characteristics.

The results of the survey reveal that strategic planning exists in the majority of the firms studied. Evidence indicated that the economic reforms could have been the impetus behind the rush to develop formal strategic planning after 1984. The comparison of firms which with and without strategic planning suggested that strategic planning is beneficial for management. This study also indicated that firm which use strategic planning has a positive correlation with growth of sales, growth of after-tax profit and growth of productivity, during deregulation times.

With respect to strategic issue identification, the results generally indicate that respondents are concerned with strategic issues. Firm internal issues are generally of greater importance relative to the general business and industrial competitive issues presented. In particular, the firms in the sample are quite concerned about the demand for their product, farm income, value

of New Zealand dollar, raw material access, change in rivals' market share, productivity, and management effectiveness. Results also suggest that level of concern for specific strategic issues vary across various structural dimensions of the firm like type of legal form, product lines, size of firm, and firm's geographical location, and degree of planning formalization.

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Chapter 1

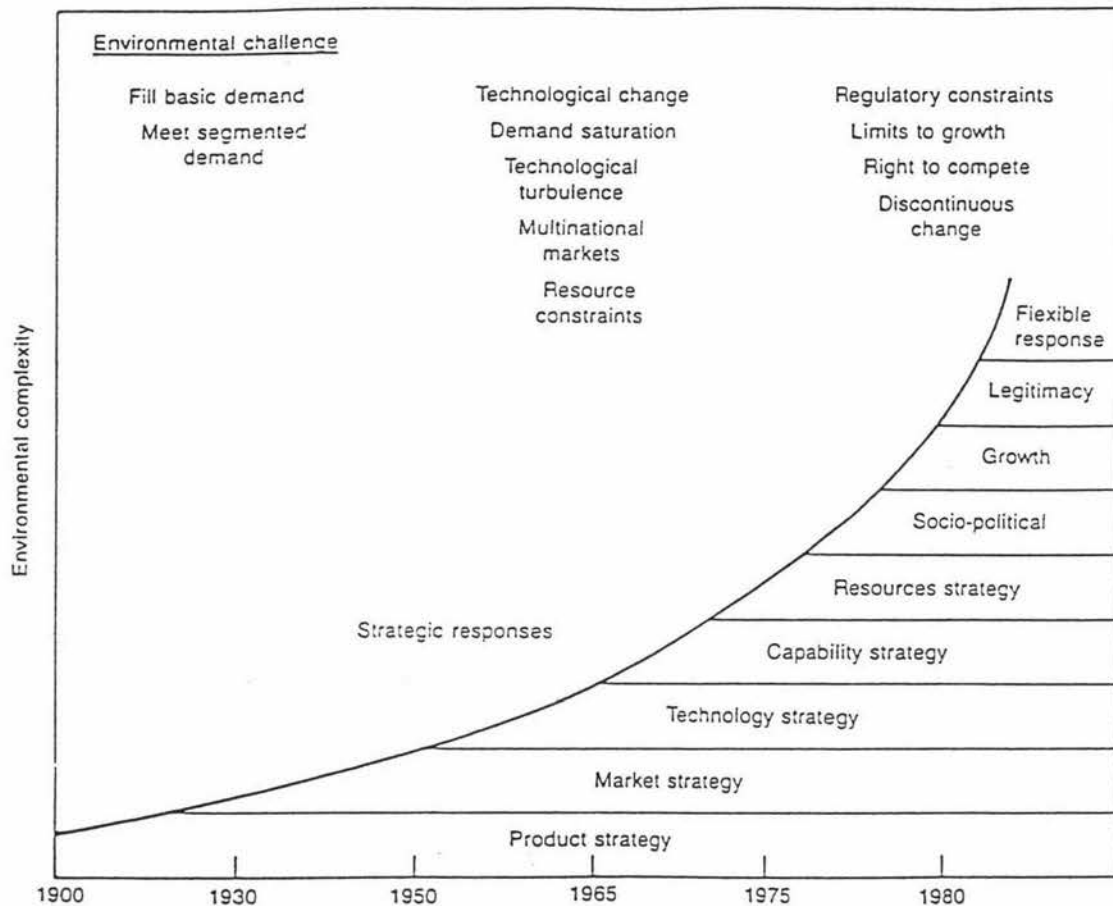
INTRODUCTION

1.1. Environmental Uncertainties and Strategic Planning

The existence of an uncertain economic environment in agriculture is widely accepted (Havlicek 1986). Environmental adversity confronts agribusiness organizations and decision-makers with a basic survival issue of how to learn to deal effectively with these changed environments. There is, therefore, a growing need for managers to be increasingly aware of the impact of an environmental change on the business. How organizations (e.g. agribusiness firms) cope with environmental uncertainties and changes will probably be the most important determinant of their future success or failure (Camillus and Datta, 1991). As shown in Figure 1.1, the rapid change of business environment in this century requires more strategy as progressively more areas become problems (Ansoff, 1979). Incorrect strategy within uncertain environments can lead firms to serious difficulties - no matter how internally efficient a company may be (Steiner, 1979).

Figure 1.1.

Increasing Challenges Require Additional Strategies



Source : Ansoff H I. 1979. *The Changing Shape of the Strategic Problem*, in *Strategic Management: A New View of Business Planning and Policy*, ed. Schendel D and C W Hofer, p.30.

Strategic management is recognized as a set of managerial decisions and actions that determine the long-run performance of a corporation. Strategic management emphasizes the monitoring and evaluating of environmental opportunities and constraints in light of the corporation's strengths and weaknesses.

The New Zealand government has implemented various economic liberalization measures since mid-1984. Economic liberalization measures adopted by the New Zealand government beginning in mid-1984 included reforms related to foreign exchange and other financial controls, taxes, import licenses, tariffs, export subsidies, supplemental minimum prices, procedures for labour negotiations, and other economic policies (see Appendix 1). These economic reforms have transformed the New Zealand economy into one of the least regulated economies in the world (Dobson and Rae, 1990).

Prior to deregulation, New Zealand agribusiness environment could be characterised as stable due to a high protection from overseas competition and extensive use of regulation in many domestic markets. Deregulation substantially increased the dynamism of the markets confronting New Zealand managers. Many agribusiness firms in New Zealand, over the last decade, have felt the impact of these unprecedented economic reforms. Relative employment changes were apparent from 1984 to 1988, as employment in agriculture, agricultural services, and processing fell both in numbers and in market share of total employment (Savage, 1990). Many agribusiness firms considered the reduction in the profitability of exports caused by the appreciation of the New Zealand dollar, the increased cost of working capital, reduced subsidies to farmer customers, and reduced purchasing power of customers in the domestic market as the most unfavourable changes that affected their profits (Dobson and Rae, 1990). Storey (1992), for example, reported that the volume of lamb exported by New Zealand fell by 28% between 1984 and 1991 due to the drastic decreasing of sheep numbers. This

was caused by decreasing farm investments and at the same time New Zealand farmers spent less money on farm inputs.

The environmental changes required New Zealand managers to alter their orientation. But, it has been claimed that New Zealand managers have been slow to adjust to the changed environment (Campbell et al., 1993). The World Competitiveness Report, in fact, ranked the standard of New Zealand managers in the bottom quartile of the OECD countries (see Adam, 1992). The geographical isolation of New Zealand, and the relatively small size of the industrial sector may create a lag in the adoption of what would normally be regarded as standard practice, like strategic planning processes, in European and American companies (Wright, 1982).

It has been proposed by Campbell et al. (1993), that New Zealand agribusiness decision-makers, within the deregulated economy, should be more likely to be pro-active leaders of change, to adopt a strategic orientation, to establish goals of adaptability rather than merely efficiency, and to be risk taking rather than risk averse (see Appendix 2). Decision-makers should be also more sensitive to change, have wide scanning, and a concern for the strategic and long-term view instead of short-time planning. In other words, decision-makers should be concerned with conducting strategic planning which forces them to change their perception and orientation toward broader environments.

A general consensus exists in strategic management literature that strategic planning is the most important subset within entirely strategic management process. Within the uncertain environment, many experts

believed that conducting strategic planning would lead decision-makers to respond to the changes and to make adjustment in terms of getting advantages which were caused by the changes (Eppink, 1978; Weber, 1984). Participating in strategic planning processes would allow decision-makers to move up to the high level of management strategic issues with which they should be concerned (Steiner, 1979).

A long series of empirical studies on planning-performance relationship within various industries has provided mixed support for the value of formal strategic planning (Rhyne, 1986). For instance, the value of planning processes has been questioned in studies by Leontinades and Tezel (1980), and Fredickson and Mitchell (1984). On the other hand, many studies have documented the potential payoffs associated with the adoption of strategic planning (for instances: Thune and House (1970); Karger and Malik (1975); and Pearce et al. (1987). However, there has been little reported on the existence of strategic planning by agribusiness firms. Therefore, a question addressed in this study is :

"Has strategic planning been widely practised by New Zealand agribusiness firms over the economic liberalisation ?" If so, "What are the results ?"

Since the uniqueness of agribusiness natures has been discussed (Downey and Erickson, 1987; Sonka and Hudson, 1989), strategic management in agribusiness needs to be developed related to its perspective. Agribusiness researchers have agreed that strategic management area is the

strongest potential usefulness of research in agribusiness management (Dobson and Akridge, 1989). Westgren et al. (1988) argued that more agribusiness research related to the area of strategic management and planning is needed that is focused on the needs of agribusiness managers.

1.2. Strategic Issues within Strategic Planning Processes

The willingness of responding to the changed environment through effective strategic planning, in fact, is dependent partly on the ability of decision makers to identify and interpret strategic issues involved within the changes (Dutton and Duncan, 1987). The more clear the strategic issue identification by decision-makers, the more effective the conducting of strategic planning. Understandably, the strategic issue identification process becomes a critical element of strategic decision-making (Dutton et al., 1983; Mintzberg et al., 1976), and should be the first step in the whole strategic planning process (King, 1982).

Since agribusiness management needs to be developed in its perspective, it should be fostered by putting more attention to both research and educational programmes of agribusinesses. There is, therefore, a need to understand the perceptions of actual agribusiness decision-makers relative to strategic issues and their importance. The identification of strategic issues regarded as important by agribusiness decision-makers will be a key step in the design of research and educational activities aimed at improving the

strategic management and planning processes within agribusiness (Westgren et al., 1988). Policy makers and scholars can provide valuable assistance in gaining information and developing decision procedures to better cope with the issues. Furthermore, the identification of strategic issues by managers may assist researchers and managers in recognizing critical gaps in their perceptions of the environment.

Westgren et al. (1988) have identified strategic issues which were considered as important by a small sample of agribusiness decision-makers in California. Their results suggested the importance of strategic management, strategic planning and strategic issue identification to agricultural managers. In particular, their study documented key differences of concern for various strategic issues based on structural characteristics of the firm. No studies as yet have been done related to strategic issue identification among agribusiness firms in New Zealand. Therefore, another research question addressed in this study is:

"To what issues have New Zealand agribusiness decision-makers been concerned, and does the concern vary across different firm characteristics ?"

The second part of this study is merely an exploration of what strategic issues have been a concern of agribusiness decision-makers. Therefore, the results can give important information for agribusiness managers, researchers and academists of agribusiness management, and even for policy-makers.

1.3. The Objectives of the Study

In terms of discharging the research questions above, four objectives have been established in this study. Two objectives focused on exploring the extent of the use strategic planning by New Zealand agribusiness firms, and the other two objectives focused on exploring important strategic issues perceived by agribusiness decision-makers. The explicit objectives of this study are as follows;

- (1) to determine the extent of the use of formal strategic planning process by New Zealand agribusiness firms before and during the implementation of the economic reforms;
- (2) to investigate the effect of strategic planning on agribusiness performance during the implementation of economic reforms;
- (3) to determine if specific strategic issues are regarded as important and if priority concerns can be defined by a sample of agribusiness decision makers in New Zealand;
- (4) to investigate the possibility that the relative concern for strategic issues may vary across important firm characteristics.

The fulfilment of these objectives can be a key step in the design of research and educational programmes aimed at improving the strategic management processes within agribusiness management.

1.4. Organization of the Thesis

This thesis is organized into six chapters. The next chapter reviews the literature in the field of strategic planning and agribusiness management. It discusses an overview of prior study regarding the role of strategic planning on firm performances, together with the identification of strategic issues, which currently become more important to be done by decision-makers. The uniqueness of agribusiness and why it needs to be developed by fostering strategic management processes is also discussed at the end of this chapter.

Chapter 3 describes the methodology used in the study, including the study design, participants, survey instruments, and the procedures of analysing data.

Chapter 4 presents the result of the analysis data with respect to the existence of strategic planning in New Zealand agribusiness and its role on firms managerial performance.

Chapter 5 displays the result of exploration of important strategic issues perceived by agribusiness decision-makers. This chapter discusses the overall prioritization of strategic issues, and then, its relative importance across several firm characteristics.

Finally, Chapter 6 collates the study findings and the implications and gives recommendations for further study.

Chapter 2

LITERATURE REVIEW

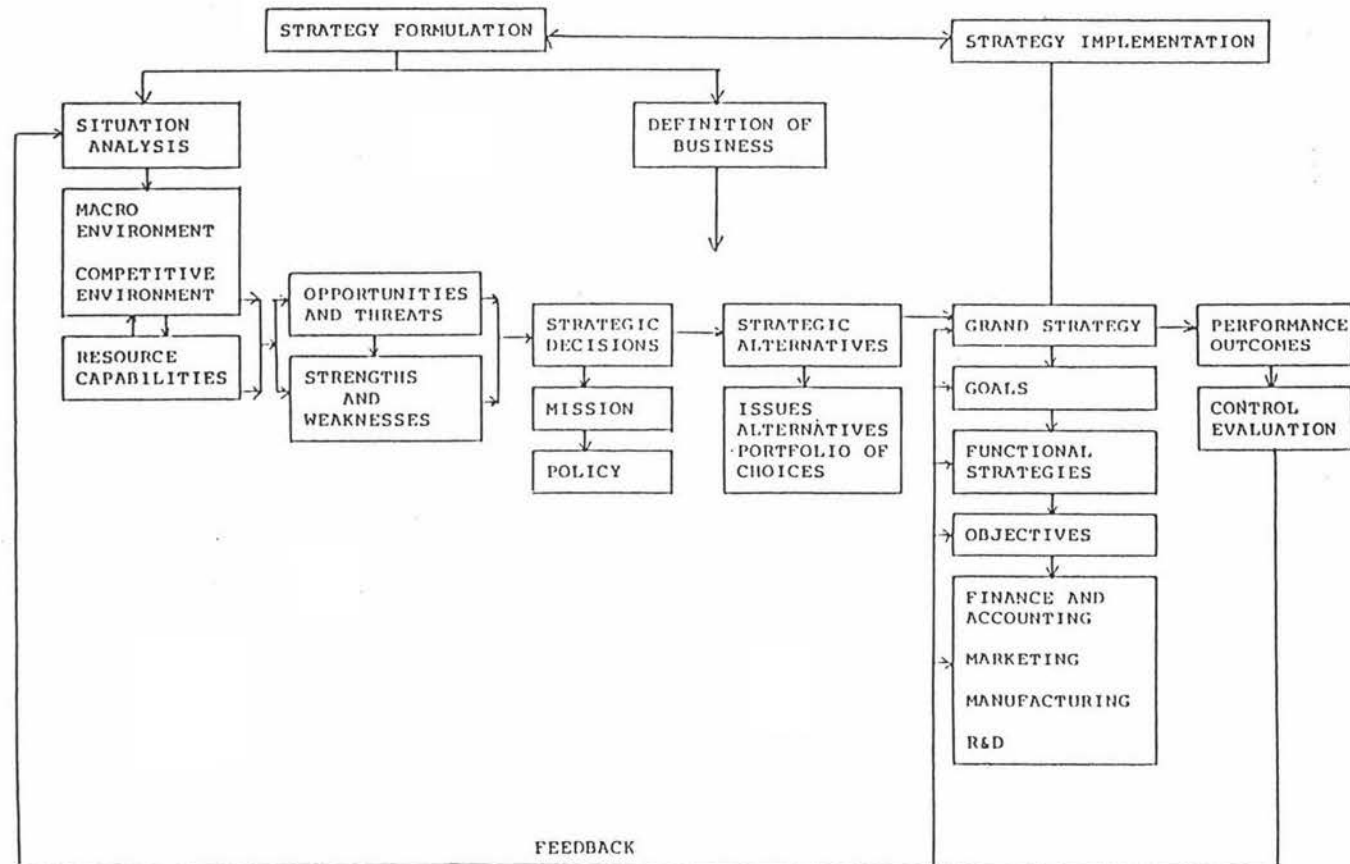
2.1. Definition of Strategic Planning

A strategic planning process can be viewed as a set of organizational tasks, definitions and procedures for ensuring that pertinent information is obtained, forecasts are made, and strategic choices are addressed and evaluated in a consistent and timely fashion (Camillus and Datta, 1991). It deals primarily with the effort directed to the development of a purpose, the design of strategies and implementation policies by which organizational goals and objectives can be accomplished (Camillus, 1986). It is designed to help decision-makers think and act strategically (Bryson and Einsweiler, 1988).

Formal strategic planning is an explicit and ongoing organizational process (Armstrong, 1982) with several components, including establishment of goals and generation and evaluation of strategies. The model presented in Figure 2.1 is an attempt to synthesize and integrate the emerging elements of the theory of strategic planning (Melcher and Kerzner, 1988, p.37).

Figure 2.1.

A Theory of Strategic Management Planning



Source : Melcher B H and H Kerzner. 1988. Strategic Planning: Development and Implementation, p.37.

As a formal process, strategic planning introduces into an organization a new set of decision-making forces and tools (Steiner, 1979) that:

- (1) simulates the future;
- (2) applies the systems approach;
- (3) forces the setting of objectives;
- (4) reveals and clarifies future opportunities and threats;
- (5) establishes a framework for decision-making throughout a company;
- (6) becomes a basis for other management functions;
- (7) measures performance; and
- (8) develops strategic issues.

Management teams can use strategic planning as a structured learning process to generate strategic change (Grundy and King, 1992). Moreover, Melcher and Kerzner (1988, p.6) noted some advantages that may be gained by using strategic planning:

- (1) survival of the firm;
- (2) chance of improved profitability;
- (3) consistency of action;
- (4) vehicle for communication;
- (5) vertical feedback loop;
- (6) reduced resistance to change; and
- (7) ordered thinking process.

Various definitions of strategic planning have emerged in the literature. Melcher and Kerzner (1988), for example, simply define strategic planning as the process of formulating and implementing decisions about an organization's future direction. Bryson (1988) defines it as a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does, and why it does it. Steiner (1979, p.13-15), on the other hand, defines strategic planning broadly to cover four points of view:

- (1) as the futurity of current decisions;
- (2) as a continuous process which consists of detail strategy formulation and strategy implementation;
- (3) as a philosophy that describes a company's attitude or way of life; and
- (4) as a structure of plans that mean a set of interrelated plans.

Some authors have argued that strategic planning is different from long range planning, but, they found these terms have often been used interchangeably in the strategic management literature (Trowbridge, 1988; Bryson and Einsweiler, 1988; Markus, 1989; Rhyne, 1986). Table 2.1 summarizes the differences which have been highlighted by those authors. Rhyne (1986), for example, suggested that the fundamental distinction between the two planning types is based on "whether the domain of the organization was considered given - long range planning; or whether it was open to question - strategic planning". Trowbridge (1988) describes a company like a ship on the sea which needs several type of planning: Long Range Planning is needed to scan the environment for potential hazards; and Strategic Planning is needed to

Table 2.1.

The Comparison Between Strategic Planning with Long-Range Planning

<i>Items</i>	<i>Strategic Planning</i>	<i>Long Range Planning</i>
Main questions ¹⁾ involved	* What are we * Where are we going	* How we will operate long term * What practice will we use
Mission, purpose, and orientation	2) To navigate the progress of the company 3) To identify and resolve an important issues by considering the implication of possible future condition regarding to present decision and actions 4) To identify new areas which skills be applied and threats to current operations may be thwarted 1) To build an anticipate future trends, data and assumption	To scan the environment for potential hazards To specify goals and objectives and translate them into budgets and programmes To map out a sequence of decisions and actions necessary to reach To identify problems, opportunities and turning points to maximize results of current operation over a longer period To make a projection of the present or an extrapolation from the past
Assumption	3 & 4) Business environment is unstable. Current trends will discontinue and variety of surprises will occur	Business environment is stable. Current trends will continue
Represent of	3) Qualitative shifts in direction 1) A clear and precise overall company focus or direction 5) Finance & marketing strategies, demographic analysis, 5 year organisational development programmes, and scenario analysis of strategic issues	Linear extrapolations of the present The consolidation and compromises of subunit plans Five years plans which more useally cash, profit and capital expansion requirements
Approach	1) Top down planning	Tends to be bottom up planning
Related to short-range planning	1) Have no any relation with short-range planning	Merely extends short-range planning
Drive factors	1) It tends to be driven by ideas	It is fundamentally based on numerical assumptions
Degree of reality	1) It forces some degree of realism	It is generally danger optimistic
Flexibility	1) Flexible	Inflexible

Note of the Authors :

1. Markus (1989, pp.7-8); 2. Trowbridge (1988); 3. Bryson and Einsweiler (1988, pp.4);
4. Rhyne L R (1986); 5. Wright D (1982)

navigate the progress of the company. A company needs both of these planning together with corporate planning. Corporate Planning is needed by the company to determine the size, scope and resources required to keep a company floating. However, Steiner uses synonymously all of these terms by arguing:

"...I abandoned the exclusive use of the term long-range planning to describe the system. So have most other writers in the field. Not all would agree with me, however, when I use synonymously comprehensive corporate planning, comprehensive managerial planning, total overall planning, long-range planning, formal planning, comprehensive integrated planning, corporate planning, strategic planning, and other combination of these words. More and more, however, formal strategic planning is used to describe what is usually meant when the above phrases are employed" (Steiner, 1979, p.13).

