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TOWARDS A THEORY OF THE CONFIGURATION AND MANAGEMENT OF EXPORT-DEPENDENT LAND-BASED VALUE SYSTEMS: THE CASE OF NEW ZEALAND

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1997

A thesis presented in partial fulfilment of the requirements for the degree of Doctor of Philosophy in International Business at The University of Auckland, New Zealand.
ABSTRACT

Land-based industries provide the majority of New Zealand’s export earnings. The scale of production in the larger industries accounting for this trade creates significant dependency on export markets. The performance of these industries in the international location, therefore, has a marked influence on the country’s prosperity.

The process of taking land-based products from pasture to plate encompasses a value system. A value system (depicted as the Z-form Model, overleaf) includes all sequentially aligned organisations through which product flows from the producer to the international consumer. Value systems also include the linkages between adjoining and non-adjointing organisations. The objective of the study was to develop a theory of the configuration and management of export-dependent land-based value systems, supported by case study material drawn from select New Zealand industries.

The Z-form Model constituted a framework from which both relevant contributions and shortcomings in the literature were identified. A conjoint approach to theory building, encompassing both theoretical and empirical contributions, was developed. Empirical evidence was then gathered through multiple case studies of the meat and pipfruit industries to augment theory building. Particular attention was paid to empirical processes relating to the generation of wealth and its subsequent distribution. Phenomena observed through case research were reduced into concepts, and the relationships between concepts identified. Concepts and relationships were then presented as an emergent theory in the form of a causal network. Some of the perspectives and behaviours of value systems were supported by the literature, however, many considerations were found to be unique.

A theory of the configuration and management of New Zealand’s export-dependent value systems is presented. The theory encompasses empirically based value system strategies that serve to enhance wealth generation and wealth distribution. Normative value systems, based on the Z-form Model, that return wealth to organisations in the home-base location are provided. Further opportunities for wealth creation and repatriation are identified.
The Z-form Model of New Zealand’s export dependent land-based value systems.

Parts of industry value system located in New Zealand

Land-based production → Processing/Manufacturing/Packing → Exporting → Importing → Processing/Manufacturing/Packing → Distribution → Marketing/Sales/Customer Service → Customer receives valued products and services

Boundary of New Zealand’s land-based international value system

To other countries

From other countries

Parts of industry value system located in an offshore country

Land-based production → Processing/Manufacturing/Packing → Exporting → Importing → Processing/Manufacturing/Packing → Distribution → Marketing/Sales/Customer Service → Customer receives valued products and services
ACKNOWLEDGMENTS

I wish to express my considerable gratitude to Professor R. W. Cartwright for his guidance during the conduct of this inquiry. Wayne's clarity of thought and vision of the end-product ensured that the otherwise tempting distractions amongst the business literature were, at best, minimised. Business commentators rarely consider the process of getting food to their table worthy of examination. This research is, however, about food, in particular our meat and pipfruit industries for which I make no apologies.

Frank Anderson, David Gray, Kevin Lowe, and Alan McRae have had an extraordinary influence on my thinking and understanding of agriculture over the last decade. There are few, if any, agriculturalists worldwide that can analyse, diagnose, synthesise, and prescribe as well as them. This work will further fuel the debate. Professor K. L. Casavant was instrumental in shaping the direction of this research while on sabbatical leave at Washington State University. Ken's passion for New Zealand ensured that the research did not suffer from a more reductionist perspective.

The empirical contribution to the study would not have been possible without the collaboration of many organisations in our meat and pipfruit industries. Most of them remain anonymous organisations responsible, in part, for the majority of New Zealand's export earnings. You attempted to convince me that your industries have nothing in common. Academics are lambasted for constructing artificial walls - don't throw stones in the glasshouse.

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CHAPTER ONE: INTRODUCTION

MOTIVATION, RESEARCH APPROACH, AND PROBLEM STATEMENT

It is a pure unadulterated country life. They get up early because they have so much to do and go to bed early because they have so little to think about.


1.1 MOTIVATION FOR THE STUDY

Land-based industries are important to the standard of living in many developed countries. Industries such as agriculture, forestry, and horticulture make a significant contribution to export earnings (greater than 15%) in New Zealand, Australia, Denmark, The Netherlands, Spain, France, and the United States of America. For example, in New Zealand the current contribution from the land-based sector is $10.3 billion, representing 51% of total export receipts (Ministry of Agriculture & Fisheries (MAF), 1996). The significance of the land-base sector is further heightened with export-dependency, when the domestic economy is simply too small to consume all of the land-based production. New Zealand, Australia and Denmark, and to a lesser degree Spain, France and the United States are all developed countries where the success of the land-based sector is dependent on export markets.

The performance of land-based industries in these countries has declined for several decades. For example, New Zealand's terms of trade - the average price of exports divided by the average price of inputs (Dalziel & Lattimore, 1991) - have declined steadily since the 1950s (New Zealand Trade Development Board (NZTDB), 1990). As the terms of trade has declined New Zealand has had to increase the volume of exports to pay for the same quantity of imports. However, the “adverse change in relative prices can [only] be overcome if a country can increase its export volume by a larger proportion” (Chatterjee, 1992, p. 236). Crocombe, Enright, and Porter (1991) correctly observed that exporting greater volumes in
response to declining terms of trade was forcing New Zealand into the position of having to increase export volumes to maintain a desirable standard of living; a position that does not appear sustainable in the long term.

New Zealand's "vulnerability to adverse terms of trade movements is a reflection of the large size of the commodity, price taking component, of foreign exchange earnings" (NZTDB, 1990, p. 10). The economies of other developed countries suffer the same fate to the adverse terms of trade facing the land-based sector but New Zealand remains particularly vulnerable. In general terms, the motivation of this thesis is to better understand the strategic initiatives required to improve the performance of export-dependent land-based industries. Improvements to the performance of these industries will then result in improvements to the standard of living in these economies. The intention is to develop from the New Zealand case a theory of performance improvement in these industries, that can be generalised to other countries.

The production of land-based goods meeting international consumers' specifications requires the involvement of several organisations. These organisations will be located both on- and offshore. Numerous academic disciplines appear to contribute to the processes pursued by these various organisations, yet no single theory has emerged to benefit academics, researchers and practitioners. Therefore, a further aim of the study is to develop a theory of the configuration and management of export-dependent land-based value systems which can be applied to consider the creation and distribution of wealth.

New Zealand's land-based industries have been the subject of a multitude of reviews during the last two decades. Many of those studies have been completed by supply-side economists who ignore issues such as the unique attributes of land-based industries and their export dependency. Therefore, there is a need to develop and present a holistic view of these value systems.

Chapter One presents a discussion of motivation for the study. The core literature on international trade and international competitiveness is introduced and attributes of these trade theories are briefly reviewed in Section 1.2. Section 1.3 provides a discussion of the development of the research objective from first principles. The research objective is then
presented. The research philosophy and research approach adopted for this study are described in the following section. The thesis outline is presented as the conclusion to the chapter.

Intrinsically New Zealand’s land-based industries are international traders. The modern history of New Zealand, The Great War and World War II aside, is inseparable from the development of international trade in land-based commodities. The performance of these industries is often explained using theories of international trade (see Enders & Lapan, 1987), and more recently, theories of international competitiveness. Motivation for the study was first provided by the recognition of deficiencies in such theories. Attributes of the theories of comparative and competitive advantage are now discussed.

1.2 THEORIES OF INTERNATIONAL TRADE AND BUSINESS

The classical theories of Smith and Ricardo and the Heckscher-Ohlin theory of international trade are reviewed briefly in this section. The product life cycle approach to international trade, attributed to Vernon (1966) (see Wells, 1972), is then briefly introduced. Porter’s (1990) theory of a nation’s competitive advantage is described and his contribution to international trade theory identified.

The forces of supply and demand in a free market are capable of selecting an equilibrium price and an equilibrium quantity toward which “actual price and quantity may gravitate” (Baumol & Blinder, 1985, p. 56). The availability of resources, the efficiencies of production, and the prices of related outputs will influence the supply of a good within a country (Enders & Lapan, 1987). The demand for a good will depend on the good’s price, population size, consumers’ income, tastes, and the prices of substitute and complementary goods (Baumol & Blinder). Enders and Lapan stated that “trade takes place because of price differences between countries” (p. 7). Therefore, in the absence of trade prices of a good will differ between countries.

Smith (1776/1981), Ricardo (1821/1971), and Heckscher and Ohlin (Ohlin, 1933) proposed general theories of international trade. The respective theories are absolute
advantage, comparative advantage and factor endowment. The theories of trade commonly use a two good, two country model to describe autarky conditions and prices, the effects of specialisation, the direction of trade, and post-trade conditions and prices.

Absolute advantage may arise because of differences in natural resources, labour, capital, technology and entrepreneurship (Smith, 1776/1981). The theory of absolute advantage states that under free trade each country should specialise in producing those goods that it can produce most efficiently. Some of the goods would then be exported to pay for goods produced elsewhere, in doing so Smith showed that nations would benefit from trade. Ricardo (1821/1971) developed Smith’s model further proposing that trade will occur even when a nation holds an absolute advantage in the production of both goods. Ricardo’s theory of comparative advantage states that each country will specialise in the good with the lowest opportunity cost. Therefore, countries will specialise in the production of goods in which they have a comparative advantage. A country’s comparative advantage is the result of relative differences in the opportunity cost of factor endowments. New Zealand’s comparative advantage may be succinctly described as plant growth.

The cost differences resulting from relative differences in factor endowments are explained, in part, by the Heckscher-Ohlin Theory (Ohlin, 1933). This theory attempts to explain the reasons for differences in autarkic prices (Enders & Lapan, 1987). For example, products from New Zealand’s land-based industries are often less expensive than those from other countries because the costs of production are considerably less. The theories of trade, absolute advantage, comparative advantage, and relative factor endowment historically explain the likely direction of a country’s trade.

The product life cycle approach to trade (Vernon, 1966) places “less emphasis upon comparative cost doctrine and more upon the timing of innovation, the effects of scale economies, and the roles of ignorance and uncertainty in influencing trade patterns” (p. 190). The theory attempts to explain the source of new products, the rationale for standardising products and the eventual maturing of products. Unlike the classical theories of international trade the product life cycle approach was developed at business schools. Wells (1972)
suggests that "researchers in business schools\(^1\) were interested in developing useful tools for policy formulation" (p. 5) by the firm, industry or government.

The product life cycle approach provides useful insight to both the multinational enterprise (Dunning, 1981, 1993) as a vehicle for international trade and Porter's (1990) more recent postulate - the competitive advantage of nations. For example, all three theories suggest that innovation is more likely to occur near markets with strong demand; that home demand, rather than foreign demand, is a necessary pre-requisite for risk capital; and that producers located near to the market have lower costs in transferring market knowledge.

The traditional theories of international trade consider trade from industries within a common geographic base. Because trade is considered at an aggregate (industry) level the behaviour of individual firm's is ignored. The product life cycle approach shifted the focus of international trade from factors of production to product attributes. The contribution firms make to international trade was at last being considered. However, the industry's configuration, and the linkages between firms within an industry were disregarded. For example, the creation of synergy in an industry through mutual collaboration or competition between firms was ignored. Porter (1990) recognised that the traditional theories of comparative advantage - focused on relative costs of production - were no longer adequate to describe the direction and patterns of trade. Dunning (1993) has also suggested that the two-factor model of resource allocation should be widened to embrace all assets. Porter sought to explain the relationships (linkages) between firms within an industry in the form of a diamond. He described successful trade in terms of national competitive advantage identifying four broad conditions necessary for the competitive advantage of a nation. Collectively these sources were postulated to shape the environment in which the nation's firms either succeed or fail. Porter stressed that competitive advantage depends on all parts of the diamond and not the presence, or otherwise, of a single source.

While competitive advantage is not an absolute requirement for international trade it appears a desirable position for the host nation to achieve. Porter's (1990) diamond model is

\(^1\) Sadly Selvarajah and Cutbush-Sabine (1991) observed that many business schools in Australia and New Zealand claim to teach international business yet they "continue to emphasise the study of international trade and economics" (p. xvii).
presented in Figure 1.1. Porter identifies the four sources of a nation's competitive advantage as factor conditions, demand conditions, related and supporting industries, and firm strategy, structure and rivalry depicted as the diamond's corners. Two additional variables are identified as government and chance depicted with their supposedly less important interactions outside the diamond.

Figure 1.1. The complete system: The competitive advantage of nations.


The host nation's firms are claimed to operate within industry groupings (Porter, 1990). Interactions between firms within an industry are likely to occur through either competitive or collaborative linkages (Hamel, Doz, & Prahalad, 1989). Porter's diamond theory, therefore, provides an alternative view to the theories of Vernon, Heckscher and Ohlin, Ricardo, and Smith; all of whom considered output from an
industry in isolation from the firm. The diamond theory identifies the role of linkages between firms in an industry and attempts to predict the optimum industry configuration.

The first source for competitive advantage is factor conditions. Factor conditions are described as factor endowment (basic factors such as labour, land and natural resources and advanced factors such as capital, knowledge and infrastructure), the hierarchy between factors, factor creation and selective factor disadvantage (Porter, 1990). Factor endowments are those largely considered by the Heckscher-Ohlin theory. However, Porter suggested that "the most important factors to competitive advantage in most industries, especially the industries most vital to productivity growth in advance economies, are not inherited but are created within a nation" (p. 74).

Land-based production and processing organisations in New Zealand attempt to exploit foreign basic factors and create advanced factors perhaps having recognised that the advantages from basic factors are often exceedingly fleeting (Porter, 1990). The New Zealand Dairy Board, the New Zealand Apple and Pear Marketing Board (NZAPMB) and the Asian New Zealand Meat Company (ANZCO) source farm products from overseas producers. To avoid EC trade barriers the NZDB purchases milk solids from EC producers for aerosol cream products sold in Europe (NZDB, 1992c). Similarly, the NZAPMB has entered into a joint investment with the Chilean fruit company Zeus SA to market fruit sourced from Chile to "better service customers and return profits to New Zealand" (NZAPMB, 1992, p. 9).

Demand conditions are the second source for competitive advantage. Demand conditions refer to the structure of demand, home demand composition, demand size and pattern of growth, and the internationalisation of demand conditions (Porter, 1990). The internationalisation of domestic demand is a function of the mobility or multinationality of local buyers and the influences of foreign needs. Porter's demand conditions are largely located in the home nation, the internationalisation of domestic demand is reported to pull demand offshore. Porter describes the internationalisation of demand as a passive process which provides a marked contrast to the behaviour of multinational, global, international and transnational organisations (Bartlett & Ghoshal, 1989). Demand conditions, centred on the home nation, provide little recognition of sources of foreign demand or export dependency.
Porter's (1990) third source necessary for competitive advantage is internationally competitive related and supporting industries. Related and supporting industries have inputs, technologies, activities and customers in common, typically forming an industry *cluster* (Porter). While related and supporting industries are required to be internationally competitive they too are described as being home based.

The fourth and final source for competitive advantage is firm strategy and structure. Firm strategy and structure describes the forces influencing the creation of companies, their organisation and management, and the level of domestic rivalry (Porter, 1990). The strategy and structure of firms is a function of managers' goals, firms' goals, the influence of national prestige and the importance of sustained commitment.

Government and chance also influence the performance of the nation. Porter (1990) described government's role as a catalyst and challenger. Chance events such as inventions, discontinuities such as discoveries of mineral deposits or floods, and war can shift competitive position. Porter's diamond theory of competitive advantage is a useful development from the somewhat abstract theories of comparative advantage and factor endowment. The theory, developed from industry-wide case research in ten countries, has been used to describe a nation's trade (see Crocombe et al., 1991). However, Cartwright (1993b) correctly states that the theory is yet to be validated. Notwithstanding the criticism, Porter (1990) made two significant contributions to the theory of international trade. Firstly, he identified the importance of linkages between firms within an industry; firm strategy structure and rivalry. Secondly, he directed analysis at industries and industry clusters, proposing that competition and collaboration between firms within an industry is likely to be a potential source of competitive advantage hitherto ignored.

### 1.2.1 Application of the diamond theory to NZ's land-based industries

In 1990 TRADENZ commissioned Porter to study New Zealand's competitive advantage. The aim of the study was to evaluate the performance of New Zealand's industries using Porter's (1990) diamond theory. The New Zealand study, known as the *Porter Project*, was published in 1991 (Crocombe et al., 1991). The project involved 25 industry studies of which four (dairy, forestry, electric-fencing, and software) were published.
Crocombe et al. (1991) criticised New Zealand’s industries for failing to add value. The structure of many of New Zealand’s land-based industries was reported as being non-competitive and, therefore, detrimental to the pursuit of competitive advantage. Furthermore, the lack of participation in higher education and the reliance on the state by much of the population was correctly damned. However, by Porter’s own admission, the method used in the study should be considered suspect. In his original ten country study Porter avoided industries highly dependent on natural resources. Porter (1990, p. 28) claimed that “such industries do not form the backbone of advanced economies, and the capacity to compete in them is more explicable using classical theory”. New Zealand, and to a lesser extent Australia, provide an obvious paradox to this claim. Both Kuwait and Brunei, two newly developed countries largely dependent on the extraction and exportation of petroleum products, also provide other less obvious but equal examples. The percentage of products exported by New Zealand’s land-based industries is presented in Table 1.1 (overleaf).

The data in Table 1.1 establish the dependency of New Zealand’s land-based industries on export markets. For example, some 92% of kiwifruit grown and 74% of apples grown in New Zealand are exported. New Zealanders, already with one of the highest consumptions of fruit per capita in the world (E. A. Cameron, personal communication, July, 1996), would need to consume an additional 227kg of fruit per capita per annum to alleviate the need for exporting apples and kiwifruit.

Porter’s (1990) dismissal of industries largely dependent on natural resources in his original study appears to be appropriate where products are sold in an undifferentiated, substantially raw form. One can only postulate that perhaps New Zealand’s dairy and forestry industries had sufficiently reduced raw materials’ contribution to warrant their inclusion in the Porter Project. However, the majority (94%) of income from New Zealand’s pipfruit industry (an unpublished study) is derived from the sale of fresh fruit (NZAPMB, 1992); an industry highly dependent on the sale of raw material. The inclusion of land-based industries and, therefore, the appropriateness of the diamond to explain New Zealand’s [lack of] competitive advantage was unexplained.
Table 1.1. The ranking of world export share (relative to other NZ domiciled industries) and the percentage of product consumed domestically from NZ land-based industries.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Rank</th>
<th>Export (%)</th>
<th>Industry</th>
<th>Rank</th>
<th>Export (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiwifruit</td>
<td>1</td>
<td>92</td>
<td>Skim milk powder</td>
<td>14</td>
<td>92</td>
</tr>
<tr>
<td>Sheepmeat</td>
<td>2</td>
<td>76</td>
<td>Tailor</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Scoured wool</td>
<td>3</td>
<td></td>
<td>Fish fillets</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Chemical wood pulp</td>
<td>4</td>
<td>90</td>
<td>Apples</td>
<td>17</td>
<td>74</td>
</tr>
<tr>
<td>Sheep pelts</td>
<td>5</td>
<td></td>
<td>Mechanical wood pulp</td>
<td>18</td>
<td>90</td>
</tr>
<tr>
<td>Inedible offal</td>
<td>6</td>
<td></td>
<td>Racehorses</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Whole milk powder</td>
<td>7</td>
<td>93</td>
<td>Wood</td>
<td>20</td>
<td>55</td>
</tr>
<tr>
<td>Boneless beef</td>
<td>8</td>
<td>66</td>
<td>Aluminium</td>
<td>21</td>
<td>96</td>
</tr>
<tr>
<td>Greasy wool</td>
<td>9</td>
<td>70</td>
<td>Woollen yarn</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Sausage casings</td>
<td>10</td>
<td></td>
<td>Frozen fish</td>
<td>23</td>
<td>40</td>
</tr>
<tr>
<td>Butter</td>
<td>11</td>
<td>60</td>
<td>Venison</td>
<td>24</td>
<td>57</td>
</tr>
<tr>
<td>Casein</td>
<td>12</td>
<td>97</td>
<td>Cheese</td>
<td>25</td>
<td>62</td>
</tr>
<tr>
<td>Edible offal</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Porter’s (1990) home country diamond theory was reviewed by authors contributing to a special issue of *Management International Review*. Rugman (1993) stated emphatically that “all of the papers advocate modifications” (p. 5) to the diamond. Rugman and Cruz (1993) and Hodgetts (1993) offered *double-diamonds* in an attempt to explain Canada’s and Mexico’s international competitiveness respectively. In both cases the second diamond depicts US home country forces. International borders identifying home country commercial activities between Canada and the US, and Mexico and the US have been eroded under the North American Free Trade Agreement. Bellak
and Weiss (1993) argued that Austria’s application for EC membership similarly reduces the importance of the home country forces identified by Porter’s diamond. Cartwright (1993b) identified several weaknesses in using Porter’s diamond to predict or prescribe improvements to competitive advantage in his study of the international competitiveness of New Zealand’s export-dependent industries. Cartwright described the diamond theory as:

[a] home-base model of international competitiveness. The theory specifies that the controllable variables that determine the competitiveness of the firms in international markets are all located in the domestic market environment. The customer requirements and competitive pressures faced by firms at home are held to be the principal reason for offshore success. (p. 60)

Cartwright (1993b) found that New Zealand land-based industries with insignificant home-markets relative to international markets; industries dependent on basic factors as important inputs; industries where domestic rivalry is suppressed by legislation; and industries that pursue offshore investment and a sustained presence in international markets appear to have achieved positions of competitive advantage. Cartwright’s results were the antithesis of that found by Crocombe et al. (1991).

Porter’s (1990) diamond theory may be a powerful explanatory tool in the appropriate environment, for example, the United States of America. However, its application to export-dependent land-based industries in a small, geographically isolated country without modification, is inappropriate. Cartwright (1993b) proposed that the home country’s diamond, the foreign country’s diamond, and the linkages between them provide the sources of competitive advantage. Dunning (1993) summarised the significant contribution made by Porter’s (1990) diamond to the theory of international business. Dunning stated that:

the way the various parts of the diamond are put together and interact with each other is determined by the macro-economic and macro-organisational systems pursued by the country in question; and, however much, in their policies and strategies, governments may be influenced by international events, it is they, and
they alone, which have the sovereign jurisdiction over the control of assets within their jurisdiction.... In the final analysis, it is the domestic organisation of the ingredients of competitive advantage which will determine how many and what kind of assets are generated and how they are used. It will no less influence the 'where' of added value. (p. 13)

Competitive advantage "grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm's cost of creating it" (Porter, 1985, p. 3). As observed by Cartwright (1993b) it is unfortunate that Crocombe et al. (1991) did not undertake "fieldwork in export markets or offshore investment sites" (p. 58). Whether or not New Zealand's export-dependent land-based industries have reached a position of competitive advantage can only be determined by the empirical examination of their performance in overseas markets.

Cartwright (1993b) also raised concerns with respect to the industry selection criteria used by both Porter (1990) and Crocombe et al. (1991). Cartwright suggested that industries would be defined better using "competitor-based definitions" (p. 58) rather than Porter's modified form of SITC classification. The difficulty of industry classification is, however, far from new.

Publication of the Porter Project has been the catalyst for the renewed public debate of New Zealand's land-based industries. Much of this debate focused on industry configuration rather than the pursuit of added value strategies, the capture of wealth by New Zealand participants (processors and producers), and the subsequent increase in the country's wealth (GDP). In doing so the debate largely continues the free market arguments pursued by New Zealand and Australian agricultural economists over the last twenty years (e.g., Campbell, 1973; McCann & Lattimore, 1990; Nicholson, 1990).

For several decades before 1984 successive New Zealand Governments pursued protection and exchange rate policies designed to benefit the agricultural sector. A range of assistance measures evolved, including subsidies on farm inputs and outputs, and agricultural services. These policies had side effects which were in turn countered by the introduction of further measures. A maze of assistance programmes were in operation
by the mid-1980s, of which the combined effects were complex (OECD, 1987). Market prices - of which 40% was from subsidies (Prebble, R., 1996) - and returns were distorted and resources were moved from competitive to protected sectors of the economy. Resource shifts led to sub-optimal investment decisions. From 1984 government began addressing resource allocation distortions exacerbated by prevailing policy. Government’s policy, as presented in the Budget document of 1984, was to quickly remove assistance across all activities in a progressive and predictable manner (Douglas, 1984; Moyle, 1984) in conjunction with privatisation and the establishment of autonomous government agencies (see Parker & Hartley (1991) for analysis of the British experience). This policy has been largely maintained to date2.

Producer boards were evaluated by Treasury, and those concerned purely with the local market phased out (Sandrey, 1991). The export-orientated boards, namely the New Zealand Apple and Pear Marketing Board, the New Zealand Dairy Board, the New Zealand Meat Producers Board and the New Zealand Wool Board (NZWB) were reviewed and remained virtually unchanged despite recommendations for loss of some powers (Whitty, 1988; Crocombe et al., 1991; Hussey, 1992). More recently government declined to absolve the New Zealand Kiwifruit Marketing Board (NZKMB) of their statutory obligations (Clifton, 1993) granted in 1989 (Zwart & Moore, 1990). However, in January 1994 the NZAPMB lost its domestic control of the pipfruit industry ("Bill transforming apple industry", 1993), a move promoted by the Board with majority support from growers. Concurrently, potential pipfruit exporters can now apply to the NZAPMB for an export license, yet there still remains strong support for the single desk selling operation ("Single desk", 1993).

Few authors have presented balanced views of New Zealand’s land-based value adding systems. Most studies simply pursue deregulation, largely for deregulation’s sake (e.g., Findlaysen, 1993; Scrimgeour, 1993). In many cases deregulation is seen as the end rather than a means of achieving better output. To date the most thorough and plausible arguments for further deregulation, albeit largely of the supply side economics

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2 The Wine Industry Assistance Package (Fraser, 1989) and the establishment of the New Zealand Kiwifruit Marketing Board, a statutory marketing board (Honeybone, 1988) are notable exceptions to Government policy.
doctrine, have been provided by the Business Roundtable (see Hussey, 1992, 1993). The Director of the Ministry of Agriculture and Fisheries summarised the Hussey Report for the Minister of Agriculture in November, 1992 (Ballard). Ballard agreed with Hussey’s recommendation³ to remove all regulations with some minor exceptions that “are preventing competition and choice in agricultural processing and marketing; and to corporatise all the statutory marketing boards, issue the shares to producers and allow the shares to be traded freely” (p. 3). Consequently, MAF Policy developed a programme of industry studies (Jeffery, 1993). However, Jeffery suspects that the economic costs to New Zealand of the current processing and marketing arrangements are not as great as that claimed.

Much of the current public debate focuses on the welfare of New Zealand consumers with little attention paid to that of producers or processors. However, the domestic market and the subject of national interest in domestic consumers’ welfare, is of only minor importance to New Zealand’s export-dependent land-based industries (Shirtcliffe, 1988). For example, Furniss (1992) discussed both domestic and international demand conditions in his study of New Zealand’s blueberry industry. However, he accepted Porter’s (1990) hypothesis that only the rivalry of domestic firms’ influenced competitive advantage, despite acknowledging that the majority of product was exported. Studies of New Zealand’s export-dependent land-based industries, therefore, need to encompass the entire industry system. The system boundaries will not coincide with the host nation’s geographic boundary.

No holistic studies of the configuration or management of New Zealand’s export-dependent land-based industries have yet been undertaken. Aspects of contributing disciplines are currently being used to foster specific interests. There is a tendency to select particular attributes from the theory of the firm. Douglas and Burgess (1992), for example, identified the weaknesses postulated by principal-agent theory in their report damning the NZKMB (Barber, 1992). Cartwright (1993a) noted in his rebuttal that transaction cost theory, one explanation for vertical integration, had been ignored.

³ The New Zealand Business Roundtable employed ACIL, an Australian consultancy firm, to complete a study of New Zealand’s producer boards (see Hussey, 1992). Progress on the study’s recommendations were reviewed by Hussey (1993) twelve months later.
1.3 DEVELOPMENT OF THE RESEARCH OBJECTIVE

A series of questions are now posed to provide direction to the development and subsequent refinement of the research objective. Those questions that are regarded to be worth answering are then considered in terms of the feasibility of exploring them. If questions have already been appropriately answered results are reported. If questions have been answered from a select view attention is drawn to the bias, or vested interest being pursued. If a question has not been answered, or has not been answered appropriately, a priority is then assigned for research. Questions are derived from first principles, in as much as no knowledge is taken for granted. The purpose of the section is to describe the development of the research objective.

Production from New Zealand’s land-based industries has increased markedly over the last three decades (Enterprise New Zealand (ENZ), 1992a, 1992b, 1992c, 1993), the only exception from this trend being production from the sheep industry (ENZ, 1992c). However, increases in volumes have not kept up with declining real prices at the farm gate (Bruhn & Lockhart, 1993; Reynolds & Moore, 1990), ex factory or FOB. Therefore, value added “gets squeezed out” (NZTDB, 1990, p. 10). The NZTDB (1990) attributed the decline of export’s value added to the stagnation of growth in GDP. New Zealand’s land-based industries contribute some 17 - 18% of New Zealand’s GDP (Dalziel & Lattimore, 1991; MAF, 1993; Narayan, 1991; TRADENZ, 1993). While their importance to the economy has declined since the 1960s they still account for the majority of export receipts, and 10.8% of the country’s employment (Statistics New Zealand, 1995, p. 140).

Successive New Zealand governments during the 1980s systematically cultivated a belief amongst New Zealanders that land-based industries held little importance to the country’s future (see Young, 1988; Yerex, 1992). The annual percentage contribution to New Zealand’s GDP and export earnings (FOB) from land-based industries for the period 1970-1996 is presented in Table 1.2. New Zealand’s land-based industries create significant wealth as measured by either GDP or foreign exchange earnings.

The important contribution to New Zealand’s standard of living made by exports is the proportion of value added domestically (NZTDB, 1990). Value added “represents the
difference between the sale value of products from an industry and the materials used up producing those products" (Johnson, R. W. M., 1992, p. 61). The value added component is a measure of processing industries' contribution to the value of exports. TRADENZ (1993) acknowledged that over the last four decades the "profile and direction" (p. 17) of New Zealand's exports has changed significantly. Unfortunately, the recent major diversification of markets (Ministry of Foreign Affairs and Trade (MFAT), 1993) is still yet to be translated into sustained real export growth.

Table 1.2. New Zealand's land-based industries\(^\dagger\) contribution to annual GDP and export earnings (FOB), expressed as percentages for the period 1970 to 1996.

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP from agriculture (%)</th>
<th>GDP from forestry (%)</th>
<th>Agricultural exports (FOB) (%)</th>
<th>Forestry exports (FOB) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>8.1</td>
<td>0.8</td>
<td>95</td>
<td>2.6</td>
</tr>
<tr>
<td>1973</td>
<td>10.1</td>
<td>0.3</td>
<td>96</td>
<td>2.0</td>
</tr>
<tr>
<td>1976</td>
<td>8.8</td>
<td>0.3</td>
<td>89</td>
<td>5.0</td>
</tr>
<tr>
<td>1979</td>
<td>7.7</td>
<td>0.4</td>
<td>93</td>
<td>4.4</td>
</tr>
<tr>
<td>1982</td>
<td>6.3</td>
<td>0.4</td>
<td>92</td>
<td>5.2</td>
</tr>
<tr>
<td>1985</td>
<td>7.1</td>
<td>1.2</td>
<td>65</td>
<td>4.0</td>
</tr>
<tr>
<td>1988</td>
<td>7.7</td>
<td>1.6</td>
<td>63</td>
<td>5.0</td>
</tr>
<tr>
<td>1991</td>
<td>6.7</td>
<td>1.9</td>
<td>50</td>
<td>10.3</td>
</tr>
<tr>
<td>1994</td>
<td>5.5</td>
<td>2.0</td>
<td>62</td>
<td>12.5</td>
</tr>
<tr>
<td>1996</td>
<td>5.0</td>
<td>2.2</td>
<td>51</td>
<td>12.0</td>
</tr>
</tbody>
</table>

\(^\dagger\)Does not include contribution from leather, food, beverages and tobacco and excludes the manufacture of wood products.


The value added component of New Zealand's exports declined between the 1960s and 1990s. In 1966 the value added ratio was 0.4, by 1987 the value added ratio had declined to 0.35 (NZTDB, 1990). However, consideration of value added from the processing sector alone underestimates the contribution from activities in the home-base location. The value added ratio on-farm from the sheep and beef industries from 1986 to 1992 was 0.53 - 0.56 (MAF, 1986, 1988, 1990, 1993). Therefore, the inclusion of the on-

\[^4\] Historically New Zealand exported undifferentiated agricultural products to Great Britain.
farm contribution to value added, being less dependent on imports than the processing sector, enhances this measure of industry performance.

Value added should be recognised as the product of all firms participating in the value system (Porter, 1985). However, few authors have attempted to analyse the entire value adding process from producer to international consumer. R. Davis's (1993) integrated conceptual model describing the creation of added value in the New Zealand wool industry is one notable exception. Davis applied Porter's concept of value chain analysis to New Zealand's wool industry, from the producer (using NZWB field officers as de facto producer respondents) to the domestic first stage textile processor. Davis concluded that the New Zealand wool industry's value chain was inherently weak and most participants were earning less than competitive returns on investment.

Most commentators recognise the importance of New Zealand pursuing value added strategies. The NZTDB (1990) suggested that "the expansion and development of existing forex earning industries with a sustainable competitive advantage" should be encouraged. The NZTDB more specifically stated that "value added strategies should be pursued" (p. 13) (see also MFAT, 1993; TRADENZ, 1993, 1994). Their recommendations were not dissimilar to those of Crocombe et al. (1991). However, Crocombe et al. did not regard land-based industries as a primary source of forex growth. Yet those same industries - as described by participants such as Betts (1993), Harrison (1993), and Lucas (1993) - are actively pursuing value added strategies. For example, the New Zealand Dairy Board's (NZDB) marketing strategy may be summarised as adding value to products at every opportunity (NZDB, 1992a).

Adding value to land-based products differentiates them, at least partially, in the market place. By definition adding value reduces the proportional contribution from raw materials to the value of the final product. Therefore, while at first glance raw materials from land-based industries have commodity status, opportunities exist and to a limited extent are being pursued, to differentiate these products by adding value. One benefit of adding value is to reduce the commodity, price-taking status of land-based products thereby reducing price risk. For example, both portion controlled venison mid-loins, marketed under the Cervena brand or vacuum packed lamb noisettes, marketed under the brand New Zealand Lamb are
These products bear little resemblance to the traditional commodity meat trade which solely comprised frozen carcasses. Nonetheless, the primary objective of adding value strategies is to create competitive advantage, that will result in increased net revenue. The danger to be avoided is that processes of adding value add greater cost. Value added is recommended as a firm’s strategy (Harrigan, 1983; Porter, 1985; TRADENZ, 1992) and is claimed to increase wealth by contributing to GDP. However, over the past three decades the value added contribution to GDP from New Zealand’s land-based industries has declined (NZTDB, 1990). Therefore, there appear to have been either impediments to the creation of wealth or little incentive to do so. In attempting to explain this result, many studies have focused on industry configuration, particularly of those industries dominated by producer boards (see Douglas & Burgess, 1992; Findlayson, 1993; Hussey, 1992, 1993; Scrimgeour, 1993), rather than the value strategies they pursue (e.g., Betts, 1993; Davis, R., 1993; Furniss, 1992; Harrison, 1993; Lucas, 1993).

One important decision that managers of land-based value systems must make regularly and frequently is whether to distribute income (return to suppliers, shareholders and stakeholders) or invest income, enabling the further pursuit of value added strategies. Distribution will benefit participants in the short term while investment is to benefit both participants and New Zealand residents in the longer term. The managers of land-based value systems are expected to be confronted with investment problems and opportunities typical of other international businesses (see Daniels, J. L. & Daniels, N. C., 1993). One difficulty likely to be encountered when examining value added strategies is that internal transfer prices may not resemble market prices (Hergert & Morris, 1989). Transfer prices may be suppressed entirely where sequential stages of processing occur within the same organisation.

Organisations involved in international business (Bartlett & Ghoshal, 1989) often require substantial investments in foreign countries. These investments are designed to either source relatively inexpensive raw materials, add value to products or position finished goods in the host country’s marketplace. Organisational structures involving headquarters in the home-base location, and subsidiaries in host countries have emerged (Dunning, 1981; Franko, 1976; Wilkins, 1970, 1974). Firms with headquarters-subsidiary relationships are confronted with unique management problems and opportunities (Doz, Bartlett, & Prahalad, 1981; Hedlund, 1981; Otterbeck, 1981b; Prahalad & Doz, 1981). For example, the NZDB’s value
added strategy has resulted in investment, control and eventual ownership of some 120 foreign subsidiaries. This strategy may ensure the long-term profitability of New Zealand’s cooperative dairy industry. In the short-term wealth is likely to be accrued by the foreign country, with the expectation that wealth in the longer term is captured by New Zealand residents.

Value added strategies only increase New Zealand’s wealth (GDP) when the benefits are captured by New Zealand residents. The returns from foreign direct investment (Connor, 1981) must be captured by New Zealand residents in the long term if national wealth is to be increased. Note, however, that foreign investment is accounted for in a country’s balance of payments (Enders & Lapan, 1987) but its productivity is not attributed directly to GDP. International participants may be better equipped to develop sources of competitive advantage. In such value systems New Zealand participants must enhance, rather than detract from that advantage. New Zealand’s export-dependent land-based industries must, therefore, be viewed as geographically domiciled with tentacles extending into foreign markets. Those linkages with foreign markets appear to provide the added source for differentiation as well as a mechanism to return market rents to New Zealand.

Given that New Zealand’s export-dependent land-based industries create wealth, or have the opportunity to do so, their unique attributes now need to be considered. At first glance land-based industries appear to have several unique features. First, production is both variable and seasonal. Variability from production processes and seasonality of production are seldom encountered in manufacturing industries. Secondly, raw materials are produced by a large number of relatively small scale producers. In manufacturing industries particular components are rarely sourced from any more than one supplier. Third, land-based producers are not mobile, they are geographically fixed in a fashion akin to that found in extraction industries such as oil and mining. However, undifferentiated products can be sourced from outside the host country. For example, ANZCO purchases Australian grain-fed beef, the NZDB purchases milk in Britain and the NZAPMB purchases Granny Smith apples from Chile. In each case the purchaser is leveraging-off the New Zealand domiciled asset.

Land-based industries are seldom the subject of management and international business research. Some researchers display an interest in the downstream activities of food
and fibre industries (i.e., Rutenberg, 1982), however, only those from production based backgrounds appear to recognise the importance of the value system from the perspective of the producer (McRae, 1991; Cartwright, 1991, 1993c; Davis, R., 1993) or input supply. Nevertheless, much of the theory already developed from business schools for manufacturing and service industries is expected to be appropriate to this study.