2.2. Prior Study of Planning-Performance Relationship

The first empirical test of strategic planning-performance was conducted by Thune and House (1970). They found that companies with formal planning outperformed companies with informal planning. The outcome of this study confirmed many firms' hope of the usefulness of strategic planning. Numerous studies, then, emerged which employed diverse methodologies and measures. These studies shared a common interest in exploring the financial consequences of the basic tools, techniques, and activities of formal strategic planning. Table 2.2 presents 32 planning-performance studies since 1970 which are sorted by published years. Many of these studies have been

Table 2.2.
Description of Prior Studies Concerning for Planning-Performance Relationship

<i>Published Study by Year</i>	<i>Sample type</i>	<i>Sample size</i>	<i>Categorization on planning</i>	<i>Performance measures</i>	<i>Findings</i>
1970 Thune and House	Industrial Firms	36	Formal versus informal planners	Sales, stock prices, EPS, ROE, ROA (5-10 years)	Formal planners' performance superior. Finding are stronger for industry comparisons
1970 Ansof et al.	US manufacturing firms	62	High and low level planners	21 financial measures (20 years)	High-level planners superior
1970 Gershefski	Cross-section of firms	323	Before and after strategic planning was introduced	Growth of sales (ten years)	Companies with formal strategic planning outperformed companies with little planning
1972 Herold	Industrial firms	10	Strategy, goals, action programs for three years	Pretax profit, R&D expenditures, (seven years)	Formal planners outperformed informal planners
1974 Fulmer and Rue	US firms in durable, non durable and services industries	386	Planners and non-planners	Sales and earning growth, return on sales, rate of return, (three years)	No difference between groups
1975 Karger and Malik	Machinery industry	13	Planners and non-planners	13 financial measures (ten years)	Planners outperformed non-planners on almost all measures
1975 Grinyer and Norbum	Cross-section of British firms	21	Planners and non-planners	ROA (five years)	No significant different between planners and non-planners
1978 Burt	Australian retailing firms	14	Low, moderate, and high quality of planning	Growth in profitability, ROI, and changes in ROI (three years)	The level of planning quality significantly correlated with all performance measures
1978 Kallman and Shapiro	Motor carriers	298	Five levels of commitment and sophistication of planning programmes	Revenue, profitability, return on capital and equity (ten years)	No significant benefit from planning

Table 2.2. Continued

<i>Published Study by Year</i>		<i>Sample type</i>	<i>Sample size</i>	<i>Categorization on planning</i>	<i>Performance measures</i>	<i>Findings</i>
1979	Klein	Commercial bank	59	High, moderate and low level of planning	Deposit growth, profitability (five years)	No effect of level planning for any size of category
1979	Wood and LaForge	United State banks	41	Comprehensive planners, partial planners, non-planners	Growth in net income and ROI (five years)	Comprehensive planners superior to non-planners. No relationship between comprehensive and partial planners
1980	Kudla	Manufacturing firms plus others	129	Planners and non-planners	Stock returns (15 years)	No significant effect of planning
1980	Leontiades and Tezel	Cross-section of firms	61	CEO rating of planning formalization and importance	ROA, equity, price, sales and EPS growth, earnings ratio (seven years)	No significant difference between planners and non-planners
1980	Van de Ven	Day care programmes	14	Programme planners and conventional planners	Efficiency, acceptance, service quality, and financial dependence (three years)	Planners superior
1981	Sapp and Seiler	Banking institutions	302	Non-planners, beginning, intermediate, and sophisticated planners	Deposit growth rate, ROE, capital to risk assets ratio, interest as a percentage of loans (one year)	Planners superior 3 of 4 measures
1981	Robinson, Voziki, and Pearce	Small firms	51	Not explicitly defined	Sales growth, profitability, sales per employee, employment growth (three years)	Planning found to enhance effectiveness
1981	Lindsay et al.	US firms in durable, non-durable and services industries	144	Impoverished, programmed, and progressive planners	Sales and earning growth, net margins, ROA (five years)	No consistent relationship between planning and performance

Table 2.2. Continued

Published Study by Year		Sample type	Sampl size	Categorization on planning	Performance measures	Findings
1982	Robinson	Small firms that had received strategic planning consultation	101	Whether engaging consultation in strategic planning	Profit before tax, and some measurement on organisational effectiveness	Engaging consultation of strategic planning outperformed on most item measures
1983	Robinson and Pearce	Small banks	85	Formal versus non-formal planners	Profit margin, loan growth, ROA, ROE (three years)	No Relationship
1984	Welch	New York Stock Exchange firms	49	Strategic versus non-strategic planners	Price, earnings multiple (five years)	Strategic planners superior
1984	Fredrickson and Mitchell	Forest products firms	27	Level of comprehensiveness	Sales growth, average ROA (five years)	Negative relationship between comprehensiveness and performance
1984	Fredrickson	Paint and coating manufactures	38	Level of comprehensiveness	Sales growth, average ROA (five years)	Positive relationship between comprehensiveness and ROA, no relationship with sales growth
1984	Robinson et al.	Small business of retails and services	51	Intencity of strategic planning in different stage of development	Sales, ROS, Employee Sales/employee (one year)	Planning has a positive impact on small firm performance that was vary across firm's stage development
1985	Ackelsberg and Arlow	Small business	124	Planners and non-planners	Sales and earnings (three years)	Planners superior
1985	Whitehead and Gup	Banking institutions	212	Planners and non-planners	ROA, ROE, deposit growth	No difference between groups
1986	Rhyne	Cross-section of firms	89	Budgeting, annual planning, long range planning, strategic planning	Return to investors, return on equity (ten years)	Planners superior

Table 2.2. Continued

<i>Published Study by Year</i>	<i>Sample type</i>	<i>Sample size</i>	<i>Categorization on planning</i>	<i>Performance measures</i>	<i>Findings</i>	
1986	Bracker and Pearson	Small firms in the dry cleaning industry	188	Unstructured plans, intuitive plans, structured operational plans, structured strategic plans	Growth of sales and profitability, ratio of costs to revenue (five years)	Planners superiors on two measures
1987	Pearce et al.	Manufacturing firms	97	Planning formalization	ROA, return on sales, sales growth (five years)	Planner superior
1988	Odom and Boxx	Churches	175	Planning sophistication	Growth in attendance, offering, total addition, baptism (one year)	Planners superior 3 of 4 measures
1988	Bracker et al.	Small firms in the electric industry	217	Unstructured plans, intuitive plans, structured operational plans, structured strategic plans	Growth in revenue, net income, present value, and CEO compensation (five years)	Strategic planners significantly better on revenue, present value, and CEO compensation measures
1989	Shrader et al.	US manufacturing, retail retail and services firms	97	Strategic planning and operational planning	Sales, employee, profit (three years)	Operational planning was positively correlated with performance for the most part, while strategic planning had less significant relationship to performance
1992	Powell	Two industries represented planning disseminated	113	Formal strategic planning in two industries which perfectly or imperfectly disseminated	Profitability (three years)	Planning-performance are higher correlated in imperfectly planning disseminated industry

collected from: *Strategic Management Journal*, *Long Range Planning*, and *Academy of Management Journal*.

Most of these planning-performance studies focused on manufacturing firms, though, there were some studies concerned with other industries such as: service and retail firms (Burt, 1978; Shrader et al. 1989); financial institutions (Klein, 1979; Wood and LaForge, 1979; Sapp and Seiler, 1981; Robinson and Pearce, 1983; Whitehead and Gup, 1985); and even non-profit organizations (Odom and Boxx, 1988). However, there was no study found which focused on the planning-performance relationship in agribusiness firms.

These studies, in general, examined the effect of planning on a firm's financial performance. Performance measures were diverse from only single variable up to more than 20 variables, such as: sales, pre-tax profit, stock prices, return on investment, return on sales, profitability, growth in net income or in sales, and so on. The sample sizes varied from 10 sample firms to more than 380 firms. Categorization of planning group which commonly used in these studies are: planners group versus non planners; formal planners and informal planners; before and after participating strategic planning; or separating the samples into more than two groups based on the level of planning comprehensiveness, quality of planning or planning formalization. The terms strategic planning, long-range planning and corporate planning were used interchangeably within these studies. However, the authors' motivation in conducting these studies was generally similar: examining the role of planning on a firm's performance in terms of dealing with the turbulent business environment. Accordingly, Steiner's view of using synonymously the

terms of corporate, strategy and long-range planning is applicable in reviewing these studies.

Most of these planning-performance studies reported a positive relationship between planning and company performance. Of the 32 studies, 22 studies reported a positive relationship between firms which conducted strategic planning and performance. Interestingly, some studies investigated the role of strategic planning for small business in various industry (Ackelsberg and Arlow, 1985; Robison et al., 1981, 1984; Robinson, 1982; Robinson and Pearce, 1983; Bracker and Pearson, 1986; and Bracker et al., 1988), and most of these studies reported that strategic planning was also beneficial for small business management. However, since a large number of studies reported non-significant relationships between planning and performance (11 studies), it is difficult to conclude that planning has a positive relation to a firm's performance.

These studies have also been reviewed extensively elsewhere (Shrader et al, 1984; Greenley, 1986; Armstrong, 1982, 1991; Pearce, Freeman and Robinson, 1987; Boyd, 1991). Using meta-analysis review, they reviewed a body of empirical work and estimated a weighted average correlation between variables. The reviewers used summary data available in published papers and did not require access to the original data. From these reviews emerged the unanimous conclusion that the studies were confusing, contradictory, and impossible to reconcile (Powel, 1992).

Greenley (1984), for example, reported that published research was far from conclusive in establishing a relationship between planning and company

performance. Unfortunately, this review covered a limited number of studies (five positive relationship, and four non-significant relationship). As a counter response to Greenley's conclusion, Armstrong (1991) argued that planning was statistically significantly useful for companies. In the latest updated review, Armstrong counted 20 positive relationships, five non-significant relationships and three negative relationships, and found a consistent conclusion with his previous reviews (Armstrong, 1982, 1991).

Shrader et al. (1984) concluded their review by stating that there was no systematic relationship between long-range planning and organizational performance. This review counted 20 positive relationships, 11 nonsignificant relationships, and no negative relationships. Although these counting exercises seemed to support the presumption of a positive planning-performance relationship, the reviewers rejected this conclusion because of methodological problems. In contrast, Boyd (1991) calculated 105 evaluations of planning effects on performance, broken down from 21 selected studies and found that the overall effect of planning on firm performance was very weak. However, Boyd strongly suggested that strategic planning should be continuously emphasized because the study also found that the existing research was subject to a great deal of measurement error, thus underestimating the benefits of planning.

2.3. Inhibiting Factors to Effective Strategic Planning

Although strategic planning has been increasingly practised throughout the business world, there are many companies not benefiting from their planning systems (Steiner and Schollhammer, 1975; Marx, 1991). Consequently, a deepening scepticism of the need for strategic planning has arisen among companies (Grundy and King, 1992; Fahey, 1989). It has also become fashionable to attack formal strategic planning as a source of corporate competitive ills (Gray, 1986; Hayes, 1985).

Explanations were given by strategic planning experts in terms of getting clear understanding what is currently happening with strategic planning. They argued that strategic planning has been used inappropriately. Weiner (1990) and Marx (1991), for example, reported that strategic planning often lacked essential business intelligence. Strategic planning is not seen as an essential part of the strategic change process by decision-makers (Grundy and King, 1992).

As reported by Launenstein (1986) hundreds of companies waste significant amounts of management time and effort to prepare five-years plans which were filed away and forgotten. Daniel (1992) reported two impediments to effective strategic planning: Firstly management has lost sight of the overall planning process; too much time was spent on strategic planning "tools" (e.g. portfolio analysis, value chain, and so on); and too little time was devoted to goal development, creative strategy setting, and plan implementation.

Secondly, there was ineffective chief executive officer (CEO) involvement in strategic plan development through either too little involvement, which led to little commitment, or too much involvement, which led to the building of the CEO's plan, not the organization's.

Some other reasons of the failed strategic planning were proposed by Steiner and Schollhammer (1975):

- (1) planning systems may not be designed correctly for the company;
- (2) the planning system may be blamed for what actually is poor management;
- (3) a company may fall into one or more of the major pitfalls of planning system.

With respect to the last point, they examined 50 possible pitfalls of the planning system and found the primary major pitfall of planning was *"top management assumes that it can delegate the planning function to a planner"*, and the second; *"top management becomes so engrossed in current problems that it spends insufficient time on long range planning"*.

Marx (1991) reported numerous bureaucratic obstacles of strategic planning within an organization, and found that the major root cause of the obstacles was the lack of top management's commitment to the planning process. In many cases (for instance in Langley, 1988), top management agreed that a corporation needs strategic planning, but did not want to involve themselves in the process due to their time limitations. They let planner staffs or firm's consultants conducted the planning. Consequently, the planning

process will not transform the top management to become able to identify strategic issues and to take strategic decisions.

In short, inhibiting factors to effective strategic planning can be classified into two factors: (1) the poor quality of planning; and (2) the poor quality of the man behind the planning. Most strategic planning authors, however, condemn the last point as an attempt to depreciate the importance of strategic planning.

2.4. Top Management's Role toward Effective Strategic Planning

Top management's time, involvement and commitment in the planning process is essential in conducting effective strategic planning, and could not be delegated to other persons (Drucker, 1974; Steiner and Schollhammer, 1975; Marx, 1992). Drucker (1974) asserts that the primary task of top management is as the corporate thinker to set objectives, to develop strategies and plans, and to make today's decision for tomorrow's results. Drucker believed that only top management can see clearly the entire business to balance objectives and the needs of today against the needs of tomorrow, and have the ability to allocate resources to achieve results. Therefore, it should not be debated that strategic planning is top management's job, because it is a way of thinking about a business and how to run it. It has been observed

within the sample of most effective companies that the strategic planning process, in fact, is no longer an added managerial duty (Gray, 1986).

Strategic planning should start at the top of the organization (Anthony, 1985; Hussey, 1984). By using this top-down approach, top management can have a great contribution in developing attitudes, processes and perspectives which make planning possible (Robinson, 1986). Their involvement and commitment will enhance not only the analytical but also the behavioural aspects on which strategic planning stands or falls (Hussey, 1984; Langley, 1991). Without establishing these two pillars, corporate strategic planning will be meaningless for organizations, and perhaps even dangerous.

However, in view of the fact that top management has other essential jobs, its involvement in strategic planning process should be at key points only (Pennington, 1972; Steiner, 1979). They need help from "planners" to bring them data and information to make plans. Therefore, good planners should not plan, but enable top managers to plan. Planners do not predict the future but help top managers understand it in order to make key decisions (Robinson, 1986; Mintzberg in Llyod, 1992).

As a key person, top management is needed to identify important strategic issues. The identification of strategic issues is a key step and should be included within strategic planning process (Bryson and Roering, 1988). There has been discussion in the strategic planning field about the decision-makers' need for a better understanding of how strategic issue identification can lead to effective analysis and responses.

2.5. Strategic Issue Identification in Strategic Planning

Strategic issue identification has been suggested as the first step in the whole planning process and it should be undertaken only by top managers (King, 1982). Reported evidence indicates that some organizations have gained substantial competitive advantage due to the ability of the firm to identify strategic issues early enough (Camillus and Data, 1991). Being able to identify and recognize the significance of key strategic issues enables organizations to take prompt actions that could make them leaders in their field.

Various definitions of a strategic issue have also emerged in the current literature. King (1982) defines strategic issues as those which are potentially important to the firm's overall performance, are controversial in that individuals could have differing assessments of the impact of the issues, and imply that pursuit of differing strategies should be considered by the firm. Dutton and Duncan (1987), on the other hand, describe strategic issues as those developments or events which have not yet achieved the status of decision event. Ansoff (1984) defines a strategic issue as a forthcoming development that is likely to have major impact on the firm's ability to achieve its objectives.

Alternative approaches have been suggested to better understand and use identification of strategic issues. King (1982) revealed four ways to deal with strategic issues in an organization. First, strategic issues can simply be resolved by an individual or group in authority or a recognized expert in the

area. The second way to deal with a strategic issue is to formally model it. For instance, a formal predictive model could be developed to predict the likelihood of a major change in industry pricing strategy. The third way to resolve a strategic issue is to use an "issue staff study". This method involves providing the issue to a planning staff which collects data and then conducts analysis to resolve the issue. The fourth approach to resolving a strategic issue is through the use of strategic issue analysis (see Appendix 3). Other approaches that surfaced in the literature include : strategic issue management (Ansoff, 1980), development of strategic data bases (King and Cleland, 1977), strategic issue diagnosis (Dutton and Duncan, 1987), and integrative planning system (Camillus and Data, 1991).

Westgren et al. (1988) argued that strategic issue identification is of particular importance for agricultural economists. They presented two primary reasons for their assertion. The first reason pertains to agricultural economists' long tradition of scanning the agricultural environment and suggesting issues for consideration to agricultural decision-makers. The second reason relates to the fragmented nature of a number of industries within the agribusiness sector which suggests the distinctive nature of the sector. It is, therefore, possible the issues faced by a number of industries within the agribusiness sector may be different from those of other industries.

Daniel (1992) proposed three areas where strategic issues should be evaluated: the environmental analysis, competitor analysis, and internal firm analysis. In addition Dutton and Duncan (1987) revealed that assessment of the importance of strategic issues is a key factor in the process of strategic

issue identification. The identification of strategic issues seems to be a key element in the ability of managers to practice strategic thinking (Porter 1987).

2.6. Strategic Management and Planning in Agribusiness

Agribusiness was initially defined as: *"sum total of all operations involved in the manufacture and distribution of farm supplies; production operation on the farm; and the storage, processing and distribution of farm commodities and items made from them"* (Davis and Goldberg, 1957). Today, the definition of agribusiness involves a broader view that encompasses the total food production and distribution system (Downey and Erickson, 1987, p.7. See also the figure in Appendix 4). Over 950 occupations and 1900 selected industries have been identified that require or utilize agribusiness competencies (USDA, 1974).

Agribusiness world has always been susceptible to changes with a large potential effect (Havlicek, 1986). French (1989) summarized that the impact of a changing environment on agribusiness has changed the sector to become: more complicated, more concentrated, more competent, more competitive, and more compromised. Furthermore, Hudson (1990) describes a number of changes in the food and agribusiness sector that suggest a change in its perspective on competitiveness. The traditional perspective of agribusiness competitiveness, that focuses on the production sector, has been changed into an emerging perspective, that focuses on the consumers (see

Appendix 5). These changes lead agribusiness managers to strategic management and planning.

In accordance with the need of enhancing strategic management for agribusiness, many agricultural economists have realized that the agribusiness complex is unique within the business world. Beierlein et al. (1986), reported that agribusiness is uniquely influenced by weather, disease, technological changes, changes in government policies, institutional factors, and the perishable nature of its products. Downey and Erickson (1987) also claimed a range of distinctive nature of agribusinesses, which include:

- (1) the enormous number and variety of agribusinesses;
- (2) the diversity in agribusinesses' size;
- (3) the close relationship between agribusinesses and raw product suppliers;
- (4) the relatively free market in which many agribusinesses compete;
- (5) the conservative natures and family and community orientation of agribusinesses;
- (6) the seasonality in many agribusiness activities;
- (7) the vagaries associated with nature; and
- (8) the direct impact of governmental policies and programmes on agribusiness.

Furthermore, Sonka and Hudson (1989) listed five factors affecting food and agribusiness sector:

- (1) unique cultural, institutional and political aspects;
- (2) biological uncertainties faced by production agriculture;

- (3) alternative goals and forms of political intervention across sub-sectors and between nations;
- (4) development of technology depends on the public sector;
- (5) differing competitive structure within and among food and agribusiness sub-sectors.

Although there are differences in emphasising the distinctive nature of agribusiness sector, these authors have agreed that the uniqueness suggest the need for the special managerial skills and knowledge, including strategic management to facilitate efficient and effective decisions. Today, the need of those specific managers becomes a critical issue. Agricultural economists have been repeatedly called to fill the needs through both educational and research activities.

In the educational area, for the two last decades, there is a growing interest among agricultural economists to prepare students for careers in agribusiness management. Many departments of agricultural economics have added specific programs with agribusiness emphasis, and others have incorporated agribusiness into the name of the department (Litzenberg et al., 1983). But, recently, it has also been recognised that study on "agricultural economics and agribusiness" are not synonymous with study on "agribusiness management". Sonka and Hudson (1989) argued that agricultural economic area is not different with agribusiness area because both of these areas use a same paradigm -- economics. Agribusiness management, on the other

hand, focuses on the decisions and actions of the managers. The debate surrounding who should teach agribusiness, that is Department of Agricultural Economics versus Business Schools, readdressed additional information pertaining to the distinctiveness of the agribusiness management (see for examples Wallace, 1989). In undertaking educational program of agribusiness management, Dobson (1989) said that:

"many agricultural economists teach what they know, and many of them don't know much about what is involved in business management, while management courses can be difficult to teach well. Accordingly, many agricultural economists have found it more convenient and safer professionally to teach applied economics and to label it agribusiness management".

One perspective of the last forty years indicates that in Departments of Agricultural Economics the ideas concerning agribusiness became less constrained as a field of marketing, policy analysis, international economics, natural resources development and use, and rural development (Wallace, 1989). However, like Litzenberg and Schneider (1986), many agricultural economists still do believe that a specific area of agribusiness management should be further identified, which focuses on the management function of agribusiness firms.

The few agribusiness management textbooks authored agricultural economists exist with an extension toward management perspectives. Table 2.3 displays 11 major subject areas of management addressed by three textbooks. The relative importance of subject areas to each text is represented by the size of circles in the table. Dots mean the topic is not described in that text.

The overall review of the textbooks shows that some management areas have been covered extensively such as introducing basic managerial principles, and financial management. However, there is a little concern for strategic management, and agribusiness management case study.

Table 2.1. Subject Areas Addressed in Agribusiness Management Textbooks

Subject Areas	AUTHORS		
	Downey & Erickson ¹⁾	Duft ²⁾	Beierlein, et al. ³⁾
Basic managerial principles	●	●	●
Financial management and control	●	●	●
Marketing management	●	.	●
Human resources management	●	●	●
Production planning & operations management	●	●	●
Ownership and control	●	.	●
Organizational design	●	.	.
Strategic management and planning	.	.	.
Business performance evaluation	●	●	●
Issue in agribusiness management	.	●	.
Agribusiness management case study	.	.	●

¹⁾ Downey W. David and Steven P. Erickson, 1987.

²⁾ Duft Kenneth D, 1979

³⁾ Beierlein James G, Kenneth C Schneeberger, and Donald D Osburn, 1986.

In strategic management literature, there is a growing interest to expand the discussion of the need for strategic management into a specific field of organization, such as: multinational corporations, small businesses, and even nor-for-profit organizations. However, there is no discussion regarding

strategic management in agribusinesses. Appendix 6 displays a very small number of case studies included in several strategic management textbooks.

In the research areas, although academic work in agribusiness has achieved a high profile during the 1980s, such as: the launching of "*Agribusiness: An International Journal*" in 1985; and establishment of chairs in agribusiness in universities in some countries, Dobson and Akridge (1989) noted that agribusiness management research is still poor and may be receiving inadequate emphasis.

After reviewing the past agribusiness management research since 1945 up to 1985, Litzenberg and Schneider (1986) come to the list of possibility barriers of research in agribusiness management, that is:

- (1) lack of funding for this specific topic;
- (2) lack of source of data needed for specific agribusiness management research;
- (3) intangible nature of agribusiness management processes which may be more difficult to be quantified and modeled;
- (4) lack of researcher expertise in agribusiness management area; and
- (5) the changing structure of agribusiness world.

Obviously, most of these barriers support what Dobson and Akridge noted above.

Agricultural economists, moreover, may have often studied the management behaviour of agribusiness in an over-simplified manner. In the marketing area, for example, agricultural economists have traditionally taken

the view that farmer marketing decisions are frequently limited to sales decisions, while production planning is excluded from the marketing process (McLeay and Zwart, 1992). Major research efforts by agricultural economists over the past two decades in US food industries indicate a lack of business management perspective (Rogers and Caswell, 1988). Their research has yielded a detailed description and analysis of the post-harvest food system which relates to the structure of industry and its relationship with economic performance -- like traditional microeconomic theory. There is, hence, an increasing need to expand the economist's toolkit to include non-price competition, business case studies, behavioral theories of the firm, and especially, strategic management, as has been noted by many authors (Muelenberg, 1986; Bateman, 1976; Rogers and Caswell, 1988).

However, many agricultural economists still do believe that the applicability of traditional research areas in agricultural economics to agribusiness management are high and need to be exploited (Westgren and Cook, 1986; Sonka, 1989). For instance, consumption theory, risk management, supply and demand fundamentals, production efficiency and cost analysis, and forecasting methods, are subjects which could be exploited by agricultural economists. The results may have a great contribution for decision making within the hierarchy of corporate strategy (Westgren and Cook, 1986).