The problems and opportunities confronting a small country supplying world markets with goods from export-dependent land-based value systems need to be identified. However, the size of the resource base does not necessarily preclude industries from entering markets beyond the supply capacity of the host nation. The host nation’s industries can source product internationally, particularly when the origin of products is difficult to distinguish such as apples (NZAPMB, 1992) or the raw material’s contribution to the final product is of little real consequence, for example, raw milk in aerosol whipped cream products (NZDB, 1992c).

A second difficulty confronting small countries is the omnipresent capital constraint. Several of New Zealand’s leading dairy cooperatives have sought greater capital contributions from suppliers. It is argued that equity capital is a common constraint of cooperative structures, however, credit capacity of individual farmers may be enhanced under vertically coordinated production (Featherstone & Sherrick, 1992). The public company provides a structure to raise equity capital readily but it tends to distribute wealth to shareholders rather than suppliers. This is the case with the acquisition of Watties by Heinz in 1992; wealth is no longer captured by New Zealand participants but is being distributed to (largely) American shareholders in the form of dividends.

How then are export-dependent land-based value systems best configured to create wealth for New Zealand residents? There are few instances where the value system, from the production of raw material to the consumer, is the exclusive domain of a single firm. Value systems, therefore, encompass the value adding chains of a number of firms (Porter, 1985). The configuration of value systems in New Zealand’s export-dependent land-based industries appears to be determined by historical legislation, the collective demands of producers, quasi-industry groups, market forces, and strategic management. The preponderance of industry strategic plans suggests that some form of industry coordination produces greater rewards than those created by the complete lack of intervention.
Configuration describes the type of linkages between the firms participating in the value system. The extreme forms of configuration in New Zealand are, on the one hand, vertical integration from the producer to wholesale and reliance on the market for each linkage between producer, processor(s), marketers, distributors and wholesalers on the other. The capture of legislation by various interest groups, particularly producers, however, has created various forms of complete vertical integration.

Government configuration largely takes the form of producer boards exercising their right of compulsory acquisition for export (e.g., NZDB, NZAPMB, NZKMB). This industry form has been under continual debate, notably during the last decade, by the New Zealand Business Roundtable and free-market economists. Quasi-industry configuration by voluntary industry groups such as the Wine Institute of New Zealand (WINZ) and the New Zealand Meat Industry Association (NZMIA) attempts to enhance the value system by proposing formal mechanisms for coordination. Quasi-industry organisations are often supported by Government, for example, the NZMIA and the NZMPB, or WINZ and the New Zealand Wine Guild of which the latter is a TRADENZ Joint Action Group (JAG). Government and quasi-industry organisations attempt to configure the value system, either formally or informally, for the benefit of New Zealand participants. Industry groups do not attempt to manage the value system but rather configure the value system to the advantage of key participants.

Vertical coordination appears to be the preferred configuration of value systems, vertical integration (Harrigan, 1983, 1984) being the extreme form. The majority of suppliers endorse the fully integrated coordination mechanisms in place in the dairy, kiwifruit and pipfruit industries. This study does not attempt to review producer boards. Coordination mechanisms in land-based industries are an important aspect of value systems particularly as this is where interorganisational transactions occur. In most cases vertical integration suppresses potential market forces and the associated price information (e.g., McRae & Lynch, 1991; Lockhart & Cartwright, 1994). Research into the configuration of value systems, if motivated by market demand, is likely to identify the necessity, or otherwise, for aggregate supply mechanisms.
Providing issues of configuration can be resolved how are export-dependent land-based value systems best managed to create wealth for New Zealand residents? The value system, once configured, must be appropriately managed or it will fragment, loosing the inherent advantages of vertical coordination. There appear to be several opportunities to manage a value system. First, the value system may be managed by one firm pursuing and maintaining a dominant position in the system's value adding chain (Porter, 1985). For example, R. Davis (1993) identified exporter processors as having the dominant position in the New Zealand wool industry value system. Second, the value system may be managed by a group of firms with strategic alliances between the producer and processor, the processor and distributor, and the distributor and foreign retailer. One such example appears to be the lamb system that extends from farmers through Progressive Meats, exported by Davmet to the international distributor (NZMPB, 1993a). Third, the value system may be managed by one firm vertically integrating the entire length of the value adding chain, for example, the New Zealand dairy industry. The management of value adding chains encompassing several firms may be studied using either a governance structure framework, which embodies Porter's (1985) value system, or some form of strategic alliance framework.

Analysis of the value system may be more difficult where a single firm has vertically integrated from one end to the other. Where vertical integration is complete value adding results from intraorganisational transactions. These transactions are unlikely to be transparent, that is, transfer prices are not market prices. However, some of the procedures for this analysis have been developed elsewhere (Johnston, H. R., & Carrico, 1988; MacDonald, 1991; Skyrme, 1990). Where interorganisational transactions are completed, costs and values are likely to be more easily identifiable.

1.3.1 Research objective

Previous studies of New Zealand's agricultural industries have not been completed from a holistic view. The significance of off-shore markets, for example, was not given prominence by contributors to the Porter Project. While supply-side economics is currently the prevailing modus operandi of New Zealand society the relevance of this theoretical doctrine remains unchallenged. Further, existing models of international trade and
international competitiveness have, in this context, been found to be deficient. Therefore, the research objective is:

\[
\text{to develop a theory of the configuration and management of export-dependent land-based value systems.}
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The theory will be developed using New Zealand as the case nation, the intention being to develop a generalisable theory that may also be applied to land-based industries in other countries.

1.4 RESEARCH PHILOSOPHY

The development of a theory of the configuration and management of export-dependent land-based value systems will necessarily include both theoretical and empirical contributions. However, the breadth of issues and resource constraints restrict empirical research. Comparative analysis is also restricted by the lack of domestic competition in some of New Zealand’s land-based industries. It is expected that some of the critical issues have already been addressed and reported in literature from a wide range of disciplines. The aim of this section is to describe the research approach adopted for the study. This description is developed in the context of a brief review of alternative approaches to research and theory development. The purpose of this development is to ensure readers are aware of the rationale for the adopted approach.

1.4.1 Forms of research

Kuhn (1970) identified three forms of factual scientific investigations in normal science. G. L. Johnson (1986), a renowned agricultural economist, also made similar distinctions between the three. The three forms of research are listed as disciplinary research, subject-matter research and problem-solving research. Johnson stated that "very different kinds of information are acquired in doing each, and acquisition of the information requires different methods" (p. 11).
Disciplinary research is designed to improve a discipline, consisting of research to develop and improve theory, quantitative techniques and measurement (Johnson, 1986; Kuhn 1962, 1970). Subject-matter research is "research on a subject of interest to a set of decision makers facing a set of practical problems" (p. 12). Problem-solving research employs methods to solve specific problems of interest to decision makers, organised forms of knowledge are only introduced when the problem requires them (Boud, 1985). Both Kuhn (1970) and Johnson recognised that the three forms of research were not necessarily exclusive. The three kinds of research represent a broad spectrum and research efforts are likely to mix the three types.

G. L. Johnson (1986) noted that the relatively narrow disciplinary orientation of economists (see also Popper, 1970; "Philosopher Popper", 1994) has resulted in the neglect of subject-matter and problem-solving research, resulting in the often strained relationship between economists and business administration/management researchers. Similar views have been expressed by both Cartwright (1993c) and Buckley (1994). Cartwright commented that there "is a propensity for two groups... to talk past each other" (p. 25). Buckley recognised that the paradigms had aspects in common but described them as being "both complementary and competitive" (p. 95) because they are "drawn from somewhat different disciplinary bases".

G. L. Johnson (1986) suggested that the "practical problems of real-world decision makers respect neither the organisational charts of universities and research institutions nor the academic disciplines around which universities and organisations are organised" (p. 13). Both problem-solving research and subject-matter research are likely to require multidisciplinary (Gabb, Atkinson, & Shaharudin, 1986) or transdisciplinary research methods. Each researcher contributes their disciplinary perspective to the study, supposedly without the "deliberate cooperation and continuous activity" (Haning, 1981, p. 10) required for interdisciplinary research. Boud (1985) stated that problems cross existing boundaries between disciplines, hence the requirement for a transdisciplinary approach to problem-solving research. Therefore, practical research will require a transdisciplinary rather than an adisciplinary (Gabb et al.) approach.
G. L. Johnson (1986) stated that subject-matter research "emerges out of rather general issues facing society at a given time" (p. 13) - issues identified in the previous sections. Subject-matter research, however, "does not produce all the knowledge required to solve all the problems in the relevant set; instead it generates a body of multidisciplinary knowledge useful in solving the problems in the set" (p. 21). Subject-matter research, therefore, provides a body of information for a group of decision makers confronted with a number of problems. Decision makers, having been provided with the information generated from subject-matter research, can then solve their own problems (Johnson). Therefore, one output from subject-matter research must include a methodological framework in which decision makers and researchers can solve associated problems.

Bourgeois (1979) offered a theoretical and empirical methodology as a method of middle-range theorising. The author defined the relationship between theory and empirical validation, which other authors seemingly leave to chance (e.g., Weick, 1989). Middle ground (Merton, 1968) eclectic approaches to research are recommended as a useful and productive alternative to empiricism on one hand, and general theory building on the other. A generic framework for middle-range theorising, based on Bourgeois's contribution, is introduced in this section. Departures between this framework and that adopted for the study are identified and explained. The thesis outline is then presented.

1.4.2 A generic framework for middle-range theorising

The research method used in this thesis is modified from that offered by Bourgeois (1979) and incorporates Einstein's essential elements of research (Holton, G., 1979). The seven step generic model provides a rigorous structure that may be applied to subject-matter theory building research. The model may also be used to incorporate the critical elements of case study research design identified by Yin (1989a).


6 Theories of the middle range "lie between the minor but necessary working hypotheses that evolve in abundance during day-to-day research and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behaviour, social organisation and social change" (Merton, 1968, p. 39).
Theory building of broader scope than day-to-day hypotheses will cross paradigm boundaries (Kuhn, 1970). While only one paradigm is likely to reflect the researcher's background other paradigms will contribute to the topic. Both the paradigm's domain and procedural (methodological) contributions should be stated, and used where appropriate. Therefore, contributions from theories relevant to the topic in question must be partitioned into paradigms. Each of the paradigms must then in turn be examined for useful contributions. While the literature review is presented as step three, Bourgeois (1979) recommends that it is not completed in isolation of steps one, two, and four. The literature review reflects the various paradigms being used for the study and the concepts and propositions developed in step four. The literature review, therefore, guides and channels (Bourgeois) some of the propositions developed between the concepts. Differences between the theory being developed and the literature must be identified. In some cases the theory may need to be modified, in other cases these differences are critical parts worthy of empirical investigation.

Axioms are then derived from the problem statement in step one. The axioms should contain constructs and the relationship between constructs should be presented, preferably in a graphical form (Bourgeois, 1979). Critical parts of the theory, identified in step four, are then referred to empirical evidence (Holton, G., 1979), the need for either statistical significance or structural robustness must be reconciled. Einstein resolved this inductive-deductive dilemma by providing a sketch depicting his interpretation of thinking: the iterative relationship between experience and theory (presented as Figure 1.2). Holton (1979) described the sketch has having "great power and simplicity", concentrating in a "few lines a wealth of information" (p. 112). Consequently, Einstein's model is used as the basis for theory construction.
Figure 1.2. Einstein's model of thinking about science.


The line, marked E, is "an infinite plane on which the separate and diverse sense experiences or observations that clamour for our attention are laid out" (Holton, G., 1979, p. 112). E represents the totality of empirical facts. Rising from the plane is an arc, labelled J, that reaches to the top of the schema. At the top of the schema is a "well-delimited entity" representing a system of axioms, labelled A (p. 113). Einstein, cited in Holton, stated that "psychologically the A are based upon E. There is however no logical path from E to A, but only an intuitive connection, which is always subject to revocation" (p. 113). Despite that Einstein provided rules and constraints, subsequently interpreted by G. Holton, for the construction of axioms, seemingly alleviating the complete reliance on intuitive methods. By way of summary, Holton stated that "the license implied in the J process is the freedom to make a leap, not the freedom to make any leap at random" (p. 131). Hence Holton modified J to include the influence of thematic presuppositions, as superimposed in Figure 1.2.

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7 G. Holton (1979) identifies two discontinuities in Einstein's arch, J. First, that there is no certainty that concepts have a necessary connection with corresponding experiences: hence the small gap between the line E and the arc J. The second discontinuity concerns the relation of concepts to one another, the "justification for which lies only in the pragmatic success of the scheme being built up" (p. 116). The discontinuities give rise to Einstein's insistence that "there is no logical path to these elementary laws; only intuition, supported by being sympathetically in touch with experience" (p. 116).

8 Holton's themata filter the number of arcs from E to A, suggesting that the process is far from being entirely intuitive. Bourgeois's (1979) insistence for a discussion of theory construction (the J process) is, therefore, valid. The process of theory construction in this study is described in Chapter Four.
The nature of the empirical examination required will determine what sort of data gathering techniques are employed. In some instances an indepth case study (Yin, 1989a) may be required, in other instances a survey, census, or some other form of data collection should be considered (Sieber, 1972). The appropriate testing procedure must be drawn from the parent paradigm. Bourgeois (1979) provides the metaphysical elaboration step as a receptacle for recording the intuitions and insights experienced by the researcher. Ideas and deductions that are unable to be empirically tested, because they are speculative, should be recorded and discussed. This step is an opportunity for the researcher to share philosophical intuition developed during the course of study. Conclusions are then drawn and recommendations made. The research methodology, both theory building and empirical testing, should also be reviewed. Recommendations for further research and the study's implications for practitioners should then be presented.

This study is, however, may need to be more grounded than that implied by Bourgeois's (1979) generic framework. For example, anticipated shortcomings with the industrial networks approach, and the difficulty of quantifying bargaining power is expected to reduce the value of these potential contributions. The study also differs significantly by degrees of groundedness from Glaser and Strauss's (1967) approach in that the development of a generic value system model is presented in Chapter Two. A structured process of creative thinking is adopted for this research. Data sources include extant literature and empirical evidence. Evaluation is undertaken within the available data.

1.4.2 Thesis outline

The thesis outline, derived from the seven step problem-solving research process, is described in this section. The thesis is presented in a serial form, however, the development and completion of each chapter is acknowledged as being far from discrete. Bourgeois (1979) stated that one conflict for a theoretical researcher is reconciling the order of the literature review, construction of theory and referral of the theory to observations. Of more importance appears to be the iterative nature of the process (Merton, 1968; Blalock, 1969; Kuhn, 1970). Therefore, the final work does not represent the iterative nature of the study in its raw form.
The topic under investigation has been identified and defined as New Zealand's export-dependent land-based value systems. The unique attributes of New Zealand's land-based value systems are identified and discussed. The topic is then delineated having first developed a simple model; presented in Chapter Two. Likely contributions are identified from transaction cost economics, international business, interfirm relationships, strategic management, and agribusiness.

Chapter Three provides an orderly review of the literature as it relates to the simple model developed in Chapter Two. The Chapter is presented as two interrelated themes: linkages between organisations and the management of organisations. Continuities and discontinuities in the literature are identified.

The processes of theory building in the organisational sciences are reviewed in Chapter Four. Theory building in the middle-range is introduced, and the procedure used for theory building in this study is developed. The simple model presented in Chapter Two is then complicated with the addition of important variables and concepts identified in Chapter Three. A set of axioms and theorems are developed, although this set is regarded as being incomplete.

Chapter Five presents a discussion of the attributes of common data gathering techniques. These techniques are contrasted and the case study research method is reviewed. Case work focuses on sourcing data for critical parts of the theory. Case reports are presented, and core categories (Strauss & Corbin, 1990) then identified and defined. This Chapter marks a significant departure from Bourgeois's (1979) theory building procedure. The study is more grounded - creative - than that prescribed by Bourgeois, therefore, observations are used to supplement rather than validate theory building.

Glaser and Strauss (1967) recommended that intuition and data-based theorising go hand in hand. In support, Bourgeois (1979) recognised the similarities between Pirsig's (1974) romantic mode and the scope of a metaphysical elaboration. The author offers

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elaboration, inspiration, creation, and intuition on more than the facts observed in Chapter Six. The theory is then used to assess the capability of alternate configurations to deliver wealth.

Conclusions are presented in terms of the methodology used and the theory developed in Chapter Seven. The theory presents the basis of an acceptable paradigm for value system configuration and management of a small country’s export-dependent land-based industries. A discussion of the iterative, eclectic and dynamic nature of the research methodology is provided. The role and scope for further education and research is reviewed.
CHAPTER TWO: RELATED PARADIGMS

PARTITIONING OF THE TOPIC (FIELD) UNDER INVESTIGATION

He [Major Major's father] was a long-limbed farmer, a God-fearing, freedom-loving, law-abiding rugged individualist who held that federal aid to anyone but farmers was creeping socialism.

2.1 INTRODUCTION

MANAGEMENT RESEARCH poses several dilemmas to the researcher. First, useful research is unlikely to be confined to one paradigm and second, the target audience appears to influence the research approach adopted. Gioia and Pitre (1990) proposed that "traditional approaches to theory building are not entirely consistent with the assumptions of alternative research paradigms that are now assuming more prominence in organisational study" (p. 584). They recognised that specific paradigms approach theory building in subtly, but importantly different ways. Because different paradigms have different assumptions, they produce "markedly different ways" (p. 585) of theory building. The paradigmatic basis of theory building has also been criticised by Burrell and Morgan (1979), Doz and Prahalad (1991), and Frost (1980).

Gioia and Pitre (1990) defined the organisational paradigm, developed from the generic definitions offered by Kuhn (1970) and Lincoln (1985), as "a general perspective or way of thinking that reflects fundamental beliefs and assumptions about the nature of organisations" (p. 585). The significant development from Kuhn is that a general way of thinking is now recognised as the basis of a paradigm, rather than simply adherence to the "same rules and standards" (Kuhn, p. 11). Burrell and Morgan (1979) described different approaches to organisational research in terms of two dimensions; first, subjective on one
hand and objective on the other, and second, the nature of society: regulation versus radical change. The four quarters of the two by two matrix (nature of science \times nature of society) represent the current spectrum of paradigms in organisational study.

Most organisational science is guided "by the assumption that the nature of organisations is a basically objective one that is 'out there' awaiting impartial exploration and discovery" (Gioia & Pitre, 1990, p. 586). Consequently, much theory building in the organisational sciences has been confined to the functionalist paradigm resulting in detailed descriptions of organisations and their behaviour. The radical structuralist paradigm "involves the rethinking of data in light of [alternate] viewpoints" (p. 590) and recasting, what amount to be contextually bound concepts, into a broader context of people and "their power to produce and maintain a social formation" (Benson, 1977, p. 1). Heydebrand (1983) considered "organization as a form of praxis" (p. 306). This contention appears particularly relevant in the context of this study. Unfortunately, social dimensions such as power and conflict are not easily measured objectively.

Of the four organisational paradigms recognised by Burrell and Morgan (1979) two; functionalist, and radical-structuralist appear relevant to the study. The functionalist paradigm provides an objective view of organisation's configuration and management within the value system. The radical-structuralist paradigm is also relevant as it provides the opportunity to consider change from an objectivist basis determined using the functionalist view, that is, the assumption is held that improvements to the value system can be made.

The objective of Chapter Two is to identify and delineate paradigms likely to contribute to the study. First, the author's paradigmatic perspective is offered in the discussion of the unique attributes of New Zealand's export-dependent land-based values systems, Section 2.2. Cartwright (1994) drew attention to some of these attributes in his introductory work on value systems. The attributes are subsequently used to screen

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10 For example, Heydebrand (1993) stated that "organizational praxis can be said to transform a given social-historical organisational formation and, conversely, that a change from one to another does not occur unless there is innovative change at the level of self-organisation" (p. 307).

11 Only one paradigm reflects the researcher's background, however, other paradigms that will contribute to the topic are identified (Bourgeois, 1979). The researcher was a Senior Lecturer in Farm Management at Massey University, New Zealand. He has also completed graduate studies in econometrics, international economics, marketing, and agricultural policy.
relevant concepts and variables drawn from the literature review (Chapter Three). A discussion of the development of the Z-form Model of New Zealand's export-dependent value systems is then presented. The model's origins are evident in Davis and Goldberg's (1957) description of commodity systems and introduction to agribusiness. During the discourse two recurring concepts are identified - firms and the linkages between them. The discussion, analysis, and synthesis of firms and linkages between adjoining firms is common to both economics and management. Two linkages identified as critical to the value system in question are those between land-based producer and first stage processor, and the international linkage between the home-base and offshore locations.

The theory of the firm is introduced in Section 2.4 and the relatively narrow contribution from transaction cost economics is identified. The role of participants in the value system is found to be commonly explained by the strategic management literature, itself inclusive of several paradigms. The significance of interfirm linkages are identified in Section 2.6 and reported to be the subject of economics and management, including international economics and international business. The difference between these perspectives are discussed and contributions identified. Alternative perspectives of land-based industries are then identified and very briefly reviewed in Section 2.8.

### 2.2 ATTRIBUTES OF NEW ZEALAND'S EXPORT-DEPENDENT LAND-BASED INDUSTRIES

Land-based agricultural industries throughout the world exhibit a suite of unique attributes. These attributes serve to distinguish the agriculture sector amidst other product and service sectors. Agriculture in New Zealand is no exception. In fact, the nationwide dependence on pastoral grazing systems and the lack of livestock housing on a large scale are rarely found elsewhere (the only notable exceptions include Australia and parts of South America). The distinguishing attributes result from the dependence on biological production systems, characteristics of land-based output, and industry structure in the agricultural sector.
The unique attributes of New Zealand’s land-based agricultural industries are now identified. Each of the attributes are briefly described and common examples provided. The implications of these attributes on New Zealand participants in export-dependent land-based value systems are then drawn.

2.2.1 Contingent on upstream resources

Land-based value systems are contingent on upstream resources. These resources are typically described as a nation’s natural factor endowment which, in some cases, gives rise to a nation’s comparative advantage - retreating for a moment to the traditional view of trade. That these particular resources are geographically fixed is obvious, that these resources have few alternate uses is less obvious.

A distinction needs to be recognised between two decisions affecting the employment of the land resource: land-use decisions and, enterprise-choice decisions. Land-use decisions are of a strategic nature whereas enterprise choice decisions may, depending on the specific enterprise, range from tactical to strategic importance. Once land is committed to say forest, pasture or orchard land use change is seldom economically feasible (rapid technological change occasionally alters the economic balance between alternate land uses).

It is appealing to suggest that enterprise-choice decisions are contemplated only after land-use decisions are made. Enterprise-choice decisions will include, for example, the variety of forestry species to plant, and the intended end use; or, the animal enterprise to farm, or combination thereof (sheep, beef, deer and dairy). That the two decisions are distinct is more apparent on arable land. Farmers on arable land are confronted with a choice first, between alternate land uses such as pastoral farming or orcharding and second, between alternate enterprise choices such as plant species and the plant varieties. However, despite supposed alternate land uses and enterprise choices confronting farmers the cost of land, soil type, topography, climate, accessibility of inputs and services in addition to their goals and those of their families will importantly influence enterprise selection. The combined result of these variables is that in New Zealand the land resource seldom has alternate uses. Therefore, land-owners are most often only confronted with enterprise mix decisions (i.e., the combination of sheep and cattle to carry or the combination of pipfruit varieties to grow).
Only arable land offers farmers a multitude of land-use and enterprise-choice decisions. Unfortunately, this land represents a small fraction of the country’s land mass.

Two technological changes in New Zealand’s recent past have resulted in significant changes in land use. Firstly, planting horticultural crops on better pastoral land. The striking example is the development of kiwifruit orchards in Northland, Bay of Plenty, Wanganui, and Karamea districts during the late 1970s and early 1980s: farmers’ response to the successful commercialisation of a new orchard crop. On a smaller scale, the trend to kiwifruit was followed by the establishment of vineyards in Marlborough, Hawkes Bay, and Central Otago. Secondly, the current planting of pastoral land in exotic forest is farmers’ response to an expected international demand for soft woods in the face of declining terms of exchange for sheep (MAF, 1996; NZMPB, 1993b), and more recently beef products. One significant technological change that has affected enterprise choice during the last two decades was the commercial development of bull beef farming. Rearing bull calves from the dairy industry for the North American manufacturing beef market, some 750,000 annually, is attributed to the development of bull beef systems at Massey University during the mid-1970s.

Farmers on Taranaki dairy farms, Taihape sheep and beef farms, and Hawkes Bay pipfruit orchards, for example, are confronted with few land-use decisions. Opportunities motivated by current economies and rare changes in technology seldom exist to alter land use and enterprise mix. However, if change is contemplated output response time will vary from 1-25 years depending on the nature of change (i.e., sheep to beef, or pasture to forest). In the intervening period the farm family will likely face a decrease in short-term income in anticipation of increased future income. Therefore, only over decades is output from New Zealand’s agricultural sector less than enduring. New Zealand is in the business of producing land-based outputs, and the composition of those outputs is only expected to change in the medium to long term.

2.2.2 Biological and climatic variability

The natural resource base is influenced by biological and climatic variability, more so in New Zealand than in Europe or North America. Livestock systems in New Zealand are pasture based and animals are kept outdoors all year round, exceptions include the pork and
poultry industry from which near all output is consumed domestically. Livestock farming systems are managed so that peak feed demand, such as occurs during early lactation, coincides with spring pasture growth. But because pasture growth rates are dependent on prevailing weather conditions livestock farmers are confronted with a variable, as well as seasonal feed supply. A graph of pastoral feed supply and feed demand on a representative Manawatu seasonal supply dairy farm is presented in Figure 2.1. The graph depicts daily pasture growth and feed consumption. The spring feed surplus is conserved as silage and hay which is then used to meet the feed deficits which typically occur in the late-summer and winter. Similar graphs could be used to represent the relationship between feed demand and feed supply on other pastoral livestock enterprises.

Figure 2.1. Annual pastoral feed supply (kg/DM/ha/day\textsuperscript{12}) and feed demand (kg/DM/ha/day) on a Manawatu seasonal supply dairy farm.

\textbf{Figure 2.1.} Annual pastoral feed supply (kg/DM/ha/day\textsuperscript{12}) and feed demand (kg/DM/ha/day) on a Manawatu seasonal supply dairy farm.

\begin{center}
\includegraphics[width=0.8\textwidth]{figure2.1.png}
\end{center}

Hail, flooding, and snow also contribute to variability in output volume. For example, horticulturists can suffer total crop failure from comparatively infrequent but severe flooding and hail storms. South Island farmers can face severe livestock losses from spring snow.

Livestock farmers can anticipate variations in feed supply from that planned but they are seldom entirely able to mitigate the effects of biological variability. Orchardists also attempt to reduce output variability induced by annual variations in sunshine hours and, to a

\textsuperscript{12} Kilograms of drymatter per hectare per day is the metric measure of daily pasture growth rates and feed demand. Pasture is typically 15\% drymatter, however, drymatter content varies with rainfall and growing conditions.
lesser extent, rainfall by managing crop load. Therefore, output volumes from land-based systems at best fluctuate around expected levels. The magnitude of fluctuations varies between enterprises, for example, horticulturists may experience total crop failure whereas dairy farmers are seldom likely to experience fluctuations greater than 10 - 15 percent.

Absolute output volumes from New Zealand’s agricultural sector cannot be guaranteed. Further, the quality dimensions of output are also variable. Output specifications such as kilograms per carcass\(^{13}\), average fruit size and their distributions will vary annually. Therefore, exporting producer boards and large scale processors cannot commit the total expected crop volume for fear of later failing to meet obligations downstream.

Given variability of output volume and quality there appear to be five selling options available to New Zealand participants. First, New Zealand participants could, simply, sell all land-based output on the international spot-market. Second, they could under-contract output volume and use spot markets to absorb production variability, in terms of quality and quantity above that which can be successfully planned. Third, participants can enter short-term supply agreements once output volume and quality is known. Fourth, they can enter longer-term supply agreements with purchasers who can accommodate variability in volume and quality. Finally, New Zealand participants may source product elsewhere, for example, on the international spot-market to supplement supply shortfalls. These selling options are not necessarily mutually exclusive. Large scale exporters may implement combinations of these selling options to provide customers value. The particular strategy implemented is expected to be influenced by the desired or emerging relationship between the New Zealand participant and the international customer.

2.2.3 Seasonal production

Output from pasture based livestock and orchard systems is largely seasonal. The farmer enhances the natural biological system by attempting to maximise reproductive performance, controlling mating and plant fertilisation, and optimising subsequent growth.

\(^{13}\) For example, the national lamb slaughter weight from 1991 to 1996 averaged 14.7 ± .40kg (MAF, 1993, 1996). Variations also occur monthly. A meat processors’ average monthly lamb slaughter weight for 1992/1993 averaged 15.7 ± .5kg.
Nevertheless, by and large, lambs and calves are born in the spring and orchard crops are harvested in the summer and fall. Farmers can shift lambing and calving dates, generally at some cost to output volume, in an effort to capture out-of-season premiums. To minimise the costs of production, while land-based livestock systems remain dependent on pasture, feed demand must coincide with pasture production. Orchardists appear to have even less flexibility in altering their crop cycles. Artificial sprays can be applied to concentrate flowering and, therefore, produce slightly earlier crops by say 10 - 14 days. However, harvest dates remain largely dependent on varietal choice, a long term decision which belies the importance of enterprise selection discussed earlier.

Seasonality of production ensures that industry processing capacity must meet peak output volumes. The option of simply failing to provide this seasonal capacity is unavailable at the industry level. The statutory controlled producer boards in the dairy, pipfruit and kiwifruit industry have an obligation to accept all output that meets their standards. Large scale processors in the meat industry have also geared their plants around seasonal peak kill to maximise throughput, more so in the South Island which has a shorter killing season than the North. Participants may respond by offering incentives to farmers to shift production away from seasonal peaks. For example, Tui Milk Products Ltd (TMPL; once the Southern North Island cooperative dairy company prior to merging with Kiwi Cooperative Dairies in Hawera) paid dairy farmers shoulder milk premiums in an endeavour to flatten the seasonal peak which occurs in October and November (TMPL, 1995). In doing so the dairy company can reduce fixed costs and seasonal finance, extend production to meet their customers' demands, and provide longer periods of employment to factory labour.

The international consumer is not concerned with seasonality of output demanding food and fibre products 365 days of the year. Seasonality of demand is, however, expected during religious, cultural and ethnic festivals such as Thanksgiving, Christmas, and the Hajj. There are a range of responses available to New Zealand participants. First, they can enter and exit the market on a seasonal basis, competing against suppliers from other southern hemisphere countries. Secondly, and at increased expense, they can provide output from New Zealand year-round with some combination of coolstorage, freezing, and out-of-season supply. And third, they can augment supply from New Zealand by sourcing product elsewhere. These selling strategies, like those discussed previously, are not necessarily
mutually exclusive. All of them are expected to be employed in an industry. Individual exporters may use one particular strategy or some combination of all three to meet international customers’ demands.

2.2.4 Price variation

Land-based output suffers from price variation. Only small quantities of global production in land-based commodities are traded. Most countries use foreign markets to absorb production beyond that destined for domestic consumption. Therefore, “the prices that clear international commodity markets” are in response to the disproportionately “large volume variations induced by supply surpluses and demand deficits in countries that are large producers” (Cartwright, 1994, p. 11). These supply surpluses are further exacerbated by price support schemes and input subsidies prevalent in many industrialised nations and trading blocks such as the United States of America and the European Community.

Farmers invariably receive a residual income from the sale of their land-based output as intermediate participants pass on variability in market prices. Farmers show a remarkable ability to absorb these price fluctuations. They can quickly reduce discretionary farm expenditure, commonly fertiliser, and will freeze uncommitted personal drawings in the face of declining output prices. Conversely, during periods of high output prices they will increase farm expenditure, commonly fertiliser, development, and drawings - notably expenditure on vehicles and home improvements.

Pluralistic goals (Whittington, 1993) are particularly evident amongst farm families. But Haines (1982) suggests that profitability weighs heavily in the final choice of farm goals. However, as the farmer is commonly the company director, works manager, foreman and labourer stakeholder values may be difficult to assess, that is farmer behaviour is the result of all stakeholder perspectives. Giles and Stansfield (1980) state that it is unlikely that farmers or any other businessmen are in business for the sole reason of profit. Farmers’ goals include succession, effectiveness (Giles & Stansfield), and increasing equity (Lockhart, 1990). Squire and Delahunty (1982) include farm goals as being self-employed, and the way of life, alongside traditional goals such as production, trading, financing, labour and family. Makeham and Malcolm (1981) state that common farming goals in Australia include leaving
the farm more aesthetic, increasing fertility, having a reasonable but not profligate standard of living, minimising income tax and death duties, and providing a sound education for children. Boehlje and Eidman (1984) identify US farmers' goals as avoiding low returns, reducing borrowing needs, increasing family living, increasing leisure time and providing community service. The National Research Council (1989) states that the common goal of farmers practising alternative agriculture is the deliberate integration of naturally occurring beneficial practices. Commentators of farm management do not, therefore, ascribe to the notion of profit maximisation. Far from it: because succession, education, self-employment, and aesthetics are stated as typical goals farmers are prepared to withstand marked reductions of income in the short-term.

Producers, supported by government legislation, have for decades attempted to stabilise output prices. The NZWB, for example, used to stockpile wool on farmers behalf to maintain prices within an acceptable band. As international prices recovered the Board sold-down their stocks. Producer Boards have also attempted to minimise price variation by maintaining income stabilisation accounts on their suppliers' behalf. For example, the NZAPMB during the 1970s and 1980s split profit equally between farmers and the stabilisation account for use in years of a trading deficit. The stabilisation fund was disbanded in 1988 when the majority of producers decided that income stabilisation was an individual's responsibility (NZAPMB, 1988). Variations in output prices may also be reduced by differentiating products in the market, that is removing their commodity status. New Zealand participants have invested in processing, packaging, distribution, and marketing downstream as a means of adding value and differentiating land-based products from those of competitors.

2.2.5 Many producers and few first stage processors

Most land-based industries, and in New Zealand this includes forestry, are characterised by having many producers and comparatively few first stage processes. For example, there are some 12,500 dairy farmers; 36,000 sheep and beef farmers; 1,600 pipfruit growers; and, hundreds of forest owners. Large scale producers account for an increasing percentage by volume of farmgate output, a symptom of the structural problem commonly used to identify a collection of issues relating to land tenure, the size, and the distribution of farms. Notwithstanding the increasingly bimodal distribution of farm size (Yerex, 1992) -
part-time farms on the one hand and large scale units on the other - the individual farmer faces the classic horizontal demand curve in which the producer is unable to influence product price irrespective of output volume. Irrespective of the industry, there are rarely more than three or four first stage processors on a regional basis available to the farmer. Farmers are, therefore, confronted with a small numbers bargaining problem in that they have few choices available to them for the sale of their output.

Producers have sought the sanctuary offered by legislation in efforts to alleviate opportunism, perceived or otherwise, from few processors. In New Zealand societal marketing boards\(^\text{14}\) with a wide range of powers and activities have been introduced on behalf of producers in an effort to provide them market power. In some instances producer boards intervene between downstream participants. In others, producer boards have vertically integrated the roles of producers, processors, exporters, distributors and marketers. The producer owned cooperative is the modus operandi. Not all industries’ producer boards have exclusive rights to export.

Producers of all forms of land-based output are expected to maintain some form of federation (Provan, 1983) - coordinating agency - given they are confronted with a small numbers bargaining problem. Alternatives to federations exist in the form of alignment between producers and processors, yet the easy substitutability between suppliers may negate alignment in forms other than ownership.

2.2.6 Trade barriers

Agricultural export products attract trade barriers. Trade barriers are erected for many reasons. The United States of America, for example, maintains agricultural trade barriers in an effort to ensure the continuity of domestic industries, Japan maintains trade barriers in an effort to remain self-sufficient in staple foods. The significance of self-sufficiency is not lost during times of war, trade conflict or other crises. But while trade barriers, including phytosanitary regulations, impose restrictions on international business in

\(^{14}\) The features and objectives of a generic marketing board are described in detail by Izraeli & Zif (1977).
agricultural products price support measures and other forms of assistance also serve to distort trade. The rational given for "universal (or nearly so)" (Robinson, 1989, p. 2) agricultural policy measures includes issues such as people needing food and fibre; that agriculture is intimately connected with human health and environment quality; agriculture is important in international relations; and, the moral and aesthetic importance of family farms.

Agricultural policy measures in New Zealand and the United States of America, for example, were originally introduced in response to either a food problem or a farm problem (Robinson, 1989). Robinson (p. 2) states that a "food problem arises whenever the rate of growth of output fails to match the rate of growth of demand", forcing prices upwards. "A farm problem whenever the opposite conditions prevail", forcing prices downwards. However, once implemented these policies have side effects which are inevitably countered by the introduction of yet more policies. In 1984 the New Zealand government addressed the increasing dependence on agricultural policy by removing all support and protection measures. New Zealand is now one of few nations that has no agricultural policy (see Richardson, 1991).

The resolution of GATT should, in part, reduce agricultural trade barriers. There is a high level of optimism amongst some industry participants and commentators that the GATT round will provide significant benefits to the New Zealand economy in the long term, others are less convinced. The New Zealand agriculture sector was effectively cosseted prior to the mid-1980s. A decade later upstream participants are now ardent supporters of the removal of trade barriers elsewhere. Output from New Zealand’s land-based industries still attracts a plethora of policy measures designed to shelter domestic industries. These measures restrict trade by either increasing prices (import tariffs, duties, phytosanitary regulations) or directly limiting imports (restrictive quotas, phytosanitary regulations, quid pro quo agreements): all of which have "essentially the same effects" (Enders & Lapan, 1987, p. 146) to "increase domestic price, increase domestic production, and decrease domestic consumption" (p. 147).

2.2.7 Perishable output

Farm output is often highly perishable. There are few products, either natural or manmade, more perishable than fresh wholemilk. Livestock such as finished lambs and prime
cattle should be processed when they reach appropriate grade standards as it is difficult to maintain them in this state (carcass values decline if they slip outside preferred grading standards). Even newly cut logs deteriorate unless adequately treated. The only land-based output of exception is wool. Wool can be stored near indefinitely in dry conditions. Land-based farmers are engaged in the production of perishable products that require some form of processing or cool storage to maintain value and enhance product life.

Vertical alignment between producers and first stage processors within an industry appears to intensify alongside product perishability. For example, the New Zealand dairy industry is fully integrated between producers and processors. Producers are assured that their milk will be collected daily by their own cooperative. By contrast, instances of alignment between sheep farmers and wool processors, although not unknown, are rare. The relationship between the perishability of land-based output and vertical alignment within an industry is presented in Figure 2.2.

Figure 2.2. The relationship between output perishability and industry-wide alignment among producers and first stage processors.

There are numerous forms of alignment between producers and first stage processors. Producer owned packhouses and cool stores are commonplace in orcharding. Producer owned distributors, producer owned cooperative processors, contractual arrangements with
processors ensuring timely killing space (Waddell, 1993), and shareholdings in processing companies (AFFCO, 1995) are utilised in the meat and game industries.

Two exceptions to the trend, illustrated in Figure 2.2, are large scale producers and processors in the forestry industry (such as Carter Holt Harvey, Fletcher Challenge, Forestry Corporation) and specialty wool producers such as Mount Linton Station and processors (Davis, R., 1993). In large scale forestry factors other than perishability appear to motivate alignment. These factors, discussed at other points in this essay, include the 25 - 30 year crop rotations, asset specificity in the processing sector, and scale economies. The rare instances of alignment in the wool industry appear to be attempts to capture downstream returns.

2.2.8 Coarse grading standards

Land-based products are subject to coarse grading standards. Carcass traits of live animals are difficult to assess objectively and internal fruit blemishes are hard to identify without cutting to waste. Relatively low technology is employed in first stage processing: the production of essential commodities such as milk powders, bulk butter and cheese, manufacturing beef, lamb carcasses, crossbred wool and radiata pine logs. Therefore, products can be substituted easily between suppliers. For example, manufacturing beef is near indistinguishable in terms of country of origin let alone processor or distributor. Substitution on the basis of raw product attributes is, therefore, not expected. Technological advantages based on product characteristics are being pursued. The New Zealand Apple and Pear Marketing Board, for example, invested in the development of new pipfruit varieties such as the GS series - of which one, GS2085, has been subsequently named Pacific Rose - planted by orchardists during the early-1990s.

Substitution on the basis of price is, however, expected to be prevalent. Price sensitivity is symptomatic of the commodity - price taking - nature of undifferentiated land-based products.

Opportunities to differentiate products, as discussed earlier in the context of price variation, appear to increase as land-based output approaches the end consumer. Efforts to differentiate product should then be more visible at the end-market than upstream. Another
means of reducing substitutability between alternate suppliers is to provide additional services such as credit, tailored packaging and labelling (consumer packs), and reputable service, namely to add value at every opportunity (Egan, 1993).

One common response exhibited by exporters is to impose increasingly strict grading standards and in doing so, invariably, submitting less produce to the marketplace - ceteris paribus. Average product is then temporarily of better quality than those from competing suppliers. Temporarily, in that such advantages in a low technology industry are expected to be short lived. Substitutability between producers can be prevented by creating regional or even nation-wide cooperatives. Substitutability between exporters can, however, only be prevented by creating single desk sellers or some other form of federation that maintains strict market discipline. Competition, therefore, resides in the international market.

2.2.9 Output requires processing

Farm output is often in a form unsuitable for end consumption. Land-based output commonly needs processing prior to sale. Only products suitable for consumption in their raw form such as fruit, and to a lesser extent wholemilk have any consumer value at the farmgate. Farmers and first stage processors are, therefore, mutually dependent (particularly in industries where output requires immediate processing). It is expected that alignment between producers and processors increases with increased need for processing. This point is not unrelated to perishability, as discussed earlier.

Producers' typical response has been to invest in the processing sector immediately downstream from the farm. Investment has occurred by retaining earnings, for example, through cooperatives such as in the dairy, pipfruit and kiwifruit industry. Although, in the latter two this investment is, compared with the dairy industry, minimal. Substantial direct investment in the meat processing industry has also been undertaken, repeatedly, by the New Zealand Meat Producer's Board on behalf of sheep and beef farmers - funded through compulsory levies.

15 Increasingly stringent grading standards may not decrease total crop volumes submitted during times of increasing production as, for example, occurred in the New Zealand pipfruit industry during the early 1980s.
Mutual dependency also exists between New Zealand participants and international freight operators. Although in this instance the dependency is unlikely to be mutual. Yet, New Zealand participants have not invested, to any extent, in this sector. It appears that some activities can be contracted out, particularly where surrogate competition exists, while others must be kept in house. The principle common to these examples is the retention of product ownership. Providing ownership can be maintained, freight forwarders don’t take ownership of their freight, their appears to be little incentive to invest. Ward (1975), in his classic history of the New Zealand cooperative dairy industry, suggests that the industry’s founders quickly took exception to the vagaries of the market for the reasons identified here. Interestingly, similar reasons are presented by the New Zealand Rural Press (1990) for the establishment of the Canterbury Frozen Meat Company in the 1880s.

2.2.10 Production lag

Output from biological production systems is inherently difficult to change despite farmers’ apparent responsiveness to market demands’ breeding programmes are long term. Both land use decisions and enterprise choice decisions are of a long-term nature. Production cycles for forestry in New Zealand, while being some of the shortest in the world, are approximately 25 years. Pipfruit may take seven to eight years to reach breakeven, the generation interval for sheep and dairy cattle is two years, and beef cattle more often three years. Rates of genetic improvement are measurable in terms of specific traits being bred for but such programmes are long term. Despite the slow supply response inertia implicit in biological production farmers, where possible, respond rapidly to market demand. For example, sheep farmers responded quickly to the acceptability of ram lambs and pipfruit farmers have shown remarkable willingness to respond to the advent of new varieties.

First stage processors face high exit barriers. Dry powder plants, packhouses, freezing works, and pulp mills rarely have alternate uses. Plant is specifically designed, capital intensive, and invariably located close to production rather than the consumer population. Therefore, producers and processors have extremely limited ability to make alterations midstream other than ever increasing cutting and tailored packaging. Cartwright (1994) labels these features supply response inertia. However, a distinction needs to be recognised between the adoption of technological change and breeding programmes at the farm level. At
the processor level a similar distinction needs to be recognised between technological change and the more monolithic impediments resulting from high exit barriers.

2.2.11 Synthesis of implications

Some of the attributes identified and discussed in this Section are unique to land-based industries other attributes appear common to mineral extraction industries and commercial fisheries. The unique attributes of land-based agriculture, drawn largely from empirical experience, are not mutually exclusive as evident during the discussions of perishability, industry structure, and the need for product processing. The attributes have common abstract concepts relating, largely, to the dependency on biological production systems, industry structure; and, the inherent attributes of output.

Land-based agricultural industries are dependent on upstream resources that have few alternate uses. This resource base is affected by biological and climatic variability. Output from this resource base is seasonal. Supply from land-based agriculture is, therefore, variable in quality and quantity, is seasonal, and geographically fixed.

On a global scale little agricultural production is traded internationally. There are many producers and few processors, and while this in itself is not unique to agriculture (a comparison with parts manufacturers in the automobile industry springs to mind), producers face a small numbers bargaining problem. Most industrialised countries attempt to protect their domestic producers by imposing trade barriers of some kind. The structure of agricultural industries typically presents producers with a small numbers bargaining problem.

Most land-based output is perishable and often quite unsuitable for immediate consumption. Output from both producers and processors is homogeneous, and subject to relatively coarse grading standards. Further, land-based industries exhibit supply response inertia due to high exit barriers and the dependency on stable biological production systems. Land-based outputs must be processed, often immediately. Opportunities to add value reside downstream. Causal relationships exist between the
three concepts; land-based production; industry structure; and, land-based output as illustrated in Figure 2.3.

Figure 2.3. Dependency diagram of relationships between land-based production, output and industry structure.

Land-based output is clearly dependent on land-based production, yet there are features of land-based production such as the lack of alternate uses that remain to be recognised. Hence the necessity to recognise characteristics of production in conjunction with and separate to characteristics of output. Both land-based production and output give rise to characteristics identified as industry structure.

Further aggregation of attributes and implications would succeed in the neglect of unique variables. The ubiquitous assumption remains that international consumers require land-based food and fibre products. These products are consumed daily, and heightened levels of consumption are expected for cultural and religious festivals. Therefore, ambient demand will be subject to short-term seasonal and regional requirements.

2.3 COMMODITY SYSTEMS

AGRICULTURE has long ceased to be defined in terms of farm functions (e.g., Boehlje & Eidman, 1984; Makeham & Malcolm, 1981; Rae, 1994) such as growing and storing food and fibre products. Despite increased specialisation on-farm producers remain dependent on off-farm functions (Barkema, Drabenstott, & Welch, 1991; Davis & Goldberg, 1957; Spedding, 1979, 1988). Off-farm functions, over the last 150 years, have assumed the roles of providing inputs, processing, storing and merchandising
food and fibre. In 1957 Davis and Goldberg observed that the interdependence of the agricultural sector - farm functions - and the business sector - off-farm functions - has increased (as reported in Section 2.2.7). However, interdependence has increased "without creating adequate machinery whereby these factors of the economy can plan and work together in formulating sound policies which are mutually beneficial to them and which further our national [US] economic goals" (p. 1). The authors acknowledged the "two-way independence with businessmen and farmers in the dual roles of suppliers and purchasers" (p. 2). Davis (1956) suggested that a new word, *agribusiness*, may best describe the interrelated functions of agriculture and business. The author defined agribusiness as:

the sum of all farming operations, plus the manufacture and distribution of all farm production supplies, plus the total of all operations performed in connection with the handling, storage, processing, and distribution of farm commodities. In brief, agribusiness refers to the sum-total of all operations involved in the production and distribution of food and fiber. (p. 109)

Davis and Goldberg (1957) illustrated generic product flows and identified and quantified the resources employed in US agribusiness. The aggregate value of inputs and outputs was estimated at farm supplies, farming and processing/distribution stages of agribusiness. The interactions, inputs and output were then identified between the various commodity flows. Goldberg and Davis postulated that "so-called farm problems" (p. 2) are agribusiness rather than agricultural in nature. Some four decades later the US still remains beset with farm problems (Carr, 1992; Hanrahan, 1991; Rawson, 1991; Robinson, 1989; United States Department of Agriculture (USDA), 1990).

Goldberg later (1968) elaborated on the description of agribusiness. Goldberg stated that "managers must be aware of the total commodity system" (p. 3) to develop strategies and policies, and that "they must understand the interaction of its parts". Goldberg examined three commodity systems wheat, soybean, and Florida oranges and calculated the profitability, price stability, competitive behaviour, and adaptability of each system. The entire commodity system was included in his descriptions. However, Goldberg’s approach was to describe the generic commodity flow in a traditional trading sense, rather than analyse
value added by participating firms. The relationships between firms in the commodity systems studied were largely ignored.

2.3.1 The value system

Davis and Goldberg’s concept was then extended by Porter (1985) - crediting Porter with the benefit of an anticipation (Merton, 1968). Porter’s value system embraces a sequence of organisations and focuses on the creation of value through the system. Porter sought to identify the value created within each firm and the competitive relationships that exist between firms. Porter’s value system\(^\text{16}\) includes suppliers’ value chains, the firm’s value chain, distributors and retailers’ value chains, and ultimately the buyer’s value chain. Contributions from Davis (1956), Goldberg and Davis (1957), Goldberg (1968), and Porter (1985), therefore, contributed to the concept of a land-based system value chain (Cartwright, 1993c). Cartwright (1993c) proposed two generic land-based system value chains, presented as Figure 2.4.

The only complete description of linked organisations can be provided by a value system. Anything less than a system (Boulding, 1956; Checkland, 1984) is, at best, only a partial description of product flow, value creation or other phenomena. A value system includes all stages between production and consumption, not just those of immediate interest to the academic, researcher or practitioner: those that influence the participant’s perspective.

Cartwright (1993c) stated that the interpretation of the system value chain is intended to go deeper than a description of channel or product flows. Each step of the system value chain is intended to depict one or more firms adding net value. Net value is added by production, logistics, processing, manufacturing, marketing, distribution and selling or the provision of services. The commodity is transformed through the value system within one firm or by the sequential activities of a number of firms. The stages located in New Zealand and those located internationally are depicted in the Figure. The home-base sub-system may “interface with multiple international value chains, corresponding to alternative geographical business locations and different value-adding transformation opportunities” (p. 26).

\(^{16}\) Porter’s (1985) value system is presented as Figure 3.10 in the following Chapter.
Figure 2.4. Representative land-based system value chains.

2.4a. Manufactured product system value chain

<table>
<thead>
<tr>
<th>Land-based production</th>
<th>Logistics</th>
<th>Processing, manufacturing</th>
<th>Exporting</th>
<th>Logistics</th>
<th>Importing</th>
<th>Processing, manufacturing, &amp; packaging</th>
<th>Marketing, sales &amp; customer service</th>
<th>Logistics, distribution &amp; merchandising</th>
</tr>
</thead>
</table>

Home-base location

International location

2.4b. Fresh product system value chain


The two system value chains distinguish between manufactured and fresh products: a manufactured product system value chain (Figure 2.4a) and a fresh product system value chain (Figure 2.4b). The fresh product system value chain would be better named either raw or whole product. In doing so products are instead differentiated on the basis of processing. Many processed products are consumed fresh, for example, air-freighted chilled lamb. Similarly, many fresh products are not consumed in international markets until months after harvest. The manufactured product system value chain does not distinguish between alternative levels of activities in the home-base or international location. Processing and manufacturing are assumed to occur in both home-base and international locations.

Activities in the manufactured product value system may be largely home-based, for example, New Zealand’s export wine industry. With wine commonly all production, processing and manufacturing activities are completed in New Zealand. Only marketing, sales, logistics and distribution activities are completed in the international location. Therefore, the export wine industry combines Cartwright’s (1993c) manufactured product
home-base activities and the fresh product international activities; presented as the home-base manufactured system value chain as Figure 2.5a.

Figure 2.5. Land-based value systems for home based and internationally manufactured products.

2.5a. Home-base manufactured product system value chain

![Home-base manufactured product system value chain diagram]

2.5b. Internationally manufactured product system value chain

Alternatively, the manufactured product value system may be largely internationally-based, for example, logs exported from New Zealand. Logs are exported from New Zealand in a relatively raw form with processing and all subsequent activities being completed in the international location. In this case the value system combines Cartwright's (1993c) fresh product home-base and the manufactured product international location activities, presented as Figure 2.5b.

The New Zealand dairy industry's value system, based on Cartwright's manufactured product system value chain, was described and analysed by Lockhart and Cartwright (1994) ("Maximising farmer wealth," 1994). Ownership of stages in the value system was demarcated and documented. The value system, presented as Figure 2.6, was depicted beginning with land-based production - farm inputs were acknowledged. The value of milk is increased by its transportation to the processing and manufacturing site - the cooperatively owned dairy company - where the value of milk products are enhanced by processing before the majority of product is exported. The value of milk products is increased again by
transporting them from New Zealand to international locations. The New Zealand Dairy Board is then discharged with the responsibility of adding further value by additional packaging, distribution, and marketing.

Figure 2.6. New Zealand’s export-dependent dairy industry’s value system.

In most international locations the Board processes, manufactures and packages milk products. The Board attempts to capture market rents by stretching the value system with marketing and the provision of sales and customer service. Further value is then added to dairy products with additional logistics and distribution to wholesalers, retailers, and consumers. Each participant in the system whether New Zealand dairy farmers, New Zealand owned dairy cooperatives, or the NZDB has an opportunity to add value to products.

The structure of the dairy industry has attracted criticism from Hussey (1992, 1993), Ireland, Wallace and Associates (1994), and Sullivan and Scrimgeour (1995). The dairy industry is claimed to be anticompetitive; dairy farmers receive a bundled price for their
produce; and, value added from Board investments is not reported. The Board’s performance has been compared with Nestlé S. A. (Sullivan & Scrimgeour) in an attempt to validate analyses by Ireland et al., and Findlayson (1993). However, none of these authors consider the value system from the perspective of the land-based producer: those investors largely responsible for the industry’s current configuration.

The New Zealand lamb value system in the British market was examined by Lorigan and Harman (1990). They calculated the average returns generated by each participant in the value system and identified the nature of relationships between successive participants. Cartwright (1993c) acknowledged that relationships between successive activities in the value system were likely to take one of many forms. These relationships may range from open market transactions, through various forms of alliance to vertical integration.

2.3.2 The Z-form Model

Cartwright (1994) consolidated the models of land-based product value systems into a generic model. He described the model as a Z-form, and by extending the home-base and international locations of the dairy industry model better embraced relationships between the parts of the value system located in New Zealand and those located offshore. Cartwright’s generic Z-form Model of New Zealand’s land-based international value systems is presented as Figure 2.7.

The boundary of the value system is denoted by the shaded area. The system, therefore, “interfaces with an associated system that serves customers in the home-base market, and with another associated system that provides domestic supplies of land-based products in the off-shore market” (Cartwright, 1994, p. 7). The Z-form Model depicts the various stages and locations where value can be added. Note that not all the stages may exist in each value system. Each stage “may comprise one or more firms that add net value by either transforming products that are transferred to the adjacent upstream stage or by providing services that increase the value of these products” (Cartwright, p. 6).
Figure 2.7. The Z-form Model of New Zealand’s export dependent land-based value systems.

Note. From Strategy and Structure For Developing the Future of New Zealand Land-based International Industries (p. 6), by R. W. Cartwright, 1994, available from AGMARDT, PO Box 399, Shortland St, Auckland.
Land-based activities, A, are undertaken predominantly in New Zealand. First stage processing/manufacturing/packaging is completed on-shore, B, prior to exporting, C. Offshore activities include importing, D; processing/manufacturing/packaging, E; distribution, F; marketing/sales/customer service, G; and, consumption of products and services by the foreign consumer, H. The domestic market, which consumes relatively little product, is excluded from this study. Whereas opportunity to acquire foreign products, represented by the linkage between off-shore processing/manufacturing/packaging (the foreign equivalent of B) and the activities completed internationally by New Zealand’s value systems is included.

Opportunities for creating value concurrently with product flow are identified in the model. Value is then, implicitly, captured within each stage. The model could be applied to any industry: included are all activities between producer and domestic or international consumer. For example, the producer could just as easily be a Swedish forester providing logs for use in IKEA’s kitsets (Normann & Ramirez, 1993).

The role of New Zealand’s firms, as any other firm in a value system, is to capture value realised in the international market place. Only when this value is realised that is the product is sold for a sum greater than the costs can wealth be distributed to home-base participants (A, B, C) - as product prices, shareholder dividends, or stakeholder wealth. Intermediaries, between the producer and consumer, enhance product value through adding value activities. Adding value activities prior to consumption contribute to inventory value. However, only when the product or service provides value to an end-consumer is value captured. The sale of goods and services between intermediate participants, while creating value for the seller, does not ensure that value is ultimately realised.

Cartwright (1994) stated that the profits that accrue to a firm at any stage in the value system are largely dependent on two considerations. First, the relative bargaining power of the firm relative to those in adjacent stages of the value system: described in terms of Porter’s (1980) five competitive forces (discussed in Chapter Three) as external influences of profitability. Second, the resources at the firm’s disposal, the firm’s capabilities (Hamel & Prahalad, 1994), the firm’s competencies (Prahalad & Hamel, 1990), and management ability (e.g., Robbins & Barnwell, 1994) are internal influences of profitability.
The Z-form Model does not identify the extent of value adding activities that should be completed by each firm or likely boundaries between firms. One long held assumption amongst land-based producers (A) is that they must have control, and ownership of home-based activities to capture wealth, particularly wealth derived from the international marketplace. Configuration of the value system may be dictated by government policy commonly in the form of a societal marketing board (Izraeli & Zif, 1977). Configuration of the value system may also be determined by participating firms. In this case the extent of the firm's activities, theoretically, is governed by transaction costs. These two factors that configure value systems are not necessarily mutually exclusive (e.g., Maughan & Schroder, 1983). The feature common to both is relationships between participating firms; these relationships appear to determine the ultimate configuration.

The importance of relationships between firms in the commodity system has been recently acknowledged. Barkema, Drabentstott, and Welch (1991) state that "changes in consumer demand and food technology are changing the way the food market links producers, processors, and consumers" (p. 25). The authors suggest that the new market structure "shortens and clarifies the communication channels" (p. 29) between producers, processors, and consumers. The relationships between firms at adjacent stages in the Z-form Model may take many forms. Further, relationships may exist between firms at nonadjacent stages in the value system.

Several studies have attempted to examine the attributes of vertical integration within New Zealand's and Australia's primary industries (Campbell, 1973; Crocombe, Enright, & Porter, 1991; Hussey, 1992; McCann & Lattimore, 1990; Nicholson, 1990; Sieper, 1982). However, most of these studies have primarily considered the political dimensions of statutory marketing boards against the background of a partially deregulated economy17. From an economic perspective it can be seen as purely

17 Some of Hussey's results should be treated with caution. He calculated the value of off-farm income from NZDB investments as $22,300 per New Zealand dairy farm and compares this with net farm profit of $21,800 reported by the MAF (1991). However, quite different results are reported in the actual cash working budget (MAF, 1991). Farm surplus (gross income - farm expenses) equalled $62,424, less interest ($22,093) and tax ($10,518) left $29,813 for consumption and reinvestment. Hussey should have stated that of the $104,178 received from milkfat sales some $22,300 is attributable to the NZDB's investments (which at the very least is taxable income). The income received from livestock sales ($22,782) and the cost of debt servicing ($29,981) are also importantly influenced by expected long-term returns from NZDB's investments.
coincidental if the optimal firm size encompasses an industry. For example, the NZAPMB and the NZDB account for nearly all the produce exported from their respective industries. In these instances the firm’s stakeholders (farmers) may be forgoing economic optimality in favour of other advantages.

The advantages of horizontal integration (Jackson, 1971; Robertson, 1991) and the associated returns on capital are relatively easily calculated at the farm level (Lockhart, 1990). There is little evidence to suggest that the same microeconomic principles are not appropriate for the analysis of horizontal integration at the processing level (Schroder, 1982). The vertically integrated value system has, however, received considerably less attention.

Added value strategies, when considered in value systems, create both generative and distributive effects. Generative effects produce higher net value and result from one or more of higher priced goods, the consumption of greater volumes of goods, and cost reductions, namely those phenomena that contribute to value. Distributive effects refer to how that wealth is then captured by participants - stages - in the value system. Value is created by all participants (generative), however, it may not accrue to participants (distributive) in the manner akin to which it was created.

The Z-form Model can be interpreted in two distinctly different modes with respect to generative and distributive effects. First, it has a descriptive (functionalist) interpretation representing all value added activities associated with product flow from land-based producer to international consumer. Value added activities may be completed by all stages from A to G: generative effects. Adjoining organisations being linked by some form of relationship which may, largely, be regarded as either competitive or collaborative. This interpretation of the model is similar to that intended by Achrol, Reve and Stern (1983) in their depiction of marketing channel dyads, discussed in Section 3.5.3.

The generation of wealth appears to be dependent on factors such as the firm’s resources, capabilities, management ability, and competencies. Wealth is then supposedly distributed to the stakeholders of that stage or stages of the value system.
However, factors such as relative bargaining power, and the nature of relationships between adjoining firms, at times suppressed by vertical integration, will influence the distribution of wealth: distributive effects.

Second, the Z-form Model can be interpreted in a normative* (radical-structuralist) mode with associated implications for the configuration and management of the value system. A normative view implies that there is some optimal mix of resources, capability, management ability, and competencies that creates more value than others. For example, the location of processing and packaging in the international location may provide benefits that cannot otherwise be realised by completing these stages on-shore. Further, a normative view suggests that some form of configuration may distribute value for the benefit of a select stage or group of stages. The implications suggest that the value system may be configured to repatriate a disproportionate share of wealth to New Zealand owned organisations: distributive effects in favour of a home-base perspective. Likewise, a consumer’s perspective would seek to maximise value at H and minimise wealth elsewhere - excluding concern for wealth distribution between all other participants. The accrual of wealth results from bargaining power/collaboration between adjoining stages or the suppression of bargaining power/collaboration by integration, either backward or forward, through successive stages of the value system. Therefore, specific recommendations may be offered to enhance a particular stage’s or group of stages’ ability to distribute wealth in their own favour.

The Z-form Model provides a framework in which to consider the potential research questions offered in Chapter One. The intention of management is to generate wealth within each successive organisation and then to distribute proceeds in favour of that organisation’s stakeholders. Whether the value system can be managed, how it can be managed, and how it ought to be configured remain the subject of this study.

2.3.3 Systems thinking

A system implies a “holistic view” (Gummesson, 1991, p. 76). In agriculture, horticulture, and forestry a holistic view refers to an emerging pasture-to-plate perspective (Anderson, R. D., 1991; French, 1986). Despite a claim that the term system
has become "tired" (Thorelli, 1986, p. 39) the use of a systems approach identifies the study as eclectic. Boulding (1956) attributed the name and many of the ideas of systems theory to Bertalanffy (subsequently published in 1968). Similarly, Checkland (1981) reported that it was Bertalanffy "who insisted that the emerging ideas in the various fields could be generalized in systems thinking" (p. 93).

The systems approach was motivated by the search for an "optimum degree of generality" (Boulding, 1956, p. 198), a position not always reached in the reductionist sciences. However, systems thinking is not itself a discipline: "systems ideas provide a way of thinking about any kind of problem" (Checkland, 1981, p. 99). Checkland concludes his review of systems thinking with:

...thinking starts with an observer/describer of the world outside ourselves who for some reason of his own wishes to describe it "holistically", that is to say in terms of the whole entities linked in hierarchies with other wholes. This leads to the most basic prescription of what the observer's description will contain: his purpose, the system(s) selected, and the various system properties such as boundaries, inputs and outputs, components, structure, the means by which the system retains its integrity, and the coherency principle which makes it defensible to describe the system as a system. (p. 121)

The systems examined are New Zealand's export-dependent land-based value systems. New Zealand, in this study, denotes geographical ownership implying some degree of nationalism. Cranston (1993, p. 215) states that nationalism "has become the most powerful, if not the dominant, ideology of our time". However, as Cranston observes in the case of the European Community, and proposes in the case of North America, a progressive economic unit systematically breaks "down first the economic and then the political barriers between nations" (p. 248). Therefore, New Zealand ownership and/or control may not necessarily coincide with the country's geographic boundary. Nonetheless, the implication remains that production, first stage processing, and exporting must be New Zealand owned to have any residual claim on wealth.
As discussed in the preceding sections the concept of land-based systems is not new. However, the examination of land-based systems from the perspective of creating value and distributing wealth is a more recent development. The Z-form Model is the end result of several attempts at depicting all stages between land-based producer and international consumer. The model depicts the critical relationship between activities in the home-base location and those in an international location and provides a framework from which to examine the transformation of farm products into consumer goods.

Value systems may involve few stages and few participants in the case of raw products. However, in the case of manufactured products many more stages, and potentially more participants, are involved. The number of stages and participants may not, however, be synonymous with the creation of value, merely the opportunity to do so. Value systems comprise all activities, resources, and actors between and inclusive of producers and consumers. Adjoining stages may be connected through various forms of competitive, collaborative or internalised linkage between participating firms.

The value system consists of all organisations (firms) and the relationships between them. The intent of firms is to generate wealth and distribute that wealth in favour of the firm's stakeholders. Theories of the firm are introduced in the following section.

2.4 THEORIES OF THE FIRM PERTAINING TO THE Z-FORM MODEL

Jensen and Meckling (1976) recognised that most firms are "legal fictions" (p. 310), referring to the "artificial construct under which the law allows certain organisations to be treated as individuals" (p. 310)\(^{18}\). The authors defined the firm as a "nexus for contracting relationships and which is also characterised by the existence of divisible claims on the assets and cash flows of the organisation which can generally be sold without permission of the other contracting individuals" (p. 311). This view of the

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\(^{18}\) The partnership, however, is one important omission from Jensen and Meckling's (1976) definition. The partnership operates as an organisation and is not treated as an individual for legal and taxation purposes. The liabilities and rewards earned by partnerships are distributed appropriately to each of the individuals involved (Owen, 1994; Prebble, J., 1994).
firm emphasises the contractual nature of firms and other organisations. Jensen and Meckling (1976), therefore, stated that "it makes little sense or no sense to try to distinguish those things which are inside the firm from those which are outside of it" (p. 311). However, several authors since Jensen and Meckling (Barry, Sonka, & Lajili, 1992; Koenig & van Wijk, 1991) distinguish between the firm and the firm’s relationships with other organisations.

Relationships between adjacent firms have traditionally been considered as either markets or hierarchies (Williamson, 1975). The distinction between intra-firm transactions and inter-firm transactions, yet to be depicted in the Z-form Model, is necessary for this study. It is accepted that some economic theories, for example, transaction cost theory (Coase, 1937; Williamson, 1975, 1979, 1981), agency cost theory (Jensen & Meckling, 1976) and asset specificity (Aldrich, 1976; Pfeffer & Salancik, 1978) may be used, in part, to explain both the theory of the firm and the relationships between firms in a manner suggested by Jensen and Meckling.

There are three theoretical foundations for the firm; the firm as a production function, the firm as a governance structure, and the firm as a value chain. The conventional orthodox theory is to view the firm as a production function (Sporleder, 1992). Viewing the firm as a production function provides considerable understanding of the firm’s response to the price and quantity of inputs and outputs. The firm is assumed to maximise the sum of expected profits “over a long period of time, these profits being properly discounted to the present” (Mansfield, 1991, p. 137). Discounting attempts to determine the current value of a future income stream (Hirshleifer, 1958; Fisher, 1977, Rae, 1977). The production function theory provides rules of behaviour for a firm wishing to make as much money as possible. This view largely assumes the firm has “complete dependency on markets” (Sporleder, p. 1228). However, the production function theory often fails to explain firms’ behaviour in situations where profit maximisation is not the firm’s single goal. In these instances the economist refers to utility maximising behaviour (e.g., Jensen & Meckling, 1976). It is fortunate that the measurement of utility derived from non-pecuniary attributes of firms such as “appointments of the office, the attractiveness of the secretarial staff, the level of employee discipline... personal relations... with employees,” (p. 312) and lifestyle is
fraught with difficulty. For example, were the attractiveness of secretarial staff to be objectively measured economists may have been distracted from their work.

The second economic theory considers the firm as a governance structure. The governance structure view, based on Coase (1937), was popularised by Williamson (1975). In this view the firm is considered as a “substitute for market transactions” (Sporleder, 1992, p. 1228). Two theories contribute to the governance structure view. First, transaction cost theory, which includes information costs (Coase; Williamson, 1979) and second, management cost theory which can be extended to include agency theory (Coase; Demsetz, 1988; Jensen & Meckling, 1976; Knight, 1921).

Coase (1937) was unsatisfied with the thinking that the economic system was coordinated by the price mechanism. Coordination by the price mechanism is, at best, only a partial description of the economic system. The economic system is made up of a number of subsystems of which firms are a conspicuous member (Williamson, 1993). Coase suggested that the extent of the firm is determined by the relationship between transaction costs and management costs. The firm can reduce market costs by internalising transactions and in doing so the firm pursues to some extent vertical integration. As the firm internalises transactions it is proposed, however, that management costs increase.

As the firm internalises transactions, for example, by moving from the market place, to contracts, to manufacturing within the firm (internalising) transaction costs are postulated to decline and management costs are postulated to increase. Therefore, optimal firm size is assumed to occur where the sum of transaction costs and management costs are minimised. The theoretical relationship between transaction costs and management costs is depicted in Figure 2.8

Blair and Kaserman (1983) summarised the reasons given for high transaction costs as uncertainty about the conditions under which exchange will take place, and problems relating to small numbers bargaining. The authors stated that transaction costs will rise when there is uncertainty about price, quality or availability of a good or service. Maughan and Wright (1993, p. 55) suggested that such uncertainty will result from
“variability of input supply [seasonality], perishability, lumpiness in output and price rigidity in input or output markets”.

Figure 2.8. The theoretical relationship between decreasing transaction costs and increasing management costs as the firm internalises transactions.

Transaction costs will also rise when there is an ex ante or ex poste small numbers bargaining problem (Blair & Kaserman, 1983). Maughan and Wright (1993, p. 56) recommended that “it is easier to think of the small numbers as referring to the options rather than to the number of individuals involved in any given transaction”. It may not, however, be possible to reduce transaction costs in all circumstances. For example, seasonality of production cannot be overcome by vertical integration. Similarly, small numbers bargaining problems may only be overcome when both parties pursue integration.

The third theory of the firm is Porter’s (1985) value chain theory. The firm is viewed as “a collection of discrete but related production functions, if production functions are defined as activities” (p. 39). The value chain focuses on how each of these activities creates value. Porter’s value chain theory provides a more useful introduction to the analysis of product and service flows through an organisation: Porter’s (1985) generic value chain is reintroduced in Chapter Three (see Figure 3.9).
Vertical integration describes the completion of segments of the production/marketing system within a firm (Adelman, 1949). The attributes of vertical integration as a corporate strategy were reviewed by Harrigan (1983, 1984). Vertical integration is recognised as developing high productivity and enhancing stockholder wealth. The success of vertical integration requires that the internal and competitive benefits outweigh the internal costs and competitive dangers. Harrigan’s summary of the attributes of vertical integration is presented in Table 2.1. There is agreement that vertical integration offers a sensible framework within which to add value. However, conventional accounting data is not necessarily appropriate for the analysis of added-value strategies. Capital investment or consumption decisions need to be made that maximise producers’ and processors’ returns and provide opportunities for further product differentiation.

Table 2.1. The advantages and disadvantages of vertical integration.

<table>
<thead>
<tr>
<th>Internal benefits</th>
<th>Internal costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration economies reduce costs by eliminating steps, reducing duplicate overhead, and cutting costs (technology dependent)</td>
<td>Need for overhead to coordinate vertical integration increased costs</td>
</tr>
<tr>
<td>Improved coordination of activities reduces inventorying and other costs</td>
<td>Burden of excess capacity from unevenly balanced minimum efficient scale plants (technology dependent)</td>
</tr>
<tr>
<td>Avoid time-consuming tasks, such as price shopping, communicating design details, or negotiating contracts</td>
<td>Poorly organised vertically integrated firms do not enjoy synergies that compensate for higher costs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Competitive benefits</th>
<th>Competitive dangers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid foreclosure to inputs, services or markets</td>
<td>Obsolete processes may be perpetuated</td>
</tr>
<tr>
<td>Improved marketing or technological intelligence</td>
<td>Creates mobility (or exit) barriers</td>
</tr>
<tr>
<td>Opportunity to create product differentiation (increased value added)</td>
<td>Links firm to sick adjacent businesses</td>
</tr>
<tr>
<td>Superior control of firms' economic environment (market power)</td>
<td>Lose access to information from suppliers or distributors</td>
</tr>
<tr>
<td>Create credibility for new products</td>
<td>Synergies created by vertical integration may be overrated</td>
</tr>
<tr>
<td>Synergies could be created by coordinating vertical activities skilfully</td>
<td>Managers integrated before thinking through the most appropriate way to do so</td>
</tr>
</tbody>
</table>

Williamson's (1975) view of business transactions is regularly criticised by many contributors to industrial economics for failing to describe the array of transactions found between the disparate poles of markets and hierarchies (e.g., Granovetter, 1985; Jarillo, 1987; Ouchi, 1977, 1980). The over-riding weakness with transaction cost economics is the assumption that "opportunism is a central concept in the study of transaction costs" (Williamson, 1979, p. 234).

Williamson (1991) distinguished between markets, hybrids and hierarchies. He attempted to "locate hybrid modes - various forms of long-term contracting, reciprocal trading, regulation, franchising, and the like - in relation to" markets and hierarchies (p. 280). A review of Williamson's hybrids is beyond the scope of this Chapter, suffice to say that the sweeping generalisations of transaction cost economics served as a stimulus to the developers of industrial economics. Williamson (1979), quoting from Macneil (1978, p. 901), acknowledged that:

> The fiction of discreteness is fully displaced as the relation takes on the properties of 'a minisociety with a vast array of norms beyond those centered on the exchange of its intermediate processes'. (p. 238)

adding that:

> Where personal integrity is believed to be operative, individuals located at the interfaces refuse to be a part of the opportunistic efforts to take advantage of (rely on) the letter of the contract when the spirit of the exchange is emasculated. Such refusals can serve as a check upon organizational proclivities to behave opportunistically. (p. 240)

Therefore, Williamson was aware that organisational forms are not always to be found as either markets or hierarchies. However, Williamson retreated to Veblen's view of business enterprise commenting that the supposed distance between the head of a large enterprise and his or her employees is sufficient to ensure that any personal conduct mitigating opportunism is eventually eliminated. Management can proceed "untroubled by sentimental considerations of human kindness or irritation or of honesty" (Veblen cited in Williamson, 1979, p. 241). The reader is then left with the impression that while bilateral relationships exist, particularly in the case of "recurrent, nonstandard transactions" (p. 259), opportunism remains the sole...
motivate of CEOs. Macneil (1978) would appear to endorse Williamson’s view, without necessarily adopting the assumption of opportunism. He stated that “typically it is the ongoing relation rather than the individual that is the more powerful of the two” (p. 900). Therefore, the interorganisational relation has some critical mass - inertia - that ensures its longevity beyond that of the immediate facilitators within each firm.

Ghoshal and Moran (1996) take issue with what is predominantly Williamson’s view of transaction cost economics. Why for example do attitudes and behaviour such as trust, honesty, and integrity “matter any less than that of opportunism” (Moran & Ghoshal, 1996, p. 61)? Opposing values are embedded in the alternate views of organisation. Transaction cost economics is dependent on the view that managers will display opportunism - attitude - and opportunistic behaviour (Ghoshal & Moran, p. 18). Transaction cost economics does not consider managers capable of values such as trust and commitment (Morgan & Hunt, 1994). Transaction cost economics should not, however, be dismissed completely. There may be specific linkages in specific industries that are, in fact, better explained by transaction cost economics rather than other theories of the firm. Maughan and Wright (1993), and Waddell (1993) used transaction cost economics to interpret the relationship between sheep and beef producers and first stage processors: an unenviable relationship better interpreted from an alternate paradigm.

Ghoshal and Moran (1996) argue that organisations are not mere substitutes for market failure; “they possess unique advantages for governing certain kinds of economic

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19 Williamson’s reference to Macauley is equally confusing. Williamson stated that “both parties have an incentive to sustain the relationship rather than to permit it to unravel, the objective being to avoid the sacrifice of valued transaction-specific economies” (p. 251). Macauley (1963, p. 61) recognised that “disputes [between businesses] are frequently settled without reference to the contract or to potential or actual legal situations”. To which Williamson retorts that this is because “recurrent, nonstandard transactions are governed by bilateral or unified structures” (p. 259). It is hard to imagine the managers of bilateral structures avoiding legal situations if both parties are motivated solely by opportunism.

20 Macneil’s (1978) comments on status quo are enlightening. For example, given that “it is well to remember that we are dealing with situations where the desire is to continue the relation, not to terminate it” (p. 896) then “the status quo itself may be one in which changes are expected in a certain direction”. He further added that “unlike discrete transactions, many contractual relations are, for all practical purposes, expected never to end” (p. 899). While Macneil acknowledges correspondence with Williamson he appears to have adopted a more holistic view of the nature of contractual relations (see Macneil, 1980), not being constrained to the economist’s view of opportunism.