Since the mid-1980s, there has been increasing concern for introducing management's perspective into agribusiness research such as: strategic management (Harling, 1988; Westgren and Cook, 1986; Rogers and Caswell,

1988), agribusiness competitiveness (Sonka and Hudson, 1990; Dobson, 1992), organizational design (Rasenvaay, 1986); general management (Harling and Quail, 1990); operations management (Babb, 1986); financial management (Gorman et al. 1986); agribusiness leadership (Howard et al. 1990). However, very few studies were found which focused on the practising of strategic management and planning within agribusiness and its relationship to a firm's performance.

Chapter 3

METHODOLOGY

3.1. Research Design

This study examined strategic planning and managerial performance during New Zealand's economic liberalisation with a sample of New Zealand agribusiness firms. Successful firms during the changing environment may depend on the extent to which firm's management has anticipated change, recognized present and future implications of change, and developed strategic as well as operational skills to cope with them (Bracker et al., 1988). One may conclude from the literature study that strategic planning helped firms to respond more easily to emerging issues and make appropriate adjustments. Strategic planning may permit firms to attain advantages as well as avoid threats in the changed environment. If so, the firms will be more capable to

grow and achieve improved financial performance. Therefore, three research hypotheses have been developed to test the above hypothetical statement.

H1: No significant difference exists in the managerial performance of those firms with and without strategic planning during the New Zealand economic liberalization.

H2: During the New Zealand economic liberalization, the correlation between firms which use strategic planning and financial performance does not differ significantly from zero.

H3: During the New Zealand economic liberalization, the correlation between firms which use strategic planning and a fast-growing firm does not differ significantly from zero.

As repeatedly asserted by experts in the strategic planning field, the involvement of top managements is essential in the planning processes. However, top management needs help from planners who enable top management's involvement as a key person in the whole processes (Pennington, 1972; Steiner, 1979, Drucker, 1974). Therefore, one hypotheses concerned with the assertion was developed;

H4: No significant relationship between the level of individuals involved in strategic planning and a firm's financial performance during the New Zealand economic reforms.

Finally, in particular concern with exploration of strategic issues regarded as important by agribusiness decision-makers, the last hypotheses was established to recognize the different responses across different firm characteristics;

H5: No significant difference exists between different groups of surveyed firms in responding to strategic issues as important issues.

This study used a mail survey of agribusiness decision-makers across New Zealand during September-December 1992. Survey questionnaires were mailed to 175 agribusiness firms. Fifty-seven agribusinesses provided either complete or partial responses to the questionnaire for a response rate of 33 percent. Thirteen personal interviews were also conducted in February 1993 to supplement the information received through the mail questionnaires.

Non-response bias may cause statistical problems if there was a systematic difference in the behaviour of those firms that participated in the survey and those that did not. Since this type of information is unavailable, there is no systematic way of determining possible sampling biases except to use the response rate as an indicator. Even though the response rate in this survey is not unreasonably low (33 percent) compared to most surveys, some degree of non-response bias may realistically exist. Efforts were made, however, to represent all types of agribusinesses in the sample.

3.2. Participants

Senior Managers, including Chief Executives or Managing Directors, General Managers, Company Secretary, Marketing Managers, Financial Managers and managers of various corporate divisions, completed the questionnaire. The sample of 57 firms represented a wide range of New Zealand agribusinesses including firms selling fertilizer, animal health products, farm machinery and equipment, wool brokerage and exporting services, skin and leather products, forestry products, fish products, animal farming, dairy cooperatives, farm consultancy businesses, farm and agribusiness finance firms, stock and station agents, agricultural product packaging services, meat processors and exporters, and statutory boards. Figure 3.1 displays the size of respondents' based on these primary product lines. Figure 3.2 shows the distribution of respondents according to its location throughout New Zealand.

The surveyed respondents also represented small, medium and large agribusiness firms based on the number of employees which was vary from 1 up to 6354 employees. However, as shown at Figure 3.3, a big part of the samples employed less than 10 employees. While based on the type of firm's legal form, Figure 3.4 displays that corporation including corporate subsidiaries represented the highest number of samples (47 percent), followed by cooperatives (26 percent).

Figure 3.1.

The Distribution of Respondents by Primary Product Lines

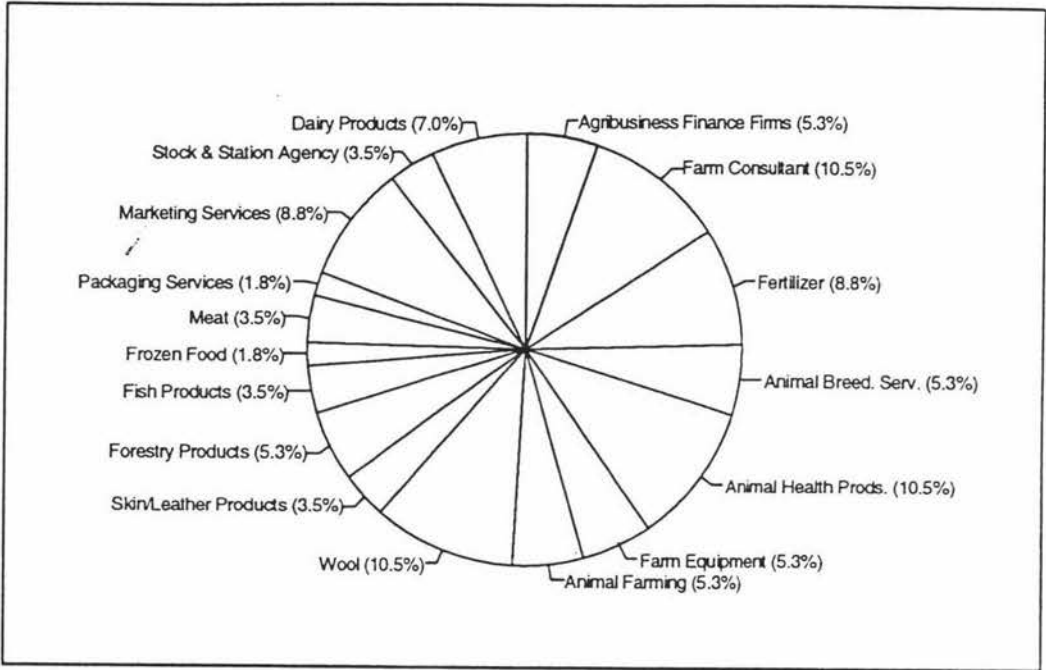


Figure 3.2.

The Distribution of Respondents by Geographical Location

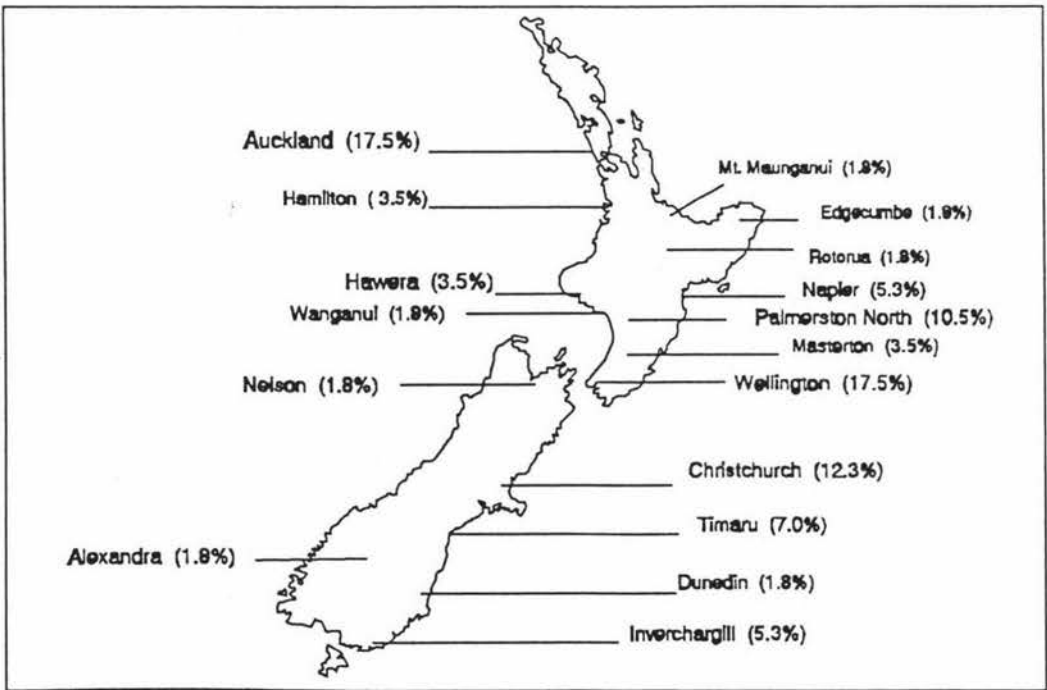


Figure 3.3.

The Distribution of Respondents by Number of Employees (1990-91)

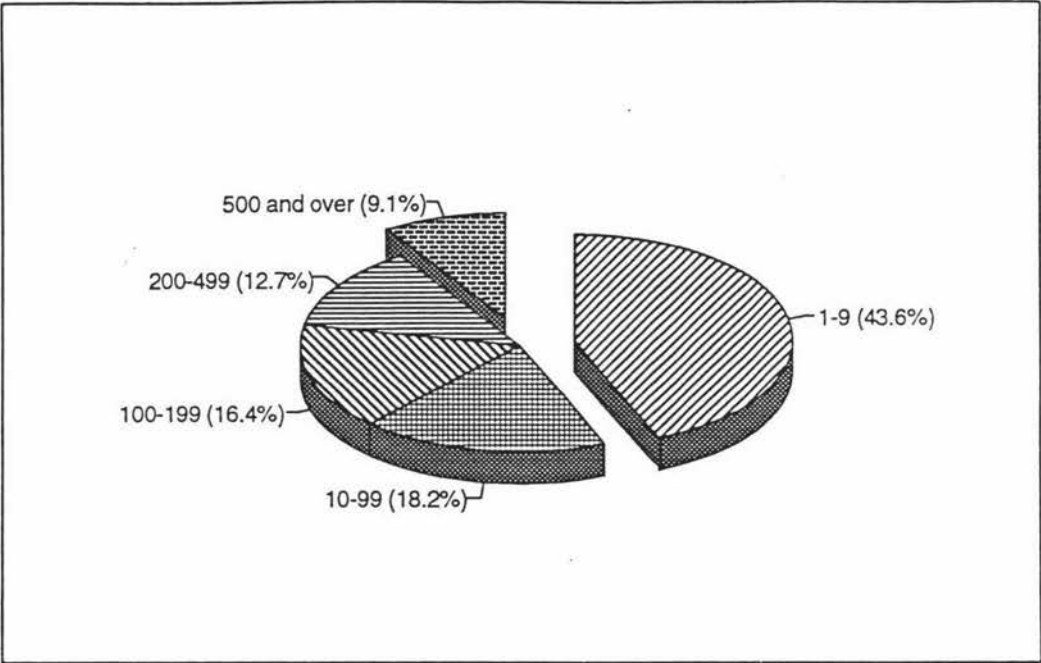
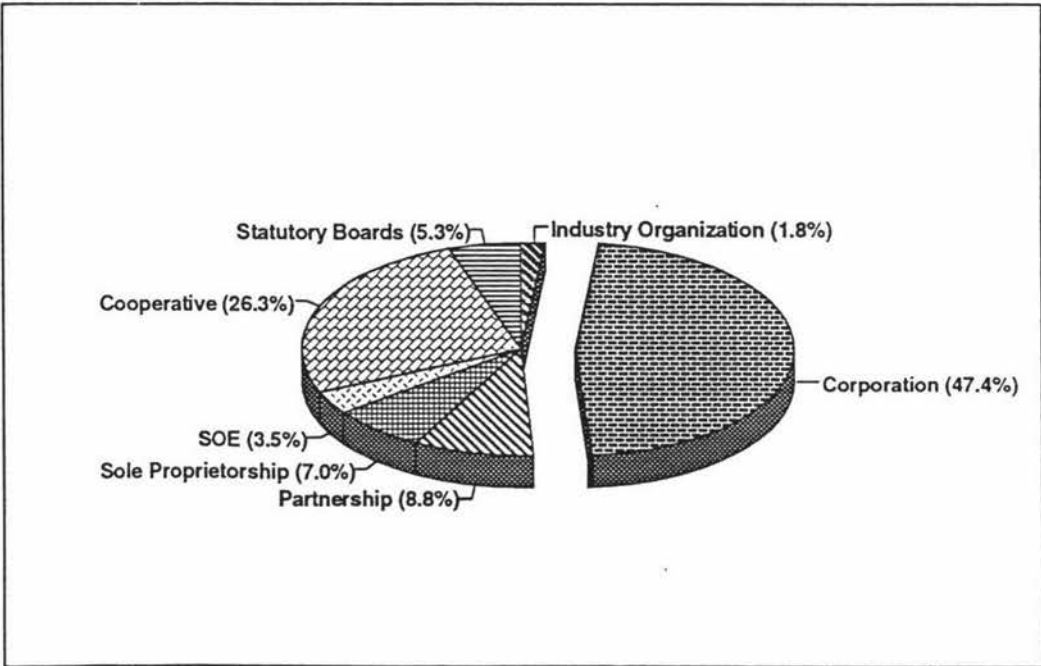


Figure 3.4.

The Distribution of Respondents by the Type of Legal Form



3.3. Study Instruments

The questionnaire employed in the study consisted of two sections. The first section of the questionnaire included questions about the effect of New Zealand economic liberalisation on strategic management of the firm. One question inquired on the relative difficulty of determining the firm's goals and objectives. The first step in any strategic planning process is the definition of the goals and objectives of the business, today and in the future. This is accepted as one of the critical managerial tasks in terms of establishing strategic planning processes. Before choosing an appropriate firm strategy to deal successfully with environmental change, decision-makers must set their firm's goals and objectives.

Decision-makers were asked to express qualitatively whether they had any change in the difficulty of determining their firm's goals and objectives. The list of items as shown in Table 3.1 was similar to items listed by Melcher and Kerzner (1988, p.57). The scale used was the following: 1 = less difficult; 2 = about the same; and 3 = more difficult.

Another part of the first section was concerned with any improvement made toward firm's managerial skills, tools and methods over the New Zealand economic reforms. Areas of management listed in Table 3.2 is similar to those used by Harper and Malcom (1991) in their study conducted on New Zealand industries. The following scale was used: 0 = no improvement at all; 1 = slight improvement; 2 = significant improvement; and 3 = very significant improvement.

Table 3.1.

**The List of Goals and Objectives Included in the Study's
Questionnaire**

Goals and Objectives		Circle One			
		Not Relevant	Less Difficult	About the Same	More Difficult
1.	Profitability	0	1	2	3
2.	Utilization of Resources	0	1	2	3
3.	Market Position	0	1	2	3
4.	Cash Flow	0	1	2	3
5.	Value to Customer	0	1	2	3
6.	Minimisation of Risk	0	1	2	3

Table 3.2.

**The List of Areas of Management Included in the Study's
Questionnaire**

Areas of Management		Circle One ¹⁾			
		<i>Improvement Made</i>			
		Not at all	Slightly	Signi- ficantly	Very Significant
1.	Management Structure	0	1	2	3
2.	Management Contract and Incentives	0	1	2	3
3.	Management Information Systems	0	1	2	3
4.	Corporate Planning	0	1	2	3
5.	Work Methods and Flows	0	1	2	3
6.	Quality Control	0	1	2	3
1.	Technology Structure	0	1	2	3
2.	Labour Relations	0	1	2	3
3.	Staff Training	0	1	2	3
4.	Personal Policies and Incentives	0	1	2	3
5.	Marketing and Customer Management	0	1	2	3
6.	Financial Management	0	1	2	3

¹⁾ Respondents were also asked to put sign (-) if they feel the area of management listed was deteriorated over the economic reform.

Respondents were asked to note the extent of formal strategic planning including; the initial year of conducting strategic planning, the individuals involved in the planning processes and the extent of their involvement. They were also asked to consider whether they consider their organization a fast growing firm, and to note whether the firm's management has changed hands during the economic liberalisation. Some additional questions were asked regarding the type, product lines, location of the firm and some financial data in the year of 1983-84 and 1990-91.

The second section of the questionnaire was concerned with the exploration of strategic issues regarded as important by agribusiness decision-makers. This section included sections similar (i.e. list of issues) to those of the Westgren et al. (1988) study conducted of a sample of California agribusiness firms. There were 44 strategic issues in this section which could be classified into three categories, that is: sixteen issues related to the general business environment; thirteen issues related to the industry's competitive environment: and fifteen issues related to the firm's internal environment (Table 3.3). The items listed in the first category correspond to the general environment defined by Wack (1985), while the items listed under competitive and internal issues relate to factors within the firm's task environment (Robinson and Pearce, 1983). Respondents were asked to evaluate the relative importance of these issues. In particular, respondents were requested to indicate if specific issues were very important (a ranking of 4), important (a ranking of 3), somewhat important (a ranking of 2) and not important (a ranking of 1).

Table 3.3.

The List of Strategic Issues Included in the Study's Questionnaire

Strategic Issues		Circle One				
		Not Relevant	Not Important	Somewhat Important	Important	Very Important
(A) General Business Issues						
1.	Environmental Regulation: Domestic	0	1	2	3	4
2.	Foreign	0	1	2	3	4
3.	Farm Income	0	1	2	3	4
4.	Inflation Rate	0	1	2	3	4
5.	Interest Rate	0	1	2	3	4
6.	Labour Relations	0	1	2	3	4
7.	Tax Policy: Domestic	0	1	2	3	4
8.	Foreign	0	1	2	3	4
9.	Trade Policy: Domestic	0	1	2	3	4
10.	Foreign	0	1	2	3	4
11.	Farm Price	0	1	2	3	4
12.	Value of NZ Dollar	0	1	2	3	4
13.	Governmental Subsidies	0	1	2	3	4
14.	Transportation Issues	0	1	2	3	4
15.	Demand for The Product	0	1	2	3	4
16.	Investment	0	1	2	3	4
(B) Competitive Issues						
1.	Bargaining Power of : Customers	0	1	2	3	4
2.	Suppliers	0	1	2	3	4
3.	Identification of : New Domestic Market Opportunity	0	1	2	3	4
4.	New Foreign Market Opportunity	0	1	2	3	4
5.	Major Product Rivals	0	1	2	3	4
6.	Minor Product Rivals	0	1	2	3	4
7.	Raw Material Access	0	1	2	3	4
8.	Changes in Number of Rivals	0	1	2	3	4
9.	Changes in Rivals' Market share	0	1	2	3	4
10.	Rivals' Goals and Objectives	0	1	2	3	4
11.	Rivals' Mergers / Acquisition	0	1	2	3	4
12.	Rivals' Strategies	0	1	2	3	4
13.	Threat of Substitute Products	0	1	2	3	4
(C) Internal Issues						
1.	Balance Sheet: Current	0	1	2	3	4
2.	Projected	0	1	2	3	4
3.	Income Statement: Current	0	1	2	3	4
4.	Projected	0	1	2	3	4
5.	Leverage Ratio	0	1	2	3	4
6.	Liquidity	0	1	2	3	4
7.	Research and Development for : Manufacturing Processes	0	1	2	3	4
8.	Products	0	1	2	3	4
9.	Return on Investment	0	1	2	3	4
10.	Return to Shareholders	0	1	2	3	4
11.	Economies of Scale	0	1	2	3	4
12.	Depreciation of Inventory	0	1	2	3	4
13.	Labour' Skill	0	1	2	3	4
14.	Management Effectiveness	0	1	2	3	4
15.	Productivity	0	1	2	3	4

3.4. Analytical Procedures

Four procedures were used in analysing the collected data: mean procedure, test of independence, correlation analysis, and analysis of variance.

- (1). The first analytical procedure was mean analysis. This procedure was used to determine the average level of responses for items listed in Table 3.1, Table 3.2, and Table 3.3 above. Ratings for items which received 'Not Relevant' response from respondents were excluded before computing the averages.
- (2). The second procedure was a test of independence. This procedure was used to determine whether a particular characteristic of firms within one group responded differently with its group counterparts with regard to the items listed in Table 3.1; Table 3.2; and Table 3.3. Respondents were grouped according to selected important firm characteristics that will be discussed later. The used test of independence can be conceptualized, for instance, by using a 2 X 2 contingency table as follow:

(i = 1, 2, ...n)	Group 1	Group 2	
Yes	<i>a</i>	<i>b</i>	<i>Total a+b</i>
No	<i>c</i>	<i>d</i>	<i>Total c+d</i>
Total	<i>a+c</i>	<i>b+d</i>	<i>a+b+c+d</i>

where the answer of "Yes" and "No" were the observed frequencies of particular responses. For example, with respect to responses received for the question in Table 3.1, the "Yes" represented "less difficult" response while the "No" represented "more difficult" response.

Chi-square test of independence is commonly applied to the contingency table where the number of observations in each cell is sufficiently large. Snedecor and Cochran (1980) concluded that results from the chi-square test become poorer as the sample size decreases, and the test should not be used if the total sample size is fewer than 20 or if the total sample size lies between 20 and 40 and the smallest expected number of observations in a cell is less than 5. However, this study observed that there were several items that had received a similar response by almost all surveyed respondents that caused the number of observations in other cells to be low. In that case, Fisher's exact test is a more appropriate test of no association. The Fisher's exact test is similar to the chi-square test, but is an "exact test of independence" for a contingency table (Dixon and Massey, 1969).

Both chi-square and Fisher's exact test were used to examine hypotheses 1 and 5. Fisher's exact test was used to examine the differences of responses to each item listed in Table 3.1; Table 3.2; and Table 3.3, while chi-square was used to examine the overall responses for items in these tables.

- (3). The third procedure used to analyze data was correlational analysis. Correlational analysis was used to examine hypotheses 2 and 3. Spearman's rank correlation coefficient is a commonly used method of measuring the degree of association between two variables. A coefficient of +1.0 indicates perfect correspondence, a coefficient of -1.0 indicates an inverse relation, and a coefficient of 0 indicates no association at all (Tull and Hawkins, 1980, p.486).

The sample correlation coefficient " r " is an estimator of a population correlation coefficient ρ (rho), which would be obtained if the coefficient of correlation were calculated by using all the points in the population. A common test statistic for testing the null hypotheses $\rho = 0$ is the Student's t statistic (see Mendenhall et al., 1982, p.505). In addition, r^2 , the coefficient of determination, would seem to give a more meaningful interpretation of the strength of the relation between two variables than would the correlation coefficient r .

- (4). The fourth analytical procedure used in this study was analysis of variance (ANOVA). ANOVA was used to examine hypotheses 4. This procedure is a method of determining what the probability is that the observed differences of the mean responses of groups receiving different experimental treatments are the result of sampling variations (Tull and Hawkins, 1980, p.494).

3.5. Variables Measured

3.5.1. Financial Variables

A limited number of firms' financial performances, over the New Zealand economic liberalisation, were measured due to the lack of available financial data provided by the respondents. This included; growth of sales; growth of after-tax profit; growth of employees; and growth of productivity (that is sales per employee). All growths were measured as percentage change between 1983-84 and 1990-91.

3.5.2. Selected Firm Characteristics

There are five important firm characteristics used in this study for grouping the respondents e.g.; firm's legal forms, firm's product lines, firm's size, firm's geographical location, and management orientation toward strategic planning processes (degree of planning). These characteristics were used to separate the sample respondents into at least two different groups. Table 3.4 summarizes the grouping and number of firms included within each group.