21 If this is the case some of the methodology offered by contributors to industrial relations is circumspect, under these circumstances the firm’s ecology - which is a network described in a historical, current and future sense - would assume a far greater importance.
activities through a logic that is very different from the market” (p. 13). They endorse Simon’s (1991) view that the market economy is a misnomer, the majority of modern business being conducted in organisations. A more realistic assumption is, therefore, that offered by Rumelt, Schendel, and Teece (1991): markets begin where organisations fail.

The major departure between economics and business schools of thought is the role of management. Economic paradigms invariably ignore the role of management - opportunism excluded. Transactions are assumed to take place, largely, in the marketplace or in a hierarchy independent of human intervention. Further, the economic theories assume that the firm faces a demand curve outside of its control. An important objective of management is, however, to increase demand for the firm’s products through branding (Watkins, 1986), marketing (Aaker, 1992) or by inventing new markets (Prahalad & Hamel, 1990). Not only is management concerned with increasing demand but new age management is concerned with altering both the internal and external environments in which the firm operates - ceteris paribus is not assumed.

Business schools recognise that transactions take place between managed firms. Management not only manipulates the firm’s resources but also attempts to manage the marketplace. To highlight this difference in perspective Ghoshal and Moran (1996) distinguish between market logic as autonomous adaptation - which is near miraculous - and organisational logic as purposive adaptation. Purposive adaptation is observed to have at least three advantages. First, purposive adaptation is possible without either prices or markets. (The authors failed to observe that markets are not possible without organisations, or individuals as in a labour market or end-consumer.) Second, purposive adaptation “allows organisations to pursue dynamic efficiency creating new options” (p. 33). Third, purposive adaptation transforms the domain in which “relations are embedded” influencing actors’ attitudes and behaviour.

In ignoring management the economics literature avoids recognising differences in management ability. For example, the limiting hierarchical control structure associated with increasing firm size (Williamson, 1967) is assumed to be invariant to management ability. Peters and Waterman (1984), Iacocca (1984; see Range, 1991), Peters and Austin (1985), and Pascale (1990) all recognise that management ability is paramount to
the success of the firm. Similarly, at the farm level the success of the firm is dependent on management ability (Haines, 1982; Boehlje & Eidman, 1984; Gray & Lockhart, 1996; Lockhart, 1990; Reganold, Palmer, Lockhart, & Macgregor, 1993), much of which is directed at minimising risk (Johnson, R. W. M., 1990). Economics provides general theories of determining optimal firm size and firm behaviour. However, they may be too abstract to apply to an individual firm without first recognising stakeholders’ goals and industry configuration, by which time critical assumptions are likely to be violated.

One issue easily overlooked in the Ghoshal and Moran (1996)/Williamson (1996) debate is the need for strategy and management researchers to develop their own theories of organisation rather than adapting theories such as transaction cost economics. However, it is only with the emergence of new age strategy (introduced in Section 3.6.2) that an alternate paradigm can be seen to explicitly engender interdependency (Bartlett & Ghoshal, 1989; Covey 1990; Covey & Merrill, 1994; Hamel & Prahalad, 1994; Quinn, 1992; Senge, 1992): the antithesis of opportunism.

A firm consists of a number of inter-related activities (production functions), under a common governance structure in an industry coordinated through markets, alliances, contracts or some form of hierarchy such as vertical integration. The degree of vertical integration in the value added process can be viewed as dependent on the sum of transaction and management costs. The transaction cost view of the firm is, however, based on opportunism at the exclusion of values. This perspective is increasingly difficult to uphold when alternate views of organisation and transaction are considered.

2.5 MANAGEMENT IN THE Z-FORM MODEL

THE “PRACTICE OF MANAGEMENT is largely eclectic” (Easterby-Smith, Thorpe, & Lowe, 1991, p. 5), and it ignores academic efforts to create distinct disciplines. Easterby-Smith et al. stated that “managers need to be able to work across technical, cultural and functional boundaries; they need to be able to draw on knowledge developed by other disciplines such as sociology, anthropology, economics, statistics and mathematics” (p. 5). Easterby-Smith et al. don’t offer blanket
recommendations for management research. They merely suggest that "it is through contrasts that new ideas and insights are most easily created" (p. 9) - implying that the perspective offered from one discipline, while parsimonious, may be intellectually barren.

The nature of management research will influence its relevance and immediacy of application by the profession. Pure research is likely to be "too abstract and not oriented enough in an applied direction and consequently not relevant to the 'real' problems of business" (Porter, L. W., & McKibbin, 1988, p. 170; see also Hambrick, 1994). The authors correctly argued that the relevance of research is not necessarily where it lies on the pure-applied continuum. More importantly, it is a matter for researchers to "give as much attention to the problems on which they choose to do research as they do to the approach to carrying it out" (p. 177). A problem will too often be subjugated by an academic's desire to apply a pet technique (Locke, 1989). Further, Locke recognised that other aspects, particularly personnel and organisation, are culture specific and the way these aspects of management are integrated into research and practice is culture-specific. The adoption of theory relating to personnel and organisational practice developed from cultures other than our own may, therefore, require substantial empirical support.

2.5.1 Strategic management

The various management disciplines introduce people to the value system. The participants at each stage of the value system are no longer just organisations but collectives of stakeholders. The strategic goal for any organisation (Andrews, 1987; Grant, 1991b, 1995; Johnson & Scholes, 1993; Pettigrew, 1987) is to create value and distribute wealth. Implicit in this goal is that wealth is distributed to the organisation's stakeholders (Rappaport, 1981, 1983) which will include firstly, shareholders and then secondly, employees.

Management also provides a dynamic link between the Z-form Model of the value system - a static model - and opportunities for the generation and distribution of wealth amongst participants. The Z-form Model identifies generic value creation: collection at A, logistics between C and D, distribution from F to G and so on. What it doesn't show are the
nature of linkages - either competitive as say Porter's (1980) five forces or collaborative (Axelsson & Easton, 1992; Jarillo, 1987; Powell, W. W., 1990; Thorelli, 1986) - between adjoining or non-adjoining participants.

Whittington (1993) observes that organisations have pluralistic goals. The assumption that organisations are profit maximisers is naive. The goal function will be influenced by various stakeholder groups all of whom exert influence on the distribution of wealth. When stakeholders are considered as buyers, sellers, and upstream participants in a value system, for example, in addition to shareholders and employees the forces affecting wealth distribution prevent profit maximisation.

Forces external to the organisation are considered by Porter (1980) in his five forces model. Buckley (1994) applauds Porter's contribution to the "deconstruction of standard industrial economics" (p. 97). The five forces model may be assumed to operate at each participant in the value system. Buyers and sellers will compete for wealth distribution, the outcome of which is determined by bargaining power (Porter), as discussed in Section 3.4.1. When two adjoining firms collaborate the distribution of wealth will be more complex. Little appears to have been written on the distribution of wealth between collaborating firms as invariably strategic management commentary is provided from the perspective of a single firm. Yet the rational long-term distribution of wealth is essential to the long term success of all participants: a means to ensure the effective, and efficient production of land-based goods and services. Paradigms contributing to the understanding of linkages between organisations are introduced in Section 2.5, and reviewed in detail in Chapter Three.

The opportunity for value enhancing activities are identified in the Z-form Model but there is, as yet, no system-wide strategic intent (Hamel & Prahalad, 1989). The value system is seen to operate on its own accord. The conventional fit model of business strategy (Andrews, 1987; Ansoff, 1965; reviewed by Mintzberg, 1990) seeks to match the firm's capabilities with the external environment. Therefore, business strategy may be viewed as a means for the organisation to position itself within the value system. Numerous perspectives of strategy are enunciated in the literature of which the most common are the Design - or deliberate - school, characterised by Ansoff and Andrews and the emergent - or behavioural -
school, characterised by Cyert and March (1963) and Mintzberg. Any review and discussion of strategy must rationalise the contributions from these schools.

Management was first considered as a cyclical process by Fayol (1916/1949). The process includes four functions variously named as planning, implementation, leading and control. However, research of managers' behaviour, for example, Mintzberg (1975) and Gray and Lockhart (1996) has identified a void between actual behaviour and that depicted by normative models. To be sure, management activities can be forced into one of the four functions of management; the result seldom describes what manager's do.

Recently what were offered as alternative models of strategic management have gained international recognition. Hamel and Prahalad's (1993, 1994) paradigm of strategy as stretch and leverage is considered a viable alternative to the conventional fit paradigm. The development and contribution of new age strategic management ought to first, assist with identifying shortcomings in the conventional model and second, provide a different view of the firm within the value system. Other contributions to strategy that appear relevant to this study are global strategy (Ghoshal, 1987; Kogut, 1985a, 1985b) and the management of change (Strebel, 1994), both reviewed in Chapter Three.

2.5.2 'Competitive advantage' and 'economic rent'

Competitive advantage is the "value a firm is able to create for its buyers that exceeds the firm's cost of creating it" (Porter, 1985, p. 3). Value, to the producer, is the difference between the costs of production and the price paid for the product. Value, to the consumer, is the price buyers are willing to pay. Porter acknowledged that competitive advantage is increasingly a function of how well a company can manage the value system; all the participating firms and the linkages between them. Collaborative linkages between firms' value chains create interdependencies between a firm and its suppliers and its buyers (Porter). Theories on the nature of linkages between organisations in the Z-form Model are introduced in the following section.

McNamee and McHugh (1989, p. 63) suggested that competitive advantage reflects "superior long-run return on invested capital". Grant (1991b, p. 39) stated "that
the basic source of profit is the creation of value for the customer”. Consumers attempt to maximise their “welfare by purchasing goods which give greatest value relative to the price charged for them” while the “producer tries to maximise profit by charging the highest price which can be achieved” (Pitt-Watson, 1992, p. 49). Grant (p. 64) also noted that Porter’s (1980) generic strategy framework, discussed in Section 3.7, “fails to take account of the dynamic character of competition”. Competitive advantage describes the performance of a firm relative to its competitors. Unfortunately competitive advantage is likely to be transitory only, because seldom can technologies be monopolised in the long term. The transitory nature of competitive advantage reflects the firm’s dynamic environment within its industry. While it is not an absolute necessity for a firm to achieve a position of competitive advantage it is ideal.

Pitt-Watson (1992) concluded that a company can be profitable if it meets customers’ needs better and at lower cost than its competition. However, if value is considered a managed variable competitive advantage is a position a firm achieves when it can provide value to customers at a lower cost than that provided by competitors. It should be noted that lower cost is relative rather than absolute. Firms can provide value in the form of a managed variable at considerable cost relative to others as is the case with BMW and either Hyundai or Daewoo.

Contributors to the economics literature identify the returns from competitive advantage as rent (Tullock, 1967). Therefore, rent seeking (Krueger, 1974) describes an entrepreneur’s pursuit of competitive advantage. Buchanan (1980) discussed the relationship between economic rent and added value describing rent as follows:

a potential entrepreneur, discovers a use for resources or a combination of resources that had not been previously discovered. No one else in the economy is aware of this opportunity. The entrepreneur organizes production and commences sale of the commodity or service. By definition, he is a pure monopolist during the initial period. (p. 6)

The entrepreneur receives economic rent for the activity and, in turn, it is the prospect of rent that motivates the activity. Invariably the pursuit of rent creation requires the
allocation of scarce resources between alternative uses (Amit & Schoemaker, 1993). Decisions relating to capital investment or consumption must be made to ensure that the process of rent creation continues. Rent is the return to the resource owner over and above the return those resources could earn if put to an alternative use (opportunity cost). Differences in the definitions of wealth, economic rent, or competitive advantage, therefore, simply reflect the author's paradigm.22

Cartwright (1994, p. 7) stated that the “total net value generated” in a value system is the “total gross value less the sum of the costs incurred at all stages”. However, wealth in a value system is realised only when a final-product or end-service is sold. Until such sale wealth (competitive advantage, value, profit, or rent) accumulates in the system. This accumulation may enhance the value of individual firms and, therefore, the value of the system in the short term. Continued accumulation of wealth in the form of stock-on-hand may be symptomatic of a system struggling to create value. For example, Fortex valued its unsold stock at $62 million in 1993. Within six months this stock was deemed to be worth half that (Brett, 1994). Wealth supposedly accumulated in the Fortex system, yet value was not realised. One caveat to the longer-term accumulation of wealth in the value system is forestry. Forestry’s relatively long production cycles ensure that over the time from planting the value system ought to increase in wealth without necessarily contributing value. Unlike either BMW or Daewoo firms within the land-based value system are paid for value on the basis of the subsequent buyer’s expectation, more so with participants separated both temporally and spatially from the international consumer.

Wealth may be described as either economic rent, competitive advantage, profit or value. Wealth may be returned to suppliers - in the form of product prices above the prevailing market price - and stockholders - in the form of increased stock value and dividends. While wealth may accumulate within the value system as stock-on-hand or in the

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22 For example, Buchanan (1980, p. 3) defines wealth in terms of economic rent. Economic profit is “the amount a firm earns over and above the payments for all other inputs, including the interest payments for the capital it uses and the opportunity cost of any capital provided by the owners of the firm” (Baumol & Blinder, 1985). Wealth, in accounting terms, is defined simply as profit (Robinson & Ker, 1993) while Walter (1990) describes wealth in more detail. The aim of the firm is “to maximise common stock value. The means to this objective is to invest in areas where anticipated returns equal or exceed the cost of the company funds that must be committed to generate these returns” (p. 138).
form of investment it is only when value is realised, the end consumer pays for a final-product or end-service, that wealth can be attributed to value system participants.

2.6 LINKAGES BETWEEN ORGANISATIONS IN THE Z-FORM MODEL

Both economic and organisational researchers recognise the importance of inter-firm relationships (Aldrich, 1976; Coase, 1937; Hamel, Doz, & Prahalad, 1989; Murray & Siehl, 1989; Porter, 1985; Williamson, 1975, 1985). Koenig and van Wijk (1991) reviewed the prevalent theories of inter-firm relations. They identified two extant theoretical frameworks that provide useful “insights into the main reasons for firms to develop more than anonymous market relations” (p. 171) prior to introducing their own views. The theories are resource dependency and transaction cost to which Koenig and van Wijk (1991) added the role of trust.

Resource dependency theory was postulated by Aldrich (1976). Aldrich suggested that organisations actively seek to reduce environmental uncertainty. Critical dependencies are identified, and control over the relevant suppliers or buyers is sought by means of lobbying, contracting or acquiring. Koenig and van Wijk (1991) noted that the theory does not predict the “prevalence of any particular inter-organisational form” (p. 171) but implies a preference for formal control whenever possible. Transaction cost theory, introduced in Section 2.5, extends the theory of the firm to encompass inter-organizational transactions between the firm and suppliers and buyers. Firms can reduce transaction costs by pursuing vertical coordination through interorganisational relations (Johanson & Mattsson, 1987b). Vertical coordination is “the alignment of direction and control across segments of a production/marketing system” (King, 1992, p. 1217). Vertical integration, therefore, represents the extreme form of vertical coordination.

Koenig and van Wijk (1991) stated that collaboration results in informal agreements based on mutual trust and often involves a transfer or sharing of assets. Sporleder (1992) suggested that strategic alliances may be considered as an intermediary between the spot market and vertical integration. Mutual trust is proposed to develop
asset specificity reducing complexity and uncertainty. Sporleder notes that strategic alliances are becoming more common in agricultural commodity marketing channels in the Mid-West. Similar empirical evidence exists in New Zealand to suggest that various forms of strategic alliances are emerging in export-dependent land-based value systems.

Interorganisational relationships, known as strategic alliances or linkages, are now recognised as an alternative view of inter-firm relations (Hamel, Doz, & Prahalad, 1989; Johanson & Mattsson, 1987b; Koenig & van Wijk, 1991; Lei & Slocum, 1991; Ohmae, 1989b; Sporleder, 1992). The emerging theory of strategic alliances better recognises managerial choices, while choices may still be analysed in a transaction cost framework. An “interfirm alliance is any agreement for cooperation among dependent firms to serve a strategic purpose” (Sporleder, p. 1229). This perspective views interfirm relationships as opportunity for collaboration: enhancing productivity and profitability.

Inter-firm relationships and the nature of transactions between firms have been the subject of much study during the 1980s and 1990s. Interfirm relationships provide the conduit between domestic producer and international consumer depicted in the Z-form Model (Section 2.3.2). The literature on interfirm transactions is dominated by the discussion of strategic alliances (Bleeke & Ernst, 1991; Borys & Jemison, 1989; Bowersox, 1990; Clarke & Brennan, 1988; Devlin & Bleackley, 1988; Hung, 1992; Kobayashi, 1988; Larson, 1991; Lei, 1993; Lei & Slocum, 1991; Lorange & Roos, 1991; Porter & Fuller, 1986), and the establishment and management of joint ventures (Berg & Friedman, 1980; Goldenberg, 1988; Gomes-Casseres, 1988; Harrigan, 1985, 1988; Janger, 1980; Killing, 1983; Kogut, 1988; Lyons, 1991; Ring & Van de Ven, 1992; Turpin, 1993). Central to the discussion is the notion that firms on either side of the relationship or transaction participate towards some common goal. Strategic alliances, while credited as a strategy to create competitive advantage, may also dissipate competitive advantage asymmetrically between participating firms. For example, some xenophobic authors (e.g., Reich & Mankin, 1986) don’t consider strategic alliances between American firms and firms from foreign countries, particularly Japan (Main, 1990), beneficial to the US in the long term.
Lei and Slocum (1991) considered that strategic alliances are “transition mechanisms that propel the partners’ strategy forward in a turbulent environment” (p. 44). The authors identified three forms of global strategic alliances; licensing, joint ventures and consortia (keiretsu/chaebol) structures. Licensing agreements are the least sophisticated form of strategic alliance because partners “do not take an equity position in one another” (p. 45). Joint ventures involve creating a new entity “in which the originating partners take active roles in formulating strategy and making decisions” (p. 50). Western consortia, Japanese keiretsu and South Korean chaebols are “designed to maximise all the potential benefits of joint ventures while allowing for industry specialisation” (p. 58). The form of strategic alliance identified by both Koenig and van Wijk (1991) and Sporleder (1992), however, defies this classification.

Both equity and non-equity relationships (Lorange, Roos, & Bronn, 1992; Root, 1988 cf., Murray & Mahon, 1993) are likely to occur in the value system. Equity relationships (Hennart, 1988) may result from intertwined shareholdings in existing firms or the deliberate formation of joint ventures (Harrigan, 1985; Lorange & Roos, 1992). The establishment of equity relationships may be a strategy to reposition the firm in the value system. Some joint ventures resulting from equity relationships are anticipated to deteriorate into mergers or acquisitions (McManus & Hergert, 1988), while in others mergers or acquisitions are intended. In the event of a merger or acquisition the identity of each firm is subsumed and the project or organisation is internalised (Rugman, 1982). Where discrete organisations are maintained in spite of equity relationships adjoining firms partake in interfirm transactions.

Morris and Hergert (1987) describe a non-equity strategic alliance as a collaborative agreement while Jarillo (1988) refers to non-equity strategic alliances as social partnerships. Auster’s (1987) term international corporate linkage (ICL) is more descriptive of the sort of relationship expected to be considered in this study. ICL refers to the “diverse interorganizational arrangements created by firms based in different countries to obtain strategic advantages in their markets and environments” (p. 3). Joint ventures need only be included if they are created to enhance the value system. The subject of mergers and acquisitions is excluded because value creation is then internalised.
as is the distribution of wealth. Therefore, interfirm transactions will include those within equity and non-equity strategic alliances (Morris & Hergert, 1987).

Axelsson and Easton (1992, p. xiv) argue that economic exchanges between buyer and seller are commonly more than a random collision, as is implicit in microeconomic models. Something more than simple transactions occur between firms. Stability suggests that the relationship is significantly more than the one-off, arms-length, marketplace exchange. The industrial network paradigm recognises the enduring relationships developed between buyers and sellers (Johanson & Mattsson, 1987b); the space between firms.

Industrial networks is in the Kuhnian tradition of an immature paradigm. There are alternative views with multiple interwoven branches. They have a near common beginning and common goals, not unlike the braided river metaphor used by Chambers (1992) to describe the development of the Farming Systems Research (FSR) paradigm. The problem of multiple perspectives is not unusual during the early stages of a paradigm, however, eventually one perspective is expected to prevail.

The benefits from cooperation rather than competition are now well documented in the literature (Contractor & Lorange, 1988; Dunning, 1995). Benefits from cooperation between firms at the same stage of a value system are considered to include access to partner's knowledge, markets, and intangible assets plus reduction in competition (Contractor & Lorange). Costs include the restraints imposed on the firm through cooperation, partners reap benefits, and price setting is no longer the sole domain of the firm. Cooperation between firms at adjoining stages will reduce transaction costs (Johanson & Mattsson, 1987b) and enhance adaptability (Axelsson & Easton, 1992).

The literature on collaborative linkages between organisations describes relationships between adjoining firms and what were previously competing firms. The strategic alliance literature is dominated by cooperation between firms (Contractor & Lorange, 1988) that may be considered as the same stage of a value system. The industrial networks literature, however, focuses on those firms aligned to enhance rather
than replicate alternate product flows. Despite its shortcomings the industrial networks approach is, therefore, expected to provide a significant contribution to this study.

2.7 THE INTERNATIONAL LINKAGE IN THE Z-FORM MODEL

INTERNATIONAL LINKAGES are critical to New Zealand's export-dependent land-based value systems. The process of linking the home-base and international location may be described by the models of international trade. The shortcoming of these models and Porter's (1990) diamond theory were identified in Section 1.2 - countries don't trade, firms do. The value system perspective of the international linkage recognises firms on either side of the transaction linked through collaborative or competitive relationships, namely some form of exchange (Toyne, 1989). Toyne concludes that "exchange, and its attendant sociopolitically influenced process, is centrally, intimately, and inextricably a part of international business" (p. 15). However, the transaction may also be internalised (Buckley, 1989, 1994; Dunning, 1981, 1995) through some form of multinational enterprise (MNE). MNE's may take a number of forms (Bartlett & Ghoshal, 1989) each of which display identifiable attributes.

Buckley (1994) contrasted the theoretical bases of internalisation theory and international strategic management. Internalisation theory is based on transaction cost economics, discussed in Section 2.4, and models of the growth of the firm (Kaldor, & Penrose cited in Buckley). Buckley judges this approach as "successful in explaining and predicting the growth and pattern of multinational firms, although somewhat at the expense of dealing with management decision making" (p. 96). In reviewing the theory of the MNE Itaki (1989), however, is somewhat less enthusiastic about its explanatory and predictive ability.

Bartlett and Ghoshal's (1989) contribution to international management is regarded by Buckley (1994) as an "exemplar of international strategic management" (p. 97). Bartlett and Ghoshal provide a detailed discussion of the models of international management. They then synthesise an alternate model, the transnational solution, that captures the beneficial attributes of the three extant models. The authors identify three
constraints to achieving the transnational. The constraints are first, administrative heritage second, cultural impact on management and third, norms, values and leadership styles. Therefore, the transnational solution may be better regarded as recommended management practice rather than an alternate structure.

The international linkage in New Zealand’s export-dependent value systems may be internalised, may be an industrial network, or may be simple exporting, i.e., produce into competitive foreign markets. Buckley (1994) identifies similarities between internalisation and international management as the “centrality of the ‘make or buy’ decision” (p. 97), the interaction of location and organisational variables, and internal control mechanisms. However, as with economics (see Section 2.3) management is largely ignored in internalisation theory. Buckley admits that efforts to incorporate decision making variables within the theory “sit rather awkwardly” (p. 96).

Contributions to the international linkage are likely to be provided by both internalisation theory and international management. Internalisation theory will underplay the role of management. International management will recognise decision making and the interactions a “company faces across its various markets” (Buckley, 1994, p. 98). Therefore, contributions from internalisation theory are expected to be somewhat limited.

2.8 PERSPECTIVES OF LAND-BASED INDUSTRY IN THE HOME-BASE LOCATION

THREE ACADEMIC PERSPECTIVES of land-based industries are briefly introduced in this section; farm management, agricultural economics, and agribusiness. Contributions from each perspective to the configuration and management of New Zealand’s export-dependent land-based value systems are briefly reviewed. First, an introduction to societal marketing boards and definition of industry is provided as both issues transcend the three perspectives. Contributions and approaches to the amelioration of risk are also identified. Recent literature on trends towards vertical integration, the industrialisation of agriculture, is briefly reviewed. Much of this
contribution is from the United States of America, however, such is the scale of their local economy that relatively few participants are involved in exporting. Notable value added exceptions include tobacco and prime beef. Other US land-based products in a state of consistent surplus such as wheat are also exported, surpluses often exacerbated by food and farm programmes (Robinson, 1989).

One long held assumption amongst producers is that they must have some form of control, but not necessarily ownership of home-base activities in the value system. Control without ownership is commonly sought through societal marketing boards (Izraeli & Zif, 1977; McKinlay, 1991). The core objectives of societal marketing boards are the ability to impose rigorous market discipline - through one seller - and the substantial enhancement of individual producer’s bargaining power. The collective bargaining power of all suppliers to the marketing board potentially improves either product prices or terms and conditions of trade. The conduct and operation of societal marketing boards is typically provided by the imposition of government legislation (Hussey, 1992, 1993; McKinlay). However, in doing so individual rights are subjugated by those of the majority.

If the value system is not vertically coordinated there exists little opportunity for the upstream participants, both producers and processors, to benefit from value added strategy. In these circumstances food and fibre industries will source raw materials from the cheapest supplier worldwide. Raw or partially processed materials will be purchased at international clearing prices, up-stream participants will receive a variable residual income.

Contributors to the discussion of management have been plagued by the definition of an industry, namely, which organisations, goods, and services are to be included in the research of a particular industry. Caves (1967) defined an industry as “the sellers of a

23 Detractors of societal marketing boards seldom recognise that democracy prevails - individual rights are being subjugated by the decisions of the majority. The aim of the study is not to review the performance of societal marketing boards. Suffice to recognise that they exist and have made a vast contribution, in various means, to both New Zealand and international agriculture over the last 90 odd years. The role of marketing boards in the case industries is discussed in full in Chapter Five. At this stage of the research the development of rigorous market discipline and bargaining power are expected to improve the performance of export-dependent land-based value systems. Therefore, societal marketing boards are to be considered as one of a range of mechanisms that may provide specific sources of competitive advantage.
particular product” (p. 6). However, he acknowledged that “drawing the boundaries too narrowly places in separate industries firms which are actually quite sensitive to one another’s actions” (p. 7). Porter (1980) defined an industry as “the group of firms producing products that are close substitutes for each other” (p. 5). Grant (1991b) stated that “no industry has clear boundaries in terms of products or geographical areas” (p. 60), concurring with Porter that substitutability, “both on the demand and the supply side” is an industry’s major criteria. Therefore, an industry includes all organisations that provide substitutable goods and services to either industrial or consumer markets.

Specification of substitutability is problematic: what constitutes substitutability in some industries remains at the buyer’s, rather than the researcher’s or management’s discretion. Within the car tyre industry, an example mentioned by Porter (1980), mainstream firms include Avon, BF Goodrich, Bridgestone, Continental, Dunlop, Falken, Firestone, General Tyre, Goodyear, IRC, Kumho, Michelin, Pirelli, Reidrubber, Two-ply Manufactures, Uniroyal, and Yokohama. By comparison, the specification of substitutability amongst land-based products is, in some instances, extraordinarily difficult. For instance consider a lamb loin. Substitute products may include other lamb cuts, other red-meat cuts (chilled, fresh, frozen), white-meats (alligator, chicken, fish, pork), game-meats (buffalo, grouse, pheasant, venison), non-meat foods (pasta), or a restaurant meal. Porter acknowledges that drawing industry boundaries is difficult. He stated that “there is a great deal of controversy over the appropriate definition... how close substitutability needs to be in terms of product, process or geographic market boundaries” (p. 5) is subject to debate and the judgement of managers.

The production of a New Zealand chilled lamb loin for the international consumer requires nearly all the stages of the value system (A to H, but may exclude E). Organisations included within the definition of substitutability will differ through A to H: the subject industry changes as product value is enhanced. At A there is substitution between all lamb finishers in New Zealand - for the time being. The industry comprises New Zealand’s lamb finishers. At B there is substitution between lamb processors and packagers amongst fresh, chilled, and frozen suppliers. The industry then comprises all meat processes and packagers with a meat export license. At F and G there appears to be substitution across meats, maybe non-meats, and the restaurant trade, at which stage the lamb industry appears to have lost its identity. The industry may now include all retail food outlets which, unfortunately, is not a particularly
useful definition however accurate. The argument remains that land-based goods have a high degree of substitutability, and the specification of industry boundaries is fraught with difficulty.

2.8.1 Farm management

The history of farm management has been reviewed extensively by several authors, for example, Campbell (1957) and Malcolm (1990). A more succinct review is presented by Parker, Gray, Lockhart, and Townsley (1994). None of these authors have claimed that one particular paradigm has prevailed for any length of time. However, at different times in the past paradigms have emerged. Johnson, Halter, Jensen, and Thomas’s (1961) study of Midwestern farmers’ decision making and Chambers, Pacey, and Thrupp’s (1989) farmer first, for example, are two paradigms worthy of endorsement by the greater farm management community. Because there is no prevalent paradigm (Wright, 1985) much activity passes under the guise of farm management and the scope of farm management research is unclear. The discipline appears to have retreated to a pre-paradigmatic stage characterised by the random collection of facts.

Text books on farm management (e.g., Barnard & Nix, 1979; Black, 1947; Boehlje & Eidman, 1984; Castle, Becker, & Nelson, 1987; Kay, 1981; Osburn & Schneeberger, 1983) that are widely adopted by researchers and academics in the discipline offer little, if any, farm management theory. Instead farm management texts provide numerous planning aids for practitioners and students rather than general management principles (e.g., Harling & Quail, 1990). Even a cursory view of such work would suggest that the theoretical contribution is constrained to normative decision making (Castle et al.); a process questioned in the business management literature by Mintzberg (1973).

Many current research studies reported in the farm management literature are contracted examinations requiring little knowledge of theory. The distinction made by

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24 Farmer’s decision making was neglected by the farm management academic community from the publication of Johnson et al.’s (1961) plenary work until Todd, Gray, Lockhart, and Parker’s (1993) real-time study of the summer-autumn management of Manawatu seasonal-supply dairy farmers.
Hunt (1976) between marketing research and market research can be extended to farm management. "Marketing research (or alternatively, scholarly research in marketing) always seeks to expand the total knowledge base of marketing. In general, market research attempts to solve a particular company's marketing problem" (p. 1). By extending this differentiation between paradigmatic research and the research of practice to farm management, most research is observed to solve a particular farmer's or group of farmers' problems (e.g., Lockhart 1995a, 1995b). McRae, Anderson, & Brazendale (1993), Jiggins (1993), and Mueller (1993) have reported alternatives to normal science better equipped to address practitioners' problems. However, rarely is research conducted in farm management with the intention of contributing to the knowledge base of farm management.

Two issues challenging the boundaries of the discipline are first, the artificial delineation between the management on-farm and off-farm resources (often involving processing) and second, the treatment of risk. Various means of vertical coordination and vertical integration exist. Any form of vertical coordination on the part of farmers, or backwards coordination by processors must be recognised as an attempt to create a continuum from the producer through the value system. Unfortunately, the discipline is rarely concerned with issues beyond the farm gate - those supposedly being the domain of agribusiness. Second, embedded in farm management but seldom treated overtly is the examination and treatment of risk (sources of risk in land-based value systems were identified in Section 2.2). Contributors to farm management offer techniques to manage sources of production and price risk so practitioners may be better equipped to achieve their goals. However, techniques such as feed budgeting\(^2\) (Lockhart, Ridler, Brookes, & Hawkins, 1987), cash forecast, and cashflow budgeting (Lockhart, 1990) are relatively naive models in that assumptions will be violated within the first planning period - due to production and price variability. Used in conjunction with a dynamic interpretation of management; the cyclical adoption of planning, implementation and control (Parker et al., 1994) the techniques can become powerful tools to ameliorate production risk and overcome many effects of price risk.

\(^2\) Feed budgeting is used to describe the relationship between seasonal feed demand and feed supply, such as that depicted in Figure 2.1.
The farm management discipline provides the basis from which identification of attributes unique to land-based industries were discussed in Section 2.2. Thereafter, select contributions are expected to contribute to concepts and theories of management.

2.8.2 Agricultural economics

Agricultural economics was developed as an "applied discipline of the economics discipline" (Goldberg, 1980, p. 5). The paradigm is characterised by contributions from Goodwin (1977), Rae (1977, 1994), Robinson (1989), Roy, Corty, and Sullivan (1981), and Tweeten (1979). Goodwin defines agricultural economics as "the social science concerned with the allocation of scarce resources among those uses associated with producing, processing, and consuming the products of farms and ranches" (p. 4). The major contribution of agricultural economics to agriculture is the production function view of the firm. Simple input/output relationships concerning one crop or livestock activity are extended using linear programming (Levin, Rubin, Stinson, & Gardner, 1989; Paterson, 1993; Rae, 1977) to develop an optimal farm enterprise mix.

Agricultural economics has traditionally provided quantitative skills such as econometrics (Johnson, A. C., Johnson, M. B., & Buse, 1987; Judge, Hill, Griffiths, Lütkepohl, & Lee, 1988) and investment analysis (Rae, 1977) to agricultural researchers. The paradigm explicitly upholds the view of rational economic man (REM) (Goodwin, 1977), therefore, techniques seek positions from which to maximise profit (this view of REM is discussed in Section 3.2). The quantitative skills are commonly applied to production to either address issues of risk (Johnson, R. W. M., 1990) or to optimise production mix decisions. Regrettably the application of such techniques invariably produces models (see Barioni, Dake, & Parker, 1996; Lambie & Bicknell, 1996) few of which appear to be adopted by practitioners.

The shortcomings of transaction cost economics, identified in Section 2.3, are equally applicable to agricultural economics. The paradigm upholds views of the Chicago school of economic thought (Harrigan & McGregor, 1991), particularly with respect to markets - "complete unfettered market system" (p. 142) - that performance
can only be enhanced by competition. This view is not reconcilable with the Post-Keynesian school (Dow, 1991) of agricultural policy (Robinson, 1989; Tweeten, 1979).

The relationship between producers and first stage processors has been explained in part by agricultural economists using transaction costs economics (contributors were identified in Section 2.3). On the basis of this review, the value of contributions to this study from agricultural economics is expected to be limited.

2.8.3 Agribusiness

Davis and Goldberg's (1957) concept of agribusiness was introduced in Section 2.3. Since the 1950s agribusiness has become viewed as the agricultural discipline concerned with land-based activities beyond the farm gate (Biere, 1988). However, Sonka and Hudson (1989) suggested that this concept of agribusiness was dated and sought to redefine agribusiness in terms similar to those used by the originators. Sonka and Hudson include both agricultural production and consumers in their definition and emphasise the "word 'food' as part of name of the sector" (p. 307): the food and agribusiness sector (p. 306).

Agribusiness is viewed as an extension of farm management (Sonka & Hudson, 1989). The authors suggest that the sector has sufficiently different characteristics from other industries that it requires "special managerial; skills and knowledge to facilitate efficient and effective decisions" (p. 308). Sonka and Hudson regard both agricultural economics and management as critically important to agribusiness. However, they concede that the tensions between economic theory and management in agribusiness do "not appear to be greatly different than similar concerns expressed in numerous areas where economics is applied" (p. 313). Strategic management is considered necessary in agribusiness if the firm is to be viewed as anything other than a black box (Cotterill, 1987; Rogers & Caswell, 1988; Westgren, 1987; Westgren & Cook, 1986). Rogers and Caswell argue that research in the food distribution system requires "more tools than are commonly found in the economist's neoclassical toolkit" (p. 3). These authors support the use of various strategic management paradigms as legitimate tools for agribusiness research.
A significant contribution to this study from agribusiness is research and commentary on the *industrialisation* of agriculture. The process of vertical coordination in United States agriculture appears to have been first reported by Godwin and Jones (1971). The process, the industrialisation of agriculture, sees closer alignment between producers and consumers in response to final market demand. The shift away from uncoordinated commodity production (Hudson, 1990) was attributed to rising national affluence; a larger share of women in the work force; and higher priorities for leisure time (Godwin & Jones).

Barkema, Drabenstott, and Welch (1991) also presented a compelling discussion of the factors leading to “tightly vertical coordination in the United States agricultural and food markets” (p. 34). They suggested that increasingly sophisticated consumer demand is providing a stimulus for vertical coordination. Sporleder (1992) commented that there is increasing consensus that “vertical linkages in agricultural commodity marketing channels have been evolving to tighter coordination over several decades” (p. 1226). Similar forces are reported in the European food industry (Munch, 1992).

The shift away from uncoordinated commodity production is not a phenomena confined to United States agriculture. For the last decade, amidst deregulation and restructuring, many producers and processors in New Zealand have sought forms of vertical coordination. For example, strategic alliances have been developed between lamb finishers, meat processors and marketers in Hawkes Bay (“Farming for the future”, 1993). Vertical coordination has also been fostered “by the increasing capability of the distribution system to build more services into products” (Godwin & Jones, 1971, p. 806). The authors concluded that producers, if they wish to participate, will firstly “forgo individual decision prerogatives to attain the level of aggregation needed for an appropriate interface with firms in the food and fibre distribution system” (p. 813). And secondly, develop “organisational and operational schemes of aggregation that are efficient in function and that will allow farmers to become participants in the emerging system with appropriate equity in the proceeds from the final marketplace”. Therefore, if producers are to participate in vertical coordination they are expected to sacrifice some autonomy and may have to aggregate. Farmers’ goals, however, commonly include autonomy and independence (Fairweather & Keating, 1990; Gasson, 1973). Fairweather
and Keating (1990) provide a detailed account of the management styles Canterbury farmers. Interestingly, only 12% of the farmers surveyed, ranked marketing and off-farm investments with importance. On this evidence, some farmers may be expected to display certain reluctance to move towards vertical coordination.

Gasson (1973, p. 521) stated that economic theory "does not provide a wholly convincing account of farmers' actions". Despite Gasson's concerns some New Zealand farmers pursue vertical integration ("Deer farmers plan to buy", 1993) while others, for example, dairy farmers and pipfruit growers have in place cooperative processing and marketing facilities (NZDB, 1991; Pope, 1993) where they are attempting to control the value system by integrating stages in the home-base and international locations.

The role of the farmer, or other up-stream participants, in vertically coordinated channels appears to be unresolved. Barry, Sonka, and Lajili (1992) identify farmers as the agent in agency relationships resulting in forms of vertical coordination. They suggest that self-interest seeking, limited cognitive powers, information asymmetries, and uncertainty restrict the use of comprehensive contracts. Maughan and Wright (1993) add that small numbers bargaining problems and the difficulty of defining quality standards (in meat) adds further difficulty to establishing contracts. Thus, contracts as one means of coordination are generally incomplete (Hart, 1988).

Barry, Sonka, and Lajili (1992) considered farmers as agents only, rather than principals. However, the concept of farmers as agents reflects the postulate of capital dependency, that farmers are dependent on borrowing capital, the lender being assumed to be principal. In New Zealand's land-based industries farmers are often the principal, employing agents for processing and marketing their products. Douglas and Burgess (1992), for example, criticise the performance of the agents, the NZKMB, in their review of the New Zealand kiwifruit industry. The implied relationship, of up-stream participants assuming agent status suggests that farmers only provide an input to the vertically coordinated linkages rather than manage these linkages to their own advantage. Under circumstances of being agents farmers are more likely to continue receiving a variable residual income. New Zealand farmers' income is variable because production
levels are, in part, and prices are largely outside of their control. Farmers receive a residual income after downstream participants have met their own costs.

Amelioration of price risk has become a significant subject agribusiness research. Price risk can be reduced by improved forecasting (Skaggs & Snyder, 1992), the use of futures and forward contracting (Brorsen, Coombs, & Anderson, 1995; Ennew, Miorgan, & Rayner, 1992, Waddell, 1993) and the management of exchange rates (Schroder, Mavondo, & Wallace, 1993). It is anticipated that participants in New Zealand’s export-dependent land-based value systems adopt various techniques to minimise the effects of production and price risk, of which one is the societal marketing board (Schroder et. al., 1993) - considered as a means of sharing risk across all producer-suppliers.

The agribusiness paradigm is, therefore, a legitimate source of literature concerning land-based value systems. Contributions from the discipline to this study are expected to be founded in the strategic management paradigm.

2.9 SUMMARY

Two organisational paradigms were identified as contributors to the theory building process; the functionalist paradigm and the radical-structuralist paradigm characterised by an objective view and a concern for change. The functionalist paradigm provides a means to gain a detailed understanding of the value systems studied. The radical-structuralist paradigm provides a mechanism by which change for the benefit of participants may be considered.

The unique attributes of New Zealand’s agricultural systems were described and their implications discussed. The attributes were grouped into those relating to land-based production, output, and industry structure. The opportunities and constraints provided by each of these attributes needs to be recognised and upheld throughout the balance of the theory building process. The iterative development of the Z-form Model was then discussed. The model provides the basis for the identification of paradigms contributing to the study.
Economic theories of the firm were discussed in Section 2.4. The governance structure theory introduced the relationship between transaction costs and management costs. Transaction costs could be reduced by the firm pursuing some degree of vertical integration, supposedly at the expense of increased management costs. The boundary of the firm was postulated to have been reached when the sum of transaction costs and management costs were minimised. Therefore, from an economic perspective it would be purely accidental if a firm’s boundary coincided with the entire industry. Transaction cost economics was reviewed and its likely contribution identified as explaining, or predicting, the relationship between adjoining stages in the value system.

The role of strategic management in the value system was then introduced. Strategic management introduces decision makers to the value system responsible for the creation of value and the distribution of wealth. Literature on deliberate, and emergent strategy, conventional and new age strategic management was identified as contributing to the study. An objective of reconciling alternative views of strategy was noted.

Both economics and business schools identify that firms achieving returns above the cost of capital, however transitory that may be, have attained a position of competitive advantage over their rivals. Competitive advantage, the receipt of market rents, was identified as the ideal position for a firm to achieve.

Inter-firm transactions were introduced and the rationale for cleaving them from transactions within a firm was discussed. Intermediate forms of vertical coordination, between markets and hierarchies were reported. The industrial networks approach was identified as the long-term stable but not static group of firms that may be linked either vertically or horizontally within a value system. Of real interest is the vertical alignment of firms within the value system. The equity strategic alliance may be seen as a means of creating intermediate firms in a value system, the intermediate firm being used to link the original participants. More recent work on organisational structure and alternative linkages focuses on the firm’s ability to adapt and respond. In the past organisational structures were reported as having less dynamic and hence less adaptive forms. There is now acknowledgment that structures and linkages such as those identified in the industrial networks literature considers a more dynamic, and hence realistic, framework.
The international linkage is central to the Z-form Model. The recognition that this linkage is a *necessity* distinguishes this study from others such as Crocombe et al. (1991). Alternate views of international business and international management were introduced. Concepts common to both views were identified.

The farm management, agricultural economics and agribusiness paradigms were briefly reviewed. All three disciplines were observed to offer contributions to the management of risk. Farm management was observed to suffer from a lack of consensus as to its theoretical basis, manifest by the random collection of facts. Agricultural economics was identified as applied economics, largely of the production function view of the firm. Only agribusiness, and within this only the management perspective of agribusiness, was identified as a useful paradigm to include in the study. The industrialisation of agriculture is anticipated to occur in New Zealand. To date, most research of New Zealand’s land-based industries has used selected aspects of supply-side economics. As the vertically integrated land-based firm expands it will encounter the problems and opportunities confronted by the multinational enterprise, but it will not necessarily take that particular form.
CHAPTER THREE:
POTENTIALLY APPLICABLE CONCEPTS
AND THEORIES

STRATEGIC MANAGEMENT - CREATING VALUE AND
DISTRIBUTING WEALTH

2002: Bud Eisenhauff takes decisive action. He decides to merge his tiny but
vigorous company with any firm that contains the word "General" in its corporate name,
believing at the time that this strategy is what is meant by the concept of vertical
integration. Facing widespread skepticism but with strong support from security
analysts and Wall Street, Eisenhauff goes on to forcibly acquire General Electric,
General Dynamics, General Motors, General Rubber, General Foods, and General
Colin Powell, merging all six entities into General Power, the core of what would one
day be the greatest and most powerful human organization the world has ever seen,
except perhaps for ancient Rome.
Stanley Bing. (1995). While you were out. Fortune, 132 (8), 34.

3.1 INTRODUCTION

CHAPTER THREE provides an orderly review of the literature from the partitions
identified in Chapter Two as potentially offering applicable concepts and theories.
The objective of the chapter is to explore the literature for useful contributions for
subsequent theory building; less than useful contributions will be discarded26. In that respect
the breadth of the literature review necessarily exceeds what may typically expected through
the course of theory testing research. The focus of the chapter is to develop and extend the
single firm perspective of strategic management to the value system: land-based producer to
international consumer. In continuance of Chapter Two two themes are further developed;

26 In that respect the literature review may be considered the first ‘data set’ from which useful
contributions to the theory are drawn. The relevant partitions of literature identified in Chapter Two as
potentially being useful are now explored in detail. Useful contributions are identified and eventually included
in the Z-form Model and subsequent theory, while less than useful contributions are discarded in a manner
akin to non-significant results.
linkages between participants in the value system - represented as the lines between stages in the Z-form Model and second, the strategic management of those stages. The literature is being searched for potentially applicable concepts and theories.

The first theme discussed in the chapter is linkages between organisations in the value system. First, a brief introduction to the concept of an organisation's pluralistic goals is presented in Section 3.2. Pluralism appears to be influenced by stakeholders' collective views in addition to managerial attention beyond the boundary of the firm. Common worldwide organisational structures are described and particular attention is paid to the effect these structures have on the international link in the value system. Organisational and environmental approaches to competitive and collaborative linkages between organisations are then reviewed. Competitive linkages (Section 3.4) are identified as resulting in the distribution of bargaining power between adjoining firms while collaborative linkages (Section 3.5) result from the development of business relationships between firms. Important attributes of the two forms of linkages are contrasted. The perspective of hypercompetition is introduced and its influence on business strategies identified.

The chapter then presents a discussion of strategic management, the second theme. Contributions from strategy and management are introduced and the conventional (predominantly North American) view of strategic management is briefly reviewed. New age strategy: strategy as stretch and leverage, and the effect of forces inhibiting strategic change are then discussed in Section 3.6.2. An understanding of the essential components of strategic management is necessary to identify how the individual firm is expected to respond to the external environment, and what factors influence the boundaries of the firm. Knowledge of this response may then be used to identify why specific constraints and opportunities exist in the value system. Generic strategies are identified and their modifications reviewed. The considerable literature available for investigation on each of these subjects is limited to that partitioned in Chapter Two.

The first iteration of study is to focus on the international value system. The international value system comprises the long term stable (Gadde & Håkansson, 1992) but not static group of firms that create value and distribute wealth between upstream producer and the international consumer. The value system may also be regarded in
other multiorganisational forms such as value chains [sic], value stars or constellations, relationship marketing, and industrial networks. Of primary interest is how value is generated and wealth distributed by participants in these value systems. Value is created from transformations within firms and transactions between firms: the end product of configuration and management. Potential concepts and theories are drawn from a broad range of literature (as identified and partitioned in the previous chapter). The likely contributions to theory building from concepts and theories are identified, less applicable concepts and theories are discarded.

To summarise, the subject of study is New Zealand's land-based export-dependent value systems from, and including, producer to the international consumer. Real interest resides with value creation and wealth distribution as a result of product flow. However, before restricting the context of study to what may be a special form of value system it is necessary to examine literature for valuable contributions on the broader issues of configuration and management of value systems in general.

3.2 MANAGERIAL ATTENTION AND OBJECTIVES

A MANAGER'S PERSPECTIVE of the value system is attributable to his or her level of managerial attention (Cartwright & Lindsay, 1995). Cartwright and Lindsay identified likely managerial perspectives associated with various levels of managerial attention. Their schema, and the business paradigms associated with each level, is presented in Figure 3.1. Some managers are expected to exhibit broader attention of the value system than others. Those managers with broader attention are, in turn, expected to have a different perspective to strategy and linkages with other participants. For example, a manager concerned solely with organisational considerations appears less likely to be interested and, therefore, less inclined to take a role in influencing activities and events beyond the firm. On the other hand, a manager with a broader perspective may attempt to influence activities and events well beyond what may be regarded as the physical boundary of the firm.
A manager may also assume that critical activities in the value system, beyond his or her organisation, are outside of individual reach. One response expected to extend managerial reach is the establishment of federations (Litwak & Hylton, 1962; Pfeffer & Salancik, 1978; Provan, 1983; Warren, 1967). Federations are a horizontally linked organisational form comprising a group of organisations with common goals. Litwak and
Hylton, in their study of welfare fund raising, postulated that federation development is related to the degree of standardisation, observability, interdependency, and the number of organisations. Federations are, therefore, formed “on a perceived need to coordinate, manage, and control the interdependent activities of two or more organizations” (Provan, p. 81). Under such circumstances the federation may provide a conduit for extending managerial attention, as undertaken by societal marketing boards on behalf of producers.

Whittington (1993) considers that business strategy has either one of two expected outcomes. The expected outcome of which the single profit-maximising goal - or perhaps something approaching it - is one view and pluralistic goals the other. Pluralistic goals “allow other possibilities to intrude” (p. 2) on profit. Profit-maximising for rational economic man is, however, an absolute rather than relative position: the organisation is either profit-maximising or it is not. Any outcome other than profit-maximising must, therefore, be pluralistic. Whittington’s interpretation of pluralism is fortunately less constrained in that he appears to regard profit-maximisation as a relative rather than absolute position. Pluralism may result from broader, rather than narrow perspectives of the business environment. Managerial attention beyond the boundaries of the firm may well mitigate the pursuit of absolute profit in the short-term in favour of holistic long-term goals.

Rationality is based upon an “assumption of perfect information” (Ekelund & Hébert, 1990, p. 552). Rational economic man (REM) (Foster, 1991) requires “complete specification of the problem” (Loasby, 1991, p. 52). Loasby concludes that optimal choices... can have no consequences which were not foreseen at the time of the decision” (pp. 52-53). Rational thought, therefore, represents the theoretical perspective of a decision maker with perfect information and complete specification of outcomes. In business such a stance is untenable, yet managers are no less capable of rational thought.

Pluralistic outcomes, of which profit may assume greater or lesser importance at different times, are the result of organisational members bargaining with each other to arrive at a set of goals satisfactory to all (Cyert & March, 1963). Whereas Drucker (1973) simply suggested that to manage a business is to balance needs and goals. Strategic management (see Section 3.6.2) tends to be entrenched in routines and
procedures imposed by political exigency and restricted by cognition. Political exigency (Johnson, G., 1992) and restrictive cognitive limits will mitigate profit-maximising behaviour. Organisations tend to adapt to the environment slowly (Hardaker & Anderson, 1981) as “awkward messages from a dynamic environment gradually force themselves on manager’s attention” (Whittington, 1993, p. 24) rather than adapting through evolutionary change.

Whittington (1993) largely confines the specification of organisational goals to influences within the organisation. The influence of other organisations is implicit only in environmental effects. Organisations have constraints imposed by stakeholder groups such as employees, buyers, suppliers, shareholders, and society at large. Stakeholder groups are expected to, and in the case of management are charged with the responsibility of influencing the organisation’s ability to pursue profit-maximisation. The economics literature describes profit mitigation in terms of principal-agent theory (Jensen & Meckling, 1976). Principal-agent theory, however, fails to recognise that stakeholder groups do not have common values - pluralism is reduced to the agency problem. Pluralistic goals will then not only encompass factors affecting value creation but also factors effecting wealth distribution to value system stakeholders. It is, therefore, unlikely that any organisation has an unconstrained goal of profit maximisation. Strategic management (e.g., Asch & Bowman, 1989) must ensure adequate and sustainable value creation and wealth distribution from activities both completed within the organisation and conducted through various linkages between organisations. This process will be contingent on the implicit and explicit values of stakeholder groups.

Managers with a broader perspective are expected to attempt to influence the value system beyond their organisation’s boundaries. Business goals are assumed to be many and

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27 The measurement of profit reflects pluralism, in that various techniques used to measure profit do so largely for the benefit of specific stakeholders. For example, profit may be measured by techniques such as economic value added (EVA) (Smith, 1994; Tully, 1993) or market value added (MVA) (Walbert, 1993). EVA is a tool to measure a firm’s real profit. Analysis includes the total cost of capital (both debt and equity capital), equity capital is not assumed free. EVA is a measure of wealth creation from the shareholder’s perspective. MVA is a measure of the increase in a firm’s capital. MVA is “forward looking, reflecting the market’s assessment of a company’s prospects (Walbert, p. 56). An assumption of MVA is that the market is capable of assigning value to a firm’s future income streams, reflected in market capital.
varied which, to be sure, must include profit. Goals may include the process of value creation and wealth distribution beyond the immediate boundaries of the firm. Managerial perspective of the value system, rather than the firm in isolation, ought to result in more numerous business goals. Pluralistic goals may be anticipated to expand alongside attention span as value system-wide managerial perspectives develop. Interorganisational forms such as alliances are one manifestation of attention beyond a select stage in the value system.

### 3.3 INTERNATIONAL LINKAGES

The phenomena of export-dependency was identified in Chapter One. Evolutionary processes of internationalisation as say described by Bilkey (1978); the Uppsala Internationalisation Model (Anderson, O., 1993; Johanson & Vahlne, 1977, 1990; Johanson & Wiedersheim-Paul, 1975); internationalisation in industrial networks (Johanson & Mattsson, 1988, see Section 3.5.4.), or the internationalisation of non-dominant firms (Mascarenhas, 1986) are, in this context, not necessarily relevant. The discussion of international business and strategy must be conducted from the view of firms that have to export, are exporting and may have near a century of exporting experience. To these firms the strategy of international business (Robock & Simmonds, 1989; Selvarajah & Cutbush-Sabine, 1991) may, therefore, not be one of conventional internationalisation.

This discussion of international linkages provides an elaboration of linkages in the value system between the home-base and international location. Organisations may serve to bridge the domestic/international link, explicit in the Z-form Model (C-D), as a multinational enterprise (MNE) (Dunning, 1981, 1988). The MNE's activities may then extend upstream beyond exporting (C) or downstream beyond importing (D). The domestic/international link may also be an international strategic alliance (Auster, 1987; Ohmae, 1989b). The theory of

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28 The expression international business is maintained whenever there is little likelihood of confusion with terms of specific meaning such as global, multinational, multilocal or multidomestic. Where confusion is likely to arise the term worldwide business, a neutral expression, is used to designate a firm's resource allocation and activities on more than one continent (Yip, 1992). For the benefit of this discussion worldwide business is assumed to operate on more than one continent. The definition of continent is, however, accepted to be sufficiently loose to regard Australia, New Zealand, and Great Britain as continents.
the multinational enterprise is briefly reviewed. Bartlett and Ghoshal’s (1989) three worldwide organisational forms are described and the attributes of each discussed. The authors’ prescriptive transnational solution is introduced. Bartlett and Ghoshal’s view of the transnational solution as a MNE at the exclusion of strategic alliances is then challenged.

Some researchers have attempted to relate the tendency of a firm to export to firm size - the contingency approach applied to internationalisation (e.g., Bilkey & Tesar, 1977). Other authors have attempted to relate the development of exporting to the “psychologically closest country” (Bilkey, 1978, p. 36). The vast majority of exports are now accounted for by trade within MNEs. Ball and McCulloch (1990) estimate that between 80 and 85% of all trade is accounted for in this fashion. To which Bilkey poses the question “is it possible that exporting to affiliates is the ultimate current stage of a firm’s export process?” (p. 37). Trade between foreign affiliates alleviates psychological proximity in that the activity is internalised, the capability for internalised trade may then provide a guideline for minimum firm size.

Dunning (1981) offered the internalisation theory29 as an explanation of growth in MNEs. Internalisation theory has three concepts first, the MNE is assumed to possess “ownership advantages vis-à-vis firms of other nationalities” (p. 79) in particular markets. Ownership advantages are due to possession of assets unique to the firm. Assuming that the first condition is satisfied the firm must then retain these advantages rather than sell, or lease them to foreign firms. The firm internalises those ownership advantages in foreign markets by retaining ownership through subsidiaries. Finally, assuming the first two conditions are met there must be some benefit in utilising these advantages in conjunction with local “factor inputs” or “foreign markets would be served entirely by exports and domestic markets by domestic production” (p. 79). The internalised theory of MNE is, therefore, an international application of transaction costs (discussed in Chapter Two)30. An “MNE is any firm which owns outputs of goods and services originating in more than one country” (Casson, 1985, p.

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29 Dunning (1995) takes care to distinguish between the theory of internalisation, discussed here and the eclectic paradigm of the multinational enterprise. The eclectic paradigm treats advantages of MNEs as endogenous rather than exogenous variables, which is contrary to Itaki’s (1989) view. Itaki suggests that advantages are the simultaneous result of the MNE’s activities in specific locations.
30 The theory of internalisation has subsequently been identified by Itaki (1989) as containing redundancy. Itaki also considered that ownership and location advantages are more likely determined simultaneously. Additional assumptions necessary for the explanation of internalising particular products and particular locations were identified by Casson (1985).
Bartlett and Ghoshal (1989) identified three extant strategies, organisational structures, and processes of management within MNEs. The three models are described as multinational, global, and international. All three models of worldwide strategy, organisational structure and management processes were found to restrict the ability of the case study firm to develop and maintain competitive advantage. Ghoshal and Bartlett (1990) suggest that in cases of large worldwide corporations the configuration should be conceptualised as an "interorganizational grouping rather than as a unitary organization" (p. 604). Consideration of the interorganisational grouping as a network (Section 3.5.4), albeit with common ownership, reflects the true "nature and complexity" of such organisations.

The multinational company, presented as Figure 3.2, is managed as "a portfolio of multiple national entities" (Bartlett & Ghoshal, 1989, p. 14). The multinational's key strategic capability is "building strong local presence through sensitivity and responsiveness to national differences" (p. 15). A multinational industry is made up of national structures (multilocal) only loosely connected across borders. Therefore, a multinational industry necessitates multilocal (Yip, 1992) responsiveness. Companies have to achieve minimum scale efficiencies, namely, scale efficiencies within each domestic market.

The multinational company benefits from the dispersed resources and "decentralised decision making" (Bartlett & Ghoshal, 1989, p. 59) being able to respond to local demand. However, decentralisation produces inefficiencies and reduced learning knowledge and innovation retained at the national level, are unlikely to be shared. Doz (1980) describes the difficulty as the need for trade-off between multilocal integration and competitiveness. Ghoshal and Bartlett's multinational organisation treats strategy as multilocal, in that each country or region is managed on a "stand alone basis" (Yip, 1992, p. 10). Were a multinational company to internalise the linkage between specific exporters and importers in the value system the company would then hold several near independent offshore holdings. These holdings, while catering for local markets, would no longer benefit from centralised efficiencies.
Figure 3.2. The multinational organisation model.


The global company is typically driven by the need for global efficiency, has more centralised operations and treats “the world as an integrated whole” (Bartlett & Ghoshal, 1989, p. 14). The key strategic capability of the global company is described as “building cost advantages through centralized global-scale operations” (p. 15), epitomised by Vernon’s (1983) view of globalisation. Vernon postulates that the global organisation will “force suitably standardized products and practices on the entire globe” (p. 102). A model of the global organisation is presented as Figure 3.3.

No single market is assumed to generate sufficient revenues to fund state-of-the-art technologies. A global industry is characterised by the need for global scale, and relatively unimpeded national differences. The global company’s resources and capabilities (Prahalad & Hamel, 1990; Stalk, Evans, & Schulman, 1992) are concentrated in the centre where the organisation can exploit scale economies. The configuration implies that subsidiaries have few “slack resources” (Bartlett & Ghoshal, 1989, p. 58) and, therefore, are devoid of the
motivation or ability to respond to local demand. The global company, having centralised capability and knowledge, can quickly develop and produce new products, however, these products are conditioned by home market demand. In defence, Bartlett and Ghoshal (1989) observe that retail chains have applied asymmetrical bargaining power (discussed in Section 3.4.1) to squeeze manufacturers’ margins, and concurrently manufacturers have had to increase advertising as retail staff are less knowledgeable of product attributes. Therefore, break-even volumes have increased further fuelling the need for the global form.

Figure 3.3. The global organisation model.


The debate of global "standardisation versus country-by-country differentiation" (Meffert & Bloch, 1991, p. 3) is at the root of multinational versus global forms. However, Walters and Toyne (1989) pragmatically argued that the debate had degenerated into absolute uniformity versus complete localisation, both positions being untenable. From a value system perspective the global company offers centralised efficiencies, most likely located in the organisation’s country of origin, at the expense of inadequate local market resources.
The headquarters of the international company retains less control than the global company suggest Bartlett and Ghoshal (1989). In doing so subsidiaries have the opportunity to "adapt products and ideas" (p. 15) emanating from the centre. However, these subsidiaries have less independence than those in the multinational company. The key strategic capability of the international company is, therefore, to exploit "parent company knowledge and capabilities through worldwide diffusion and adaptation" (p. 15). International industries require a multidimensional strategic capability. Products are postulated to follow the traditional international product-cycle pattern (Vernon, 1966; Wells, 1972). Exports are then replaced by local products once subsidiaries have developed and adapted the products to local demand. A model of the international organisation is presented as Figure 3.4.

Figure 3.4. The international organisation model.


The "international company is better able to leverage the knowledge and capabilities of the parent company" (Bartlett & Ghoshal, 1989, p. 59) than the multinational company. However, its resource configuration creates inefficiencies
relative to the global company and it is considered less responsive than the multinational. Adapting products for less developed countries (Hill & Still, 1984) appears problematic. Its operation in the value system is dependent on the near continual production of innovative ideas and knowledge, from a home-based location.

Bartlett and Ghoshal (1989) suggest that those organisations that fit corporate strategy and environmental demands, and fit organisation structure and strategy achieve superior performance. However, the authors observe that company performance can be constrained by the need for fit between the key strategic requirement of an industry and the firm’s key strategic capability, that is, the match between what a firm might do (as predicated by the industry) and what it can do.\footnote{Stopford and Wells’ (1972) model of international structural changes is typical in the setting of international business. Whereas Bartlett and Ghoshal observed that an organisation’s structure, commonly the result of administrative heritage, may constrain strategy, structure is recognised as a “powerful but blunt weapon for effecting strategic change” (p. 32). In some instances the authors’ case managers reported that strong resistance forces (Strebel, 1994), embedded in administrative heritage, prevented them from changing strategy hence comment to the effect that companies are captives of their past.}

Worldwide industries underwent major transitions during the 1980s (Bartlett & Ghoshal, 1989) and continue to do so, resulting in increased complexity. The dominance of a single set of environmental forces was replaced with more complex factors such as markets, costs, government and competition (Yip, 1992). Fewer industries can now be described as either multinational, global or international, therefore, companies must respond accordingly. Bartlett and Ghoshal observe that firms cannot succeed with unidimensional strategies such as the emphasis of multinational responsiveness, global efficiency, or international learning, knowledge, and competencies. Worldwide industries are now driven by simultaneous demands for global efficiency, national responsiveness, and worldwide leveraging of innovations and learning characteristics.

3.3.1 The transnational solution

Bartlett and Ghoshal (1989) claim that to compete effectively “a company [has] to develop global competitiveness, multinational flexibility, and worldwide learning capability” (p. 16): positive attributes of each of the three worldwide models. The authors argue that to
achieve these key strategic capabilities organisations have to change their management processes and organisational structure (p. 57). Similarly, Yip (1992) states that firms need to integrate and manage for “worldwide business leverage and competitive advantage” (p. 9). Bartlett and Ghoshal have in response synthesised the transnational model. The significant departure from the other three models is that the transnational “is a new management mentality” (p. 17). This new management mentality reorients the concepts of efficiency, responsiveness, and innovation; efficiency is sought to achieve competitiveness; responsiveness provides flexibility; and, organisational learning enhances innovation.

The transnational model is prescriptive: Bartlett and Ghoshal (1989) acknowledge that only some of its features were observed in their study. Certain activities are best centralised (Doz, 1978) in the location of headquarters, for example, research and development, finance or corporate strategy. Other activities may be centralised in a subsidiary to take advantage of local resources and conditions. While yet other activities and resources may best remain decentralised because of minimum scale economies or to benefit from national differentiation. The distribution of the transnational’s resources is, therefore, relatively complex and may be depicted as an “integrated network” (p. 61). Value chain activities are, therefore, partially concentrated and partially duplicated around the globe (Yip, 1989). The transnational is responsive to national market requirements by encouraging subsidiaries to differentiate, other subsidiaries may “adopt standard global products” (p. 62). Subsidiaries have greater autonomy and the opportunity to develop their own styles of management (Bartlett, 1981; Ohmae, 1990) within headquarters’ guidelines, systems and values. The role of management appears to be one of managing relative power (Prahalad, 1976) between the various components such as actors, activities, and resources. A diagram of the transnational model is presented as Figure 3.5.

The critical feature of the transnational model is interdependency, either perceived or actual between the headquarters and subsidiaries. Both headquarters and subsidiaries need to retain activities, resources, or actors sufficient to maintain congruence. The benefits from interdependency must be adequate to contain the self interest of subsidiaries. Without interdependency the organisation would regress into a multinational or even dissolve into separate firms in multidomestic (Hout, Porter, & Rudden, 1982; Yip, 1989) locations. One activity commonly retained in headquarters is global brand (Aaker, 1992; Bayley, 1994; see
Kominiak, 1995; Morris, 1996; Watkins, 1986) management. Global brand management appears integral to successful global strategy, discussed in Section 3.6.3.

Figure 3.5. The transnational organisation model.

Distributed, specialised resources and capabilities

Large flows of components, products, resources, people, and information among interdependent units

Complex process of coordination and cooperation in an environment of shared decision making

Note. Modified from Managing Across Borders: The Transnational Solution (p. 89), by C. A. Bartlett and S. Ghoshal, 1989, Boston, MA: Harvard Business School. Specifically, interdependencies between the headquarters (depicted centrally) and subsidiaries are shown as stronger relations than those between subsidiaries. Bartlett and Ghoshal do not assign greater importance in their model to HQ-subsidiary relations. Nonetheless, the organisational structure appears to benefit from centrally controlled financial, corporate, or marketing services.

To summarise, Bartlett and Ghoshal’s (1989) prescriptive transnational organisation is dispersed globally yet subsidiaries remain interdependent and specialised (Meffert & Bloch, 1991). Responsiveness is achieved by subsidiaries integrated in a worldwide operation. Knowledge and learning (Quinn, 1992) are developed jointly and then shared worldwide. To effectively manage the transnational, management must sanction diverse perspectives, develop multidimensional coordination processes, and create a shared vision.

The discussion of worldwide organisations throughout this section has viewed worldwide linkages within the firm. Common to all structures has been the theory of
internalisation. Various attributes of the transnational may also be achieved through international collaborative linkages (ICL) (Auster, 1987; Buckley & Casson, 1988; Ohmae, 1989b). Gugler (1992) reported that cooperative agreements with foreign organisations outnumber foreign subsidiaries fourfold. While Porter and Fuller (1986), and Dunning (1995) directly attribute coalition formation to the process of globalisation. The use of cross-border strategic alliances as “viable vehicles for international strategy” was recommended by Bleeke and Ernst (1991, p. 127), as opposed to Bartlett and Ghoshal’s (1993) perspective of subsidiaries providing global reach. Hedlund’s (1986) heterarchical perspective of the MNE includes both views.

The management of international linkages as either headquarters-subsidiaries (Doz, 1986; Doz & Prahalad, 1981, 1984; Hedlund, 1981; Otterbeck, 1981a; Prahalad & Doz, 1981), international strategic alliances (Ohmae, 1989b) or joint ventures (Holton, R. H., 1981; Otterbeck, 1981b) has been the subject of much discussion in the literature of worldwide business. Managing the integrated organisation requires the pursuit of “efficiency within the network” and “effectiveness at its margins” (Doz, 1986, p. 188). The management of each of the subsidiaries is likely to differ as a result of the contextual environment (Ghoshal & Nohria, 1989) between headquarters and subsidiaries; described as integrative (Kanter, 1983), hierarchical (Williamson, 1975), federative (Provan, 1983), or clan-like (Ouchi, 1980).

Ohmae (1989b) suggests that global strategic alliances in a changing environment are a preferred form of organisation to internalisation (Rugman, 1981). However, “a real alliance compromises the independence of economic actors” (Ohmae, p. 143). Rugman (1982) maintains that the internal market of a multinational enterprise is superior because costs of internalising are less than the costs of contracting. Rugman does not, however, discuss distributive effects, implicit in internalisation theory. Dunning (1995) summarises the choice between internalisation and international alliance as depending on their “respective costs and benefits” (p. 467) adding that the rationale is “extensive and well known”. A trade-off exists between sharing risks, capital costs, and benefiting from various synergies on the one hand with loss of control, dependency, and the distribution of wealth on the other. The attributes of collaborative relationships are discussed more fully in Section 3.5.

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32 These agreements must, however, only account for a minority of worldwide business.
The international linkage in the value system may be internalised through some form of MNE producing a headquarters-subsidiary relationship. MNEs typically take one of three forms of worldwide organisation all of which have notable weaknesses. The transnational appears to be the preferred form of worldwide organisation and differs from the earlier forms in that interdependency exists between headquarters and subsidiaries. The transnational model also prescribes a mode of management capable of both ignoring and exploiting geographic borders. The international linkage may also be completed through the establishment of strategic alliances. The relative trade-offs between the attributes offered by internalisation and alliances are well established in the literature. However, these trade-offs refer to the static analysis of actual and perceived costs and returns. Management’s role in seeking to create value and redistribute wealth in stakeholders’ favour from either organisational form appears to have been ignored. Ultimately, organisational strategy is expected to determine the selection of one organisational form in favour of the other.

3.4 COMPETITIVE LINKAGES BETWEEN ORGANISATIONS

The objective of this section is to examine the nature of competitive linkages between adjoining organisations in the value system. The discussion of the nature and scope of competitive linkages in the strategy literature is lead by Porter (1980). Porter suggested that the “key aspect of the firm’s environment is the industry or industries in which it competes”. Industry structure, he stated, “has a strong influence in determining the competitive rules of the game as well as the strategies potentially available to the firm” (p. 3). Porter added that “the intensity of competition is neither a matter of coincidence nor bad luck”, suggesting that competition within an industry is dependent on the industry’s “underlying economic structure”. The significance of economic structure was not explained, but appears to refer to the current and expected well being of participants. Porter then presented his five forces model of industry competition, presented as Figure 3.6.

The critical assumption of industry analysis is that industry profitability is not accidental but is “determined by the characteristics of industry structure” (Grant, 1991b, p. 40). The nature and scope of competition across industries is, therefore, postulated as a “product of common structural factors”. Grant states that the conduct-structure-performance
approach "seeks to relate characteristics of industry structure to the nature of competitive behavior and to the level of profitability" (p. 40). The theories of perfect competition and monopoly provide the range over which all industry structures are found. Monopoly providing the means for a firm to earn "profits in excess of the opportunity cost of capital" (Baumol & Blinder, 1985, p. 513); perfect competition zero economic profit.

Figure 3.6. Five forces driving industry competition.


Porter (1980) suggests that competition within any industry serves to reduce the return on capital to a yield similar to government securities. Industry returns greater than this risk-free rate attract competition, while industries returning less than this rate will divest. In practice industry returns may be quite different from those approximated by government securities, however, for the time being the assumption will hold. The forces driving industry competition were identified as threat of entry, intensity of rivalry among existing competitors,
pressure from substitute products, bargaining power of buyers and, bargaining power of suppliers.

Threat of entry to an industry "depends on the barriers to entry that are present, coupled with the reaction from existing competitors that an entrant can expect" (Porter, 1980, p. 7). Porter identified many potential barriers to entry including, for example, access to distribution channels, and government policy. The barriers to entry while accepting they change over time are relatively static. Expected retaliation, reaction by incumbents, is by comparison a dynamic, hostile, and potentially volatile force.

Porter (1980) observed that firms within an industry are "mutually dependent" (p. 17). Competitive action by one firm inevitably results in competitive action by others within the industry. "Some forms of competition, notably price competition, are highly unstable and likely to leave the entire industry worse off" (p. 17). This idea is elaborated on in Section 3.8. Other competition, for example, "advertising battles" may increase demand industry-wide. Porter, again, identified many causes of rivalry amongst existing participants including exit barriers. He then combined "a simplified case" (p. 23) of the effects of entry and exit barriers on profitability: an illustration of the combined effects of rivalry amongst existing firms and threat of entry. The two-by-two matrix is presented as Figure 3.7. Clearly, an industry with low entry barriers and high exit barriers is likely to suffer from low, risky returns. The case of sunk costs in recently-deregulated industries in New Zealand spring to mind.

Figure 3.7. Entry barriers, exit barriers and their relationship to profitability.

<table>
<thead>
<tr>
<th>Entry barriers</th>
<th>Exit barriers</th>
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<tbody>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>High</td>
<td>High, stable returns</td>
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</table>

Summarising Porter’s (1980) discussion of the five forces serves little justice to a proposition that is compellingly well articulated. Porter’s significant contribution to industry analysis is to view customers, suppliers, substitutes, and potential entrants as sources of variation in profitability (depicted in Figure 3.6), in addition to the rivalry that may exist between established organisations. Competition between existing organisations is the economist’s entrenched view of competition. This view completely ignores bargaining power. All five forces appear to influence the intensity of competition and hence profitability. Identification and understanding of the strongest forces influencing profitability is, therefore, critical for effective strategy formulation.

Numerous authors have endorsed the model. For example, Bartlett & Ghoshal (1991) considered Porter’s contribution the most influential in the 1980s. Day & Wensley (1988) used Porter’s model in the development of their normative framework “for diagnosing competitive superiority” (p. 1). Gardener (1990) applied the model to his study of “investment banking strategies in London” (p. 61). Grant (1991b) concluded that “the merit of this model is that it provides a simple yet powerful, organizing framework for classifying the relevant information about an industry’s structure and for predicting what the implications of these structural features are for competitive behaviour” (p. 64).

Sonka and Hudson (1989), contributors in agribusiness, suggest that Porter’s (1980) model assists identify “linkages between an industry’s competitive characteristics and strategies for success in that industry” (p. 89). To date, authors of at least three studies of New Zealand’s land-based industries have used the five-forces model to explain industry performance: R. Davis (1993), a partial value system for wool; Lorigan and Harman (1990), the United Kingdom lamb carcass market; Furniss (1992), New Zealand’s blueberry industry.

The five-forces model has, however, attracted criticism. Bartlett and Ghoshal (1991), for example, pose the warning that “to view industry structure as the primary determinant of the competitive rules of the game, and thus of firm strategy” (p. 8) is to neglect internal organisation, competence and resources. Bartlett and Ghoshal’s warning needs to be tempered by persistence in undesirable industries, for example, “cart wheels” (Anderson, personal communication, January 1990) or “buggy whips” (Kidney & Jewison, 1991).
Singer and Brodie (1990) stated that the “power of the approach is moderated by the ability of the analyst and the information available” (p. 80). The “ability of the analyst” appears to refer to the lack of direction on how to assess and then compare the forces (O'Shaughnessy, 1984). O'Shaughnessy also questioned why Porter (1990) subsumed government regulations into the five forces, rather than including it as a force in its own right.

The organisation’s capability and competence should not be ignored, information may be scarce (as Davis, R., (1993) found), and the data set likely imperfect. There is also little guidance on how to operationalise the model (Speed, 1989). Thackray (1989) provides a pragmatic counter to such criticism noting that Porter’s five forces “are a common vocabulary amongst strategists” (p. 53). Unfortunately, Porter made no attempt to operationalise the model (a characteristic in common with other renown authors from Harvard Business School). Nonetheless, the model provides a powerful analytical and diagnostic tool for the structural analysis of industries - a means of considering factors affecting the profitability of industry.

Porter’s (1980) five forces model can, therefore, be assumed to operate at each stage of the value system. Superimposing the five forces on the Z-form Model provides a challenging view of the structure of New Zealand’s land-based export-dependent industries (Figure 3.8). Challenging if each stage of the value system is regarded as an independent organisation, each stage being identified as an industry, and each stage linked with adjoining stages by competitive relationships.

The purpose of the figure is to graphically demonstrate the forces that may confront participants in the value system. If the figure is depicted correctly there remains little wonder land-based producers (A) receive a residual, variable income.

### 3.4.1 Bargaining power

 Substitute goods and services provide competition and “limit the potential returns of an industry by placing a ceiling on the prices firms in an industry can profitably charge” (Porter, 1980, p. 25). The availability of substitute products, therefore, reduces bargaining power and dependency. Buyers’ and suppliers’ bargaining power is not unrelated. The underlying concept is simply one of buyers’ and suppliers’ ability to change prices. In the
case of buyers' bargaining power it is one of forcing down the price of goods and services, or demanding higher quality. With supplier bargaining power the opposite is true, especially one of extracting a higher price for the goods and services, or the ability to reduce quality. Porter stated that bargaining power was related to the concentration or volume of buyers and sellers relative to the industry; the importance of the goods and services in the final product; differentiation of the product; switching costs; the threat of integration and so on.

Figure 3.8. Potential competitive forces in the Z-form Model of New Zealand's land-based international value systems.