Table 3.4.**The Grouping of Respondent by Firms' Specific Characteristics**

Firm Characteristics	Groups	Sample Sizes
Legal Forms	Corporation/Corp. Subsidiaries	27
	Sole Proprietorship	4
	Partnership	5
	Cooperative	15
	Other	6
Primary Product Lines	Input	26
	Output	31
Size of Employees ¹⁾	Small	28
	Large	17
Geographical Location	North Island	39
	South Island	18
Degree of Planning	Formal Planning	33
	Informal Planning	24

¹⁾ The total sample in this grouping was 55 respondents. Two firms did not indicate their number of employees.

(1). The Type of Legal Forms

There are seven type of legal forms involved in this study such presented in Figure 3.4. Each form of business organization has its own individual characteristics. The owners' objectives and philosophies, assumption about the risk, and financial reasons are some factors involved in choosing a particular legal form (Downey and

Erickson, 1987, p.46-76). Each of the seven legal forms have been analyzed as one group except statutory boards, state owned enterprises, and industry organization which were combined into one group called 'others' due to the few number of samples.

(2). Firm's Product Lines

A firm's primary product line will determine the specific need of resources and as well as market segmentation, in which the level of concern for strategic issues may differ. Firms which supplied input products and services to New Zealand farms were grouped into the "input" group. This group includes firms which sold fertilizer, animal feed/health products, animal breeding services, farm equipment, finance firms, and farm consultancy businesses. On the other side, firms which produce, market and process agricultural products were grouped into the "output" group. The output group includes firms involved in the following: dairy cooperatives, wool brokerage and exporting, meat processing and exporting, animal farming, skin and leather products, forestry products, frozen food, agricultural products packaging services, fish product, and stock and station agents. The input and output group consisted 26 and 31 firms, respectively.

(3). The Size of Firms

The strategic management process often differs significantly by size of firm (Westgren et al. 1988). It is, therefore, of interest to determine if

the levels of concern for strategic issues differed by number of employees. The number of firm's employees is used as a proxy for firm size in this study. The number of employees varied among the agribusiness firms in the sample. Based on firm's employees, strategic management experts have defined small business by various definitions. Shuman (1975), for example, defined small business as a firm which has employed up to 800 employees. While, Hastings (1961) and Barryre (1977) categorized small business for those firms which operated with less than 500 employees. Robinson et al. (1984), on the other hand, specified small business for those firms which employed fewer than 50 employees. Since there is no formal way of defining the size of the firm based on the number of employees, and with regard to the limited number of the samples, this study separated the respondents into two equal groups. Twenty-eight firms with less than 30 employees each were grouped into the "small" category and 27 firms with equal to or more than 30 employees each were grouped into the "large" category. Two firms were excluded from the analysis due to incomplete information regarding their number of employees.

(4). Geographical Location

New Zealand is separated as two part e.g.; North Island and South Island. Each of the islands has some different characteristics which may affect business environments. The distribution of New Zealand's population, for example, indicated a significant difference between the

two islands. In 1992, almost three-fourth of New Zealand population lived on the North Island. Eighteen firms were included within the South group and 39 firms within the North group.

(5). Degree of Planning

The information obtained as to the type and extent of strategic planning being conducted in each firm was used to divide the sample respondent firms into two groupings. One group, which contained 24 firms, is characterized by a low orientation towards strategic planning and is called the "informal planning" group. No firm in this group had a formal strategic plan. The second group contained 33 firms, had more extensive planning processes in place and is called the "formal planning" group.

Chapter 4

STRATEGIC PLANNING, UNCERTAINTY AND PERFORMANCE

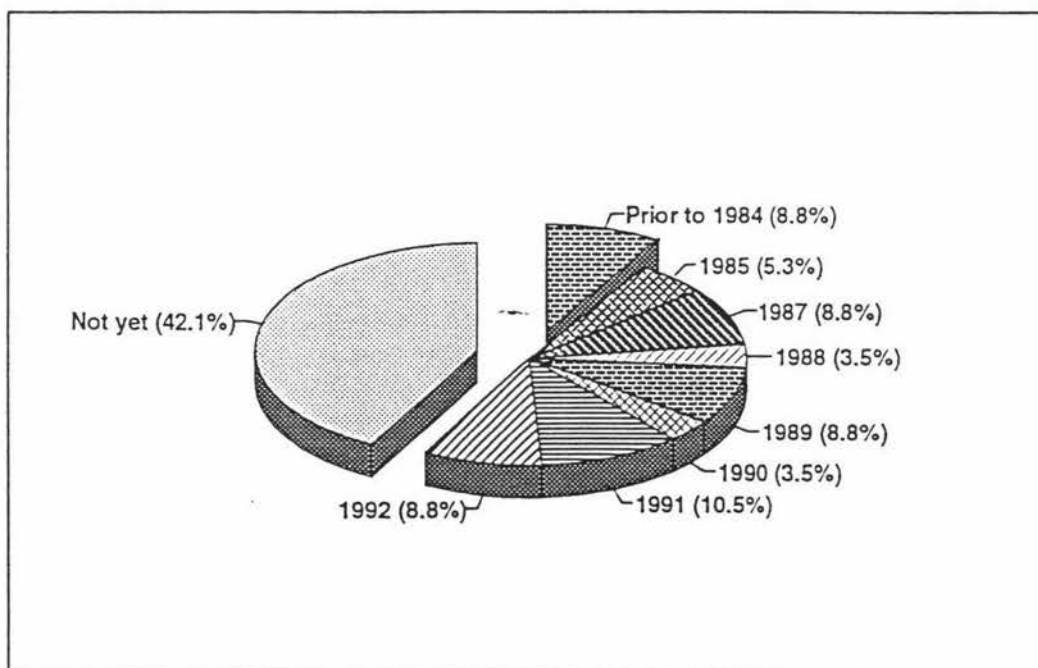
4.1. New Zealand Agribusinesses and Strategic Planning

Valuable insights into the strategic planning processes actually used by the agribusiness firms were obtained by the survey. Of the 57 firms responding, 33 (58 percent) had formal strategic planning processes in place and 24 (42 percent) had no formal planning mechanisms. Of the 33 firms with formal strategic planning processes, 25 (76 percent) had formal written strategic plans and eight had no written plan. Hence strategic planning seems to be a very important activity for many of the firms surveyed. Likewise, the existence of a significant number of firms with formal written strategic plans is in contrast with Westgren et al.'s (1988) results from a survey of California agribusinesses and Robinson and Pearce's (1983) findings relative to small businesses in general.

With respect to the initial year of using strategic planning processes, five firms (8.8 percent) started their planning processes before 1984, 15 firms (26 percent) started theirs during the period 1984-89 and 13 firms (23 percent) started having strategic planning since 1990 (Figure 4.1). Based on these figures, it seems that the economic reforms, and the uncertainty that came with them, had the effect of opening the doors of the firms to strategic planning.

Figure 4.1.

Initial Year of Conducting Strategic Planning Processes



Respondents were asked whether their management had been changed hands during the economic liberalization period. Interestingly, fourteen firms answered positively to this question, and 12 of these firms had of formal

strategic planning processes. Moreover, 11 of them started the planning process after 1984.

Agribusiness decision-makers' perception of what strategic planning is, unfortunately, was not clearly observed among surveyed firms. Through the mail questionnaire, it was difficult to recognize the perception of decision-makers toward the strategic planning processes, such as distinguishing strategic planning from other kinds of planning, which some authors have argued of differences (Trowbridge, 1988; Bryson and Einsweiler, 1988; Markus, 1989). However, personal interviews conducted indicated that agribusiness decision-makers were unsure about what strategic planning is and its differences with other kinds of planning. Strategic planning could not be easily distinguished with other long-term planning by agribusiness' decision-makers. Long term planning, which consists of an assessment of the firm's environments, and some prediction of the firm's future conditions, were commonly labelled as strategic planning by decision-makers. Consequently, such an understanding of the strategic planning processes by agribusiness' decision-makers corresponds with that proposed by Steiner (1979). That is, a perception of strategic planning being synonymous with other corporate long-range planning.

Respondents identified the individuals involved in the strategic planning process and the extent of their involvement. As shown in Figure 4.2, results reveal that the Chief Executive Officers (CEOs) or the Presidents of 29 firms (88 percent) were involved in strategic planning. This is consistent with Wright (1982) who reported that the individual most responsible for planning

Figure 4.2.
Individuals Involved in Strategic Planning Processes

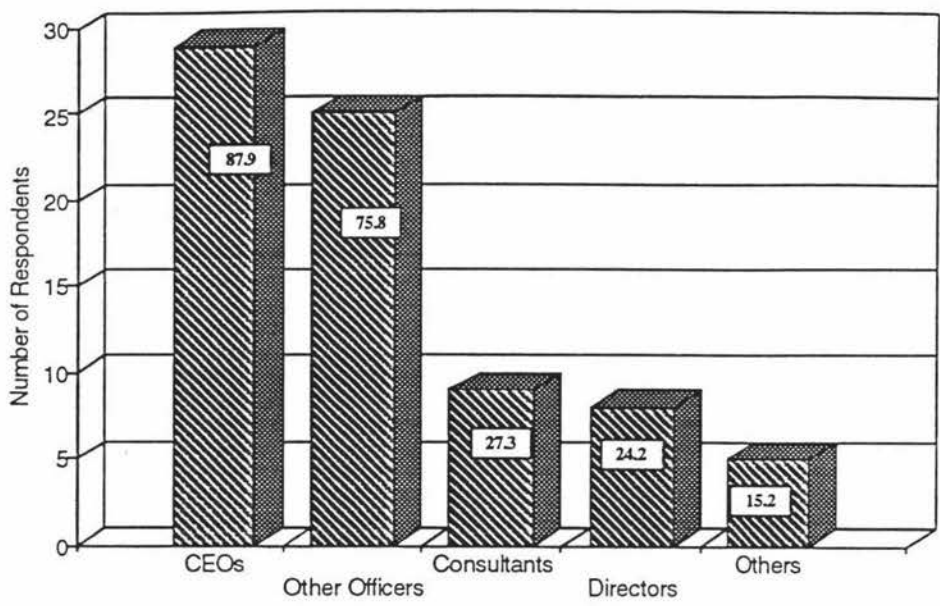
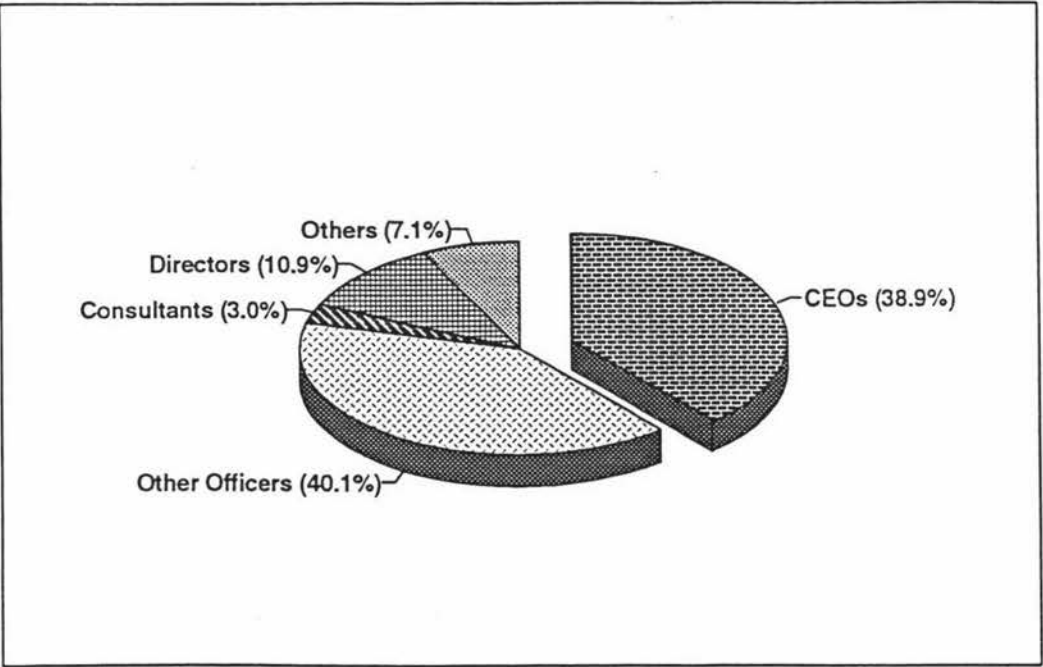


Figure 4.3.
The Contribution of Individuals that Involved in Strategic Planning



activities, within a sample of New Zealand various companies, was CEOs. Twenty five firms (76 percent) revealed the involvement of planning officers, nine firms (27 percent) indicated the use of industry consultants, and eight firms (24 percent) had the participation of members of the board of directors.

Interestingly, the respondents indicated on the average that CEOs and planning officers contribute close to 40 percent each of the total effort devoted to planning (Figure 4.3). Industry consultants comprised roughly three percent of the total and members of the board of directors and others made up the remainder of the effort. In fact, more than one-fourth of CEOs in the sample did 70 percent up to 100 percent of the planning work. The considerable weight of CEOs' contribution was perhaps due to the fact that many of the firms in the survey are relatively small in size, where CEOs undertake most of the management works of the firm, including planning processes.

The 33 firms with strategic planning processes in place were also queried as to the component parts of those processes. The number of firms conducting each of the strategic planning elements are as follows:

Analysis of Competitors	33
Competitor future strategies	23
Potential industry entrants	21
General Business environment	31
Trends in industry	28
Firm resources available	28
Buyers' bargaining powers	21
Suppliers' bargaining powers	21
Firm's competitive position	30

With the exception of a single firm, all the firms which had formal strategic planning processes update their plans regularly. Moreover, of the 33 firms, 27 (82 percent) indicated that their formal strategic plans are tied to annual operating results.

4.2. Agribusiness Performances during The New Zealand Economic Liberalization

As mentioned in Chapter 3, that there were two types of managerial changes were observed with regard to the changed of business environment in New Zealand since 1984. Firstly, agribusiness decision-makers expressed qualitatively whether they consider any change in the difficulty of determining their firm's goals and objectives before and after the economic reforms were implemented. Secondly, they evaluated the extent of improvement they made in various areas of management and operations during the economic liberalization period.

As presented in Table 4.1, all respondents, on the overall average, considered less difficulties (1.96) to determine their firm's goals and objectives before and after the start economic liberalization. Utilization of resources became much easier to be determined than other listed objectives. On the other hand, minimisation of risk became much more difficult to be set than the others.

Table 4.1.

**The Relative Difficulty of Determining Firm's Goals and Objectives
before and after the Start of Economic Liberalization**

Goals/Objectives	Average Responses ¹⁾
Minimization of Risk	2.13
Profitability	2.02
Market Position	2.00
Cash Flow	1.96
Value to Consumer	1.85
Utilization of Resources	1.82
Overall Average	1.96

¹⁾ Scale used is: 1 = less difficult; 2 = about the same; 3 = more difficult

In terms of achieving successful implementation of the chosen strategy, firm management needs particular managerial skills, tools and methods. The second managerial changes which have been observed related to the relative availability of these apparatus during the economic liberalization period. As shown in Table 4.2, all areas of management have been improved with the overall average 1.60. Quality control, management information systems, financial management, and marketing and customer management were much more improved compared with other areas of management. With the exception of management information systems, this finding was consistent with Harper and Malcolm (1991) that studied various New Zealand industries. In contrast to management structure which was identified as the lowest

improvement, Harper and Malcolm (1991) reported this area was highly improved (see Appendix 7).

Table 4.2.

**The Extent of Improvement Made on Areas of Management
during the Economic Liberalization Period**

Areas of Management	Average Responses ¹⁾
Quality Control	1.85
Management Information System	1.79
Financial Management	1.79
Marketing and Customer Management	1.75
Technology	1.72
Corporate Planning	1.62
Work Methods and Flows	1.58
Labour Relations	1.57
Staff Training	1.55
Personnel Policies and Incentives	1.25
Management Contract and Incentives	1.08
Management Structure	1.06
Overall Average	1.60

¹⁾ Scale used is: 0 = not improvement at all; 1 = slightly; 2 = significantly; 3 = very significant

Respondents were requested to disclose the amount of sales and profits of their firms during two periods: (1) 1983-84, prior to the start of the implementation of the economic liberalization measures; and (2) 1990-91, after most of the measures had been implemented. As shown in Table 4.3,

significant differences are evident in the level of sales and profits of the firms surveyed between the two given periods. In fact, during the period 1983-84, average domestic and export sales of the 33 firms which responded to this question amounted to about NZ\$48 million. This figure significantly increased to NZ\$99 million during the period 1990-91, after most of the economic liberalization measures had implemented.

Table 4.3.

Average Sales and After-Tax Profits (in NZ\$), Number of Employees, and Productivity of Firms: 1983-84 and 1990-91

Performances	Sample Size	1983-84	1990-91
Average Total Sales	33	\$47913001	\$99016513
Average After-Tax Profits	28	\$ 2295138	\$ 9773859
Number of Employees	42	374	327
Productivity ¹⁾	32	620025	785370

¹⁾ Productivity is total sales per number of employees

Average after-tax profits of the 28 responding firms surveyed have likewise soared from about NZ\$2.3 million before the implementation of the economic liberalization measures to NZ\$9.8 million in 1990-91. Hence although some of the agribusiness executives interviewed by the authors had some reservations about the effectiveness of the economic reforms implemented by the government, it appears that most of the firms in the survey

had significantly improved the level of their sales and profits during the economic liberalization period.

As reported by Savage (1990), some "downsizing" of agribusinesses had occurred during the economic liberalization period. Results from 42 responding firms indicate that the average number of employees slightly declined from 374 in 1983-84 to 327 in 1990-91. However, the average of productivity (sales per employee) of 32 responding firms was increased from 620025 in 1983-84 to 785370 in 1990-91.

4.3. The Effect of Using Strategic Planning on a Firm's Performance

Hypotheses 1

For analytical purposes, the sample was subdivided into two groups based on the type and extent of strategic planning. The first group consists of 24 firms without formal strategic plans (referred to as the informal planning group). The second group, containing 33 firms, had formal strategic planning processes and is called the formal planning group. Based on these groupings, the average responses for the individual factors evaluated are provided in the Table 4.4.

Table 4.4.

**Comparison between Formal and Informal Planning
in the Relative Difficulty of Determining Firm's Goals and Objectives
before and after the Start of Economic Liberalization**

Goals/Objectives	Average Responses ¹⁾		Fisher's Exact Test Probability
	Informal (24) ²⁾	Formal (33)	
Minimization of Risk	2.38	1.92	0.054
Profitability	2.33	1.75	0.015
Market Position	2.23	1.80	0.080
Cash Flow	1.95	1.96	1.000
Value to Consumer	1.95	1.75	0.593
Utilization of Resources	2.00	1.67	0.161
Overall Average	2.14	1.81	
Chi-square value and probability		15.175	(0.000)

¹⁾ Scale used is: 1 = less difficult; 2 = about the same; 3 = more difficult

²⁾ Sample sizes

The results seem to indicate that those firms which had formal strategic planning processes encountered less difficulty in establishing goals and objectives based on the six factors presented to them in the questionnaire compared to those firms without formal strategic planning processes. With the exception of determining firm goals/objectives based on cash flow, the average response on each factor listed in Table 4.4 was lower in the formal planning group than in the informal planning group.

Chi-square test indicated a statistical difference between the overall average of the two groupings (see the procedure of analysis in Appendix 8). A chi-square value of 15.175 was greater than the critical value at $\alpha = 0.001$, with 1 degree of freedom. Therefore, the study's first hypotheses, that there is no significant difference in the managerial performance of those firms with and without strategic planning during the economic liberalization, is not accepted for overall changes in the difficulty of determining firm goals and objectives.

With respect to determining specific goals and objectives, firms which planned found all of the listed goals and objectives were easier to be met during the changed environment. On the other hand, three items were found to be more difficult to be determined by informal planning firms. However, Fisher's exact test for each goal and objective indicated that only determining goals and objectives of firm's profitability were statistically different at the 0.05 level of significance. Minimization of risk and market position were also statistically different at a lower level of significance ($\alpha = 0.1$). Therefore, the first hypotheses must not be accepted for these three goals and objectives. The formal group found these three objectives significantly easier to be met than the informal group.

Consistent with prior expectations, agribusiness firms which had formal strategic planning processes seem to have adopted better to the changing economic environment than those without formal strategic planning processes based on the extent of the improvements they made in the various areas listed in Table 4.5. The overall average response of the formal planning group was

higher than that of the informal planning group. Likewise, the average responses for each of the areas presented to the respondents were higher in the formal planning group than in the informal planning group.

Table 4.5.

**The Extent of Improvement Made on Areas of Management
by Informal and Formal Planning Groups
during the Economic Liberalization Period**

Areas of Management	Average Response ¹⁾		Fisher's Exact Test Probability
	Informal (24) ²⁾	Formal (33)	
Quality Control	1.38	2.24	0.003
Management Information Systems	1.50	2.03	0.103
Financial Management	1.50	2.03	0.557
Marketing and Customer Management	1.50	1.97	0.776
Technology	1.71	1.72	1.000
Corporate Planning	1.04	2.10	0.000
Work Methods and Flows	1.33	1.79	0.278
Labour Relations	1.42	1.69	0.278
Staff Training	1.21	1.83	0.101
Personnel Policies and Incentives	0.83	1.59	0.021
Management Contract and Incentives	0.88	1.24	0.021
Management Structure	1.17	1.97	0.029
Overall Average	1.29	1.85	
Chi-square value and probability		35.908	(0.000)

¹⁾ Scale used is: 0 = not improvement at all; 1 = slightly; 2 = significantly; 3 = very significant

²⁾ Sample sizes

The result of the chi-square test showed the difference between the overall average was significant at the 0.001 level, which led to reject the first study's hypotheses (see the procedure of analysis in Appendix 9). There was significant difference between informal and formal planning groups in terms of the overall improvement they made in the listed areas of management.

With respect to specific areas of management, Fisher's exact test indicated five areas of management were statistically significant different at $\alpha = 0.05$. Understandably, improvement on corporate planning was very significantly different ($\alpha = 0.001$) between informal and formal planning groups. Although improvement in work methods and flows, and of use technology were not statistically different, formal planning firms have practised quality control in a more sophisticated manner than informal planning firms.

Hypotheses 2

Hypotheses 2 concerned the relationship between the use of strategic planning and a firm's financial performance during New Zealand's economic liberalization. Table 4.6 shows that only the correlation coefficient ρ (rho) between the use of strategic planning and growth of employees did not differ significantly from zero. On the other hand, growth of sales, growth of after tax profit and growth of productivity differed positively and significantly from zero (at $\alpha = 0.03$). Thus, the second hypotheses of this study must be rejected for these three financial performance indicators. Using strategic planning during the economic reforms has led the formal planning firms to achieve better performance in sales, after-tax profit and productivity than did the informal planning firms.

Table 4.6.

Correlation Coefficient (r) between Firms which Had Strategic Planning and Financial Performance during the Economic Liberalization Period

Performances	Sample Size	Correlation Coefficient	Probability of $p = 0$
Growth of Sales	32	0.389	0.028
Growth of After Tax Profit	26	0.472	0.015
Growth of Employees	41	0.038	0.810
Growth of Productivity	31	0.406	0.023

The non-significant correlation for growth of employees may be a result of the number of employees as no longer an indicator of company's growth. It was observed that a half of sample firms had decreased their employee numbers since deregulation began, but more than 60 percent of those firms, in the same time, increased their sales and/or productivity.