Porter’s (1985) view of bargaining power relates to an organisation’s ability to change prices. The effects of bargaining power are reflected in the division of margins between adjoining organisations in the value system. Bourantas (1989) associates bargaining power with dependence (Pfeffer & Salancik, 1978): dependence on a dominant organisation. Dependence, as a result of asymmetrical bargaining power, is said to reduce “autonomy and degree of strategic freedom, and allows the direct transfer of benefits from the dependent of the dominant organization” (Bourantas, p. 140).
Three simultaneous conditions are identified by Bourantas (1989) to create dependency between two organisations. Dependency is created by first, the importance of resources acquired second, the substitutability of those resources and third, discretion over resource allocation between the organisations. Bourantas (1989), Kotter (1979) and Porter (1985) provide suggestions for reducing dependency. Therefore, it is favourable to the dominant organisation, at least in the short-term, to create an environment of dependency.

Porter (1985) discusses bargaining power and Bourantas (1989) dependency in terms of traditional resources and their prices. A more holistic view of bargaining power may be adopted if change, rather than resources, is considered the dependent variable. Bargaining power can then be recognised by an organisation’s ability to either invoke change in others, or to resist change. Change is discussed more fully in Section 3.6.3. The motivation for collaborative linkages may, therefore, be to relieve bargaining power in an effort to redistribute wealth in the organisation’s favour.

An alternate, and recent view of competition and the seemingly constant dissipation of competitive advantage, discussed in Chapter Two, has been presented by D’Aveni (1995). A brief review of D’Aveni’s perspective of hypercompetition is presented in the following section. The model is then referred to during discussions of strategy later in this chapter.

3.4.2 Hypercompetition

D’Aveni (1995) identifies generic stages for competition, a practical interpretation of perfect competition. The author identifies the ground of competition at each stage, how competitive advantages are eroded, and how some companies maintain competitive advantages for longer periods than others. In a global economy those rates of return will then be dictated by the lowest cost producer (an unsavoury position for those members of the global economy with somewhat higher aspirations). Two firms selling the same product and same quality must compete on price. This simple situation then escalates into price wars, a no-win situation for the firms involved but beneficial to the customer. To avoid price wars

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33 Competitive advantage may not be a necessity for the long-term survival of the firm providing stakeholders are prepared to accept ordinary rates of return.
competitors move “toward offering progressively higher” (p. 12) value to customers. D’Aveni likens the force of price-competition to gravity. Price wars escalate into quality, differentiated markets, full-line production, niching and outflanking, ultimate value, before degenerating back into price-wars. The price-quality cycle is presented as Figure 3.9.

Figure 3.9. The cycle of price-quality competition - moving up an escalation ladder.


34 D’Aveni (1995) defines quality as the perceived quality by consumers. In his models there is an assumed quality standard for any industry, and that “consumers are concerned about price and quality” (p. 13).
D’Aveni (1995) notes that individual firms may be better off if they don’t escalate the conflict. However, “if one of them drop[s] out of the competition, the other would gain a temporary advantage. Each one cannot trust the other to de-escalate the conflict. This course is set in motion the minute the two players step into the arena of competing on price and quality” (pp. 12-13). Beyond price-quality a competitive position is temporarily sustainable. For example, the next stages are full-line production, and then niching and outflanking at which stage the customer is provided with “ultimate value” (p. 35), new definitions of product price and quality then evolve initiating a “new cycle of dynamic interactions” (depicted as the feedback loop in Figure 3.9).

As an example, D’Aveni (1995) contrasts the watch and coffee maker industries. The watch industry’s progress toward the ultimate value point is impeded by fashion, “price is a signal of quality” (p. 58). D’Aveni argues, therefore, that a low-priced, high-quality product may have a lower perceived value than a higher priced product. D’Aveni’s observation is correct providing the industry is considered as a whole (i.e., Rolex, Omega, Seiko, Olympus, and Casio manufacture watches as both Ferrari and Mazda manufacture cars). The watch industry may be better cleaved into mainstream (Seiko, Olympus, Casio and so on) and high-end (e.g., Rolex, Omega, Tag Heuer) manufacturers. Escalation through the competition ladder (see Figure 3.9) is then evident amongst the mainstream manufacturers, while the high-end manufacturers compete on fashion and technical expertise.

By way of contrast the coffee maker industry has been driven toward the ultimate value point. Hypercompetitive firms continue to pursue transitory advantages by progressing up the competition ladder, advantages are “fleeting”, and firms “pass through periods of price wars for short periods of time but find new ways to break out of that state” (D’Aveni, 1995, p. 38).

D’Aveni identifies particular strategies - four arenas - a firm may employ to avoid competition, techniques a firm may use to out-manoeuvre competition. To “leap into a new market or jump to a new level of quality” (p. 40) a firm must have a “product timing or know-how advantage”. Timing advantages are created by skills, particularly innovation, and know-how is the result of learning and technical knowledge, identified as the second arena of competition. Once competitive advantage is threatened established firms then resort to using
barriers to entry, the third competition arena. Firms can, therefore, slow movement up the escalation ladder. Barriers to entry include “tacit cooperation among rivals” (p. 83), asymmetrical bargaining power over buyers and suppliers, and “power over potential entrants and substitutes” (p. 84). Eventually competitive advantage will again be threatened. D’Aveni then considers that firms resort to “deep-pockets”, the fourth and final arena of competition. At this stage the “industry may have merged into a large global market without barriers and fast-paced, aggressive maneuvering” (p. 121). Competition being reduced to the depth of financial and managerial resources.

Figure 3.9 depicts the competitive route open to firms as they are invariably forced from competing on price and quality. Some or all of the four arenas of competition may be applied at each stage of the competition ladder until competitive advantage is eroded and each firm ceases to achieve “abnormal profits” (p. 235). The end result is a situation approaching the economist’s theoretical perspective of perfect competition. D’Aveni concludes that the focus of strategy should, therefore, be to “control the dynamic evolution of the industry as firms progress up the escalation ladders in each arena” (p. 245). Untenable positions are competing on price-quality. Competitive advantage is achieved through controlled escalation up the competition ladder, exhausting all four arenas of competition at each rung.

Veliyath (1996) states that “Hypercompetition challenges conventional thinking and confronts today’s competitive reality” (p. 294). Yet there is little evidence in the literature to suggest that competitive advantage is anything other than transient. A sustainable competitive advantage (Williams, 1992) requires continuous pursuit (Hamel & Prahalad, 1993, 1994; Strebé, 1994) as the external environment is anything but static. More importantly D’Aveni’s (1995) model provides an operational framework for the development of business strategy.

The nature of competitive relationships between organisations has been reviewed. The alternate view, collaborative relationships between organisations, is now discussed.
COLLABORATIVE LINKAGES among participants in a value system are referred to variously as value chains (in error), value stars, value constellations, relationship marketing and industrial networks. Such linkages may involve forms of equity exchange, joint ventures, or more simply non-equity strategic alliances. A discussion of the attributes of collaborative linkages is presented in this section. MacMillan and Farmer (1979), for example, recommended "collaborative dealing in intermediate industrial markets" (p. 284) as a means, at the expense of mutual dependence, to reduce both risk and fixed costs, retain discretion, and enhance learning.

3.5.1 Value chains

Porter (1985) is responsible\textsuperscript{35} for developing the value chain view of a firm (Day & Wensley, 1988). The aim of the value chain is to "disaggregate a firm into its strategically relevant activities" (Porter, p. 33) in an industry, and to better understand costs, and existing and potential sources of differentiation. Porter's value chain approach presents the firm as a collection of interrelated generic activities; activities described as either primary or support. The firm is viewed as a suite of discrete but interrelated production functions providing "production functions are defined as activities" (p. 39). The value chain then focuses on how each of these activities creates value. Porter stated that value "activities should be isolated and separated that (1) have different economics, (2) have a high potential impact on differentiation, or (3) represent a significant or growing proportion of cost" (p. 45). Porter's assumptions of what constitutes a firm's separate activities are explicit in his value chain model, presented as Figure 3.10.

\textsuperscript{35} Day and Wensley (1988) attribute the value chain framework to McKinsey and Company. However, Porter (1985, p. 36) appears to have anticipated such criticism. He makes a distinction between his view of the firm as activities and McKinsey and Company's business system view of the firm as unrelated functions. Kogut (1984) used the term "value-added chain" (p. 151) to describe functions, analogues to Porter's activities, within an organisation that contribute to a product's market value.
Figure 3.10. The generic value chain.

The value chain model presents the firm as a "system of interdependent activities" (Porter, 1985, p. 48), rather than considering these activities as being mutually exclusive. This view suggests that relationships between the firm's various activities is critical to value creation. Porter claimed that an analysis of the value chain rather than value added is the appropriate way to examine an organization's competitive advantage (p. 39). A value chain, or a series of value chains - value system - linked through interfirm transactions provides an aggregate mechanism of determining value added.

The value chain approach has been reviewed and applied by several researchers (e.g., Prahalad & Hamel, 1990; Rayport & Sviokla, 1995; Skyrme, 1990; Willcocks, 1992) for the analysis of organizations. However, Hergert and Morris (1989) identified difficulties of using accounting data for value chain analysis. Hergert and Morris's conclusion is supported by Rappaport (1981) who, although predating the value chain approach, stated that the creation of value for shareholders cannot be analysed with conventional accounting data. Rappaport (p. 139) dismissed the "conventional accounting-oriented approach" to evaluate strategic plans and the success of the business. Therefore, most firms' decision making with respect to their value chain is based on inherently problematic data. An organization's value chain is "embedded in a larger stream of activities" that Porter (1985, p. 34) calls a value system (depicted as

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36 Value added analysis typically calculates value added to raw material.
Figure 3.11. A value chain only includes those activities completed within an organisation, irrespective of whether these activities are completed domestically or internationally (Kogut, 1984).

Figure 3.11. Porter’s value system.


Shank and Govindarajan’s (1992) conceptual value chain of the paper industry, which refers to all activities from the production of raw material to the end-consumer, is in fact a value system. Normann and Ramirez (1993), Snow, Miles, and Coleman (1992), and Trotter and Kay (1996) also confuse value chains with value systems. For example, Normann and Ramirez state that “every company occupies a position on a value chain [sic]” (p. 65). Clearly every company occupies a position in a value system.

3.5.2 Value constellations and value stars

Normann and Ramirez (1993) reported from a multiple case study that value occurs “in complex constellations” (p. 69). Their cases included IKEA\textsuperscript{37}, ATM networks, Denmark’s pharmacy association, and French public utilities from which they developed an alternate view of organisational linkages. The authors suggest that value creation was no longer the domain of a single firm as described by a value chain. “A single company rarely provides everything anymore [sic]. Instead, the most attractive offerings involve the customers and suppliers, allies and business partners, in new combinations” (p. 69). Normann and Ramirez concluded that a firm’s primary strategic

\textsuperscript{37} IKEA, a Swedish based kit-set furniture retailer, is reported as the world’s largest retailer of home furnishings with an international network of some 100 stores, visited by 96 million people, generating an annual income of $6.5 billion (Normann & Ramirez, 1993).
task is to reconfigure relationships and business systems with adjoining firms. They attribute competitive advantage to the firm’s ability to conceive and implement a value-creating system, supposedly configured as a constellation.

IKEA pursue low cost, good quality suppliers. The result of this policy is that the sources of components for kitsets are geographically widespread - 1800 suppliers in 50 countries. Suppliers receive technical support and lease equipment from IKEA with the view of establishing long-term supply relationships (Normann & Ramirez, 1993). Normann and Ramirez stated that a value system, as presented in Figure 3.11, “fails to capture the complexity of relationships in the IKEA business system” (p. 68). They describe IKEA as “the central star in a constellation of services, goods, design, management, support, and even entertainment”. Value creation is, therefore, viewed as the entirety of processes within a constellation rather than those within a value system.

Wikström and Normann (1994) further developed the value constellation concept by redefining market relationships at the expense of vertically integrated systems. They observed that relationships between customers, suppliers, and organisations are becoming increasingly complex. Firms are incorporating customers into “closed systems - closed that is, to competitors” (p. 30). Wikström and Normann’s value star (synonymous with Normann & Ramirez’s value constellation) is depicted in Figure 3.12.

Figure 3.12. Value star depicting participants contributing to value creation.

![Value star diagram]

Note. From Knowledge and Value: A New Perspective on Corporate Transformation (p. 31), by S. Wikström and R. Normann, 1994, London: Routledge.
The process of value creation is depicted as differing from that in traditional models such as Porter's (1985) value system, Davis and Goldberg's (1957) commodity system, or the land-based value system presented in Chapter Two, all of which are based on product flow. The constellation view of value creation accepts a single organisation as the catalyst for creating value amongst immediate firms.

While immediate firms and customers are acknowledged to benefit from their relationship with the central organisation (Normann & Ramirez, 1993) others are largely ignored. The authors fail to comment on the role of upstream participants; the benefits to foresters of the IKEA constellation are not considered. Upstream participants appear to again be left as the recipients of residual income. Participants contribute to value creation alongside product flow - a fact neglected by the constellation view. The value constellation is, therefore, no substitute to the value system. The value constellation may better be considered as an important, on occasions even dominant feature of a value system dependent on product flow.

3.5.3 Relationship marketing

The marketing channel (Mallen, 1967) literature was reviewed by Rae (1986), and endorsed by Martin, Rae, and Zwart (1986), and Woodhouse (personnel communication, May 1993) as an integrated framework for analysing agricultural marketing issues. Research in the area of organisational marketing (Campbell & Cunningham, 1983), business to business marketing (Anderson, Håkansson, & Johanson, 1994; Anderson & Narus, 1990) and organisational buying behaviour (Håkansson & Wootz, 1975) has developed two different traditions. The first, and original marketing channel approach (Achrol, Reve, & Stern, 1983; Arndt 1979, 1983; Reve & Stern, 1979; Stern & Reve, 1980) from North America has been to study relationships between buyers and sellers. The second, European approach, is to study the space between organisations in the form of industrial networks (Powell, W. W., 1990). The industrial network approach is discussed in the following section.

Achrol, Reve, and Stern (1983) were the first marketing authors to extend the conventional marketing channel literature (e.g., Rosenberg & Stern, 1971) beyond the
distribution of power and authority in a dyad. Achrol et al. distinguished between a primary task environment comprising the dyad’s immediate suppliers and customers and the secondary task environment “comprised of suppliers to the immediate suppliers, customers to the immediate customers” (p. 57). Achrol et al.’s diagram of the environment of marketing channels is presented in Figure 3.13. However, despite recognising that firms beyond the dyad have an effect on dyadic interaction the channel literature remains primarily concerned with power and authority (e.g., Heide, 1994; Heide & John, 1992).

The significant contribution from the marketing discipline pertinent to this discussion is relationship marketing (Berry, 1983; Dwyer, Schurr, & Oh, 1987; Grönroos, 1995; Morgan & Hunt, 1994; Sheth & Parvatiyar, n.d). Morgan & Hunt attribute the term relationship marketing to Berry. Berry stated that “relationship marketing is attracting, [and] maintaining... customer relationships” (p. 25). Relationship marketing is, therefore, characterised by direct marketing (see Bucklin, 1967; Schultz, 1990; Sheth & Parvatiyar, 1995); when buyers and sellers associate directly with one another. The importance of direct association between firms was understated by the discipline before emergence of the industrial marketing paradigm. Relationship marketing, therefore, represents an extension of industrial marketing’s departure from a focus of transaction and exchange (Hunt, 1983; Kotler, 1972).

Webster (1992) considers relationship marketing as representing a fundamental reshaping of the field. While Kotler (cited in Morgan & Hunt, 1994) and Parvatiyar, Sheth, and Whittington (1992) identify it as a genuine paradigm shift. Morgan and Hunt are, however, quick to identify that “relationship marketing is part of the developing network paradigm” (p. 20) rather than claim it as something unique to the marketing discipline. Dwyer et al. (1987) criticised marketing research and strategies as treating buyer-seller relationships as discrete events rather than ongoing relationships; hence the realisation that direct marketing practices were worthy of study. Dwyer et al. stated that “the lack of attention to antecedent conditions and processes for buyer-seller exchange relationships is a serious omission in the development of marketing knowledge” (p. 11). An argument hauntingly familiar in that both organisational theorists and economists often ignore the context in which business strategy, relationships and transactions take place. Rarely do such activities take place in a vacuum.
Dwyer et al. (1987, p. 15) propose that business relationships evolve through five general phases identified as awareness, exploration, expansion, commitment and dissolution: a relationship lifecycle. Awareness is characterised by “party A’s recognition that party B is a
feasible exchange partner”. “Interaction between parties has not transpired” (p. 15). In phase two the “potential exchange partners first consider obligations, benefits and burdens, and the possibility of exchange; trial purchases may take place. The exploration phase may be very brief, or it may include an extended period of testing and evaluation” (p. 16). Expansion, the third phase, refers to “the continual increase in benefits obtained by the exchange partners and to their increasing interdependence” (p. 18). Dwyer et al. suggest that the “critical distinction [between exploration and expansion] is that the rudiments of trust and joint satisfactions now lead to increased risk taking in the dyad”. Phase four, commitment, is characterised by an “implicit or explicit pledge of relational continuity by exchange partners” (p. 19). By the fourth stage the exchange partners have achieved a level of satisfaction from the relationship that “virtually precludes” other parties that could provide similar benefits, a position identical to Wikström and Normann’s (1994) closed system. The final phase, that is not always necessary, is dissolution. Until the final stage the option of dissolution has remained present providing of course the relationship proceeds beyond awareness.

McKenna (1991) and Sewell38 (Sewell & Brown, 1990) popularised the concept of relationship marketing. They recognise that business success is dependent on the intangibles implicit in the concept of relationship marketing. The authors consider that intangibles in a business relationship may be more important than the goods and services themselves.

Morgan and Hunt (1994) summarise relationship marketing theory and then develop and test a parsimonious model. They define relationship marketing as “all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges” (p. 22). “Central to relationship marketing is whatever distinguishes productive, effective, relational exchanges from those that are unproductive and ineffective”. The authors posit that commitment and trust (Achrol, 1991; Dwyer et al., 1987; Rotter, 1967; Schurr & Ozanne, 1985) are central to successful relationship marketing rather than simply being two independent variables that affect the outcome: the creation of value and distribution of wealth. One limitation of reducing business relationships to these virtues is apparent in such diverse works as Sullivan, Peterson, Kameda, and Shimada (1981), Dwyer et al. (1987) and Gercik

�8 Carl Sewell is the USA’s top luxury car dealer, living in Dallas, Texas. He owns a number of car franchises selling Cadillac, Hyundai, Lexus and Chevrolet. “His customer satisfaction scores are the auto-industry equivalent of a 3-minute, 30-second mile” (Peters cited in Sewell & Brown, 1990).
These authors' accounts of business relationships oversocialise economic activity. The authors are guilty of reducing business relationships to "either generalized morality or institutional arrangements" (Granovetter, 1985, p. 490). Despite the tendency to oversocialise business relationships the approach offers important contributions to the study of collaborative linkages. Concepts such as trust, close personal relationships, and the relationship lifecycle are expected to assist in the understanding of collaborative business relationships between firms in the value system.

3.5.4 Industrial networks

Discontinuities (Merton, 1968) between the industrial networks approach and the market channel literature are commonly espoused. Easton (1992), for example, summarises marketing studies of distribution channels as dealing with power and control between retailing and distribution functions. He stated that "the relatively narrow approach to inter-organisational activities could be taken and the assumption of a homogeneous channel could be justified" (p. 6). Until recently it has been rare for authors of industrial network literature to recognise contributions from marketing paradigms and vice versa.

Thorelli (1986), in offering one of the first paper on business networks in English, positions networks between markets and hierarchies. Networks were described as "two or more organizations involved in long-term relationships" (p. 37). Thorelli acknowledges contributions to the development of business networks from Aldrich and Whetten (1981), Benson (1975), Boissevain (1974), Fombrun (1982) and Provan (1983) in the field, he claims, of non-profit organisations. Thorelli also acknowledged "stimulating interaction with members of what may be called the Swedish School of Industrial Marketing", notably Mattsson, Håkansson, and Hammarkvist (p. 49).

Boissevain (1974) examined social networks in Sicily. The author suggested that the social relations "in which every individual is embedded\(^{39}\) may be viewed as a network" (p. 24). Boissevain attributed the concept of social networks to Mitchell (1969). Mitchell, in reviewing the development of social networks, stated that networks as an analytical rather

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\(^{39}\) Not to be confused with Granovetter's (1985) use of embedded.
than metaphorical concept (see Easton & Araujo, 1993) dates from 1954. Mitchell described a social network as "a net in which there are no loops but in which the arcs may be given values. In other words it is thought of as being finite, but there may be several links in either direction" (p. 3). Mitchell (p. 1) attributes the social network concept to Barnes, referring to his (1954) study of class and committees in a Norwegian island parish.

Barnes (1969) differentiated total networks from partial networks. He stated that total networks provide "information about the whole of the social life of the community to which it corresponds" (p. 56) whereas partial networks are "an extract of the total network based on some criterion applicable throughout the whole network" (p. 57). This distinction has more recently been ignored hence Easton's (1992) comment that specifying network boundaries is problematic and will vary "depending upon the purpose" (p. 3), that is the specification of the partial network is contingent on the research objective.

The concept of social networks was then adopted for the description of nonprofit organisations (e.g., Van de Ven, 1976; Van de Ven, Walker, & Liston, 1979). A review of the field was presented by Aldrich and Whetten (1981). A network approach was also pursued concurrently in the political economy literature (e.g., Blau, 1964; Benson, 1975).

The IMP Group40 established in the 1970's (Axelsson & Easton, 1992, p. XI) developed the interaction approach to marketing and purchasing problems. The IMP Group (1982) confronted the industrial buyer, single discrete purchase literature with the importance of business relationships. The relationship between buyers and sellers was recognised as often being close, may be long term and "involve a complex pattern of interaction between the two companies" (IMP Group, p. 1). Secondly, the group challenged the seemingly passive response attributed to industrial buyers recognising the existence of interaction between the parties. Third, they challenged the view that industrial markets consist of a large number of buyers and sellers instead stressing "the stability of industrial market structures" (p. 1) and fourth, they challenged the separation of industrial purchasing from industrial buying. The Group recognised the "similarity of the tasks of buyers and sellers in industrial markets".

40 The Industrial Marketing and Purchasing Group involved collaborators40 from France, Italy, Sweden, West Germany, and Great Britain, notably Cunningham, Ford, Håkansson, Hallén and Johanson (Håkansson, 1982).
Contributions to interorganisational theory which gave rise to the interaction approach are classified into three groups (IMP Group, 1982) as follows: organisation based studies (e.g., Aiken & Hage, 1968, Blau, 1957; MacMillan & Farmer, 1979); studies based on several organisations (e.g., Arndt, 1979; Assael, 1969; Benson, 1975; Blois, 1972; Cunningham & White, 1974; Levine, 1972; Macauley, 1963; Reve & Stern, 1979; Stern & Reve, 1980); and, studies of the organisation in a societal context (e.g., Aldrich, 1979; Levine & White, 1961; Terreberry, 1968; Van de Ven, Emmit, & Koenig, 1974). The interaction approach may, therefore, best be described as consisting of simultaneous independent discoveries (Merton, 1968). Notwithstanding independent discoveries, the IMP Group is attributed (Axelsson & Easton, 1992) as having had a significant effect on the way organisational researchers consider resource exchange processes in marketing and beyond. Significantly, the IMP Group “emphasised the important role that long-term, stable relationships play in industrial markets” (p. xi).

Despite noting the early use of business networks (Håkansson, 1982) it was not until the late 1980’s that the IMP Group realised “that it was inappropriate to focus solely on single relationships” (Ford, 1990, p.3). Ford acknowledged that the “study of business markets can be seen as a process of development” (p. 441). The IMP Group’s interaction approach was eventually recognised as being “far from complete” in that “no pair of firms operates in isolation from others” (Ford, p. 441).

The idea of industrial networks is attributed to Hägg and Johanson, and Hammarkvist, Håkansson, and Mattsson whose first contributions were published (in Swedish) in the early 1980s (see Axelsson & Easton, 1992; Håkansson & Johanson, 1988; Håkansson & Snehota, 1989; Johanson & Mattsson, 1988). Other early papers of note besides those from Jarillo (1987) and Thorelli (1986) are by Easton and Araujo (1986), and Johanson and Mattsson (1987b). The IMP Group (1982) identify other contributors as Levine and White (1961), Litwak and Hylton (1962), Evan (1966), Warren (1967), Marrett (1971) and Aldrich (1976, 1979). These authors considered relationships between organisations beyond the dyad. These latter contributions are, however, better regarded as an anticipation rather than a rediscovery (Merton, 1968).
Easton and Araujo (1986) stated that the central concept of the industrial networks approach is connectedness. They describe a network as follows:

If entities A and C are connected through entity B such that a change in A is, or could be, transmitted to C then there is the beginning of a network [Figure 3.14]. If the connectedness does not transmit through the intervening entity then a network need not be invoked [Figure 3.14b]. The collectivity can then be explained or modelled in terms of the aggregation of dyads it comprises. (p. 9)

Figure 3.14. Network transmission through connectedness between entities.

![Diagram](image)

*Figure 3.14a* Connectedness transmitted

*Figure 3.14b* Connectedness not transmitted


Håkansson and Snehota (1995) distinguish between single-actor connectedness and network connectedness. Despite connectedness being transmitted between A and C (Figure 3.14a), the diagram represents a series of dyadic relationships. Eventually B’s ability to control A or C will be dissipated. Benson-Rea and Lockhart (1996), therefore, described network transmission (Figure 3.14a) as single-actor connectedness and suggested that a network must contain multiple connectedness, illustrated in Figure 3.15a.

A distinction can now be made between networks and dyadic relationships: Networks display multiple connectedness. The focus of the network approach is, therefore, network connectedness involving relationships between firms. Easton and Araujo (1986) stated that vertical relationships, “those which serve the flow of goods or services from the initial supplier to the final consumer, are emphasised at the expense of lateral links” (p. 11). The vertical flow of goods and services does not exclude network
connectedness (as depicted in Figure 3.15a). However, relationships between intermediate buyers and suppliers must exhibit multiple connectedness, rather than single-actor connectedness - lateral links refer to service and other organisations.

Figure 3.15. Network transmission and multiple connectedness.

Benson-Rea and Lockhart (1996) state that "the definitions of industrial networks remain as near numerous as there are authors" (p. 2). Broad definitions such as Thorelli's (1986) or Easton and Araujo's (1986) describe a network as any linkage between two organisations. Whereas narrow definitions (Benson-Rea & Wilson, 1994; Håkansson & Snehota, 1995) identify strategic intent (Jarillo, 1987, 1993) and tighter interaction between more than two organisations. Benson-Rea and Wilson’s definition of industrial networks is adopted for this study. The definition specifically identifies strategic objectives, multiple interconnectedness, and collaborative exchange:

An industrial network involves collaborative relationships between organisations to achieve strategic objectives relating to competitive, production and/or marketing positions. In addition, networks involve more than two companies and all parties are actively involved in various collaborative exchanges within the network (p. 6).
Relationships in industrial networks

Easton (1992) argues that relationships among firms is the very essence (*sine qua non*) of the industrial network approach. Network relationships are described in terms of five elements; their mutual orientation, dependence, bonds, investments, and atmosphere. Each of these elements are now discussed, a summary is presented in Table 3.1.

Cooperation between firms in an industrial network requires some complementarity between objectives (Hågg & Johanson cited in Easton, 1992). However, Easton surprisingly claimed that “complementarity of objectives is a rather abstract rationale for entering into a relationship” (p. 9). The defence of organisations persisting in business relationships in the absence of complementary objectives is sophist.

Table 3.1. Important characteristics of network relationship elements.

<table>
<thead>
<tr>
<th>Element of a relationship</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual orientation:</td>
<td></td>
</tr>
<tr>
<td>complementary objectives</td>
<td>Requires cooperation</td>
</tr>
<tr>
<td>network access</td>
<td>Needs can be matched more accurately, adaptive process can be hastened</td>
</tr>
<tr>
<td>Dependence on each other</td>
<td>Reduction of uncertainty, data conduit</td>
</tr>
<tr>
<td>Bonds of various strengths:</td>
<td>Loss of autonomy</td>
</tr>
<tr>
<td>economic</td>
<td>Strong bonds are resistant to external and internal forces</td>
</tr>
<tr>
<td>social</td>
<td>Self evident, but may be absent where networks are not of an economic nature</td>
</tr>
<tr>
<td>technical</td>
<td>A significant factor in the strength of the relationship</td>
</tr>
<tr>
<td>logistical</td>
<td>Characteristics of products and services exchanged</td>
</tr>
<tr>
<td>administrative</td>
<td>Adjustments made for transfer of products and services</td>
</tr>
<tr>
<td>informational</td>
<td>Interface of systems</td>
</tr>
<tr>
<td>time based</td>
<td>The currency of networks, but differs from the social or technical dimensions</td>
</tr>
<tr>
<td>Investments made in the relationship</td>
<td>Time patterns of critical activities</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>People and time</td>
</tr>
</tbody>
</table>

The relationship, and the network, are considered a valuable source of information. Relationships “serve as data conduits” (Easton, 1992, p. 9). Therefore, entering into a business relationship is likely to reduce uncertainty and increase stability, themselves “very valuable objectives” (p. 9) for some organisations. The second element of networks as
relationships is the dependence that each firm has on others. Easton suggested that
dependence is “partly a matter of choice and partly a matter of circumstance” (p. 10).
Dependence creates power and control. If power is held asymmetrically the relationship may
be difficult to manage, and it is more difficult for the junior firm to accrue the benefits.
Power, or influence are likely to be difficult to objectively measure. The difficulties of
measuring power in a network setting are no different from those experienced when applying
Porter’s (1980) five forces model, only the inherent assumption of cooperation instead of
competition is different.

The bond between firms is the third element of relationships. Easton (1992)
recognises that the strength of the bond may be difficult to measure and suggests that it may
be defined in terms of the firms’ ability to withstand a disruptive force (Easton & Araujo,
1986). Bonds may be described as economic, social, technical, logistical, administrative,
informational or time based. Mattsson (cited in Easton & Araujo) suggested that these types
of bonds are not necessarily mutually exclusive. Therefore, the bond between two firms may
be described as being both social and informational with the intention of developing into
economic bonds. Weakly bonded networks are likely to be unstable, that is, the participants
in the network change. That assumes the network is subjected to similar forces as others.
Longevity appears to be a related characteristic. Hence, network structures are expected to
be “stable not static” (Easton, p. 10).

Easton (1992) acknowledges that the relationship between longevity and strength is
not simple, however, of more importance than longevity is the influence that the bond has on
participating firms. Stronger relationships are expected to influence the behaviour of firms.
Conversely, weak relationships, although present, are not likely to influence the behaviour of
firms to the same extent (cf., Granovetter, 1973). Here lies one of the weaknesses of
industrial network approach. Easton claimed that “where any form of relationship may be
held to exist among firms in an industrial system a network approach will be appropriate” (p.
11). This suggests that the theory may be used to describe all transactions (in Chapter Two
the seemingly random collision of buyer and seller was dismissed as a theoretical position).
The approach is being postulated as ubiquitous, the complete industrial network would
include all firms.
The fourth element of relationships is investment (Easton, 1992). Investment in relationships will include traditional “hard investment” (p. 13). For which Easton provides the example of purchasing a new machine for the purpose of supplying a particular customer. However, the proponents of network theory appear to be more interested in soft investment (intangibles) - the resources of people and time. Investments in this manner are attributed to reduce transaction costs (costs associated with recurring transactions, see Chapter Two).

The fifth, and final element of relationships is atmosphere: the tension between conflict and cooperation. Easton (1992) suggested that this is inherent in any relationship because each party will be concerned that they are “receiving an equitable share of the benefits that are accrued” (p. 14). Relationships can, therefore, be described in terms of the mutual orientation between firms (objectives and data source), dependency, bonds, investment and atmosphere.

Easton (1992) states that relationships form the context in which transactions take place. On the one hand these relationships may be merely exchange, and on the other, they may be better regarded as an adaptational procedure. Adaptational procedures are closely related to the investment element of relationships (refer to Figure 3.16).

Figure 3.16. Adaptation procedure developing from business relationships.

Regular, frequent, and/or complex exchanges will influence the adaptation procedure. Implicit in this view is the realisation that strongly bonded relationships define networks.
Easton and Araujo (1986) also recognised, and distinguished between weak, potential and residual exchange relationships. Håkansson and Johanson (1992) describe networks in terms of three elements: actors, activities and resources. Actors are "those who perform activities or control resources" (p. 28) who may be individuals, groups, or organisations; activities, result from either transfer or transformation of resources; and resources, "have attributes in an unlimited number of dimensions" (p. 32). The three elements are related to each other in a network.

**Strategic networks**

The network approach appears to have been developed in isolation from strategic management. Jarillo (1987, 1993) distinguished between the metaphorical networks used to "describe business transactions" and "something that entrepreneurs use purposefully to obtain a competitive advantage for their firms" (p. 32). He added the term strategic to networks, describing strategic networks as "long-term, purposeful arrangements among distinct but related for-profit organizations that allow those firms in them to gain or sustain a competitive advantage vis-à-vis their competitors outside the network" (p. 32). Therefore, competition supposedly occurs between networks (Easton, 1992; Doyle, 1995). The factors contributing to the development of strategic networks are presented as Figure 3.17.

**Figure 3.17. Factors contributing to the development of strategic networks.**

<table>
<thead>
<tr>
<th>Integration costs</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>No transaction strategic network</td>
<td>Subsidiary</td>
</tr>
<tr>
<td>Low</td>
<td>Export, subcontracting</td>
<td>Indifferent</td>
</tr>
</tbody>
</table>

Jarillo identified the contributors to networks in a strategic sense as MacMillan and Farmer (1979), Miles and Snow (1984), and Johanson and Mattsson (1987b). More recent contributions to the strategic view of industrial networks include Snow, Miles, and Coleman (1992), and Zaheer and Venkatraman (1995). Notwithstanding the later discussion of contingency variables in Section 3.6.2, Miles and Snow’s evolution of organisational form is presented as Table 3.2.

Table 3.2. An evolution of organisation forms depicting product-market strategy, structure and core activating and control mechanisms.

<table>
<thead>
<tr>
<th>Product-market strategy</th>
<th>Organisation structure</th>
<th>Inventor or early user</th>
<th>Core activating and control mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800 Single product or service. Local/ regional markets</td>
<td>Agency</td>
<td>Numerous small owner-managed firms</td>
<td>Personal direction and control</td>
</tr>
<tr>
<td>1850 Limited, standardised product or service line. Regional/national markets</td>
<td>Functional</td>
<td>Carnegie Steel</td>
<td>Central plan and budgets</td>
</tr>
<tr>
<td>1900 Diversified, changing product or service line. National/international markets</td>
<td>Divisional</td>
<td>General Motors; Sears, Robuck; Hewlett-Packard.</td>
<td>Corporate policies and division profit centres</td>
</tr>
<tr>
<td>1950 Standard and innovative products or services. Stable and changing markets</td>
<td>Matrix</td>
<td>Several aerospace and electronics firms (e.g., NASA, TRW, IBM, Texas Instruments)</td>
<td>Temporary teams and lateral resource allocation devices such as internal markets, joint planning systems, etc.</td>
</tr>
<tr>
<td>2000 Product or service design. Global changing markets</td>
<td>Dynamic network</td>
<td>International/ construction firms; Global consumer goods companies; Selected electronics and computer firms (e.g., IBM)</td>
<td>Broker-assembled temporary structures with shared information systems as basis for trust and coordination</td>
</tr>
</tbody>
</table>


Johanson and Mattsson (1987b) compared the industrial networks approach with the theory of transactions costs. The authors noted that managers are assumed to actively pursue exchange relationships to gain access to external resources and to sell products. “A basic assumption in the network model is that the individual firm is dependent on resources controlled by other firms” (p. 36). Johanson and Mattsson suggested that the “firm gets
access to these external resources through its network position" - a strategic position - a preferred strategy to be pursued by the disaggregated industrial firm (Lewis, J. D., 1990; Snodgrass, 1993). The network strategy is postulated as a means of enhancing the competitive position of the firm, reducing transaction costs and suppressing the need for integration.

Exchange relationships need to be pursued with collaborators. Strong relationships reduce search costs, and products can be conjointly designed, therefore, adding value. Hamel, Doz, and Prahalad (1989) identified collaboration between competitors "as a low cost route for new competitors to gain technology and market access" (p. 133). Entry into an alliance does not mark a change in competitive goals, merely a change in competitive tactics. The cost of strong relationships is mutual dependence; networked firms forgo the flexibility supposedly offered by market-place transactions. Jarillo's (1987, 1993) significant contribution to the approach was to propose that industrial networks are a deliberate strategy available to the firm.

Thorelli (1986) postulated that a number of strategic issues may be better understood if examined in a network context, including those associated with international business (Axelsson & Johanson, 1992; Johanson & Mattsson, 1987a, 1990; Jarillo, 1987, 1993; Thorelli, 1986). The approach has been successfully used to study the internationalisation process of industrial firms (Johanson & Mattsson, 1988), the results of which were compared with the transaction cost approach (Buckley & Casson, 1976) and the Uppsala Internationalisation Model (Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975). Johanson and Mattsson reported that both the transaction cost model and the internationalisation model "leave out characteristics of the firm and the market which seem important in the case of 'global competition' and co-operation in industrial systems" (p. 310). The authors concluded that the network approach may be used to study the cumulative nature (Fornell, Lorange, & Roos, 1990) of international networks (entry strategies, initiatives, ambition); and, for analysing "how to build preparedness for action when the time is ripe" (p. 311).

The network approach is not without criticism (see Salancik, 1995). Salancik criticises the approach for failing to predict the development of activities or alternate
structures between such actors. Lack of prediction was also noted by Easton (1992). Easton was mindful to label it an approach rather than a theory, in doing so he avoids the predictive implications associated with theory. The approach is also expected to describe all transactions and, therefore, relationships between firms not engaged in either market or hierarchical transactions. More recent definitions, however, narrow the scope of networks to firms engaged through multiple connectedness (Benson-Rea & Lockhart, 1996; Benson-Rea & Wilson, 1994; Håkansson & Snehota, 1995). To date the approach has been primarily used to describe various activities between actors (e.g., Zuscovitch, Héraud, & Cohendet, 1988) with the assumption that transaction costs decline in circumstances of stable relationships. The network approach also provides a contrast to economic models of resource dependency (Pfeffer & Salancik, 1978) in that, at the cost of mutual dependence, firms in an industrial network gain access to resources without acquiring ownership.

Easton (1992) observes that the network perspective provides a contrast to Porter’s (1980) model of industry structure. Porter was largely concerned with competitive linkages between firms; rivalry being postulated as a source of competitiveness. However, these two views of industry analysis aren’t entirely antagonistic. Porter provides a broad framework from which to examine an industry albeit from the perspective of competitive linkages between firms (e.g., Lorigan & Harman, 1990). The network perspective, on the other hand, examines the industry from the perspective of collaborative linkages between firms. However, elements of competitive linkages such as bargaining power are still likely to remain.