The level of correlation coefficient (r) between strategic planning and growth of sales, after-tax profit and productivity was not high; 0.39, 0.47 and 0.41, respectively. The coefficient of determination or the r^2 of these coefficients, hence, only 0.15, 0.22, and 0.17, respectively. This indicated the effect of using strategic planning on a firm's financial performance was very weak. This is perhaps due to various levels of planning sophistication existing in a firm's strategic planning.

Hypotheses 3

Respondents were also asked whether they consider their organization to be a fast-growing firm during the economic liberalization period. Interestingly, 22 of the 57 firms surveyed answered positively to this question and most of these firms had formal strategic planning processes. The result of correlational analysis is shown in Table 4.7. The coefficient correlation ρ (rho) between a firm which had strategic planning and a fast-growing firm was significantly different from zero (at $\alpha = 0.1$). This result suggested that the study's third hypotheses must not be accepted.

Table 4.7.

**Correlation Coefficient (r) between Firms
which Had Strategic Planning and the Fast-Growing Firms
during the Economic Liberalization Period**

Variables	Correlation Coefficient	Probability of $\rho = 0$
Having strategic planing	0.238	0.074
Initial year of strategic planning up to 1989	0.399	0.021
Initial year of strategic planning during 1984-89	0.426	0.001

Interestingly, a higher level of significance as well as correlation coefficient was observed for the initial year of conducting strategic planning before 1989 (at $\alpha = 0.03$), and even during 1984-89 (at $\alpha = 0.001$). Firms

included in the last variable may called earlier adopters of strategic planning. This reflects the willingness of management to use strategic planning as a managerial tool when faced with the dramatic changes in their business environments caused by economic reforms.

Table 4.7 indicates that strategic planning has allowed the formal planning firms to grow rapidly within the changed environments. Participation in the planning processes has enabled the formal planning firms to respond to changes and make appropriate adjustment in terms of getting advantages provided by the changes. A good example was gained from the study's personal interview, in which one planning firm admitted it has rapidly grown due to the cutting down of government subsidies for agriculture. The firm product line has been changed in terms of responding to the issue. The firm offers a liquid fertilizer by which farmer can keep-up their productivity by spending less cost.

Hypotheses 4

Hypotheses 4 concerned the impact of the level of management's involvement in the strategic planning processes and the firm's financial performances. The growth of after-tax profit was not examined for this hypotheses due to the a small number of observations. Table 4.8 presents the result of analysis of variance (ANOVA). Although the CEOs were the people most involved in the processes (see Figure 4.2), their contributions were not statistically significant on the three financial performances measured. Other

planning officers, on the other hand, indicated a statistically significant impact of their contribution on financial performances measured. Therefore, the fourth hypotheses of the study, that there is no significant relationship between the contribution of individuals involved in the strategic planning processes and a firm's financial performance during the New Zealand economic liberalization, is accepted for the contribution of CEOs, but is rejected for the contribution of other planning officers.

Table 4.8.

Analysis of Variance on the Level of Individuals Involved in Strategic Planning Processes with Firm's Financial Performances as the Dependent Variables

Individuals Involved (Independent Variables)	Growth of		
	Sales	Productivity	Employees
Chief Executive Officers	0.24	0.29	0.61
Other Planning Officers	144.92 **	28.19 **	45.95 **
Consultants	6.38 *	7.64 *	0.06
Board of Directors	0.10	0.23	144.66 **

* significant at the 0.01 level

** significant at the 0.001 level

Interestingly, the contribution of consultants and board members, which were very low in the planning processes (see Figure 4.2), indicated a significant relationship on one or two financial measures. For the contribution of a consultant, the fourth hypotheses could not be accepted for growth of

sales and productivity. On the other hand, both of these performance measures could not be rejected for the contribution of board members.

An additional finding of the role of CEOs in planning processes and the impact on financial performance is shown in Table 4.9.

Table 4.9.

Analysis of Variance on the Interaction of Individuals' Contribution in Strategic Planning Processes with Firm's Financial Performances as the Dependent Variables

Interaction between	Growth of		
	Sales	Productivity	Employees
CEOs with Other Planning Officers	46.84 ***	6.97 *	55.97 ***
CEOs with Consultants	33.90 ***	8.22 **	54.15 ***
CEOs with Directors	0.23	0.32	25.25 ***

- * significant at the 0.1 level
- ** significant at the 0.05 level
- *** significant at the 0.01 level

The impact of CEOs' contribution on the planning processes for the three financial performance measures become significant when they interacted with other planning officers and consultants, but was limited only to growth of employees when the interaction was with board members. This finding suggested that CEOs need other individuals to help them conduct the strategic planning processes. Other planning officers and consultants may help CEOs in terms of improving their contribution in planning processes toward getting more effective strategic planning.

4.4. Discussion

Compared to other planning studies, this study found that strategic planning has been slowly adopted by New Zealand agribusinesses. Evidence indicated that New Zealand's economic liberalization was an impetus for introducing the programmes into New Zealand agribusiness firms. Earlier planning study of various New Zealand companies, conducted by Wright (1982), reported that most of the 138 sampled firms started planning programmes prior to 1979, five years before New Zealand economic liberalization began. Most UK various companies surveyed (in Taylor and Irving's, 1971) and US companies surveyed (in Henry, 1977), moreover, had participated in formal planning processes before 1969. This implies that strategic management and planning was not well establish within agribusiness firms in New Zealand, and, hence, needs to be further developed in terms of improving strategic management within agribusiness firms.

All four of the study's hypotheses regarding strategic planning within agribusiness firms have been examined. The results suggested rejecting hypotheses 1 and 3, and partly rejecting hypotheses 2 and 4. Strategic planning allowed firms, in the overall responses, to more easily determine their goals and objectives within an uncertain environment. They have also been encouraged to do some improvement on various areas of management in terms of getting successful implementation of their strategies. It is, therefore, apparent that planners had more advantages than disadvantages caused by

the new environment in which most of them were able to be fast growing firms during the uncertainty.

The result of examining hypothesis 2 supported the most earlier planning-performance studies, that suggested the positive effect of strategic planning on financial performance. Although New Zealand agribusinesses are categorized as new planners, their planning has paid off. Therefore, the introduction of effective strategic planning into agribusiness firms should be further encouraged with respect to the fact that 42 percent of the respondents in this study still have not started the programme. Furthermore, within the formal planning firms, the study also found that the correlation coefficients (r) between the use of strategic planning and firms' financial performance was low.

New Zealand agribusiness firms seemingly need more managers that have a skill in strategic management and planning. The changed hands of firm management occurred since 1984 indicated that most of the new managements introduced planning processes into the firms.

The intensive involvement of CEOs in the planning processes was noted by most of surveyed firms. However, since the impact of their contribution in the planning processes on firms' financial performance was not significant, this intensive contribution of CEOs becomes questionable in terms of strategic planning effectiveness. In fact, the contribution of CEOs was quite similar with other corporate planning officers'. According to the opinion that CEOs should be involved in the planning processes at a key point only (Pennington, 1972; Steiner, 1979), this effort can be considered as excessive for CEOs.

Additional analysis showed that the impact of CEOs' contribution in the

planning processes on the three financial performances appeared when they interacted with other planning officers as well as consultants. Considering the majority of samples that were categorized as small businesses (see Figure 3.3), the role of consultant services becomes more important (Cohn and Lindberg, 1972; Gilmore, 1971), because many small firms have no full time planning officers. Outside planning consultants can be a remedy for this disadvantage, including supplementing the top management's lack of planning orientation, skills, time allocation, and commitment (Robinson, 1982). Therefore, the biggest constraint for using strategic planning in many small firms, the limited time of top management, should not be a longer constraint.

In fact, most New Zealand companies, including agribusiness companies, are typical small business by international standards (Wright, 1982). However, these small agribusinesses have an important role in New Zealand international trade. About a half of the small agribusinesses in the sample exported their products overseas. Since this study supported the positive role of strategic planning and firm managerial performance, therefore, the effort of introducing strategic planning into small agribusinesses should be continuously encouraged. The image that strategic planning belongs to large firms should no longer be accepted. It is because managing a small business in turbulent times is even more challenging than that of larger firms because small firm management must deal with limited financial and human resources in responding to environmental constraints (Paterson, 1989). The small businesses can also gain some advantages from greater flexibility (Shoeffer et al, 1974) for which strategic planning is very useful.

Chapter 5

STRATEGIC ISSUE IDENTIFICATION

5.1. Overall Prioritization of Concern for Strategic Issues

Prioritization of concern for strategic issues within the three categories has been observed. As exhibited in Table 5.1, New Zealand agribusiness decision makers, on average, expressed a higher level of concern for a firm's internal issues than general business and industrial competitive categories. Specific differences of perceived importance were also observed for specific strategic issues within each category. For instance, more than half (nine out of 15) of the total number of internal issues were considered important (greater or equal to 3.00) by respondents compared to only three general business issues and two competitive issues.

The average level of concern ranged from 1.85 (foreign tax policy) to 3.67 (demand for the product) for the general business issues; from 1.86

Table 5.1.

Overall Prioritization of Concern for Strategic Issues

Category / Issues	Average Responses N = 57	Ranking within Category	Percentage of Firms Which Ranked Issues as Either Important or Very Important
A. GENERAL BUSINESS ISSUES			
Demand for The Product	3.67	1	95
Farm Income	3.35	2	72
Value of NZ Dollar	3.25	3	81
Interest Rate	2.98	4	68
Farm Price	2.88	5	60
Foreign Trade Polisy	2.82	6	58
Domestic Environmental Regulation	2.69	7	56
Labour Relations	2.64	8	54
Domestic Tax Policy	2.60	9	51
Inflation Rate	2.59	10	53
Foreign Environmental Regulation	2.55	11	42
Transportation Issues	2.47	12	47
Investment	2.45	13	42
Domestic Trade Policy	2.23	14	30
Governmental Subsidies	2.05	15	23
Foreign Tax Policy	1.85	16	11
AVERAGE RESPONSES WITHIN CATEGORY	2.69		
B. INDUSTRIAL COMPETITIVE ISSUES			
Raw Matrial Access	3.23	1	61
Change in Rivals' Market Share	3.00	2	72
Identification of New Foreign Market Opportunity	2.87	3	49
Customers' Bargaining Power	2.83	4	61
Suppliers' Bargaining Power	2.73	5	65
Identification of New Domestic Market Opportunity	2.72	6	53
Rivals' Strategies	2.70	7	53
Identification of Major Product Rivals	2.67	8	56
Threat of Substitute Products	2.65	9	51
Rivals' Mergers and Acquisition	2.56	10	47
Change in Rivals' Number	2.51	11	46
Rivals' Goals and Objectives	2.44	12	44
Identification of Minor Product Rivals	1.86	13	23
AVERAGE RESPONSES WITHIN CATEGORY	2.67		
C. FIRM INTERNAL ISSUES			
Productivity	3.48	1	88
Management Effectiveness	3.45	2	91
Projected Income Statement	3.16	3	74
Current Income Statement	3.16	3	75
Liquidity	3.15	5	70
Return to Shareholders	3.15	5	64
Projected Balance Sheet	3.09	7	70
Current Balance Sheet	3.06	8	75
Labours' Skill	3.04	9	72
Return on Investment	2.90	10	61
Research & Development for Products	2.78	11	54
Economies of Scale	2.73	12	56
Research & Development for Manufacturing Process	2.70	13	39
Leverage Ratio	2.67	14	54
Depreciation of Inventory	1.98	15	21
AVERAGE RESPONSES WITHIN CATEGORY	2.97		

(identification of minor product rivals) to 3.23 (raw material access) for the competitive issues; and from 1.98 (depreciation of inventory) to 3.48 (productivity) for the firm internal issues. However, not considering the issue of identification of minor product rivals which was an outlier, average levels of concern for competitive issues was the narrowest among all three categories that ranged from 2.44 to 3.23.

For the general business category, respondents showed strongest concern for the demand for the product. It was also considered as the most important among all issues listed within all three categories. In fact, about 95 percent of the respondents considered this issue to be either important or very important. On the other hand, foreign tax policy was considered as the least important among all issues within the three categories. Its average response level (1.85) was within 50 percent of the average response for demand for the product. Environmental regulations, both domestic and foreign, were not very important for New Zealand agribusiness. Consistent with the results of the Dobson and Rae (1990) study, respondents showed more sensitivity to the value of New Zealand dollar.

Farm income was also of considerable concern for New Zealand agribusiness decision makers. Although the average level of concern for farm income was higher than that for the New Zealand dollar, more respondents considered the latter issues as either important or very important, 72 percent and 81 percent, respectively. Interest rates and farm prices were also considered important by respondents. It is consistent with the Burrowes et

al. (1989) study which investigated strategic planning among various industries in New Zealand.

Foreign trade policy was considered a stronger concern than domestic trade policy. Tax policy as a group received a relatively low ranking. Interestingly, the issue regarding governmental subsidies was no longer a major concern for New Zealand agribusiness decision-makers. In 1990, Dobson and Rae reported that reduced subsidies paid to purchasers of the firm's products was among the most unfavourable changes in the economic environment.

Respondents' greatest concern among the competitive issues was for raw material access. Concern for rival's market share was also high, at the second rank. However, it was considered as either important or very important by more respondents (72 percent) than the first rank (61 percent). As expected, the concern for identification of new market opportunities (ranking 2) was higher in the foreign rather than in the domestic market (ranking 6) due, perhaps, to the small size of the New Zealand domestic market. However, the change of rivals' number received relatively low of ranking. This means New Zealand agribusinesses may have not taken seriously potential entrants as a major factor of competitiveness.

For the internal issues, the respondents showed considerable concern for productivity and management effectiveness. The respondents also displayed considerable concern for the financial position of their businesses. For instance, income statement, liquidity, return to shareholders, and balance sheet received relatively high rankings. Interestingly, respondents as a group

showed relatively less concern for research and development for products and for manufacturing processes as strategic issues. These results were consistent with Crocombo et al. (1991) who studied of how to upgrade New Zealand competitive advantage. They found a limit scope of innovation had existed within New Zealand industry.

5.2. Prioritization of Strategic Issues Across Different Firm Characteristics

Further exploration of important strategic issues by New Zealand agribusiness decision-makers has been observed by classifying respondents into several important firm characteristics. Since the agribusiness sector is behind other sectors in terms of implementing strategic management, the relative importance of strategic issues observed could provide guidance for designing research and educational activities aimed at improving strategic management processes within agribusinesses.

The next section describes the respondents attitudes toward strategic issues based on: firm's legal form; product lines; cadre size; geographical location; and degree of firm's orientation toward strategic planning. The study's fifth hypotheses is examined in this section. A pattern used in presenting the results is: (1) comparing the overall differences of responding issues within category in terms of determining the major concern among the three categories; and followed by (2) displaying the result of statistical test of

independence among groupings; then (3) the analysis will focus on the respondents' concern for specific strategic issues within each categories; which is followed by (4) presenting the results of statistical tests among each strategic issue within categories.

5.2.1. Legal Form

As mentioned in Chapter 3, the sample respondents were divided into five groups based on their legal business form: corporation, sole proprietorship, partnership, cooperative, and 'others'. While the sample size of sole proprietorship and partnership were relatively small, however, both of the groups were also analyzed. The Westgren et al. (1988) study did not analyze the sample's responses based on legal form due to the small number of their sample size (only 18 samples). The average responses of the strategic issues as well as the rankings are exhibited in Table 5.2 and Table 5.3.

The average level of concern for all 44 issues listed range from 1.00 (R&D for manufacturing processes by sole proprietorship) to 4.00 (demand for the product by partnership, and farm income by sole proprietorship). Agricultural cooperatives generally indicated a greater level of overall concern for all three categories than the other four groups. This is due, perhaps, to the uniqueness of cooperative institutions: running a business which is strongly related to their members or patronages' businesses. The internal category was the most important for all groups except sole proprietorships.

Table 5.2.

Average Responses of Specific Strategic Issues by Type of Legal Form

CATEGORY / ISSUES	Average Responses of Strategic Issues				
	Corporation	Sole Proprie- torship	Partnership	Coopera- tives	Others
	a) N = 27	N = 4	N = 5	N = 15	N = 6
A. GENERAL BUSINESS ISSUES					
Demand for The Product	3.63	3.75	4.00	3.60	3.67
Value of NZ Dollar	3.15	3.50	3.20	3.20	3.67
Farm Income	3.10	4.00	3.80	3.64	3.00
Interest Rate	2.88	2.75	2.60	3.40	2.83
Farm Price	2.86	3.00	2.80	2.92	2.83
Foreign Trade Policy	2.65	3.50	2.60	3.15	2.40
Domestic Tax Policy	2.65	2.25	2.60	2.62	2.60
Foreign Environmental Regulation	2.58	2.67	2.40	2.33	3.00
Labour Relations	2.58	2.00	2.20	3.31	2.20
Investment	2.48	2.75	2.60	2.57	1.60
Inflation Rate	2.46	2.33	2.20	3.07	2.50
Transportation Issues	2.35	2.75	2.00	2.60	2.83
Domestic Environmental Regulation	2.33	2.33	3.00	3.00	3.33
Domestic Trade Policy	2.08	2.50	2.20	2.43	2.20
Foreign Tax Policy	1.85	2.50	1.75	1.80	1.67
Governmental Subsidies	1.69	2.00	2.20	2.27	2.60
AVERAGE RESPONSES WITHIN CATEGORY	2.58	2.79	2.63	2.87	2.68
B. INDUSTRIAL COMPETITIVE ISSUES					
Raw Material Access	3.29	3.25	3.33	3.31	2.00
Change in Rivals' Market Share	3.04	3.00	2.80	2.93	3.25
Identification of New Foreign Market Opportunity	2.85	2.00	3.00	2.92	3.20
Customers' Bargaining Power	2.78	3.33	3.20	2.73	2.67
Identification of New Domestic Market Opportunity	2.64	1.50	3.40	2.87	3.00
Rivals' Strategies	2.63	3.00	2.40	3.00	2.25
Suppliers' Bargaining Power	2.63	3.25	2.80	2.73	2.75
Identification of Major Product Rivals	2.58	3.00	2.20	3.00	2.40
Threat of Substitute Products	2.50	3.00	2.33	2.79	3.00
Rivals' Goals and Objectives	2.48	2.50	1.60	2.79	2.00
Rivals' Mergers and Acquisition	2.42	3.25	2.75	2.64	2.25
Change in Rivals' Number	2.42	3.00	2.80	2.50	2.25
Identification of Minor Product Rivals	1.92	1.75	1.80	2.08	1.20
AVERAGE RESPONSES WITHIN CATEGORY	2.63	2.76	2.65	2.79	2.48
C. FIRM INTERNAL ISSUES					
Productivity	3.44	3.25	3.80	3.60	3.20
Liquidity	3.23	3.00	2.80	3.14	3.17
Management Effectiveness	3.22	3.75	3.80	3.73	3.20
Labours' Skill	3.04	3.33	3.40	3.00	2.67
Current Balance Sheet	3.04	2.67	3.20	2.87	3.80
Projected Income Statement	2.96	2.75	3.00	3.47	3.80
Current Income Statement	2.92	3.25	3.60	3.20	3.80
Projected Balance Sheet	2.88	3.00	3.00	3.33	3.60
Return on Investment	2.81	3.00	2.80	3.00	3.25
Leverage Ratio	2.80	3.00	2.25	2.64	2.40
Return to Shareholders	2.74	3.00	3.60	3.50	3.75
Economies of Scale	2.68	2.25	2.40	3.23	2.25
Research & Development for Products	2.63	2.00	3.00	3.08	2.83
Research & Development for Manufacturing Processes	2.50	1.00	2.50	3.08	3.00
Depreciation of Inventory	2.04	1.50	1.50	2.15	1.75
AVERAGE RESPONSES WITHIN CATEGORY	2.86	2.72	2.98	3.13	3.10

a) Number of firms in each category

Table 5.3.

Ranking of Specific Strategic Issues by Type of Legal Form

CATEGORY / ISSUES	Ranking Within Category				
	Corporation	Sole Proprie	Partnership	Coopera-	Others
	a) N = 27	torship N = 4	N = 5	tives N = 15	N = 6
<i>A. GENERAL BUSINESS ISSUES</i>					
Demand for The Product	1	2	1	2	1
Value of NZ Dollar	2	3	3	5	1
Farm Income	3	1	2	1	4
Interest Rate	4	6	6	3	6
Farm Price	5	5	5	9	6
Foreign Trade Policy	6	3	6	6	12
Domestic Tax Policy	6	14	6	10	9
Foreign Environmental Regulation	8	9	10	14	4
Labour Relations	8	15	11	4	14
Investment	10	6	6	12	16
Inflation Rate	11	12	11	7	11
Transportation Issues	12	6	15	11	6
Domestic Environmental Regulation	13	12	4	8	3
Domestic Trade Policy	14	10	11	13	13
Foreign Tax Policy	15	10	16	16	15
Governmental Subsidies	16	15	11	15	9
<i>B. INDUSTRIAL COMPETITIVE ISSUES</i>					
Raw Material Access	1	2	2	1	11
Change in Rivals' Market Share	2	5	5	4	1
Identification of New Foreign Market Opportunity	3	11	4	5	2
Customers' Bargaining Power	4	1	3	9	6
Identification of New Domestic Market Opportunity	5	13	1	6	3
Rivals' Strategies	6	5	9	2	8
Suppliers' Bargaining Power	6	2	5	10	5
Identification of Major Product Rivals	8	5	11	2	7
Threat of Substitute Products	9	5	10	7	3
Rivals' Goals and Objectives	10	10	13	7	11
Rivals' Mergers and Acquisition	11	2	8	11	8
Change in Rivals' Number	11	5	5	12	8
Identification of Minor Product Rivals	13	12	12	13	13
<i>C. FIRM INTERNAL ISSUES</i>					
Productivity	1	3	1	2	7
Liquidity	2	5	10	8	9
Management Effectiveness	3	1	1	1	7
Labours' Skill	4	2	5	11	12
Current Balance Sheet	4	11	6	13	1
Projected Income Statement	6	10	7	4	1
Current Income Statement	7	3	3	7	1
Projected Balance Sheet	8	5	7	5	5
Return on Investment	9	5	10	11	6
Leverage Ratio	10	5	14	14	13
Return to Shareholders	11	5	3	3	4
Economies of Scale	12	12	13	6	14
Research & Development for Products	13	13	7	9	11
Research & Development for Manufacturing Processes	14	15	12	9	10
Depreciation of Inventory	15	14	15	15	15

a) Number of firms in the category

Cooperatives and 'others' groups considered the issues listed within the internal category as important (higher than 3.00). Interestingly, the overall responses for all three categories were not relatively different for the sole proprietorship group which means the group considered all three categories relatively similar in importance.

A statistical test was used to determine whether there was a difference among respondents in responding to issues within each category as either important or very important (see Appendix 10). The results of the chi-square test indicated that all three categories were significantly different. The chi-square value was 16.636 for general business category, 14.120 for competitive category and 12.091 for internal category. The critical value at the 0.05 level with 4 degree of freedom is 9.488. Thus, the fifth hypotheses of this study, that there is no significant difference among the five group in responding to strategic issues as important issues, must be rejected for all three categories.

With respect to specific strategic issues within each category, the study found that the results between the overall rankings (Table 5.1) and the rankings sorted by type of legal form seemed to be similar. This could indicate that some degree of consensus exists among these diverse agribusiness firms. For instance, the strategic issues highly ranked across the various types of business forms in the general business category were generally the demand for the product, farm income, and the value of New Zealand dollar. Foreign trade policy was highly ranked by the sole proprietorship agribusinesses while partnerships showed the importance of domestic environmental regulation issue. In contrast, cooperatives indicated a high level of concern for interest

rates and labour relations, while 'others' business forms assigned a high level of concern for both domestic and foreign environmental regulations.