Relationships in international networks ought to result in the evolution (Gadde, 1993) of strategies in response to other participants (Astley & Fombrun, 1983) rather than predetermined strategies emanating from headquarters in the home-base location (Johanson & Mattsson, 1988). Implementation of strategies in foreign locations may develop laterally throughout the product net (Johanson & Mattsson, p. 311). Networks can be described in terms of the relationships between firms. Relationships have five elements and are likely to progress from ones of simple exchange to adaptational procedures enveloping firms’ practices. The proximity of the relationship is also likely to have some

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41 One characteristic of relationship proximity is whether they are direct or indirect. A firm has more indirect relationships than direct, and the effect of these indirect relationships is postulated to decline with distance (Easton, 1992, p. 16).
effect on the adaptational procedure. Three elements exist within a network actors, activities and resources.

The industrial networks approach must be developed into a real, quantified, and operationalised theory. Easton (1992), Koenig and van Wijk (1991), and Maitland, Bryson, and Van de Ven (1985) identify the middle ground, albeit at the expense of being quantitative or prescriptive. Few authors appear to recognise this dilemma.

Industrial networks, positioned between Williamson's (1975) markets and hierarchies, "represent a viable pattern of economic organization" (Powell, W. W., 1990, p. 295). The industrial network perspective is, therefore, an appropriate domain from which to examine New Zealand's land-based export-dependent value systems. More so because the approach has previously been used to study the process of internationalisation (Håkansson & Johanson, 1988; Johanson & Mattsson, 1988). The problem of boundary definition, a common criticism of the approach, is overcome by focussing on the value system. Inclusion of organisations within the network must remain sufficiently loose (i.e., ignore the strict network definition) to ensure that all stages in the value system are considered. For example, the dyadic relationship commonly observed between land-based producers and first stage processors would exclude most producers from a network study. Further, strict adherence to a network approach would focus on the space between organisations in the value system, to the exclusion of strategy - value appears to be created at both sources.

3.6 BUSINESS STRATEGY

Strategy, derived from the Greek word strategos, means "the art of a commander-in-chief; the art of projecting and directing the larger military movements and operations of a campaign" (Onions, 1944, p. 2145). The word has been used in a military sense from the end of the 18th Century (Matloff, 1974). Strategy in the context of business is, by comparison, a "newcomer" (Ansoff, 1980, p. 131) having been used for only three decades (Whittington, 1993). During that time the definition of strategy has evolved from one of largely deliberate intent (e.g., Ansoff, 1965; Andrews, 1971; Hofer & Schendel, 1978) to one that also encompasses emergent
intent (Johnson, G., 1988, 1992; Mintzberg, 1978, 1990; Porter, 1991). More recently Normann and Ramirez (1993) have simply stated that "strategy is the art of creating value" (p. 65) while Grant (1995) states that "strategy is about winning" (p. 3).

Whittington (1993) dates the beginning of business strategy as "a coherent discipline" to the early 1960s, which he identifies from the writings of Chandler (1962), Sloan (1963), and Ansoff (1965). Mintzberg (1994) also traces the development of business strategy to that period. He identifies early contributions as important similarly from Ansoff (1965) and from Learned, Christensen, Andrews, and Guth (1965). The latter contribution is described as "the original Harvard textbook" on business strategy (Mintzberg, p. 39).

Strategy was defined by the early contributors as the analytical process the firm uses to set and meet long-term goals. More specifically, Chandler (1962) defined and elaborated on strategy as "the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for these goals" (p. 13). Sloan (1963) stated that "the strategic aim of a business [is] to earn a return on capital, and if in any particular case the return in the long run is not satisfactory, the deficiency should be corrected or the activity abandoned for a more favorable one" (p. 49). Ansoff (1965) stated that strategic questions include "what are the firm's objectives and goals; should the firm seek to diversify... and how should the firm develop and exploit its present product-market position" (p. 6).

Early contributors to the field provided both positive and normative (prescriptive) approaches to strategy formation (Ansoff, 1991). Chandler (1962) and Sloan (1963), largely, reported on business strategy in case study firms, while Ansoff (1965) provided a theoretical model to assist strategy formulation. Chandler, Sloan,

42 A concise summary of the development of the concept of business strategy and its relationship to strategic management is provided by Bracker (1980).

43 Positivism is concerned with what is, and is value free. Values are "widely regarded by positivists as emotive or as figments of the imagination" (Johnson, G. L., 1986, p. 32). It is now "widely recognized that positivism places severe constraints on the social sciences concerned with explaining the behaviour of people and groups" (p. 33).

Miles and Snow’s (1978) and Mintzberg’s (1978) views were the first to differ significantly from the deliberate view of strategy. Miles and Snow suggested that strategy is “more of a pattern or stream of major and minor decisions about an organization’s possible future domains. Further, these decisions take on meaning only as they are implemented through the organization’s structure and processes” (Miles & Snow, p. 7). Mintzberg observed that “strategy formation over periods of time appears to follow distinct regularities” (p. 941). Later Mintzberg and Waters (1985) argued that the process of strategy formulation should consider the “variety of ways in which strategies actually take shape” (p. 257). Mintzberg and Waters distinguished “deliberate strategies - realized as intended - from emergent strategies - patterns or consistencies realized despite, or in the absence of, intentions” (p. 257). Therefore, strategy may be viewed as both the firm’s deliberate intent - represented by plans - and emergent intent - represented by behaviour.

Mintzberg (1994) identifies five separate uses of the word strategy, presented as Figure 3.18. He identifies strategy as firstly, “a plan, or something equivalent - a direction, a guide or course of action into the future” (p. 23) and secondly, “a pattern, that is, consistency in behavior over time”. Next, Mintzberg identifies strategy as position (Porter, 1980, 1985), “namely the determination of particular products in particular markets” and strategy as perspective, “namely an organization’s way of doing things” (p. 27). Finally, he identifies strategy as ploy, “a specific maneuver intended to outwit an opponent” (p. 29); questioning whether realised strategies must be intended.

Quinn’s (1977, 1980) research on strategic goals suggests that business strategy is seldom deliberate. Quinn stated that executives adopt “incremental ‘muddling’ processes” (1977, p. 3) outside the structure of formal management systems and techniques recommended by Design School adherents. The concept of strategy was, therefore, extended beyond the predetermined specification of an organisation’s goals
and the acquisition and allocation of resources to achieve these goals: what an organisation wants to achieve, and how it intends to do so (Shirley, 1982). Strategy now includes the pattern of decision making associated with implementation: what an organisation does (Robbins & Barnwell, 1994). This latter view holds that an organisation's strategy may be "inferred from its behavior" (Miles & Snow, 1978, p. 7).

Figure 3.18. Sources of strategy, plans and processes.

Note: From The Rise and Fall of Strategic Planning (p. 24), by H. Mintzberg, 1994, New York: Free Press.

Bailey and Johnson (1992, 1995) have recently reviewed the strategy development process. They rationalise the contributions of deliberate intent and emergent behaviour and identify other factors that contribute to the strategy formulation process as political (Pfeffer & Salancik, 1978), cultural (Johnson, G., 1992), visionary (Ohmae, 1982; Trice & Beyer, 1986), and natural selection (Aldrich, 1979).

Early contributors to business strategy presented absolute positions of either deliberate or emergent intent. Only recently have authors such as Andrews (1987), Mintzberg (1990, 1991), and Ansoff (1991) included contributions from alternate schools in their modified views of business strategy. Ansoff's discussion of deliberate
strategy reviews three decades of evolution in thought and practice. Deliberate strategy is not necessarily "rigid and does not foreclose attention to new opportunities which are outside the scope of strategy" (p. 458). The deliberate view of business strategy has, therefore, been broadened to include notable elements of a firm's emergent behaviour. No doubt emergent contributions such as those from Miles and Snow, Mintzberg, and Quinn have contributed to this process. Some authors, however, merely include both views of strategy in a definitional potpourri (see Duncan, Ginter, & Swain, 1992, p. 14; Robbins & Barnwell, 1994, p. 108) leaving the reader with the impression that near anything goes.

Strategic control, argues Ansoff (1991), provides the organization with a means of correcting errant and ineffective strategy. It also provides a critical feedback to enhance organisational learning. Inclusion of control ensures that deliberate business strategy is now viewed as a cyclical process - formulation, implementation, control, formulation.... Formulation resulting from deliberate intent, implementation resulting in emergent intent.

Ansoff (1991) also attempted to identify the environmental conditions in which alternate models of business strategy may prevail. The "key contextual variable" is the "concept of environmental turbulence" (Ansoff, p. 459). Ansoff considers that the emergent model is a "valid prescription for organizations which seek to optimize their performance in environments in which strategic changes are incremental and the speed of the changes is slower than the speed of the organizational response [italics removed]" (p. 459). Ansoff adds that this domain accounts for some 20% of organisations, in particular those involved in "not-for-profit" (p. 460). The balance, some 80%, of environmental conditions are "discontinuous". Those organisations that adopt an emergent strategy in a discontinuous environment "will not be among the successful performers" (p. 459). Discussion of the relationship between deliberate and emergent strategies is developed further in Section 3.6.3.

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44 Ansoff (1991) cleaves environmental turbulence into incremental, which describes a domain where "the change process, and the speed of the changes is slower than the response time of the organization" and discontinuous, which describes a domain where "successive changes are discontinuous from the preceding ones, and speed of change is greater than the speed of the organizations' response" (p. 459) (see Section 3.6.3).
Hamermesh (1990) identified three levels of strategy: corporate, business, and institutional. Corporate strategy refers to the determination of businesses in which an organisation will participate and the resource allocation between these businesses. Business strategy refers to “the determination of how a company will compete in a given business and position itself amongst it competitors” (p. 308). Hamermesh’s institutional strategy ought to be referred to as an organisation’s culture (Robbins & Barnwell, 1994; Sinclair, 1993). Johnson and Scholes (1988) also identified corporate and business levels of strategy. However, their third level of strategy was described as operational strategy: “concerned with how different functions of the enterprise - marketing, finance, manufacturing and so on - contribute to the other levels of strategy” (p. 9).

A diversified company consisting of several business units has two levels of strategy: corporate strategy and business strategy. Corporate strategy concerns “what businesses the corporation should be in and how the corporate office should manage the array of business units” (Porter, 1987, p. 43). Therefore, corporate strategy provides “the overall plan for a diversified company”. Porter refers to business strategy as business unit or competitive strategy. Porter’s definition of business strategy is similar to those offered by Hamermesh (1990), and Johnson and Scholes (1988). Whether organisations have further levels of strategy beyond corporate and business appear to be a matter of choice. The specification of additional levels of strategy, however, serves to distract from the umbrella plan, whether deliberate or emergent, engendered by the term.

3.6.1 Management

Strategic management ought to relate strategy to management: strategy being intent, strategic management being the process of formulating and operationalising intent (Asch & Bowman, 1989; Gluck, Kaufman, & Walleck, 1980, 1982). One of the better definitions of management has been provided by Dillon (1980). Dillon defined management, in the context of farming, “as the process by which resources and situations are manipulated by the farm manager in trying, with less than full information, to achieve his goals” (p. 258). Giles and Stansfield (1980) suggested that it may be more helpful to think in terms of management applied to farms rather than farm management as a subject in its own right, management being regarded as the “common province” of all sciences
Therefore, Dillon’s definition of management need not be confined to the management of farms. Management is regarded as the component of the firm responsible for the manipulation of the entire resource bundle, including itself: management can be enhanced, educated, hired and fired.

Fayol (1916/1949), a general administrative theorist, is commonly accepted (see Mintzberg, 1989; Robbins & Mukerji, 1994) as first to formalise the functions of management. Fayol described management as planning, organising, commanding (leading), coordinating, and controlling. However, these five functions are typically condensed to four: commanding is omitted (Robbins & Mukerji). In farm management (Boehlje & Eidman, 1984; Parker, Gray, Lockhart, & Townsley, 1994) and other small business disciplines, where management and labour are considered one and the same, the functions are further reduced to three: planning, implementation, and control. Fayol considered that “thinking out a plan and ensuring its success is one of the keenest satisfactions for an intelligent man to experience. It is also one of the most powerful stimulants of human endeavour” (Fayol, p. 39).

The need for planning arises from three basic considerations. First, goals are to be achieved, namely the organisation has some purpose (Robbins & Mukerji, 1994) second, resources available to meet these goals are limited and third, the resources available have alternative uses. Planning includes the specification of an organisation’s goals (Abell, 1980), and the establishment of “an overall strategy to achieve these goals” (Robbins & Mukerji, p. 7). Management’s role as organising refers to the “design of an organisation’s structure” (p. 8) and includes the allocation of tasks, their groupings, reporting procedures, and decision making protocol. Leading refers to directing and motivating personnel. Because unforeseen events occur implementation rarely proceeds as planned. Management controls the organisation by comparing planned targets with the outcome. With the view of, supposedly, returning the organisation to the state planned when deviations occur. Mintzberg (1973), however, provided a positive view of management, later arguing that Fayol’s normative functions “tell us little about what managers actually do” (Mintzberg, 1975, p. 31). Consequently, Dryden (1995) and Gray and Lockhart (1996) described farm management from a positive perspective.
3.6.2 Strategic management

The study of business strategy is an academic distraction if consideration of the firm’s activities are then ignored. Strategy is a part, albeit an important one, of strategic management. Strategic management operationalises (Bracker, 1980) business strategy. Some renowned authors (e.g., Rumelt, Schendel, & Teece, 1994) use the terms strategy and strategic management interchangeably which serves to confuse action from process. If a deliberate view of strategy is held strategy only provides the planning function to strategic management. If an emergent view is held strategy provides an implementation function. However, if a more holistic view of strategy is held business strategy provides planning and contributes to the implementation function of strategic management. Nevertheless, a distinction ought to be observed between business strategy and strategic management: strategy is the action (pattern or intent) whereas strategic management is the process that manager’s subsequently pursue.

Managers are most often involved with operational control (Johnson & Scholes, 1988). But while it is “vital to the effective implementation of strategy it is not strategic management” (p. 10). Strategic management is concerned with deciding on strategy, both deliberate (Chandler, 1962) and emergent (Mintzberg, 1994), “planning how the strategy is put into effect” (Johnson & Scholes, p. 10), implementing, and then evaluating that strategy (Robbins & Mukerji, 1994).

The aim of strategic management is to achieve fit (Andrews, 1987; Johnson & Scholes, 1988) between environmental opportunities and threats, and the organisation’s resources and capabilities. By identifying the organisation’s capabilities, and taking on tasks appropriate to these capabilities, the organisation appears to take advantage of external opportunities and can, therefore, avoid external threats. In doing so, the firm seeks to “match” (Collis & Montgomery, 1995, p.121) what it can do with what it might do. Further, strategic management is concerned “with organisation-wide issues in the context of a whole range of environment influences” (Johnson & Scholes, p. 17). In doing so the organisation develops strategy consistent with the external environment.
The Design School Model (Andrews, 1980) focuses on the "creative act of putting together a company’s unique internal capability and evolving opportunity in the external world" (Andrews, 1971, p. 100). Minor emphasis is drawn to managerial values and social responsibility (Mintzberg, 1990). Implementation, in this model, refers to "a series of subactivities which are primarily administrative" (Andrews, 1980, p. 98). Strategic control, as mentioned by Ansoff (1991), is not depicted in Figure 3.19.

Figure 3.19. The Design School model of business strategy.

The relationship between strategy and strategic management is identified in various models of strategic management (see Johnson & Scholes, 1988; Robbins & Mukerji, 1994). Strategic management is described as a process encompassing the functions of planning, implementation, and evaluation (control). The first function of strategic management - planning - invariably describes the formulation of levels of business strategy (Hamermesh, 1990; Johnson & Scholes). Therefore, the Design School model overlaps the first steps of the model of strategic management. Implementation, the second function, no longer refers to the administration of strategy, as in Figure 3.19, but to all activities undertaken by the firm to achieve its mission and strategies. The evaluation function describes the comparison of strategic targets with those planned.

Despite strategic management being described as a series of sequential functions the process is iterative and indiscrete. All feedback relations have been omitted from Figure 3.19. Johnson and Scholes (1988) stated that there is a “danger in thinking of the process of strategic management as a specific, orderly sequence of steps” (p. 16). Accordingly their diagram of the process resembles a fairground balloon seller. That strategic management is considered a process, “a continuous and regular action or succession of actions” (Onions, 1944), should not be left to chance.

Chandler’s (1962) contribution that structure follows strategy is, supposedly, only one determinant of business structure. Study of the determinants of organisational structure is known as the contingency approach (Fry & Smith, 1987; Schreyögg, 1980; Tosi & Slocum, 1984). The contingency approach seeks to identify variables that determine organisational structure. For example, if structure is contingent on strategy, a change in strategy will result in a change in structure. The underlying assumption is that aligning structure with contingent variables enhances the achievement of an organisation’s goals (Robbins & Barnwell, 1994). Contingent variables have been identified as strategy (Chandler, 1962; Miles & Snow, 1978; Miller, D., 1986; Pugh, Hickson, & Hinings, 1969), size (Blau, 1970; Child, 1973; Meyer, M. W., 1972; Pugh, Hickson, Hinings, & Turner, 1969), technology (Woodward, 1965; Harvey, 1968), the

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45 Contingent appears to have been in preference to dependent because researchers rarely assigned direction to their analysis. Relationships were identified, not cause and effect.
environment (Emery & Trist, 1965; Mintzberg, 1979), and alignment (Powell, T. C., 1992).

The contingent variables have attracted fair criticism, and in some cases refuted (e.g., Ford & Slocum, 1977; Keats & Hitt, 1988). Schreyögg (1980) states that a variety of structures are adequate. He argues that first, there is no such thing as one best fit. The one consistent reason for specific structures is internal efficiency. Second, organisations “try to shape the environment along desired lines” (p. 310). Finally, organisations must achieve some minimum level of economic performance. “The survival of the system [organisation] will be threatened only if it persistently performs below this level, rather than if it falls short of maximum performance” (p. 312). Despite its shortcomings the contingency approach has had a major influence on the strategic management discipline. The influence is perhaps best evident in the search for fit between the external environment and the organisation’s resources - structure being contingent on environment.

Collis and Montgomery (1995) state that views of strategy formulation have focussed alternatively between the external environment and the firm’s resources. Concerns with the external environment result in examination of industry profitability (Porter 1980, 1985), whereas concerns with the firm’s resources result in examination of capabilities (Hamel & Prahalad, 1988), competencies (Prahalad & Hamel, 1990), learning (Benito & Gripsrud, 1992; Senge, 1992), and knowledge (Hedlund, 1994; Wikström & Normann, 1994). Both models have deficiencies: Singular concern with industry ignores a firm’s resources and management capability while concern with the firm’s resources ignores the external environment (Collis & Montgomery). The resource-based view of the firm (RBV) attempts to combine internal analysis of resources and management with external analysis of environment and industry (Collis & Montgomery; Tallman, 1991).

The RBV “explains how a company’s resources drive its performance in a dynamic competitive environment” (Collis & Montgomery, 1995, pp. 118-119). Proponents of RBV (Conner, 1991; Dierickx & Cool, 1989; Grant, 1991a; Hall, R.,
argue that "superior performance... [is] based on developing a *competitively distinct* set of resources and deploying them in a well-conceived strategy" (p. 120).

Barney (1991) recognised that resources are heterogeneously distributed and that this resource distribution is stable over time. The alternate view that firms have homogeneous resources and these are mobile over time is not tenable with competitive advantage. Amit and Schoemaker (1993) identified these resources as *strategic assets*. RBV is concerned with the accumulation of assets and asset specificity (Peteraf, 1993), a position of internal strength relative to competitors. In doing so RBV provides a procedure to developing fit between internal resources and the external environment.

RBV has recently been redefined in terms of organisational capability (Collis, 1995; Prahalad & Hamel, 1990; Stalk, Evans, & Schulman, 1992). The organisational capability literature acknowledges the need to "continually innovate valuable new features" (Collis, p. 2). Organisational capability recognises that companies compete on time. Therefore, a temporal dimension is imposed on the disposition and mobility of an organisation's resources. Established competitors, argue Stalk et al., are "outmaneuvered and overtaken by more dynamic rivals" (p. 60). However, Hamel and Prahalad (1994) observe that leadership in "new industries is seldom built in anything less than 10 - 15 years" (p. 34). No doubt speed is important but the concept of speed, at the exclusion of factors, suggests an organisation spinning in ever-diminishing circles.

'New age' strategic management

Hamel and Prahalad (1989) observed that "as 'strategy' has blossomed the competitiveness of Western companies has withered" (p. 63). The authors added that the application of concepts such as strategic fit, generic strategies, and levels of strategy appear to have hindered the pursuit and attainment of competitive advantage. The conventional strategic management paradigm is one of strategy as strategic fit. An alternate approach to strategic management is provided by Hamel and Prahalad (1993, 1994): the paradigm of stretch and leverage.
Hamel and Prahalad (1989) contrasted two models of business strategy observed amongst senior managers in America, Europe and Japan. The first model, as discussed earlier in this Section, focuses on the maintenance of strategic fit. The second model focuses on leveraging resources. Both models attempt to address competition from the perspective of an organisation’s limited resources. The first model, however, implicitly trims “ambitions to match available resources” (p. 65). But where the conventional model of strategic management passively accepts the external environment management adopting the second model is charged with creating the environment. To summarise, the conventional model of strategic management seeks opportunities within given constraints, the second model seeks to overcome constraints given opportunities.

Hamel and Prahalad (1993) stated that “companies that have risen to global leadership over the past twenty years invariably began with ambitions that were out of all proportion to their resources and capabilities” (p. 64). The authors termed the desire to win at all levels strategic intent. Ambitions of Japanese companies such as ‘Encircle Caterpillar’, ‘Beat Xerox’, were identified as expressions of strategic intent (p. 63).

Hamel and Prahalad’s (1994) text, Competing for the Future, presents a synthesis of the stretch and leverage paradigm developed, largely, from their earlier work (Hamel, Doz, & Prahalad, 1989; Hamel & Prahalad, 1985, 1988, 1989, 1991, 1993; Prahalad & Hamel, 1990). Hamel and Prahalad (1994) argue that organisational transformation (denominator management) is inadequate, the organisation must “take charge of the process of industry transformation” (p. 19). Senior management’s responsibility is described as one of “reinventing industries and regenerating strategy, not reengineering processes” (p. 19) - strategy that seeks rather than abhors change. Hamel and Prahalad suggest that understanding the forces of competition only enables a firm to catch-up; industry structural analysis (described in Section 3.4) identifies the “what of competitiveness” (Hamel & Prahalad, 1994, p. 75), it does not identify the “why”. Management must understand why competition exists to get ahead, presented as Figure 3.20.

Competencies were identified as the root of competitiveness by Prahalad and Hamel (1990). Short run competencies were then identified and distinguished from long run competencies. An organisation’s competitiveness is derived “from price/performance
attributes of global products” (p. 81) in the short-run. A state that is transient as all companies converge on similar standards, an idea recognised by D’Aveni (1995). In the long run an organisation’s competitiveness is, however, derived “from the ability to build, at lower cost and more speedily than competitors, the core competencies that spawn unanticipated products” (p. 81). Core competencies were identified as “the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies” (p. 82). Hamel & Prahalad (1991) suggested that “to realize the potential that core competencies create” an organisation must have the “imagination to envision markets that do not yet exist and the ability to stake them out ahead of the competition” (p. 82). The term collective should not be ignored. Collective marks a significant departure from corporate leadership (Zaleznik, 1992) in that collective ensures that employees, at all levels, are involved in and take ownership of the process (Senge, 1992; Trice & Beyer, 1986).

Figure 3.20. The quest for competitiveness.

The implications of strategy as stretch and leverage are that firstly, the organisation’s management is responsible for creating the external environment rather than passively accepting the existing domain. Secondly, organisational structures (challenged by Hamel & Prahalad (1991) in core competencies) ought to provide internal efficiency, measured by the
establishment and maintenance of core competencies. The third implication is that strategy is neither singularly explicit nor emergent but a combination of both. Strategic intent is clearly explicit, its achievement will involve strategic activities that are deliberate, and those that are emergent. Fourth, the organisation must be receptive to both learning and change. The space between the organisation's current position with respect to competitiveness and its strategic intent must by necessity involve change, and the ability to learn. Finally, only a global strategy will provide a long term competitive position. Domination of regional markets only serves to attract cross-subsidisation from organisations domiciled elsewhere (unless they are somehow protected, or geographically unattractive).

Coster (1996) reported that the paradigm of stretch and leverage lacks a structural framework. Hamel and Prahalad (1994) describe the conceptual development of the paradigm (which is not confined solely to their efforts), but they offer little guidance in putting the strategy into practice (Coster). For example, revitalising managerial frames, developing industry foresight, and creating strategic architecture are reported as anecdotal accounts rather than processes which either practitioners may follow or academics scrutinise. These limitations appear to restrict the immediate adoption of the paradigm elsewhere.

Hamel and Prahalad's (1993, 1994) view of strategy as stretch and leverage is at the radical - new age - end of strategy based on the managerial conviction of creating the future. It provides a much needed dynamic perspective to strategic management. Importantly, it offers a perspective of strategic management that is not necessarily constrained by an organisation's immediate resources.

**Strategy and change**

Successful implementation of Hamel and Prahalad's (1993, 1994) strategy as stretch and leverage is dependent on the organisation creating and maintaining an environment of change. Employees at all levels need to be receptive to constant change required for leveraging resources and achieving strategic intent. Change is dependent on the strength of the change force and the resistance to that force (Strebel, 1994). Change forces are those external to the organisation, resistance to change refers to the organisation's internal environment. Strebel distinguishes between "strong and weak forces of change" and "strong
and weak forces of resistance (p. 29). The combination of change forces and resistance to change produce change paths, subsequently depicted in a change arena, as Figure 3.21.

Figure 3.21. Change arena.


Weak change forces have little effect in the top left corner of the change arena "on an industry or company with strong resistance. Since the resistance threshold has not been reached, the status quo prevails and no change occurs" (Strebel, 1994, p. 31). Strebel notes that this situation is typical of regulated markets and bureaucratic governmental organisations. In the diagonally opposing corner, the forces of change are strong and resistance to change is weak. "The forces of change far exceed the resistance threshold, so the system adapts continuously to the change forces" (p. 31). This situation represents an industry or company
that responds to change forces, "one in which there is little resistance to change" such as those in "high-tech and financial service industries".

The diagonal bisecting the change arena designates the boundary between the dominance of status quo agents and the dominance of change agents. In the bottom left hand corner, where both forces are weak, the boundary is readily crossed. Strebel identifies this situation as that described by Quinn's (1978) logical incrementalism. As the change force grows with continued low resistance status quo agents are overcome by change agents, depicted as "turning points" (p. 32) in Figure 3.21. Strebel suggests that this situation is present in "many intermediate-volume markets and medium-sized companies". The opposite corner - top right - depicts a markedly different situation. Change forces are strong, and resistance to those forces is also strong. "The transition between status quo and change agent behavior is characterized by a sudden jump" (p. 33). "Once the change forces exceed the resistance threshold" resistance breaks down and a shift from status quo to change agent behaviour takes place, depicted in the figure as the breakpoint. A. D. Meyer (1982) identified these as environmental jolts, suggesting they provided opportunities for learning, administrative drama, and the introduction of other unrelated changes.

Strebel (1994) identifies eight change paths (in the form of a decision tree rather than matrix hence eight not four paths). Change paths are either reactive or proactive depending on the strength of change forces. Reactive change describes the situation where an organisation has to "respond to well developed forces of change and resistance" (p. 34) - close to the breakpoint. The outcomes of reactive change, other than in circumstances where change is eventually resisted, are similar to smaller and better in Hamel and Prahalad's (1993, 1994) quest for competitiveness (Figure 3.20). An organisation reacting to change paths will restructure, revitalise and renew: a strategic process described as fit. The organisation is forced to redevelop the match between what it might do and what it can do.

An organisation adopting proactive change is attempting to ensure that change forces do not "affect performance" (Strebel, 1994, p. 43). Strebel notes that this situation describes an industry leader who will take advantage of weak change forces, namely creating their own environment. Strebel labels this situation as cascading implementation - the "progressive adaptation to change forces" (p. 45) - or bottom-up experimenting - "learning by example
from successful internal change" (p. 45). Therefore, the adoption of proactive change by an organisation appears to be characteristic of strategy as stretch and leverage (Hamel & Prahalad). The organisation must, however, maintain an environment of proactive change. Failure to do so will, according to Strebel's model, result in either the development of strong resistance forces or suffering at the hands of strong change forces. In adopting proactive change the organisation assumes that resistance to change is nonsense.

Gadde and Håkansson (1992) used a network approach to study the relationship between change and stability in distribution channels. They acknowledged that traditional models of change view change as a response to the environment, and that stability (rather than change) is "normal" (p. 167). In contrast, the authors recognised that "companies themselves are very important change agents" (p. 167). Central actors, those with both suppliers and buyers, supposedly "have an opportunity to control change" (p. 171). Central actors can support change that is beneficial to their position in the distribution channel and suppress change through their central position. If the central actor's resistance to change is strong change will only occur when the change force is overwhelmingly strong. Only then will change affect those organisations associated with the central actor. Such orgastic changes (Hardaker & Anderson, 1981) may not support the existing structure. If a multiple connectedness view of industrial networks is held the central actor is, however, no longer in a position to mitigate change. In such cases change may be initiated at any point in the network - supplier, buyer and hitherto central actor. Such changes within a network may have a stabilising effect in favour of the current structure.

To analyse change it is not appropriate to relate the activities to the channel itself as change is actor initiated and the channel is not an actor (Gadde & Håkansson, 1992). The analysis of change may, therefore, be ignored if actors are not considered in a network approach. The network approach must be upheld when considering the configuration and management of the value system otherwise relationships outside of product flow resulting from connectedness could well be ignored.
3.6.3 Global strategy

Ghoshal (1987) provided a conceptual framework for “organizing existing literature” (p. 425) on global strategy. The distinction between global competition, global businesses, and global companies (Hamel & Prahalad, 1988) was introduced in Section 3.3, although not all industries are global (Clarke & Brennan, 1992; Porter, 1986). Clarke and Brennan note that some industries are “like fortresses ringed with defences of entry barriers, local markets, unassailable local economics of production and logistics” (p. 80). While Porter identifies multidomestic industries in which competition in one country or “small group of countries” is “independent of competition” elsewhere (p. 8). In both cases competitive advantages of the firm are “specific to each country” (Porter, p. 8), irrespective of whether the firm is a MNE. Ghoshal recognises that global strategy is not necessarily contingent on the need for cross-subsidisation (Hout, Porter, & Rudden, 1982), nor driven by the pursuit of scale economies. He suggests, therefore, that discussions of the relationship between global industry and global strategy “may be more useful for ex-post explanation of outcomes” (p. 426) rather than ex-ante predictions. Unfortunately many commentators of global strategy reduce their focus to one variable at the expense of all others, for example, global standardisation (Levitt, 1983; Vernon, 1983) subsequently refuted by Douglas and Wind (1987), and Hamel and Prahalad (1985). Both Ghoshal, and Yip (1992) provide reviews of such contributions, identifying their limitations and contradictions.

Ghoshal (1987) observes that an organisation’s - pluralistic (Whittington, 1993) - goals can be classified into three categories. The three categories are first, efficiency in current activities (Hofer & Schendel, 1978; Markowitz, 1952; Porter, 1980, 1986; Wind & Douglas, 1981, Yip, 1992) second, the management of risk (Vernon, 1966, 1977, Wells, 1972, Woo & Cool, 1990) associated with those activities and third, the development and maintenance of “internal learning capabilities so as to be able to innovate and adapt to future changes” (p. 427) (Aldrich, 1979; Porter, 1986; Wikström & Normann, 1994). The latter is also characteristic of Hamel and Prahalad’s (1993) strategy as stretch and leverage. Ghoshal

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46 The lineage of the transnational solution (Bartlett & Ghoshal, 1989) is apparent in Ghoshal’s (1987) paper, “Global strategy: An organizing framework”. Compare the three strategic goals of efficiency, risk and learning with the three key strategic capabilities of the global, multinational and international organisations: efficiency, responsiveness (local risk), and learning.
(1987) suggests that an organisation’s competitive advantage (Porter, 1985) is derived from the optimal achievement of these goals.

An organisation has three tools available to develop competitive advantage (Ghoshal, 1987). The three tools are first, exploitation of supplier’s and buyer’s markets in and between countries in which it operates (Kogut, 1985a) second, scale economies (Mascarenhas, 1982; Porter, 1985) and third, exploitation of “synergies or economies of scope that may be available because of the diversity of activities and organization” (Ghoshal, 1987, p. 427) (Hamel & Prahalad, 1985; Kogut, 1985b; Porter, 1985; Prahalad & Hamel, 1990).

Ghoshal (1987) identifies successful global strategy as the management of the interactions between the three goals and three tools - nine in all. Ghoshal’s matrix (3 x 3) then provides a framework for organising literature on global strategy, developing global strategy and mapping global strategy. The organising framework is presented as Table 3.3.

Table 3.3. Global strategy: An organising framework.

<table>
<thead>
<tr>
<th>Strategic objectives</th>
<th>Sources of competitive advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>National differences</td>
</tr>
<tr>
<td>Achieving efficiency in current operations</td>
<td>Benefiting from differences in factor costs - wages and cost of capital</td>
</tr>
<tr>
<td>Managing risks</td>
<td>Managing different kinds of risks arising from market or policy-induced changes in comparative advantage of different countries</td>
</tr>
<tr>
<td>Innovation, learning and adaptation</td>
<td>Learning from societal differences in organisational and managerial processes and systems</td>
</tr>
</tbody>
</table>


Doz, Bartlett, & Prahalad (1981) suggest that as the MNE develops and implements more complex global strategy it has to adopt a more complex management mode.
Limitations on global strategy are, therefore, not necessarily analytical but matters of administrative feasibility (Doz et al.).

Effective global strategy requires a certain vision (Daniels, J. L., & Daniels, N. C., 1993; Ohmae, 1982, 1989a) and geocentricity (Perlmutter, 1969) described as a “worldwide approach in both headquarters and subsidiaries” (p. 13). The sort of vision depicted in the management mentality of a transnational organisation, discussed in Section 3.3.1. The organisation is expected to pursue efficiency, provide local differentiation for national tastes, and develop a learning culture to ensure that wherever innovations are developed they can be incorporated throughout the organisation or global markets. The ultimate priority is to provide value to international customers (Stahl & Bounds, 1991). In that respect consideration of strategy in a global setting is no different from that elsewhere.

A detailed account of generic strategies is provided in the following section. However, before concluding with global discussion there remain two issues worthy of note. While MNEs account for the majority of international business two aspects of them are far from international one is ownership; and, the second is directorship. Only 2.1% of seats on the board of major US corporations are held by foreign nationals, the same level as in 1981 (Farnham, 1994). Stock ownership is almost always concentrated in the home country, similar criticisms were presented by Perlmutter in 1969. Under such conditions ultimate control is maintained from the home location to where wealth is repatriated, although other international stakeholders are likely to benefit from collaborative linkages with the organisation. Patriotic ownership and directorship of MNEs is symptomatic of the importance of the home-base location on configuration and management of the value system. While value can be created anywhere in the value system the distribution of wealth resides primarily with ownership. The process of value creation is outward-looking - global strategy - yet wealth distribution is, by comparison, inward-looking.
STRATEGIES AVAILABLE TO PARTICIPANTS in the value system are reviewed in this section. Porter’s (1980) generic strategies are identified and Johnson and Scholes’s (1993) strategy clock, an extension of Porter’s work is described. The concept of generic strategies are then contrasted with the hypercompetition framework (reviewed in Section 3.4.2): a framework that appears to assist strategy selection.

Porter (1980) postulated the three generic strategies available to an organisation; cost leadership, differentiation, and focus. “The focus strategy has two variants, cost focus and differentiation focus” (p. 11). Porter’s three generic strategies, which determine a “firm’s relative position within its industry”, are presented as Figure 3.22. An organisation must make choices between the strategies it pursues rather than attempting to provide all product/market mix combinations. Porter suggests that appropriate strategy is, therefore, one source of competitive advantage.

Figure 3.22. Three generic strategies.

Porter’s generic strategies have attracted criticism (Bowman, 1989b; Johnson & Scholes, 1993; Murray, 1988). J. Miller (1992) suggested that “paying too much attention to too few things can be disastrous” (p. 38), adding that competitors may be able to imitate specialised strategies. Miller identified six scenarios when mixed strategies would be preferable to generic strategies. Henderson (1989) suggested that differentiation between strategies may be as subtle as the “customer’s perception of the product and its supplier” (p. 140). Luchs (1986) concluded that quality, rather than differentiation or low cost, “is the sharpest competitive weapon available to most businesses” (p. 12). McNamee and McHugh (1989), however, referred to the pursuit of “very high quality” (p. 67) as differentiation. Mintzberg’s (1994) distinction between strategy as position or perspective resolves this issue. A quality “driver” (McNamee, 1990, p. 6) is “an organization’s way of doing things” (Mintzberg, p. 27) rather than a product-market mix consideration. Mintzberg concludes that “organizations have to consider both positions and perspectives in their strategy formation” and adds that “literature that favors one over the other does a disservice to that process” (p. 29). Strategy as position does not determine how an organisation does things; strategy as perspective does not determine what an organisation does.

Johnson and Scholes (1993) state that customers may purchase goods or services from one organisation in preference to another because either “the price of the product or service is lower than that of another firm... or the product or service is more highly valued by the customer from one firm than another; here the term perceived added value is used” (p. 210). Their interpretation of strategy, based on Bowman’s (1989b) research, is presented as the strategy clock (see Figure 3.23). Eight strategies are identified by the authors of which two are price based (1, 2); there are one each of value added (3), hybrid (4), focused differentiation (5); and, three failure strategies (6, 7, 8).

The low price/low added value strategy is the “cheap and nasty option” (Johnson & Scholes, 1993, p. 210). Johnson and Scholes suggest that the strategy “might be viable because there could exist a segment of the market which, while recognising that the quality of the product or service might be low” is not in a position to buy better quality goods and services. This strategy appears to be targeted at the low income market.
The second price-based strategy involves reducing price while maintaining the quality of goods and services. A strategy that is sustainable only as long as the organisation maintains the lowest costs. The hybrid strategy (3) is the result of providing customers added value and offering goods and services at lower prices. The “success of the strategy” is said to depend “on the ability to both understand and deliver against customer needs, while also having a cost base that permits low prices which are difficult to imitate” (Johnson & Scholes, 1993, p. 213). The hybrid strategy offers the organisation an opportunity to achieve higher volumes, and it may provide a suitable means of entry in an existing market (Johnson & Scholes).