In terms of the competitive issues, corporations displayed considerable concern for raw material access, changes in rivals' market share, and identification of new foreign market opportunity. Sole proprietorships were concerned about bargaining power of customers and suppliers, raw material access, and rival's mergers and acquisitions. Partnerships indicated a high level of concern for identification of new domestic market opportunity and raw material access. In contrast, cooperatives assigned a high level of concern for rival's strategies and identification of major product rivals. Identification of both foreign and domestic market opportunities were of considerable concern for the 'others' type of legal form.

With respect to internal issues, except the 'others' group, all of the group indicated a high level of concern for productivity and management effectiveness. Corporations ranked liquidity high among the internal issues while sole proprietorships exhibited great concern for labour skills. Partnerships and cooperatives displayed high concern for return to shareholders. In contrast, both current and projected income statements and also projected balance sheets were a major concern by the 'others' type of legal form.

Fisher's exact test applied for each specific issues indicated that the responses of various types of agribusiness, grouped by legal form, were significantly different for the 12 strategic issues, as presented in Table 5.4. The sequences of category range from a very general environment to industrial competitive environment and finally to internal firm environment. The study

found that the narrower the category of strategic issues for the firm's internal issues, the greater the number of significant different issues among the five groups. There were only two specific issues within the general business category which differed significantly among the five groups, four issues within the competitive category and six issues within the internal category. Understandably, firm financial position i.e.: both balance sheets and income statements (current and projected) were significantly different among the five groups due, perhaps, to the different financial implications of each legal form (see Downey and Erickson, 1987, p.46-70).

Table 5.4.
The Significant Different Strategic Issues
among Groupings of Respondents by the Type of Legal Form

Strategic Issues	Fisher's Exact Test Probability
<i>General Business Issues</i>	
Domestic Environmental Regulation	0.001
Farm Income	0.048
<i>Competitive Issues</i>	
Identification of Minor Product Rivals	0.005
Raw Material Access	0.019
Changes in Number of Rivals	0.049
Rivals' Goals and Objectives	0.012
<i>Internal Issues</i>	
Current Balance Sheet	0.046
Projected Balance Sheet	0.038
Current Income Statement	0.031
Projected Income Statement	0.007
Management Effectiveness	0.000
Productivity	0.000

5.2.2. Product Lines

The level of concern for the various strategic issues differed depending upon whether the firm supplied inputs to farmers (input group) or whether they were producing, marketing and processing firms (output group). The grouping, in general, also represents the destination of product market: the input group tends to market their product in domestic markets; while most of the firms within output group market a part of their product outside New Zealand. Data was also processed based on exporting products. The results indicated a similarity with the results by product lines.

As shown in Table 5.5, the firms in the output group generally indicated a greater level of concern for strategic issues than did the firms in the input groups. Based on the overall responses within category, both input and output group indicated their major concern for the internal category. The output group considered the issues listed in this category were important (higher than 3.00). On the other hand, the competitive category was ranked lowest by the input group.

The chi-square test of independence was applied to the data (Appendix 11). The results indicated that the issues within the three categories were to responded differently by the two groups. The chi-square values were 6.365 for general business category, 14.723 for competitive category and 15.426 for internal category. With the critical value at the $\alpha = 0.05$ ($df = 1$) is 3.841, the fifth hypotheses of this study is rejected for all three categories.

Table 5.5.

Average Responses and Ranking of Specific Strategic Issues by Product Lines

CATEGORY / ISSUES	Average Responses		Ranking within Category	
	Input N = 26	Output N = 31	Input	Output
A. GENERAL BUSINESS ISSUES				
Demand for The Product	3.50	3.81	1	1
Farm Income	3.35	3.36	2	3
Farm Price	3.08	2.67	3	11
Interest Rate	2.92	3.03	4	4
Value of NZ Dollar	2.77	3.65	5	2
Domestic Environmental Regulation	2.71	2.68	6	10
Foreign Trade Policy	2.59	3.00	7	5
Domestic Tax Policy	2.58	2.63	8	12
Investment	2.44	2.46	9	13
Inflation Rate	2.40	2.76	10	8
Labour Relations	2.25	2.97	11	6
Transportation Issues	2.21	2.69	12	9
Foreign Environmental Regulation	2.20	2.83	13	7
Domestic Trade Policy	2.12	2.33	14	14
Governmental Subsidies	1.90	2.19	15	15
Foreign Tax Policy	1.69	2.00	16	16
AVERAGE RESPONSES WITHIN CATEGORY	2.54	2.82		
B. INDUSTRIAL COMPETITIVE ISSUES				
Raw Material Access	2.88	3.44	1	1
Change in Rivals' Market Share	2.79	3.17	2	3
Identification of New Domestic Market Opportunity	2.65	2.78	3	7
Rivals' Strategies	2.58	2.80	4	6
Identification of Major Product Rivals	2.56	2.76	5	9
Rivals' Mergers and Acquisition	2.50	2.61	6	11
Threat of Substitute Products	2.50	2.77	6	8
Customers' Bargaining Power	2.50	3.15	6	4
Rivals' Goals and Objectives	2.46	2.43	9	12
Suppliers' Bargaining Power	2.35	3.07	10	5
Change in Rivals' Number	2.35	2.63	10	10
Identification of New Foreign Market Opportunity	2.24	3.25	12	2
Identification of Minor Product Rivals	1.91	1.82	13	13
AVERAGE RESPONSES WITHIN CATEGORY	2.48	2.82		
C. FIRM INTERNAL ISSUES				
Productivity	3.23	3.70	1	1
Management Effectiveness	3.19	3.67	2	2
Projected Income Statement	3.08	3.24	3	7
Projected Balance Sheet	3.00	3.18	4	9
Return to Shareholders	2.96	3.32	5	5
Liquidity	2.92	3.36	6	4
Current Income Statement	2.92	3.38	6	3
Current Balance Sheet	2.85	3.25	8	6
Labours' Skill	2.81	3.24	9	7
Return on Investment	2.58	3.18	10	9
Leverage Ratio	2.55	2.79	11	14
Research & Development for Products	2.45	3.04	12	12
Research & Development for Manufacturing Processes	2.33	2.95	13	13
Economies of Scale	2.32	3.12	14	11
Depreciation of Inventory	1.77	2.16	15	15
AVERAGE RESPONSES WITHIN CATEGORY	2.73	3.17		

With respect to general business issues, both input and output groups concurred to be most concerned with product demand. The input group, however, ranked farm price as third in terms of the level of concern in contrast to the rank of 11th given by the output group. As expected, the output groups were more concerned about the value of the New Zealand dollar due to the fact that most of the firms in the output group exported their products overseas. A relatively higher level of concern for both foreign trade policy and environmental regulation were also given by the output group.

In terms of competitive issues, both groupings expressed considerable agreement as to the relative importance of raw material access and changes in rivals' market share. An interesting divergence emerged, however, with respect to the identification of new market opportunities. The input group ranked the domestic market higher than the foreign market. In contrast, the output group ranked identification of new foreign market opportunities significantly higher than the identification of new domestic market opportunity. This perhaps is due to the firms in the input group market most of their product domestically. In addition, the issues of both customers' and suppliers' bargaining power became relatively more important for the output group, due perhaps to driving forces that emerged from overseas market.

The input group was much more concerned about their projected rather than their current balance sheets and income statements. The output group, however, were much more concerned about the current than the projected balance sheet and income statements.

Fisher's exact test for the data showed that only ten of 44 specific issues were regarded significantly different between the two distinct groups. Table 5.6 displays the distribution of the ten issues among the all three categories. In contrast to the earlier grouping by legal form, the study found that the narrower the category of strategic issues toward the firm's internal issues, the less the number of significant different issues among the two groups.

Table 5.6.

**The Significant Different Strategic Issues
between Groupings of Respondents by Primary Product Lines**

Strategic Issues	Fisher's Exact Test Probability
<i>General Business Issues</i>	
Value of NZ Dollar	0.016
Farm Price	0.029
Transportation Issues	0.033
Labour Relations	0.008
Foreign Environmental Regulation	0.059
Farm Income	0.076
<i>Competitive Issues</i>	
Customer's Bargaining Power	0.050
Identification of New Foreign Market Opportunity	0.000
Raw Material Access	0.055
<i>Internal Issues</i>	
Economies of Scales	0.066

There were six strategic issues within the general business category, three issues within the competitive category, and one within the internal category. Some of the six significant different issues within the general

business category emerged due, perhaps, to marketing products to overseas. The value of New Zealand dollar and transportation issues, for example, are some issues which determine the level of New Zealand's price competitiveness within global markets.

5.2.3. Cadre Size

Average responses and ranking based on the categories of small versus large cadres are given in Table 5.7. The firms in the large group generally indicated a higher concern for the strategic issues than the firms in the small group. The overall responses for each of three categories were consistently higher for the larger firms. This result is consistent with the Westgren et al. (1988) study of California agribusinesses. However, results of the chi-square test indicated that a statistical difference between the two groupings did not exist for the competitive category (see Appendix 12). The chi-square values were 5.394 for the general business category, 1.235 for the competitive category and 37.884 for the internal category. The critical value at 95 percent degree of significance ($df = 1$) is 3.841. Therefore, the hypotheses regarding no significant difference between the two groupings could not be accepted for the general business and the internal category, but could not be rejected for the competitive category.

With regard to the general business issues, larger firms displayed more sensitivity to labour relations than did smaller firms. This results is not surprising considering the greater number of persons employed by larger firms.

Table 5.7.

Average Responses and Ranking of Specific Strategic Issues by Cadre Size

CATEGORY / ISSUES	Average Responses		Ranking within Category	
	Small N = 28	Large N = 27	Small	Large
A. GENERAL BUSINESS ISSUES				
Demand for The Product	3.57	3.74	1	1
Farm Income	3.43	3.24	2	3
Value of NZ Dollar	3.14	3.30	3	2
Farm Price	3.04	2.83	4	7
Interest Rate	2.85	3.15	5	4
Foreign Trade Policy	2.88	2.70	5	10
Foreign Environmental Regulation	2.71	2.33	7	13
Domestic Environmental Regulation	2.50	2.88	8	6
Domestic Tax Policy	2.46	2.80	9	8
Inflation Rate	2.44	2.74	10	9
Investment	2.33	2.59	11	12
Domestic Trade Policy	2.33	2.12	11	14
Transportation Issues	2.28	2.62	13	11
Labour Relations	2.25	3.04	14	5
Foreign Tax Policy	2.00	1.67	15	16
Governmental Subsidies	1.89	2.10	16	15
AVERAGE RESPONSES WITHIN CATEGORY	2.63	2.74		
B. INDUSTRIAL COMPETITIVE ISSUES				
Raw Material Access	3.32	3.13	1	1
Change in Rivals' Market Share	3.00	2.96	2	3
Customers' Bargaining Power	2.85	2.77	3	6
Change in Rivals' Number	2.80	2.23	4	12
Identification of New Foreign Market Opportunity	2.74	3.00	5	2
Rivals' Strategies	2.73	2.73	6	7
Suppliers' Bargaining Power	2.70	2.70	7	8
Threat of Substitute Products	2.65	2.56	8	11
Identification of Major Product Rivals	2.52	2.81	9	5
Identification of New Domestic Market Opportunity	2.52	2.96	9	3
Rivals' Mergers and Acquisition	2.46	2.65	11	9
Rivals' Goals and Objectives	2.35	2.62	12	10
Identification of Minor Product Rivals	2.00	1.77	13	13
AVERAGE RESPONSES WITHIN CATEGORY	2.66	2.68		
C. FIRM INTERNAL ISSUES				
Management Effectiveness	3.30	3.59	1	2
Productivity	3.26	3.70	2	1
Liquidity	3.12	3.19	3	8
Current Income Statement	3.07	3.19	4	8
Current Balance Sheet	2.88	3.23	5	6
Return to Shareholders	2.86	3.37	6	4
Projected Income Statement	2.85	3.42	7	3
Labours' Skill	2.85	3.23	7	6
Projected Balance Sheet	2.84	3.31	9	5
Return on Investment	2.72	3.12	10	10
Economies of Scale	2.54	2.92	11	12
Leverage Ratio	2.53	2.80	12	14
Research & Development for Products	2.52	2.96	13	11
Research & Development for Manufacturing Processes	2.50	2.82	14	13
Depreciation of Inventory	1.75	2.20	15	15
AVERAGE RESPONSES WITHIN CATEGORY	2.77	3.14		

Smaller firms ranked foreign trade, tax, and environmental policies as more important than did the larger firms. Smaller firms, due to their size, were more concerned about the impact of foreign policies on their business operations than were larger firms.

With respect to competitive issues, smaller firms expressed more concern for their customers' bargaining power and a change in the number of rivals than did the larger firms. Understandably, smaller firms may feel more threatened than larger firms by changes in industry concentration and market power. Larger firms, however, ranked identification of new market opportunities in both the domestic and foreign markets more highly than did the smaller firms.

Relative to internal issues, smaller firms ranked liquidity and both current income statements and balance sheets higher than did the larger firms. The larger firms indicated a higher level of concern for return to shareholders, and for both of projected income statements and balance sheets.

Although there were so many differences in ranking of concern for the listed strategic issues, Fisher's exact test indicated only ten strategic issues were statistically different between the two groups (Table 5.8). Understandably, the significant differences of responses between the two groups existed more within the internal category than other categories. Six of the issues surfaced within the internal category, and only two issues within each of the other categories.

Table 5.8.
The Significant Different Strategic Issues
between Groupings of Respondents by Firm's Cadre Sizes

Strategic Issues	Fisher's Exact Test Probability
<i>General Business Issues</i>	
Domestic Environmental Regulation	0.058
Labour Relations	0.003
<i>Competitive Issues</i>	
Identification of New Domestic Market Opportunity	0.060
Change in Rivals' Numbers	0.031
<i>Internal Issues</i>	
Current Balance Sheet	0.055
Projected Balance Sheet	0.019
Projected Income Statement	0.014
Return to Shareholders	0.023
Research & Development for Manufacturing Processes	0.054
Research & Development for Products	0.031

5.2.4. Geographical Location

New Zealand agribusiness firms located in the South Island generally indicated a greater level of concern for strategic issues than did firms in the North Island. As shown in Table 5.9, differences exist in terms of overall responses for each category between the two groups were most different for general business category (2.57 with 2.98) and most similar for internal category (2.94 with 3.04). Chi-square test of independence supported this finding (see Appendix 13). The chi-square values for general business

Table 5.9.

Average Responses and Ranking of Specific Strategic Issues by Firm Geographical Location

CATEGORY / ISSUES	Average Responses		Ranking within Category	
	North N = 39	South N = 18	North	South
<i>A. GENERAL BUSINESS ISSUES</i>				
Demand for The Product	3.67	3.67	1	1
Farm Income	3.36	3.33	2	4
Value of NZ Dollar	3.13	3.50	3	3
Farm Price	2.86	2.93	4	9
Interest Rate	2.72	3.59	5	2
Foreign Trade Policy	2.60	3.33	6	4
Domestic Environmental Regulation	2.59	2.93	7	9
Foreign Environmental Regulation	2.47	2.75	8	12
Domestic Tax Policy	2.46	2.94	9	8
Labour Relations	2.43	3.06	10	7
Investment	2.39	2.59	11	13
Inflation Rate	2.34	3.19	12	6
Transportation Issues	2.32	2.87	13	11
Domestic Trade Policy	2.06	2.56	14	14
Governmental Subsidies	2.03	2.08	15	16
Foreign Tax Policy	1.63	2.38	16	15
AVERAGE RESPONSES WITHIN CATEGORY	2.57	2.98		
<i>B. INDUSTRIAL COMPETITIVE ISSUES</i>				
Raw Material Access	3.11	3.47	1	1
Change in Rivals' Market Share	2.92	3.17	2	2
Customers' Bargaining Power	2.86	2.76	3	9
Identification of New Foreign Market Opportunity	2.83	2.93	4	6
Identification of New Domestic Market Opportunity	2.78	2.59	5	12
Rivals' Strategies	2.64	2.83	6	7
Threat of Substitute Products	2.63	2.71	7	11
Suppliers' Bargaining Power	2.59	3.00	8	4
Identification of Major Product Rivals	2.44	3.11	9	3
Change in Rivals' Number	2.37	2.78	10	8
Rivals' Mergers and Acquisition	2.35	2.94	11	5
Rivals' Goals and Objectives	2.31	2.72	12	10
Identification of Minor Product Rivals	1.74	2.12	13	13
AVERAGE RESPONSES WITHIN CATEGORY	2.58	2.86		
<i>C. FIRM INTERNAL ISSUES</i>				
Productivity	3.45	3.56	1	1
Management Effectiveness	3.42	3.50	2	2
Return to Shareholders	3.33	2.73	3	11
Projected Income Statement	3.19	3.11	4	8
Current Income Statement	3.14	3.22	5	6
Projected Balance Sheet	3.03	3.25	6	5
Current Balance Sheet	3.00	3.18	7	7
Liquidity	3.00	3.47	7	3
Labours' Skill	2.90	3.38	9	4
Return on Investment	2.86	3.00	10	9
Economies of Scale	2.82	2.53	11	14
Research & Development for Manufacturing Processes	2.76	2.58	12	13
Research & Development for Products	2.71	2.93	13	10
Leverage Ratio	2.70	2.62	14	12
Depreciation of Inventory	1.75	2.47	15	15
AVERAGE RESPONSES WITHIN CATEGORY	2.94	3.04		

category was 9.340, competitive category was 13.797, and internal category was 0.505. The critical value at the 0.05 level with 1 degree of freedom is 3.841. Therefore, the study's fifth hypotheses that there is no significant differences between the two groups in responding to the strategic issues listed could not be rejected for the internal category, but it must be rejected for the general business and the competitive categories.

With respect to the general business issues, both groupings exhibited a major concern for the demand for product. Farm price and farm income were more important to the North group, whereas the South group indicated the rate of both inflation and interest as more important. In addition, the South group displayed more sensitivity to foreign trade policy and labour relations, perhaps because of the smaller local market and smaller population in the South Island.

For the competitive issues, both groupings expressed considerable agreement as to the relative importance of raw material access and changes in rivals' market share. An interesting divergence surfaced, however, with respect to the customer's bargaining power and the identification of major product rivals. The North group and the South group ranked both of these issues at the third and ninth level of concern, respectively. According to firm life-cycle theory (for example, see Downey and Erickson, 1987, p.260-262), a firm faces different critical issues in accordance with the level of firm maturity. The relative concern for strategic issues displayed by the two groups within the competitive category indicated that firms in the North group, in general, were more established than its South group counterpart. The North group expressed a higher level of concern for the customer's bargaining power, expanding markets to both foreign and domestic markets, and have started to

consider the threats of substitute of their products. On the other hand, the South group was seemingly struggling in terms of establishing their competitive position. Firms in the South group displayed less concern for the customers' bargaining power, at the same time, expressing a high level of concern for identification of major product rivals, bargaining power of suppliers, and rivals' mergers and acquisition.

Both groupings' major concern for internal issues was productivity and management effectiveness. Return to shareholders and projected income statements were of much more concerned for the North group, while the South group displayed a higher level of concern for liquidity and labours' skill. This is, therefore, the opinion that the samples in the North group were much more established was supported since they no longer took into consideration the basic survival issues of firms such as the last two issues.

In terms of statistical differences of responding to strategic issues between two groups, Fisher's exact test displayed that only one specific issue was significantly different within the internal category, in contrast to four and six specific issues within competitive and general business categories, respectively. Table 5.10 presents these results. More information is provided in Appendix 13.

Based on grouping respondents by location, this study found that the location of firms has a great influence on facing strategic issues for firm external environment rather than internal environment. This is about similar to the grouping by product lines, but, contrast to the grouping by firm's legal form and cadre size.

Table 5.10.

**The Significant Different Strategic Issues
between Groupings of Respondents by Firm Geographical Location**

Strategic Issues	Fisher's Exact Test Probability
<i>General Business Issues</i>	
Domestic Trade Policy	0.032
Foreign Trade Policy	0.048
Foreign Tax Policy	0.072
Inflation Rate	0.012
Interest Rate	0.032
Labour Relations	0.089
<i>Competitive Issues</i>	
Suppliers' Bargaining Power	0.073
Identification of Major Product Rivals	0.039
Rivals' Goals and Objectives	0.024
Rivals' Mergers and Acquisition	0.021
<i>Internal Issues</i>	
Productivity	0.075

5.2.5. Degree of Planning

The level of concern for the various strategic issues may differ depending upon whether there is low orientation (informal planning group) or extensive orientation (formal planning group) of the firm towards the strategic planning processes (Westgren et al. 1988). In terms of the overall responses for all three categories, this study found limited differences between the two groupings (Table 5.11). However, the results of the chi-square test suggested that only general business did not differ statistically at $\alpha = 0.05$ (see Appendix

Table 5.11.

Average Responses and Ranking of Specific Issues by Degree of Planning

CATEGORY / ISSUES	Average Responses		Ranking within Category	
	Informal N = 24	Formal N = 33	Informal	Formal
A. GENERAL BUSINESS ISSUES				
Demand for The Product	3.58	3.73	1	1
Value of NZ Dollar	3.17	3.30	2	3
Farm Income	3.16	3.48	3	2
Interest Rate	3.09	2.91	4	5
Domestic Tax Policy	2.95	2.35	5	13
Foreign Trade Policy	2.95	2.72	5	6
Domestic Environmental Regulation	2.91	2.52	7	8
Inflation Rate	2.75	2.47	8	10
Labour Relations	2.73	2.58	9	7
Farm Price	2.68	3.00	10	4
Foreign Environmental Regulation	2.61	2.50	11	9
Domestic Trade Policy	2.57	1.97	12	15
Transportation Issues	2.50	2.45	13	12
Investment	2.43	2.47	14	10
Foreign Tax Policy	1.92	1.80	15	16
Governmental Subsidies	1.83	2.22	16	14
AVERAGE RESPONSES WITHIN CATEGORY	2.74	2.65		
B. INDUSTRIAL COMPETITIVE ISSUES				
Raw Material Access	3.44	3.11	1	1
Change in Rivals' Market Share	3.18	2.88	2	4
Identification of New Foreign Market Opportunity	2.78	2.93	3	3
Change in Rivals' Number	2.73	2.35	4	12
Rivals' Mergers and Acquisition	2.67	2.48	5	10
Identification of New Domestic Market Opportunity	2.67	2.75	5	8
Identification of Major Product Rivals	2.67	2.67	5	9
Suppliers Bargaining Power	2.64	2.79	8	7
Rivals' Goals and Objectives	2.55	2.38	9	11
Rivals' Strategies	2.55	2.81	9	6
Customers Bargaining Power of	2.52	3.03	11	2
Threat of Substitute Products	2.38	2.84	12	5
Identification of Minor Product Rivals	1.80	1.90	13	13
AVERAGE RESPONSES WITHIN CATEGORY	2.66	2.69		
C. FIRM INTERNAL ISSUES				
Management Effectiveness	3.35	3.52	1	2
Productivity	3.35	3.58	1	1
Liquidity	3.21	3.10	3	7
Current Income Statement	3.17	3.16	4	6
Current Balance Sheet	3.13	3.00	5	9
Labours' Skill	3.05	3.03	6	8
Projected Income Statement	2.96	3.32	7	4
Projected Balance Sheet	2.87	3.27	8	5
Return to Shareholders	2.78	3.37	9	3
Return on Investment	2.75	3.00	10	9
Research & Development for Products	2.47	2.97	11	11
Research & Development for Manufacturing Proces	2.40	2.91	12	14
Economies of Scale	2.35	2.97	13	11
Leverage Ratio	2.32	2.93	14	13
Depreciation of Inventory	2.00	1.96	15	15
AVERAGE RESPONSES WITHIN CATEGORY	2.81	3.07		

14). The chi-square values were 0.022 for the general business category, 3.966 for the competitive category and 10.251 for the internal category. The critical value at 95 percent degree of significance ($df = 1$) is 3.841. Therefore, the fifth hypotheses of this study, that there is no significant difference between the two groupings in responding to strategic issues as important issues, could not be rejected for general business category, but it could not be accepted for competitive and internal categories.

With respect to specific strategic issues within the general business category, both of the groupings displayed similar levels of concern. However, the informal group expressed a relatively higher level of concern for domestic policy and regulation issues than did the formal group. This is, perhaps, because a broader environmental assessment was more required by this formal group in conducting the planning process.

For the competitive category, non-planners exhibited a high level of concern for changes in rivals' market share, change in number of rivals, rivals' merger and acquisition, identification of new domestic market opportunities, and identification of major product rivals. In terms of the five competitive forces noted by Porter (1985), all of these issues involved were within the subset of rivalry among the existing firms, and the subset of new potential entrants. In contrast, the formal group expressed a higher level of concern for the other three subsets of the competitive forces: customers' bargaining power, threat of substitute products, and bargaining power of suppliers. These findings may indicate that use of strategic planning has led formal group to consider broader strategic issues than informal group.

Use of strategic planning by agribusiness firms also forced its decision makers to consider strategic issues for a longer time horizon. Within internal category, the formal group exhibited a high level of concern for projected income statements and balance sheets. In contrast, the informal group expressed a higher concern for current income statements and balance sheets. It is, therefore, firms in the formal group which expressed displayed a considerable concern for return to shareholders that has an implication in the long term, compared with informal group that viewed more important the shorter term implication of issues such as liquidity. Westgren et al. (1988) suggested a differing orientation to management within the two groupings, with concern for future performance being greater in the formal group.

However, Fisher's exact test probability counted suggested that only five strategic issues were significantly different within all three categories. Table 5.12 presents the result.

Table 5.12.
The Significant Different Strategic Issues
between Groupings of Respondents by Degree of Planning

Strategic Issues	Fisher's Exact Test Probability
<i>General Business Issues</i>	
Domestic Trade Policy	0.008
<i>Competitive Issues</i>	
Customers' Bargaining Power	0.013
<i>Internal Issues</i>	
Return to Shareholders	0.028
Economies of Scales	0.030
Leverage Ratio	0.064

5.3. Discussion

Agribusiness firms in New Zealand, over the last decade, have experienced the impact of business uncertainty. One of the management skills that is needed in an uncertain business environment is the capability to identify and monitor strategic issues of most concern to the firm's livelihood. The results of the study generally indicate that respondents were concerned with strategic issues. Results also suggest that the level of concern for specific strategic issues vary across differing structural dimensions of the firm. The top three issues for each category of each groupings are displayed in Appendix 15).

In summarizing the results of statistical tests (Table 5.13), most groupings considered the all three categories significantly different in terms of their importance. No significant difference has appeared for general business category by degree of planning; for competitive category by firm's cadre size; and for internal category by firm's location. In terms of significant difference in responding to specific strategic issues, grouping respondents by product lines and firm's location indicated a much larger number of significant issues within general business category than the other categories. On the other hand, grouping by the type of legal form and firm's cadre size showed more significant issues within the firm internal category. However, grouping by degree of planning indicated the least number of differences. As recognized, strategic issue identification is the first step of strategic planning (King,

Table 5.13.

Summary of Statistical Test for Differences of Responding Strategic Issues

Category / Issues	Legal Form	Product Lines	Cadre Size	Firm's Location	Degree of Planning
General Business Issues 1)	***	**	**	***	
Domestic Environmental Regulation	***		*		
Foreign Environmental Regulation		*			
Domestic Trade Policy				**	***
Foreign Trade Policy				**	
Foreign Tax Policy				*	
Farm Price		**			
Farm Income	**	*			
Value of New Zealand Dollar		**			
Inflation Rate				**	
Interest Rate				**	
Transportation Issues		**			
Labour Relations		***	***	*	
Industrial Competitive Issues	***	***		***	**
Customers' Bargaining Power		**			**
Raw Material Access	**	*			
Threat of Substitute Products				*	
Identification of New Domestic Market Opportunity			*		
Identification of New Foreign Market Opportunity		***			
Identification of Major Product Rivals				**	
Identification of Minor Product Rivals	***				
Changes in Rivals' Number	**		**		
Rivals' Goals and Objectives	**			**	
Rivals' Merger and Acquisition				**	
Firm Internal Issues	**	***	***		***
Current Balance Sheet	**		*		
Projected Balance Sheet	**		**		
Current Income Statement	**				
Projected Income Statement	***		**		
Leverage Ratio					*
Return to Shareholders			**		**
Economic of Scales		*			**
Productivity	***			*	
Researchs and Development for Products			**		
Management Effectiveness	***				
Researchs and Development for Manufacturing Processes			*		

1) Chi-square test of independence was used for analysing the different overall responses within each category, and Fisher's exact test was used for each specific strategic issues listed.

* = Significant at the 0.1 level; ** = Significant at the 0.05; *** = Significant at the 0.01 level.

1982), until this step was taken the results suggested that only a little difference existed between planners and non-planners.

The differentiation of firms across various structural dimensions is useful in terms of recognising the diversity and distinctive features of agribusiness firms (see Downey and Erickson; 1987, p.5-7). Within the changed business environment in New Zealand, there were agribusinesses that gained an advantage through the changes as well as those which suffered. They responded to strategic issues differently based on whether the issues are important enough to affect the firm's overall performance. Regardless of the result of statistical tests, the different ranking of concern among the groupings has provided information needed to recognize the important issues faced by particular agribusiness firms. This information can be further developed to enhance agribusiness management.

Agribusiness management has unique cultural, institutional and political aspects (Sonka and Hudson, 1989). Therefore, it is useful to compare the study results with another similar study in the US which conducted by Westgren et al. (1988). They reported that California agribusinesses attached greater importance to environmental regulations than did New Zealand agribusinesses (Table 5.14). This perhaps due to the number and complexity of environmental regulations in California. With respect to the value of the local dollar, New Zealand agribusinesses regard it as more important than California agribusiness due, perhaps, to the volatility of the exchange rate for the New Zealand dollar relative to major currencies brought about by the economic liberalisation measures. New Zealand agribusinesses also attached

Table 5.14.

**Comparison of Average Responses of Selected Issues with
the Westgren et al. (1988) Study for California Agribusinesses**

Selected Strategic Issues	Average Responses	
	New Zealand	California
<i>General Business Environment</i>		
Environmental Regulation ¹⁾	2.62	3.36
Tax Policy: * Domestic/Federal	2.60	2.83
* Foreign	1.85	1.33
Interest Rate	2.98	3.28
Value of the Dollar	3.25	2.89
Farm Income	3.35	2.89
Average within category	2.69	2.78
<i>Competitive Issues</i>		
Bargaining Power of: * Customers	2.83	3.28
* Suppliers	2.73	3.00
Raw Material Access	3.23	2.83
Identification of :		
* New Market Opportunity ²⁾	2.80	3.00
* Major Product Rivals	2.67	3.33
Average within category	2.67	2.96
<i>Internal Issues</i>		
Balance Sheet: * Current	3.06	3.78
* Projected	3.09	3.39
Research and Development for :		
* Manufacturing Processes	2.70	2.17
* Product	2.78	2.11
Average within category	2.97	2.96

¹⁾ Average for domestic and foreign in the New Zealand study and average for federal and state for the California study.

²⁾ Average for domestic and foreign in the New Zealand study.

more importance to farm income and raw material access due perhaps to the small domestic market and isolation location of the country.

For internal issues, California agribusiness ranked higher concern for balance sheets, in contrast to New Zealand agribusiness that expressed a higher level of concern for management effectiveness and productivity. Interestingly, the sample of New Zealand agribusinesses gave higher average responses for research and development issues than did the sample of California agribusiness in the Westgren et al. study. This may be due to the fact that research and development in New Zealand agribusinesses is not as established as in California agribusinesses.

In terms of overall responses for each category, respondents from both studies displayed a high level of concern for their internal firm environment. However, a difference existed between the two studies with respect to competitive environments. California agribusiness firms considered the competitive category as important as the internal category. In contrast, New Zealand agribusinesses considered the category as the lowest concern among the three categories. The isolation of the country may be caused by the low degree of competitiveness faced by New Zealand agribusinesses.

Identification of strategic issues provided information of which strategic issues were of interest to particular agribusinesses. It is useful for agricultural economists to extend their research and educational activities toward strategic management within agribusinesses. For example, since the concern for the demand for the product (general business issues), raw material access (industrial competitive issues), and productivity (firm internal issues) were observed as the highest ranking within each of the three categories, researchers need to develop that issues: why, when and how it becomes an

issue, and how to overcome it. Academists of agribusiness management may need to emphasize the concept of product mix in terms of agribusiness marketing management, while policy makers can provide valuable assistance to better cope with the issues.

Chapter 6

CONCLUSION AND RECOMMENDATION

Economic liberalisation measures adopted in New Zealand since 1984 have accelerated competition and the pace of change in the business environment. Agribusiness firms in New Zealand, over the last decade, have experienced the impact of environmental changes. One of the management tools that could be used in an uncertain business environment is strategic planning.

This study attempted to assess, using results from an exploratory survey, the characteristics of strategic planning processes of agribusiness firms in New Zealand during the economic liberalization period. In particular, some valuable insights are gained into the characteristics of the strategic planning processes actually used by agribusiness firms before and after the implementation of economic reforms.

The results of the survey reveal that strategic planning exists in the majority of the firms studied. In fact, more than half of the firms in the sample

had formal strategic planning in place. Interestingly, however, only five of the 33 firms had started formal strategic planning before the start of the implementation of the economic reforms in mid-1984. It is, therefore, possible that the dramatic changes that the economic reforms have brought in the business environment could have been the impetus behind the rush to develop formal strategic planning after 1984.

The comparison of informal planning and formal planning between firms suggested that strategic planning is beneficial for management. This study's findings generally indicate that firms with formal strategic planning experienced less difficulty establishing goals and objectives based on profitability, utilization of resources, market position, value to customer, and minimization of risk than firms without formal strategic planning.

Firms with formal strategic planning also performed better in terms of various managerial and operational areas than firms without formal strategic planning. Corporate planning, quality control, personnel policy, management contract, and management structure, were areas of management in which formal planning firms has a significantly better rating than informal planning firms.

This study also suggested that strategic planning has a positive correlation with: growth of sales, growth of after-tax profit and growth of productivity, during deregulation times. Furthermore, this study indicated that strategic planning has enabled the planning firms to be fast growing in turbulent times. Since the correlation coefficients were low, however, improvement in conducting strategic planning processes may be needed.

One of inhibiting factor found in this study is an ineffective role of chief executive officers (CEOs) in the planning processes. The CEOs' involvement in strategic planning processes was relative high, but their contribution appeared not to be significant for financial performances. The lack of formal management training among New Zealand managers, in fact, has been repeatedly reported. However, this study also found that the interaction of the CEOs with other planners would improve their impact on financial performance. The planners who help CEOs may come from internal firms like other planning officers, and from external firms like consultant services and board members.

Since the majority of New Zealand companies, including agribusinesses, are categorized small businesses, the role of "outsiders" such as consultant services becomes more important (Robinson, 1982). This is because many small businesses have no full time planning officers. Small Business Development Boards that currently exist throughout New Zealand may become one of those "outsiders" that can play a great role in establishing more effective strategic planning within agribusiness firms.

Strategic planning may become more essential for agribusiness firms. Since the unique nature of agribusiness has been recognized (Downey and Erickson, 1987; Sonka and Hudson, 1989), future research may address the questions: what elements should be involved in strategic planning for agribusiness ?; what length of time is appropriate for a given strategic planning to take effect ?; why and when does strategic planning lead agribusiness firms to better performance ?; and what conditions make planning effective ?. Future

research may also address the question of how different top managers of agribusiness operate with respect to planning.

Additional research questions devoted to agribusiness management can be developed through strategic issue identification. Identification of strategic issues regarded as important by agribusiness decision makers may assist researchers and managers in recognizing critical gaps in their perceptions of the environment. It provides information about important issues faced by agribusinesses, in which researchers and academists are able to design research and educational activities aimed at improving the strategic management processes for developing the agribusiness sector.

The result of this exploratory survey generally indicates that respondents are concerned with strategic issues. Respondents, in overall, considered a relative higher level of concern for internal issues than general business issue and even competitive issues. In particular, the firms in the sample are quite concerned about: the demand for their product, farm income, value of New Zealand dollar (general business issues); raw material access, change in rivals' market share, identification of new foreign market opportunity (industrial competitive issues); productivity, and management effectiveness (firm internal issues).

Results also suggest that the level of concern for specific strategic issues varies across various structural dimensions of the firm. Responses to some strategic issues were statistically different among respondents groupings, for which research questions can be developed. Moreover, the different ranking of strategic issues among groupings also provide a useful information.

The future research may address the research question of: why, when, where and how a particular strategic issue becomes important for agribusinesses. The issue is then how to focus on it by involving the management perspectives.

Although based on an exploratory effort, these results suggest that research relating to strategic planning and strategic issue identification within the changed economic environment can generate information of interest to agribusiness managers, researchers and educators in the field, and even policy makers. Care must be taken, however, when making implications based from the results of this study due to the limited sample used in this study.

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APPENDICES

Appendix 1.

Economic Reforms in New Zealand that May Affected Agribusiness Environment

1. FACTOR MARKETS

Finance Industry

Abolition of credit growth guidelines	1984
Removal of separate requirements for trustee banks, building societies, stock brokers	1985-87
Removal of quantity restrictions and other entry barriers to banking	1985-86
End of formal financial controls	1985
Removal of interest rate controls	1984
Abolition of export credit guarantees	1984
Removal of ownership restrictions on financial institutions	1985
Liberalisation of Stock Exchange	1986

Energy Industry

Corporation of State Coal Mines	1987
Financial restructuring of oil refinery	1988-91
Legalisation of oil coy ownership of service station	1988
End of price control (except on gas	1984-88
Sale of Crown gas exploitation/distribution interests	1988-90
Sale of other Crown energy holdings	1990-92
Corporatisation and restructuring of electricity generation, transmission and distribution	1986-91

Transport Industry

Removal of restriction on road/rail carriage	1983-86
End of quantity licensing of trucking	1984
Corporatisation of state rail, air and bus services	1982-84
Corporatisation of ports	1989
Deregulation of stevedoring industry	1990
Removal of cabotage on coastal shipping	1991

Research and Development

Removal of concessions for research and development to put on equal footing with all investment	1984
Establishment of a contestable pool of public funds (Foundation of Research Science and Technology)	1990
Corporatisation of government research bodies (Crown Research Institutes)	1992

Labour Market

Introduction of voluntary unionism	1983
More market-based bargaining under Industrial Relations Act Amendment	1984
Radical reform via Employment Contracts Act	1990

Appendix 1. Continued

2. INDUSTRY REGULATIONS**Product Markets**

Termination of Supplementary Minimum Prices on agricultural products	1984
Termination of concessional financing of primary producer stocks held by producer boards	1986-88
Review of compulsory producer marketing board arrangements	1987
Termination of export market development incentive schemes	1984
Phaseout of export performance tax incentives	1984-87

Industry Reforms

End of wage/price freeze	1984
Termination of price control, and replacement by (unused) price surveillance powers under Commerce Act	1984-88
Removal of quantity licensing on almost all industries, and end of quality regulation on most	1986-88
End of all state regulated monopoly rights (except letter post, air traffic control, and milk distribution)	1984-89
Removal of some occupational licensing	1985-90
Removal of producer cooperative tax advantages	1989
Termination of restrictions on shop trading hours	1989

Business Law Reforms

Establishment of Commerce Act as liberal efficiency-based regime to govern mergers and trade practices	1986
Fair Trading Act governs consumer rights	1986
Review of securities legislation and takeover law (extent of efficiency approach still under discussions)	1988-91
Review of whole intellectual property regime (Patent, Copyright, Trademarks and Design Acts)	1990-91
Review of Town and Country Planning	1987-90
Resource Management Act to govern more liberal planning and environmental legislation	1991
Crown Minerals Act to clarify property rights to mineral resources	1991

3. INTERNATIONAL TRADE AND MONETARY REFORMS**Import Protection**

Phasing out of import licensing requirements	1984-89
Reduction of import tariffs on Swiss Formula from average 28% to 10%	1984-92
Further one third reduction in import tariffs planned	1992-96
Removal of special protection features for 18 specific "industry plan" sectors and incorporation into general tariff reform programme	1984-92
Slower reduction of tariffs on two remaining "special" industries (motor vehicles/components and textiles/clothing/footwear)	1987-96

Appendix 1. Continued

International Capital Controls

Removal of controls on outward investment/borrowing	1984
Free entry of foreign direct investment (rubberstamped by Overseas Investment Commission, except for farmland, offshore islands and fishing)	1985
Very liberal regime for portfolio investment/repatriation of profit	1985

Exchange Rate

Deregulation of foreign exchange trading	1984
Devaluation 1984 20% against basket of currencies	1984
Free float of currency on foreign exchange markets without direct control	1985

Monetary Policy

Devotion of monetary policy instruments to deflation, with target of "price stability" (0-2% price increase) by 1992/93	1989
Tight monetary policy (M3 below rate of inflation)	1987
Independence of Reserve Bank for government, formalised through Reserve Bank Act	1989

4. GOVERNMENT SECTOR REFORMS

State Trading Operations

Removal of almost all state regulated monopoly rights	1984-89
Corporatisation of 24 state owned enterprises (including; transport, finance, forestry, utilities and service industries)	1987-88
Restructuring to isolate natural monopoly elements of SOEs	1989-91
Full of partial privatisation of Bank of NZ, Petroleum Corporation, Shipping Corporation, Rural Bank, Forestry Corporation, and others	1987-91
Further privatisation planned via divestment of asset sales, sale of rights, share sales etc	1991
Requirements for local authorities to corporatise Local Authority Trading Enterprises (LATEs) and tender out services	1990-91

Taxation Reforms

Broadened tax base through "Goods and Services Tax" on virtually all final domestic consumption without exception (now 12.5%)	1986
Flattening and lowering of personal income tax rate, with top rate standardised to corporate tax levels, and aimed to minimize poverty traps	1986-91
Removal of most other indirect taxes	1986-91
Removal of tax concessions for savings, etc, to put on neutral footing	1987

Source : A. Bollard (1991), *Economic Liberalisation in New Zealand 1984-1991*, in Harper and Malcolm (1991), *Surviving the Change: How Firms Adjusted to the New Environment*, Appendix 3.

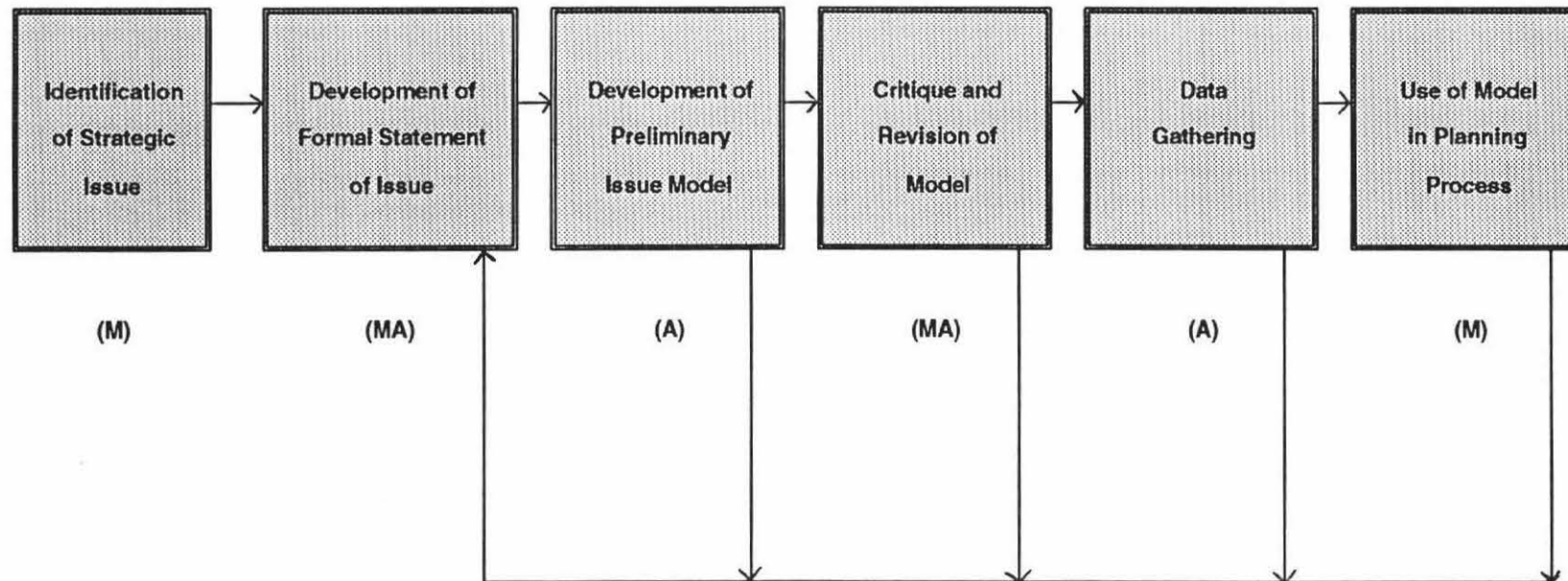
Appendix 2.

A Normative Model of Management Change since Deregulation	
Prior to Deregulation protected, stable conditions	After Deregulation dynamic, hostile conditions
<i>Administrative practices and goals</i>	
Insentives to change outside the firm	Sensitive to change, market driven
Narrow scanning	Wide scanning
Short-term planning	Long-term view of future, strategic
Hierarchical authority structures	Either low participation (entrepreneurs) or high participations (requisite variety)
Machine bureaucracies	Innovative, learning organizations
Functional organization structures	Market organization structures
Directive decision-making	Participative decision-styles
Goal: efficiency	Goal: adaptability
<i>Operational practices and goals</i>	
Seeking efficiency within current technology	Seeking flexibility to cope with variety and market changes new technologies
Goal: efficiency	Goal: adaptability
<i>Business orientation</i>	
Defended of established niche	Prospectors of new opportunities
Focus on known business	Expansion: of products, of markets pro active
Risk averse	Risk taking
<i>Requisite management skills</i>	
External lobbying	Strategy, marketing
Mastery of systems	adaptive, learning, innovation
internationa/external	visison builders
technical/administrative	HR leaders
experience is deep, narrow, functional	broad experience
Mastery of detail	Dynamic (to match external energy)

Source : Campbell-Hunt C, A D Harper and R T Hamilton. 1993. *Islands of Excellence ? A Study of Management in New Zealand*, p. 18.

Appendix 3.

The Strategic Issue Analysis Process

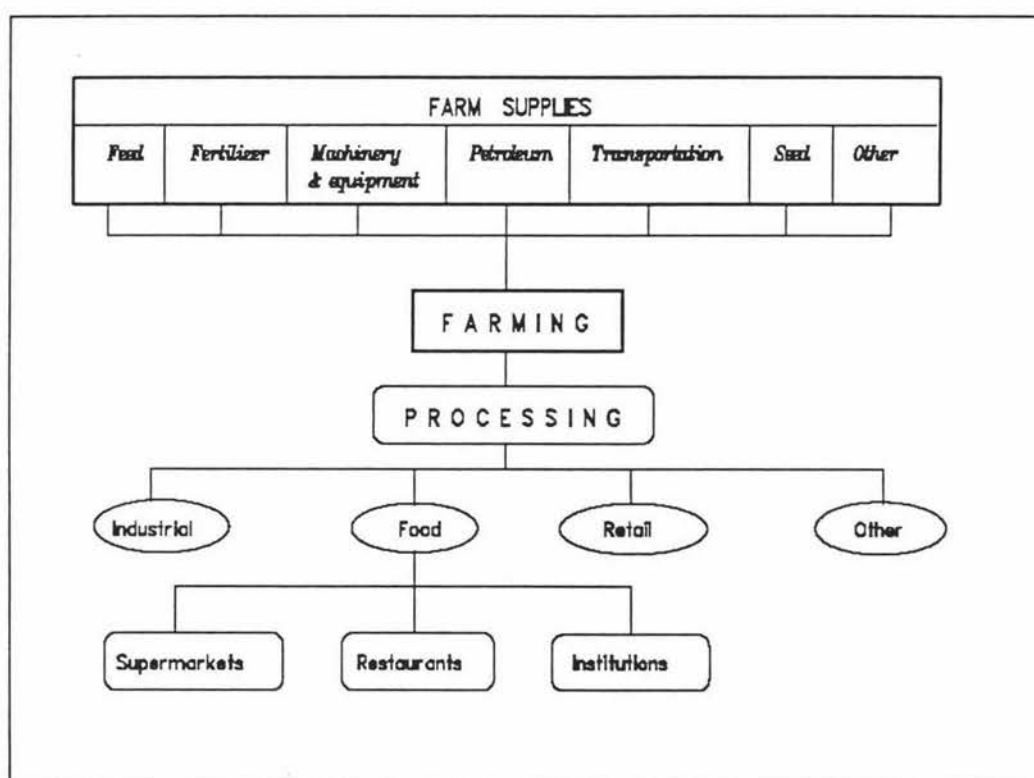


Note : M = Managers
A = Anayists
MA = Managers and Analysts

Source : King W.R. 1982. "Using Strategic Issue Analysis". *Long Range Planning*, 15, 4, p. 47.

Appendix 4.

Breakdown of the Input, Farm, and Product Market of Agribusiness Sectors



Source : Downey W D and S P Erickson. 1987. *Agribusiness Management*, 2nd ed., p.6.

Appendix 5.

A Comparison between a Traditional Perspective (A)
and an Emerging Perspective (B)
of Competitiveness of Food and Agribusiness Sector

Input Oriented Goods and Services



Individual Satisfaction



Output Oriented Good and Services

(A)

Social Benefits

(B)

Source : Hudson M A. 1990. "Toward a Framework for Examining Agribusiness Competitiveness." *Agribusiness*, 6, 3, p. 184 and 186.

Appendix 6.

Case Studies of Agribusiness Firms in Strategic Management Textbooks

Authors (year)	Number of Cases	Percentage from All Cases	Agribusiness fields
Jauch and Glueck (1988)	1	3.1	Brewing
Hatten and Hatten (1987)	5	14.7	Agroindustry, brewing, beer, skin/leather, flower
Thompson and Strickland (1984)	5	13.5	Beefalo breeder, log, brewing, restaurant, nursery
Digman (1986)	4	12.5	Irrigation, ranching, Beefalo breeder, beer
Wheelan and Hunger (1989)	5	13.2	Beer, hybrid seed, foods, food processing, cotton
Tate, Taylor and Hoy (1987)	5	10.0	Farm equipment, tobacco, farmer banks, breeder
Smith, Arnold and Bizzell (1988)	6	15.8	Breeder, restaurant, soft drink, brewing, frozen fish, ice cream

Appendix 7.

The Extent of Improvement Made on Areas of Management during the Economic Liberalisation, A Comparison with Harper and Malcolm (1991) Study ¹⁾

Areas of Management	Average Responses ²⁾	
	This study	Harper & Malcolm
Quality Control	1.85	1.9
Management Information System	1.79	1.5
Financial Management	1.79	1.8
Marketing and Customer Management	1.75	1.9
Technology	1.72	1.4
Corporate Planning	1.62	1.2
Work Methods and Flows	1.58	1.6
Labour Relations	1.57	1.0
Staff Training	1.55	1.4
Personnel Policies and Incentives	1.25	0.7
Management Contract and Incentives	1.08	0.4
Management Structure	1.06	1.7
Overall Average	1.60	1.38

¹⁾ Source : Harper D and G Malcolm. 1991. Surviving the Change; How Firms Adjusted to the New Zealand Environment.

²⁾ Scale used is: 0 = not improvement at all; 1 = slightly; 2 = significantly; 3 = very significant

Appendix 8.

Number of Informal and Formal Planning Firms
in Responding the Relative Difficulty of
Determining Goals and Objectives

Goals and Objectives	The Relative of Difficulty			
	Informal Planning		Formal Planning	
	less	more	less	more
Profitability	2	9	10	4
Utilization of Resources	4	4	10	2
Market Position	2	7	9	4
Cash Flow	5	4	7	6
Value to Consumer	4	3	8	2
Minimization of Risk	2	10	9	7
Total	19	37	53	25

Contingency Table for Test of Independence
Chi-square and Fisher's Exact Test:

	Informal Planning	Formal Planning	
Less difficult	a	b	total a+b
More difficult	c	d	total c+d
	total a+c	total b+d	a+b+c+d

Appendix 9.

Number of Informal and Formal Planning Firms
in Responding the Extent of Improvement Made
on Areas of Management

Areas of Management	Level of Improvement 1)			
	Informal Planning		Formal Planning	
	0 + 1	2 + 3	0 + 1	2 + 3
Management Structure	14	10	8	21
Management Contract and Incentives	20	4	15	14
Management Information Systems	13	11	9	20
Corporate Planning	18	6	5	24
Work Methods and Flows	12	12	10	19
Quality Control	14	10	5	24
Technology	9	15	12	17
Labour Relations	12	12	10	19
Staff Training	15	9	11	18
Personnel Policies and Incentives	20	4	15	14
Marketing and Customer Management	10	14	10	19
Financial Management	9	15	8	21
Total	166	122	118	230

1) Scale used is: 0 = not improvement at all; 1 = slightly improvement
2 = significant improvement; 3 = very significant improvement

Contingency Table for Test of Independence
Chi-square and Fisher's Exact Test:

	Informal Planning	Formal Planning	
Not at All and Slightly Improvement	a	b	total a+b
Significant and Very Significant Improvement	c	d	total c+d
	total a+c	total b+d	a+b+c+d

Appendix 10.

Number of Respondents which Considered Strategic Issues as either Important or Very Important, by the Type of Legal Form

CATEGORY / ISSUES	Number of Firms which Rating Issues as either Important or Very Important					Fisher's Exact Test Probability	
	Corporation N = 27	Sole Prop. N = 4	Partnership N = 5	Cooperative N = 15	Others N = 6		
A. GENERAL BUSINESS ISSUES							
Environmental Regulation :	Domestic	9	1	4	12	6	0.001
	Foreign	10	2	2	6	4	0.761
Farm Income		16	2	5	14	4	0.048
Inflation Rate		12	1	3	11	3	0.760
Interest Rate		17	2	3	13	4	0.406
Labour Relations		14	1	2	12	2	0.135
Tax Policy :	Domestic	15	1	2	8	3	0.842
	Foreign	3	1	1	1	0	0.497
Trade Policy :	Domestic	7	1	1	6	2	0.893
	Foreign	13	4	2	11	3	0.196
Farm Price		16	2	3	10	3	0.941
Value of NZ Dollar		21	3	4	13	5	0.954
Governmental Subsidies		3	1	2	4	3	0.141
Transportation Issues		10	3	1	8	5	0.134
Demand for The Product		25	4	5	14	6	1.000
Investment		12	2	3	7	0	0.234
TOTAL		203	31	43	150	53	
CHI-SQUARE VALUE (and PROBABILITY)		16.636 (0.004)					
B. COMPETITIVE ISSUES							
Bargaining Power of :	Customers	17	2	4	10	2	0.565
	Suppliers	17	3	4	10	3	0.900
Identif. of New Market Opportunity :	Domestic	14	0	4	9	3	0.198
	Foreign	12	1	2	8	5	0.408
Identification of Major Product Rivals		15	2	3	10	2	0.730
Identification of Minor Product Rivals		8	0	1	4	0	0.005
Raw Material Access		18	3	3	11	0	0.019
Change in Rival's :	Number	11	4	4	6	1	0.049
	Market share	22	3	3	9	4	0.557
Rivals' Goals and Objectives		15	3	0	7	0	0.012
Rivals' Mergers and Acquisition		11	4	3	8	1	0.119
Rivals' Strategies		14	3	2	10	1	0.516
Threat of Substitute Products		11	3	2	9	4	0.541
TOTAL		195	31	35	111	26	
CHI-SQUARE VALUE (and PROBABILITY)		14.12 (0.007)					
C. INTERNAL ISSUES							
Balance Sheet :	Current	21	2	4	11	5	0.046
	Projected	16	3	3	13	5	0.038
Income Statement :	Current	18	3	5	12	5	0.031
	Projected	17	2	4	14	5	0.008
Leverage Ratio		15	2	2	9	2	0.847
Liquidity		21	2	3	10	4	0.694
Research & Development for :	Manufac. Process	9	0	1	9	3	0.200
	Products	14	1	3	9	4	0.717
Return on Investment		17	3	4	8	3	0.814
Return to Shareholders		15	1	5	11	4	0.153
Economies of Scale		6	1	2	11	2	0.179
Depreciation of Inventory		7	0	0	4	1	0.757
Labour Skill		21	2	4	10	4	0.753
Management Effectiveness		24	4	5	15	4	0.000
Productivity		24	3	5	14	4	0.000
TOTAL		245	29	50	160	55	
CHI-SQUARE VALUE (and PROBABILITY)		12.091 (0.017)					

Note: Contingency Table for Test of Independence (Chi-square and Fisher's Exact Test):

	Corporation	Sole Prop.	Partnership	Cooperative	Others	Total
Important or Very Important	a	b	c	d	e	a+b+c+d+e
Otherwise	f	g	h	i	j	f+g+h+i+j
Total	a+f	b+g	c+h	d+i	e+j	a+b+c+d+e+f+g+h+i+j

Appendix 11.

Number of Respondents which Considered Strategic Issues as either Important or Very Important, by Product Lines

CATEGORY / ISSUES	Number of Firms which Rating Issues as				Fisher's Exact Test Probability	
	either Important or Very Important		Otherwise			
	Input	Output	Input	Output		
A. GENERAL BUSINESS ISSUES						
Environmental Regulation :	Domestic	15	17	11	14	1.000
	Foreign	7	17	19	14	0.059
Farm Income		22	19	4	12	0.076
Inflation Rate		12	18	14	13	0.431
Interest Rate		18	21	8	10	1.000
Labour Relations		9	22	17	9	0.008
Tax Policy :	Domestic	13	16	13	15	1.000
	Foreign	2	4	24	27	0.678
Trade Policy :	Domestic	6	11	20	20	0.389
	Foreign	12	21	14	10	0.115
Farm Price		20	14	6	17	0.029
Value of NZ Dollar		17	29	9	2	0.016
Governmental Subsidies		5	8	21	23	0.753
Transportation Issues		8	19	18	12	0.033
Demand for The Product		23	31	3	0	0.089
Investment		11	13	15	18	1.000
Total		200	280	216	216	
Chi-square Value (Probability)		6.365 (0.012)				
B. INDUSTRIAL COMPETITIVE ISSUES						
Bargaining Power of :	Customers	13	22	13	9	0.172
	Suppliers	13	24	13	7	0.050
Identif. of New Market Opportunity :	Domestic	14	16	12	15	1.000
	Foreign	6	22	20	9	0.000
Identification of Major Product Rivals		14	18	12	13	0.794
Identification of Minor Product Rivals		6	7	20	24	1.000
Raw Material Access		12	23	14	8	0.055
Change in Rival's :	Number	9	17	17	14	0.183
	Market share	18	23	8	8	0.771
Rivals' Goals and Objectives		11	14	15	17	1.000
Rivals' Mergers and Acquisition		12	15	14	16	1.000
Rivals' Strategies		11	19	15	12	0.189
Threat of Substitute Products		12	17	14	14	0.599
Total		151	237	187	166	
Chi-square Value (Probability)		14.723 (0.000)				
C. FIRM INTERNAL ISSUES						
Balance Sheet :	Current	18	25	8	6	0.367
	Projected	18	22	8	9	1.000
Income Statement :	Current	17	26	9	5	0.131
	Projected	20	22	6	9	0.765
Leverage Ratio		12	18	14	13	0.431
Liquidity		16	24	10	7	0.249
Research & Development for :	Manufac. Process	7	15	19	16	0.111
	Products	11	20	15	11	0.115
Return on Investment		13	22	13	9	0.172
Return to Shareholders		17	19	9	12	0.789
Economies of Scale		11	21	15	10	0.066
Depreciation of Inventory		4	8	22	23	0.516
Labour Skill		16	25	10	6	0.144
Management Effectiveness		22	30	4	1	0.167
Productivity		21	29	5	2	0.228
Total		223	326	187	139	
Chi-square Value (Probability)		15.426 (0.000)				

Note : Contingency Table for Test of Independence (Chi-square and Fisher's Exact Test) :

	Input	Output	Total
Important or Very Important	a	b	a+b
Otherwise	c	d	c+d
Total	a+c	c+d	a+b+c+d

Appendix 12.

Number of Respondents which Considered Strategic Issues as either Important or Very Very Important, by Firm's Cadre Size

CATEGORY / ISSUES		Number of Firms which Rating Issues as				Fisher's Exact Test Probability
		either Important or Very Important		Otherwise		
		Small	Large	Small	Large	
A. GENERAL BUSINESS ISSUES						
Environmental Regulation :	Domestic	12	19	16	8	0.058
	Foreign	13	9	15	18	0.412
Farm Income		19	20	9	7	0.768
Inflation Rate		13	16	15	11	0.422
Interest Rate		18	20	10	7	0.562
Labour Relations		10	21	18	6	0.003
Tax Policy :	Domestic	12	17	16	10	0.180
	Foreign	5	1	23	26	0.193
Trade Policy :	Domestic	9	7	19	20	0.768
	Foreign	17	14	11	13	0.591
Farm Price		18	16	10	11	0.785
Value of NZ Dollar		21	23	7	4	0.503
Governmental Subsidies		5	6	23	21	0.746
Transportation Issues		11	14	17	13	0.422
Demand for The Product		25	27	3	0	0.236
Investment		10	14	18	13	0.282
Total		218	244	230	188	
Chi-square Value (Probability)		5.394 (0.020)				
B. INDUSTRIAL COMPETITIVE ISSUES						
Bargaining Power of :	Customers	17	17	11	10	1.000
	Suppliers	17	19	11	8	0.573
Identif. of New Market Opportunity :	Domestic	11	18	17	9	0.060
	Foreign	12	15	16	12	0.423
Identification of Major Product Rivals		14	17	14	10	0.418
Identification of Minor Product Rivals		9	4	19	23	0.205
Raw Material Access		16	18	12	9	0.582
Change in Rival's :	Number	17	8	11	19	0.031
	Market share	19	20	9	7	0.768
Rivals' Goals and Objectives		12	13	16	14	0.789
Rivals' Mergers and Acquisition		13	13	15	14	1.000
Rivals' Strategies		15	15	13	12	1.000
Threat of Substitute Products		12	15	16	12	0.423
Total		184	192	180	159	
Chi-square Value (Probability)		1.235 (0.266)				
C. FIRM INTERNAL ISSUES						
Balance Sheet :	Current	18	24	10	3	0.055
	Projected	15	23	13	4	0.019
Income Statement :	Current	19	22	9	5	0.355
	Projected	16	24	12	3	0.014
Leverage Ratio		12	17	16	10	0.180
Liquidity		18	20	10	7	0.562
Research & Development for :	Manufac. Process	7	14	21	13	0.054
	Products	11	19	17	8	0.031
Return on Investment		15	19	13	8	0.269
Return to Shareholders		14	22	14	5	0.023
Economies of Scale		13	19	15	8	0.102
Depreciation of Inventory		5	7	23	20	0.528
Labour Skill		18	22	10	5	0.227
Management Effectiveness		25	25	3	2	1.000
Productivity		22	26	6	1	0.101
Total		228	303	192	102	
Chi-square Value (Probability)		37.884 (0.000)				

Note : Contingency Table for Test of Independence (Chi-square and Fisher's Exact Test) :

	Small	Large	Total
Important or Very Important	a	b	a+b
Otherwise	c	d	c+d
Total	a+c	c+d	a+b+c+d

Appendix 13.

Number of Respondents which Considered Strategic Issues as either Important or Very Important, by Geographical Location

CATEGORY / ISSUES	Number of Firms which Rating Issues as				Fisher's Exact Test Probability	
	either Important or Very Important		Otherwise			
	North	South	North	South		
A. GENERAL BUSINESS ISSUES						
Environmental Regulation :	Domestic	21	11	18	7	0.775
	Foreign	16	8	23	10	1.000
Farm Income		31	10	8	8	0.111
Inflation Rate		16	14	23	4	0.012
Interest Rate		23	16	16	2	0.032
Labour Relations		18	13	21	5	0.089
Tax Policy :	Domestic	18	11	21	7	0.395
	Foreign	2	4	37	14	0.072
Trade Policy :	Domestic	8	9	31	9	0.032
	Foreign	19	14	20	4	0.048
Farm Price		24	10	15	8	0.774
Value of NZ Dollar		30	16	9	2	0.473
Governmental Subsidies		10	3	29	15	0.520
Transportation Issues		18	9	21	9	1.000
Demand for The Product		37	17	2	1	1.000
Investment		16	8	23	10	1.000
Total		307	173	317	115	
Chi-square Value (Probability)		9.340		(0.002)		
B. INDUSTRIAL COMPETITIVE ISSUES						
Bargaining Power of :	Customers	24	11	15	7	1.000
	Suppliers	22	15	17	3	0.073
Identif. of New Market Opportunity :	Domestic	23	7	16	11	0.254
	Foreign	18	10	21	8	0.576
Identification of Major Product Rivals		19	13	20	5	0.039
Identification of Minor Product Rivals		7	6	32	12	0.308
Raw Material Access		21	14	18	4	0.142
Change in Rival's :	Number	15	11	24	7	0.155
	Market share	27	14	12	4	0.752
Rivals' Goals and Objectives		13	12	26	6	0.024
Rivals' Mergers and Acquisition		14	13	25	5	0.021
Rivals' Strategies		19	11	20	7	0.410
Threat of Substitute Products		20	9	19	9	1.000
Total		242	146	285	88	
Chi-square Value (Probability)		13.797		(0.000)		
C. FIRM INTERNAL ISSUES						
Balance Sheet :	Current	28	15	11	3	0.511
	Projected	28	12	11	6	0.760
Income Statement :	Current	28	15	11	3	0.511
	Projected	30	12	9	6	0.521
Leverage Ratio		21	9	18	9	1.000
Liquidity		25	15	14	3	0.214
Research & Development for :	Manufac. Process	23	9	16	9	0.575
	Products	6	6	33	12	0.165
Return on Investment		15	7	24	11	1.000
Return to Shareholders		19	12	20	6	0.259
Economies of Scale		24	11	15	7	1.000
Depreciation of Inventory		27	14	12	4	0.752
Labour Skill		35	17	4	1	1.000
Management Effectiveness		34	16	5	2	1.000
Productivity		28	8	11	10	0.075
Total		371	178	214	92	
Chi-square Value (Probability)		0.505		(0.477)		

Note : Contingency Table for Test of Independence (Chi-square and Fisher's Exact Test) :

	North	South	Total
Important or Very Important	a	b	a+b
Otherwise	c	d	c+d
Total	a+c	c+d	a+b+c+d

Appendix 14.

Number of Respondents which Considered Strategic Issues as either Important or Very Important, by Degree of Planning

CATEGORY / ISSUES	Number of Firms which Rating Issues as				Fisher's Exact Test Probability	
	either Important or Very Important		Otherwise			
	Informal	Formal	Informal	Formal		
A. GENERAL BUSINESS ISSUES						
Environmental Regulation :	Domestic	16	16	8	17	0.190
	Foreign	10	14	14	19	1.000
Farm Income		15	26	9	7	0.236
Inflation Rate		14	16	10	17	0.593
Interest Rate		17	22	7	11	0.781
Labour Relations		13	18	11	15	1.000
Tax Policy :	Domestic	14	15	10	18	0.424
	Foreign	3	3	21	30	0.689
Trade Policy :	Domestic	12	5	12	28	0.008
	Foreign	15	18	9	15	0.596
Farm Price		12	22	12	11	0.276
Value of NZ Dollar		17	29	7	4	0.173
Governmental Subsidies		3	10	21	23	0.200
Transportation Issues		11	16	13	17	1.000
Demand for The Product		22	32	2	1	0.567
Investment		7	17	17	16	0.110
Total		201	279	183	249	
Chi-square Value (Probability)		0.022		(0.882)		
B. INDUSTRIAL COMPETITIVE ISSUES						
Bargaining Power of :	Customers	10	25	14	8	0.013
	Suppliers	14	23	10	10	0.411
Identif. of New Market Opportunity :	Domestic	10	20	14	13	0.187
	Foreign	11	17	13	16	0.790
Identification of Major Product Rivals		12	20	12	13	0.589
Identification of Minor Product Rivals		6	7	18	26	0.759
Raw Material Access		15	20	9	13	1.000
Change in Rival's :	Number	13	13	11	20	0.295
	Market share	18	23	6	10	0.769
Rivals' Goals and Objectives		11	14	13	19	1.000
Rivals' Mergers and Acquisition		11	16	13	17	1.000
Rivals' Strategies		10	20	14	13	0.187
Threat of Substitute Products		9	20	15	13	0.111
Total		150	238	182	191	
Chi-square Value (Probability)		3.966		(0.046)		
C. FIRM INTERNAL ISSUES						
Balance Sheet :	Current	19	24	5	9	0.757
	Projected	14	26	10	7	0.143
Income Statement :	Current	19	24	5	9	0.757
	Projected	16	26	8	7	0.143
Leverage Ratio		9	21	15	12	0.064
Liquidity		18	22	6	11	0.567
Research & Development for :	Manufac. Process	8	14	16	19	0.586
	Products	12	19	12	14	0.601
Return on Investment		12	23	12	10	0.172
Return to Shareholders		11	25	13	8	0.028
Economies of Scale		9	23	15	10	0.030
Depreciation of Inventory		5	7	19	26	1.000
Labour Skill		16	25	8	8	0.554
Management Effectiveness		21	31	3	2	0.640
Productivity		20	30	4	3	0.439
Total		209	340	151	155	
Chi-square Value (Probability)		10.251		(0.001)		

Note : Contingency Table for Test of Independence (Chi-square and Fisher's Exact Test) :

	Informal	Formal	Total
Important or Very Important	a	b	a+b
Otherwise	c	d	c+d
Total	a+c	c+d	a+b+c+d