The aim of the Johnson and Scholes’s (1993) value-added (differentiation) strategy (4) is to “achieve higher market share, and therefore higher volume, than competitors by offering ‘better’ products or services at the same price; or enhanced
margins by pricing slightly higher” (p. 212). Johnson and Scholes argue the organisation must identify the customer’s “needs and values”. Being based on a mix of customer needs and values the value added (differentiation strategy) is more difficult to imitate than strategies based solely on a good or service. However, Johnson and Scholes warn that the strategy is not sustainable unless the organisation “review[s] continually the bases of differentiation” (p. 213).

Johnson and Scholes’s (1993) fifth strategy (5), focused differentiation, is to offer the customer high-value high-priced goods and services. The organisation is likely to compete in a “particular market segment” (p. 213) attracting “different sorts of customers (p. 214). Johnson and Scholes appear wary of the focus strategy. This strategy, like the others has to be monitored. The market segment needs to “defined in terms of a coherent set of customer values and needs” (p. 214) which must then be met.

The failure strategies (6, 7, 8), at first glance, simply appear to be an effort to balance the clock. Each route, however, describes organisations’ attempted efforts to either increase revenue or decrease costs without providing real or perceived benefit to the consumer. The first (6), is to increase price without increasing value. Johnson and Scholes (1993) suggest that only in a monopoly can this strategy be sustained. The second failure strategy (7), is to concurrently increase price and decrease value. The final strategy (8), is to maintain price while decreasing the quality of goods and services; a strategy that, surprisingly, is not confined to the example provided by the authors.

Johnson and Scholes’s (1993) strategy clock expands Porter’s (1980) generic strategies. The strategy clock is, however, based on customer’s perception of value, unlike Porter’s strategies which are based on the organisation’s goals. In that respect the interpretation of strategy is importantly different. Johnson and Scholes, and Bowman (1989a) view the strategy process from the customer - how can the organisation best meet the customer’s needs - whereas Porter views strategy from one of the organisation’s existing capabilities. Therefore, while the strategy clock encompasses Porter’s generic strategies, and answers the criticism of cost, differentiation, and quality, strategic intent differs. In that respect Johnson and Scholes’s typology of business strategy is one of creating value by meeting consumer’s needs.
Johnson and Scholes (1993) provide a more detailed account than Porter (1980) of strategies available to an organisation. They don't, however, discuss how an organisation may change from one to another. Although the selection of strategy appears absolute it may be far from permanent. It is unreasonable to expect an organisation to commit itself to one strategy for its entire lifespan. More importantly both authors, as well as those offering criticism endorse the need for an organisation to maintain one specific strategy.

The true pitfalls of generic strategies such as those recommended by Porter (1980) can now be identified. Neither Johnson and Scholes's (1993) strategy clock nor Hamel and Prahalad's (1993, 1994) strategy as stretch and leverage capture the nature and form of competition as described by D'Aveni's (1995) hypercompetition framework. The industry's position on the competition ladder (Figure 3.9), and the firm's within that, will importantly influence which of the generic strategies are available to the firm. Hamel and Prahalad's stretch and leverage paradigm is clearly one of niching and outflanking (interpreted with reference to Figure 3.9). D'Aveni's competition ladder, therefore, provides a much needed dynamic interpretation to strategy.

The discussions presented of new age strategic management and change, linkages between organisations, strategies, and goals suggest that management is being confronted with an increasingly complex and changing environment. Competitive advantage is, therefore, expected to be becoming increasingly difficult to maintain as advantages are quickly dissipated to competitors.

3.8 CONTRIBUTIONS FROM THE LITERATURE

CONCEPTS AND THEORIES POTENTIALLY APPLICABLE to a theory of configuration and management of export-dependent land-based value systems were identified in Chapter Two - the partitioning process. The objective of this chapter was to then review those bodies of literature in search of contributions that were expected to assist with explanation and development of the Z-form Model. Two themes were pursued first, linkages between organisations and second, management of those organisations. The aim of this section is to identify worthy contributions from the
literature explored in this chapter. Literature reviewed during the chapter and not considered applicable to the study is also identified.

The Z-form Model implies a perspective of management that extends well beyond the boundaries of a single firm. Further, the focus of the study, as cleaved in Chapter Two, is the creation and subsequent distribution of wealth. Both processes are expected to be the result of several organisations participating in a value system. The value of literary contributions is determined against the Z-form Model and particularly its relevance to export-dependent land-based value systems - hence the need to determine the unique attributes of land-based industries (discussed in detail in Section 2.2). Value systems comprise all participants and linkages responsible for product flow between (and inclusive of) producers and consumers. The chapter provided a review and discussion of literature expected to assist with the understanding of each of these concepts. At first glance the opening discussion on pluralistic goals (Whittington, 1993) may have appeared misplaced. Further, the introduction of the multinational enterprise in any other setting would have been discussed amidst a debate of global strategy. However, both concepts provide an essential entrance to a value system perspective of organisations and the linkages between them, that is, a perspective of strategic management that transcends individual organisations.

The Z-form Model, offered in Chapter Two, provides the framework for discussion and development of subsequent theory. The model depicts stages - which are not necessarily identical with the scope of participants' businesses - and linkages between stages in an international value system. Each participant is likely to have a different view - managerial attention - of their roles and activities in the value system. This view, introduced in Section 3.2, will be subject to stakeholders' collective influence observed through an organisation's pluralistic goals. Pluralism will reflect stakeholders' values towards the dual processes of value creation and wealth distribution. Rational economic thought based on the assumption of profit maximisation was identified as being, largely, a theoretical perspective adopted for normative planning.

The unique feature of an export-dependent value system is the necessity for some form of domestic-international linkage. This linkage may be internalised through some
form of MNE, met through international strategic alliances (Ohmae, 1989b), or completed through exporting. Exporting is expected to be either accompanied or unaccompanied by some form of business relationship.

MNEs make take one of Bartlett and Ghoshal’s (1989) four forms - multinational, global, international or transnational. However, the important contribution from all theories of internalised international linkages may be summarised as maximising wealth creation, that is, irrespective of the organisational form the organisation is in a better position to create wealth, and supposedly to distribute that wealth to stakeholders. By contrast, international strategic alliances were identified as a specific form of collaborative linkage (Auster, 1987). Exporting anything other than commodities - in the absence of some more formal alliance - may be better explained through an industrial networks approach rather than more traditional perspectives of transaction cost economics.

Despite strategic alliances being numerically superior trade between affiliates accounts for the vast majority of international transactions as measured by either volume or value. Internalising the domestic-international linkage has accepted costs and benefits some of which are well documented (Dunning, 1995). Both the MNE and ICL appear capable of providing some of the benefits of the transnational form, however, ICLs do not capture wealth in the fashion implicit in the internalised multinational enterprise. Alliances remain subject to bargaining power.

Worldwide organisational structures are reported to have common shortcomings expected to be overcome by the transnational form of organisation. However, even the transnational form must retain some level of interdependency between all business units or it will likely fragment. Interdependency could be retained by the centralisation of critical activities such as research and development and global brand management. Only the transnational form can exploit global efficiency, differences in buyers and sellers’ markets, and provide a learning environment for innovation of goods and services. The classification of organisational form assists in identifying the attributes of various structures and hence scope for improvement. Explicit in all models is the creation of wealth through international trade and the capture of wealth by the organisation’s
stakeholders. Therefore, the internalised models of conducting international business are only expected to explain part of the value system, that is, the linkage between exporting and importing and whatever integration is pursued in each location.

Competitive and collaborative linkages between organisations can be used to identify the dynamic processes missing from the static Z-form Model. However, in pursuing processes contributors have inadvertently, if it was ever their intent, reduced the creation of value to those processes employed by select organisations. The notion of creating and distributing wealth through connectedness between producer and end-consumer has been subjugated by increasingly narrow perspectives. Either form of linkage between organisations are the result of the flow of goods and services. Competitive linkages ensure that the distribution of wealth results from the bargaining power (Porter, 1980) of adjoining firms. Clearly, asymmetrical bargaining power will result in asymmetrical wealth distribution, restricted in the long-term only by stakeholders’ acceptance of minimum rewards, of which one is profit. This subject has been given scant regard in the literature.

There is little discussion in the literature of how wealth is distributed between organisations in collaborative business relationships. Bargaining power is unlikely to be absent in such relationships, despite the presence of trust and commitment. Multiple connectedness (Håkansson & Snehota, 1995) appears to mitigate opportunities for intermediate participants to control adjoining linkages. However, whether multiple connectedness results in rational distribution of wealth in the long-term remains open to debate. Collaborative linkages do, however, create mutual dependency, reduce transaction costs, and facilitate change and adaptation (Easton, 1992).

The concept of relationship marketing in identifying key behaviours of business relationships is subsumed by the industrial networks approach. This approach, although far from parsimonious, seeks to capture the nature of all business conducted between organisations save those of true markets and hierarchies. In that respect, particularly if the notion of multiple connectedness is adopted, the industrial networks approach is anticipated to be useful in both explaining and predicting the behaviours of value systems.
The mainstream focus of strategic management on single organisations bypasses issues of wealth distribution because value creation, and its capture by stakeholders, is assumed to remain the sole responsibility of the firm. Internalising transactions through vertical integration (Harrigan, 1983) rather than relying on strategic alliances to source buyers and sellers of goods and services appears to be the only fail-safe method of capturing wealth. Organisations are, therefore, not only confronted with the traditional trade-off between the costs of integrating and wealth capture; they are also confronted with the trade-offs between the dependency risk of strategic alliances, the intangible costs of business relationships, the reduction in transaction costs, opportunities for organisational adaptation, and the subsequent opportunity for wealth redistribution. For collaborative activity to occur, the advantages of it must outweigh the independent self-interest of firms.

The requirement for a global perspective for business and the concept of linked organisations, despite the single organisation focus, can only be provided by the strategic management discipline. Strategic management is the means by which the organisation’s decision makers identify fit between the external environment and the organisation’s resources and capabilities. However, the traditional fit model (Andrews, 1987; Ansoff, 1991) is a static, pattern matching view of competence. The firm is credited with the ability to only pursue opportunities identified at the time of strategic analysis. Positioning the firm to create or take advantage of opportunities yet to be recognised is beyond the scope of the mainstream view of strategic management.

Deficiencies in conventional models of strategic management were identified. One limitation of the fit model of strategic management is the implicit assumption that management accepts the external environment, rather than assuming responsibility for its creation as is explicit in Hamel and Prahalad’s (1993, 1994) model of strategy as stretch and leverage. A second limitation of the fit model is the explicit acceptance of an organisation’s current resources as the only means of creating competitive advantage. Strategy as leverage recognises current resources as a start-point from which additional resources may be levered as required. By contrast, the key limitation to the conventional model of strategic management is the assumption that fit is static within some temporal bound, usually three to five years, which limits the scope of definition of strategic issues.
In that respect conventional views of strategic management are not expected to assist greatly with the development of value system theory - a surprising outcome and certainly not something expected at the outset of the literature review.

The stretch and leverage paradigm (Hamel & Prahalad, 1994) addresses strategic management from the perspective of creating opportunities. Management is charged with the responsibility of creating the external environment rather than accepting the domain as a fait accompli. The paradigm does not accept the resource based view of the firm, nor is it constrained by the contingency approach. Management upholds a collective vision in a change environment.

The generic strategies (Porter, 1980) and their subsequent extension as the strategy clock (Johnson & Scholes, 1993) provide a typology of strategies available to management. However, their consideration in isolation of the hypercompetition escalation ladder is limiting. D’Aveni’s (1995) perspective of hypercompetition can be used as a ready template to position such diverse offerings as generic strategies and strategy as stretch and leverage. The pursuit of price/quality advantages is simply not sustainable. Explicit in hypercompetition is that firms progress up the ladder through competition arenas, the ladder then provides a path for scheduling strategy. Therefore, generic strategies in isolation of the competitive arena are expected to be of limited value. However, when considered in conjunction with the concept of a competitive arena, they are anticipated to explain value system participants’ behaviour.

The study is conducted from the perspective of creating value and distributing wealth for the benefit of New Zealand registered organisations. Other actors in the value system may, however, be better equipped to lead the channel (as implied by Normann & Ramirez, 1993; Wikström & Normann, 1994). For example, an organisation that has a sustainable competitive advantage offshore in say secondary processing, distribution, or retailing and marketing is expected to hold a very different perspective on the distribution of wealth. Nevertheless, the maintenance of that competitive advantage requires product flow from New Zealand participants. Under these circumstances New Zealand participants may be expected to put systems in place to first, ensure that competitive advantage is sustained and second, capture adequate wealth from that source.
of competitive advantage. If they are unable to capture adequate wealth, New Zealand participants are expected to configure and manage alternate value systems.

There appear numerous opportunities to configure and manage the value system with the sole objective of creating value and repatriating wealth. These opportunities range from vertical integration by producers through to consumer on the one hand, to various forms of multiple connectedness on the other. Value systems consisting of independent firms pursuing self interest (depicted as Figure 3.8) are expected to provide goods and services of lesser value to the end-consumer as compared to those that employ closer business relations to be more responsive to adaptation and change.
CHAPTER FOUR: THEORY CONSTRUCTION

RATIONALISING INDUCTIVE AND DEDUCTIVE CONTRIBUTIONS

Our order is taken ... by a waitress wearing a cowboy hat, a miniskirt, a fringed vest, boots and red garters. 'The key to a successful restaurant' O'Donoghue says, 'is dressing girls in degrading clothes'.

Michael O'Donoghue.

4.1 INTRODUCTION

A DISCUSSION OF THEORY BUILDING processes is presented in this chapter. The two common processes; deductive theory building from general principles; and, grounded theory from empirical evidence, are compared and contrasted. The process used in this study to develop theory of the configuration and management of New Zealand's export-dependent land-based value systems is described in Section 4.3. Having developed a framework for theory building the Z-form Model is complicated with the effects of the unique attributes discussed in Chapter Two and the concepts and theories drawn from literature reviewed in Chapter Three - the next stages of theory building.

4.2 THEORY BUILDING IN THE ORGANISATIONAL SCIENCES

THE OBJECTIVE OF THIS SECTION is to discuss the processes of theory building in organisational science and then identify a technique appropriate for use in this study. Merton’s (1968), and peers such as Zetterberg (1965), Blalock (1969, 1970), Glaser and Strauss (1967) and Hage (1972), contributions to theory building was from the perspective of social science. Their works provide the substantive base from which theory building in the organisational sciences (e.g., Gioia & Pitre, 1990; March &
Simon, 1958; Tsoukas, 1991; Van de Ven, 1989; Zikmund, 1988) have developed. Continuities between the more recent organisational and the classical sociological theory building literature are identified. The technique used for theory building in this study, which has elements of both deductive theory building and grounded theory is discussed.

Zikmund (1988) defined theory as “a coherent set of general propositions, used as principles of explanation of the apparent relationships of certain observed phenomena” (p. 20). Things observed can be described as concepts, therefore, concepts are a first level of abstraction from reality. However, concepts in isolation are not theories (Zikmund). The relationships between concepts are defined as propositions (Blaock, 1969; Dubin, 1969; Hage, 1972). Propositions then provide “the logical linkage amongst concepts” (Zikmund, p. 22). Theories are networks of propositions representing the highest level of abstraction from reality.

Parsons (1948) suggested that a systematic theory is of fundamental importance to any science. Theory in sociology is described by Glaser & Strauss (1967) as a technique for “handling data in research, providing modes of conceptualisation for describing and explaining” (p. 3). Therefore, a theory is a system of “information-packed descriptions” and a “system of general explanations” (Zetterberg, 1965). Zetterberg summarised the power and attributes of theory simply by stating that to “ask for an explanation in science is to ask for a theory” (p. 11).

4.2.1 Middle-range theories

Theory refers to “logically interconnected sets of propositions from which empirical uniformities can be derived” (Merton, 1968, p. 39). Merton stated that theories include “everything from minor working hypotheses, through comprehensive but vague and unordered speculations, to axiomatic systems of thought” (p. 39). The scope of a theory refers to how many of the basic problems of a discipline are handled by the theory (Hage,
The more problems handled, the greater the scope the fewer problems handled, the lesser the scope. The hypotheses common to hypothetico-deductive science, therefore, constitute minor theory. In this case they typically comprise a relationship between two well defined and readily measured concepts.

Merton (1968) identified theories of the middle range and defined them as;

theories that lie between the minor but necessary working hypotheses that evolve in abundance during day-to-day research and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behaviour, social organisation and social change. (p. 39)

Middle-range theories must involve some abstraction or they would be too specific. The degree of abstraction, the variables included and those ignored, should be specified (Barber, 1956). Theories in the middle range are “close enough to observed data” (Merton, p. 39) to be included in propositions that may be tested using empirical investigations. Because middle-range theories “deal with delimited aspects of social phenomena” (p. 39) they can be used to direct empirical inquiry. The relationship between working hypotheses, theories in the middle range and general theory is presented in Table 4.1.

Table 4.1. The characteristics of general, middle range and minor theories.

<table>
<thead>
<tr>
<th>Theory attributes</th>
<th>Theory scope</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General theory</td>
</tr>
<tr>
<td></td>
<td>Theories in the middle range</td>
</tr>
<tr>
<td></td>
<td>Minor theories</td>
</tr>
<tr>
<td>Explanatory aim</td>
<td>Explanes all the observed uniformities of social behaviour</td>
</tr>
<tr>
<td>Development</td>
<td>All-inclusive systematic effort</td>
</tr>
<tr>
<td>Validation</td>
<td>Too remote from particular classes of social behaviour to account for what is observed</td>
</tr>
<tr>
<td></td>
<td>Deals with delimited aspects of social behaviour</td>
</tr>
<tr>
<td></td>
<td>Abstraction guiding empirical inquiry</td>
</tr>
<tr>
<td></td>
<td>Incorporated in propositions that permit empirical testing</td>
</tr>
<tr>
<td></td>
<td>Working hypotheses</td>
</tr>
<tr>
<td></td>
<td>Evolve during day-to-day research</td>
</tr>
<tr>
<td></td>
<td>Empirical testing</td>
</tr>
</tbody>
</table>

Note. The characteristics are derived from Social Theory and Social Structure (enlarged ed.), by R. K. Merton, 1968, New York: Free Press.
Merton (1968) proposed that the seminal ideas of middle-range theories are "characteristically simple" (p. 40). The author provides examples such as Darwin on coral atolls, Boyle on atmospheric pressure and Gilbert on magnetism. Each of these theories "provides an image that gives rise to inferences" (p. 40). In each case the initial idea can be seen to generate a suite of testable hypotheses. Each of the hypotheses can then be empirically tested to confirm critical parts of the theory. Merton then suggested that "the idea itself can be tested for its fruitfulness by noting the range of theoretical problems and hypotheses that allow one to identify new characteristics" (p. 40) of the theory.

Middle-range theories are "not logically derived from a single all-embracing theory of social systems, though once developed they may be consistent with one" (Merton, 1968, p. 41). Merton also states that middle-range theory is more than an "empirical generalisation - an isolated proposition summarising observed uniformities of relationships between two or more variables" (p. 41). A theory contains assumptions from which empirical generalisations can then be derived. Therefore, theories in the middle range can be recognised from their relationships to empirical testing, although they may not account for all observed phenomena.

Merton (1968) identified two important characteristics of theories in the middle range. Firstly, middle-range theories should "generate distinctive problems" (p. 42) for inquiry. Secondly, they are "frequently consistent with a variety of so-called systems" (p. 43) of theory. However, Merton did not develop the argument for continued sociological inquiry in detail. The relationship between theory and the continuum of research was discussed by Kuhn (1970) (introduced in Chapter One).

The second characteristic of theories in the middle range identified by Merton (1968) was their consistency with a range of general theories. Merton stated that comprehensive theories "are sufficiently loose-knit, internally diversified, and mutually overlapping that a given theory of the middle range, which has a measure of empirical confirmation, can often be subsumed under comprehensive theories which are themselves discrepant in some respects" (p. 43). Middle-range theory enables the researcher to transcend the mock problem between the general and the altogether particular. There is mounting evidence to suggest that the altogether particular, reductionist (atomist) approach to scientific research is unlikely to
solve practitioner's problems (McRae, Anderson, & Brazendale, 1993). Similarly, the
general approach is likely to be far too abstract for implementation by practitioners.\footnote{The history of modern positivism is reported by Martindale (1981).}

A theory of the configuration and management of New Zealand's export-dependent
land-based value systems is theory of the middle range. As discussed in Section 1.4.1,
subject-matter research (Johnson, G. L., 1986) provides a body of information for a group of
practitioners confronted with a number of distinctive problems. The theory will, in part, be
consistent with the systems of theory reviewed in Chapter Three. Further, the theory will be
subsumed by strategy, networks, and international business all of which are, in some manner,
discrepant.

Bluedorn and Evered (1980) criticised Merton (1968) for not specifying the location
of middle-range theories with "greater precision" (p. 20). They list four alternatives to
Merton's case for theory building in the middle range. Bluedorn and Evered's alternatives are
presented as follows:

1. Simply assume that scientific enquiry necessitates both attention to
evidence and speculative thought.
2. The scope of a theory is a function of the researcher's capacity to
manage the intellectual tension between unexplained observations
and theory.
3. Recognition of the range of cognitive styles suggests that research
styles will also differ.
4. The researcher's own perspective and interests are the primary
determinants of both the form and the content of the theories that
will be generated. (pp. 28-29)

However, whereas Merton justified theory building in the middle range Bluedorn and Evered
simply justify theory building. The scope of theories should be regarded as a continuum.
Justification of theories within a specific scope, for example, middle range is of importance in
positioning the product between and including general theories on the one hand, and day-to-
day hypotheses on the other. Sure, a narrow perspective (Bluedorn & Evered) may be the limit of a researcher's interest, however, it may be ineffective in solving real-world problems.

Unfortunately, Merton did not discuss the genesis of theory development in detail. The two common processes of theory building are now introduced.

4.2.2 Deductive theory building

Theories combine law-like propositions into systems (Zetterberg, 1965). Zetterberg described deductive theory construction as a process. Law-like propositions are stated explicitly and then evaluated for their consistency with existing findings and consistency with other accepted propositions. The propositions are then ordered so that they each come to represent a part of a process. The author stated that it can then "be demonstrated, both by theoretical deduction and empirical investigation" (p. 15) how this process functions. Hage (1972) suggested the most important starting point is "an interest in some problem, whether intellectual or practical" (p. 3). The first task is then to specify a limited number of definitions which delineate the few aspects of reality under consideration (Zetterberg).

The necessity to delineate research in the social sciences is reported by Merton (1968), Kuhn (1970) and Bourgeois (1979). Zetterberg (1965) called this task a taxonomy; Bourgeois (1979) defined it as "partitioning of the field (topic) under investigation" (p. 444). The goal of the taxonomy is to identify important characteristics, variables or concepts. Hage (1972) suggested the researcher seek general variables. A general variable is a continuum that applies to any culture and at any point in time. The end point of such taxonomies is a descriptive study, however, Zetterberg noted that descriptive studies "do not furnish explanations" (p. 26).

The second task is to identify a "small number of propositions that are valid in several diverse contexts" (Zetterberg, 1965, p. 28). Merton (1968) also recognised the overlapping nature of many divergent general theories in the social sciences. The "systematically interrelated propositions are theories" (p. 28) stated Zetterberg, adding that "theories summarise and inspire, not descriptive studies, but verificational studies - studies construed to
test specific hypotheses”. A summary of the activities generated from the two tasks, delineation of the subject and identification of diversity is presented in Table 4.2.

Theory construction should be recognised as a dynamic and iterative process. It is inappropriate to label the process as singularly deductive or inductive, despite Glaser and Strauss’s (1967) polemical discussion of logico-inductive theory building. The genesis - initiation - of the research process may be the result of either an abstraction from general knowledge or reasoning from a particular experience. Kaplan (1964) called this dilemma the paradox of conceptualisation. “The proper concepts are required to write a good theory, but a good theory is required to arrive at the proper concepts” (p. 53).

Table 4.2. A classification of sociological research.

<table>
<thead>
<tr>
<th>Research level</th>
<th>Delineation of subject</th>
<th>Identification of diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>Definition</td>
<td>Proposition</td>
</tr>
<tr>
<td>Interrelated units</td>
<td>Taxonomy</td>
<td>Theory</td>
</tr>
<tr>
<td>Application of unit to specific subject-matter</td>
<td>Diagnosis</td>
<td>Explanation</td>
</tr>
<tr>
<td>Research summarised by or inspired by unit</td>
<td>Descriptive study</td>
<td>Verificational study</td>
</tr>
</tbody>
</table>


Blaïlock (1969) and Hage (1972) described the process of deductive theory building in detail. “A deductive theory must contain both axioms and theorems” (Blaïlock, 1969, p. 10). Axioms are defined as “propositions that are assumed to be true”. Theorems are derived by deductive reasoning from axioms (Blaïlock). “Axioms are inherently untestable but at least some of the derived theorems can be tested” (Blaïlock, p. 10). Axioms should be the causal assertions that will be untestable because of the fact that it will never be possible to control all the relevant variables.

Tests of the theory involve empirical testing of the derived theorems. “If the theorems prove false the theory must be modified or the axioms of the theory abandoned” (Blaïlock, 1969, p. 11). If they are not proved false verification can only be claimed once all possible alternatives are rejected. However, it may be difficult to eliminate all the possible
alternatives. In such cases progress may only be made by eliminating inadequate theories rather than by establishing them.

A theory cannot exist of concepts alone. Homans (1964) stated that "a theory does not begin to exist until propositions are stated about contingent relationships of the general form \( x \) varies as \( y \) between the properties" (p. 957). Blalock (1969, p. 12) reported that many of the empirical generalisations in the social science literature are stated in simple covariance form. For example, "the greater the \( X \), the greater the \( Y \)." However, it is not clear whether causal asymmetry is implied. There should be no ambiguity about the direction of causality (Costner & Leick, 1964; Hage, 1972). The behaviour of uncontrolled variables should also be stated. Unexplained variation encountered in empirical testing, therefore, can be explained without discarding the deductive argument (Costner & Leick). Homans (1964) states that it is inadequate to claim "other things equal" (p. 959). The other things should be specified and where they are equal should also be identified.

Blalock (1969) recommends theory builders adopt two rules for stating theories in verbal form. First, the selection as axioms "those propositions that involve variables that are taken to be directly linked causally" and second, "state theorems in terms of covariations and temporal sequences, thereby making them testable provided adequate measures of all variables can be obtained" (p. 18). Adoption of these two rules ensures that theories are specified in a fashion that the direction, the nature, and the temporal sequence of variables are defined. Blalock (1970, p. 84) later added that "a good deal of attention must also be given to the question of what is to be included as an \( X \) or a \( Y \)."

Hage (1972) stated that concepts can be related in an either-or fashion or related in a continuous fashion. Hage, like Blalock (1969), insisted that the "continuous statement is much more precise" (p. 36). Hage listed three methods of deriving continuous statements. First, continuous statements of a linear nature can be derived from constructs presented in the literature once the general variables are identified. Secondly, several continuous statements can be collapsed into a more general one providing common causes and consequences are identified. Third, axiomatic reasoning (path analysis) can be used (Hage, 1965, 1972).
Hage (1972) described axiomatic reasoning in the form of a *path analysis* (p. 56). Path analysis reduces the large number of combinations of variables that can be obtained when a number of variables are identified. He recommended dividing the variables into the following elements or classes of variables:

1. Variables outside the collective - those variables that may be considered relevant but are outside the theory’s domain.
2. Variables that represent the resources or inputs of the collective.
3. Variables that represent the structures of the collective.
4. Variables that represent integration processes of the collective.
5. Variables that represent performances of the collective.
6. Variables that represent the outputs of the collective. (p. 56)

This proposal assumes that the time-ordering moves approximately from (1) to (6) creating a unidirectional flow. Once this flow is achieved, the variables in general classes that “form a block of interrelated variables” can be identified (Hage, p. 57). Finally, feedback effects can be added. Path analysis appears to be a useful technique to produce theoretical statements in some causal sequence.

### 4.2.3 Inductive theory building: Grounded theory

The antithesis of deductive theory building is grounded theory. Grounded theory is systematically developed from data: a largely inductive process of theory building (Glaser & Strauss, 1967). Developing a theory from data “means that most hypotheses and concepts not only come from the data, but are systematically worked out in relation to the data during the course of the research” (p. 6).

Grounded theory is derived from comparative analysis. Comparative analysis is claimed to be a powerful methodology because it can be applied to social units of any size (Glaser, 1968). Furthermore, Glaser suggested that comparative analysis can be used to “compare conceptual units of a theory or theories... such as categories and their properties and hypotheses” (p. 7).
Comparative groups are selected on the basis of their theoretical relevance "for furthering the development of emerging categories, properties, hypotheses and the integration of the theory" (Glaser, 1968, p. 8). Group comparisons, recognised as being conceptual, are used to generate theory. The selection of groups for comparison, either similar or different, will determine the scope of the theory generated. "The scope of substantive theory can be carefully increased and controlled by [the] conscious choices of groups" (Glaser, p. 9).

Glaser and Strauss (1967) identify the elements of grounded theory as conceptual categories and their conceptual properties, and hypotheses or propositions among the categories and their properties. Glaser and Strauss made an important distinction between categories and their properties. "A category stands by itself as a conceptual element of the theory whereas a property is a conceptual aspect or element of a category" (p. 36). These authors suggested that lower level categories emerge quickly. Higher level categories and the properties that elaborate them tend to emerge much later during the analysis. The distinction between categories and properties, rather than bundling them as concepts, provides a mechanism for initiating the theory building process. Because categories can be "borrowed from existing theory" (p. 36) grounded theory is not a solely inductive process.

The second element of grounded theory are hypotheses or propositions. "Generating hypotheses requires evidence enough only to establish a suggestion" (Glaser & Strauss, 1967, p. 39). As categories and their properties emerge their "accumulating interrelations form an integrated central theoretical framework" (p. 40).

Glaser and Strauss's (1967) significant contribution was the claim that "generating grounded theory is a way of arriving at theory suited to its supposed uses" (p. 3). Glaser and Strauss acknowledged that the research is not approached as a tabula rasa - clean slate. Yet, their process of generating theory began with comparative analysis. How the researcher identifies the concepts worthy or necessary for this analysis is seemingly left to chance. Developing a theory from data "means that most hypotheses and concepts not only come from the data, but are systematically worked out in relation to the data during the course of the research" (p. 6).
Both deductive theory building and grounded theory aim to identify concepts and the relationships between them. Glaser and Strauss (1967) distinguish between categories and their properties, adding another dimension to theory building. While these authors present grounded theory as a largely inductive process, they also advocate starting with more general theories, focusing on a specific area, then work down to data guided by specific hypotheses.

4.3 A CONJOINT APPROACH TO THEORY BUILDING

OURGEOIS (1979) CLAIMS that there is no pure induction or deduction. Deduction starts with general knowledge and predicts a specific observation. Induction starts with a set of specific observations from which general principles are derived, namely “reasoning from particular experiences to general truths” (p. 446). Therefore, much science is the result of both deductive and inductive reasoning, although it is seldom reported in this fashion. Kuhn (1970) claims that the level of articulation required is often difficult to produce.

Research begins with general knowledge and then predicts (without acknowledging as much) a specific outcome. While in the researcher’s understanding knowledge appears to be general it may in fact be quite specific (atomistic). Experimental design must encapsulate the desired outcome. Therefore, the researcher designs and implements the experiment with an expected outcome in mind. Failure to encapsulate a predetermined outcome would render the experiment valueless. The experiment is then undertaken, often at the level of abstraction that renders it divorced from reality (reductionism). Kuhn (1970) suggests that “by focusing attention upon a small range of relatively esoteric problems, the paradigm forces scientists to investigate some part of nature in a detail and depth that would otherwise be unimaginable” (p. 24). The results from the experiment ought to then be (but seldom are) extrapolated to the general, an inductive inference.

Theories in the middle range appear to be developed from one of three importantly different processes. Firstly, an all encompassing (general) theory may be abridged to explain

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49 Normal science is paradigm based, therefore, the author assumes peer’s knowledge (Kuhn, 1970).
a more limited set of phenomena: a deductive process (as discussed in Section 4.2.2). The researcher may adopt a form of Comte's cerebral hygiene and develop general principles (many of which are the result of life's specific influences) and then test these general principles in a deductive fashion. Secondly, abstraction from empirical evidence may give rise to middle-range theory: the inductive process of grounded theory (discussed in the previous section). At the outset of a study researchers must immerse themselves in facts and figures and then try and draw some general principles. Or third, theories in the middle range may be developed from an iterative process of theory building and empirical testing (Bourgeois, 1979). This latter process may include both induction from an empirical base and deductions from general theory into propositions.

The appropriate theory building process to adopt appears contingent on the relationship between the phenomena studied and the relevance and validity of extant literature, knowledge, and experience. The development of the Z-form Model was presented in Chapter Two. General literature relevant to the study was identified from the model and then partitioned. Partitions included literature pertaining to firms, the management of firms, linkages between firms (including the international linkage); and perspectives of land-based industry in the home-base location. The relevant literature was subsequently reviewed in Chapter Three. Specific concepts were then identified throughout the discourse - a deductive process. New Zealand's export-dependent land-based industries have ten unique attributes (discussed in Chapter Two). However, as yet no attempt has been made to incorporate the effects of these attributes in the Z-form Model - an inductive process.

An iterative process combines the constructive attributes of both deductive theory building and grounded theory. Theory building in this study involves the processes of both abstraction from empirical evidence, and abridging general theory - induction and deduction. Bourgeois (1979) unwittingly failed to resolve the inductive-deductive dilemma by assuming that the process of theory building was inductive, while testing was deductive. In a manner akin to Einstein and G. Holton (see Chapter One, Section 1.4) the process adopted for this study is represented as Figure 4.1.

Induction from the empirical base, E, is depicted as the arc J. Deduction from general theories, G1 through n, is depicted as the vector D. The resultant theory, A, is in this case theory
of the middle range. The need for both contributions has, in the case of this study, already been identified. However, clearly one issue facing the researcher is deciding the balance of contributions from E and G. How much G, or for that matter E, is required? To be sure, both contributions are not mutually exclusive (Kaplan, 1964). Grounded theory (Glaser & Strauss, 1967) has little contribution from G; G serves only to guide the selection of E. Glaser and Strauss's contribution implies that D is near actively avoided. If the deductive process, D, for building theory of lesser scope is not fruitful the researcher will have to pursue a greater contribution from E, as such the study becomes increasingly grounded. Likewise, were the deductive process, D, to result in theory empirical evidence would then be used solely for referral.

Figure 4.1. A process of middle range theory building incorporating induction from empirical evidence and deduction from general theory.

A second issue facing the researcher is procedural, namely, how to combine the two contributions. Providing the components of theory are maintained through both procedures few difficulties should be encountered, the creative product from grounded theory ought to complement the deductive product from abridging general theory. The temptation to use empirical evidence for theory testing rather than theory generation must, initially, be avoided.
The relationship between theory verification/validation and theory generation does not appear to be resolved. Several authors, for example, Zetterberg (1965), Glaser and Strauss (1967), and Weick (1989) claim that the researcher’s primary goal is the systematic generation of theory. Verification, while recognised as being a vital task is subsumed by theory generation. Note that these views represent a marked departure from hypothetico-deductive science. Lindblom (1987) suggests that theorists often write trivial theories because their process of theory construction is restricted by their preoccupation with validation. However, Kuhn (1970) in describing the structure of science, recognised that the role of verification is to modify, not destroy theory. Therefore, a theory's only replacement is a better theory.

Whetten (1989) summarised the four essential elements of a complete theory as proposed by authors such as Merton (1968) or Dubin (1969). The essential elements are identified as what, how, why and who, where, when. The what and how elements “constitute the domain” (p. 491) of the theory. The relationships between the whats and hows can be tested empirically. However, only when the whys are acknowledged does the research make a theoretical contribution. Whetten (1989, p. 491) warned that when researchers have “insufficient understanding” of why they are pursuing a problem, or “what theoretical direction they are following”, discourse “tends to degenerate into heated methodological debates”. He suggested that to avoid such “vacuous discussions, propositions should be well grounded in the whys, as well as the hows and whats” (p. 491). Lastly, the who, where and when tests are most often tested through “subsequent tests of the initial, rudimentary theoretical statement” (p. 492). These tests are the similar to those described by Bourgeois (1979) as extension of the theory presented in Chapter Six.

Tsoukas (1991) advocates the controlled use of metaphors in developing theory in the organisational sciences. Metaphors can assist the theory building process by providing a knowledge function. Tsoukas concluded that metaphorical and literal discourses have different but not mutually exclusive knowledge functions. Metaphors are better sensors than literal terms, “capturing and expressing the continuous flow of experience” (p. 581).

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50 Verification and validation are used interchangeably in the sociological literature, see Weick (1989).
51 A metaphor is a statement that maintains two phenomena are isomorphic.
However, literal descriptions of much social phenomena tend to be more clinical, more precise, and more testable. Therefore, a transformational link between the metaphorical development of theory and the literal development of theory appears useful.

The purpose of theoretical statements is to organise (parsimoniously) and to communicate (clearly) (Bacharach, 1989). Bacharach stated that a theory "is no more than a linguistic device used to organise a complex empirical world" (p. 496). Bacharach's components of a theory are presented in diagrammatic form in Figure 4.2. The relationship between constructs and variables, in terms of decreasing generalisability, is depicted. Similarly, the relationship between different variables (hypotheses) and different constructs (propositions) is also portrayed. The boundary of the theory is described in terms similar to Whetten’s (1989) assumptions about who, where, and when namely values, time, and space.

Figure 4.2. Representation of the components of a theory.


Recent contributions to theory building in the organisational sciences mark no radical departure from their predecessors in the social sciences. The descriptions of theory, the role of theory, and the processes of theory building - deductive and grounded - are consistent. However, efforts have been made to further structure the creative process of theory building. This process, whether through metaphors, explicit components and elements, theory building
through case studies (see Eisenhardt, 1989; Section 5.2), or the adoption of falsifiability criteria (Bacharach, 1989) ensures that the inductive path developed by the researcher is open to scrutiny. In doing so the end result, while still dependent on intuition, is less likely to contain speculative leaps.

Bacharach (1989) provided a framework for evaluating theories in terms of falsifiability and utility. “Falsifiability determines whether a theory is constructed such that empirical refutation is possible” (p. 501). Bacharach’s falsifiability criteria is in accord with the theory testing procedure recommended by Blalock (1969). Bacharach postulates that a theory should meet all of the criteria specified in Table 4.3.

Table 4.3. A framework for evaluating theories.

<table>
<thead>
<tr>
<th>Theory component</th>
<th>Falsifiability</th>
<th>Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Measurement issues</td>
<td>Variable scope</td>
</tr>
<tr>
<td>Constructs</td>
<td>Construct validity</td>
<td>Construct scope</td>
</tr>
<tr>
<td>Relationships</td>
<td>Logical adequacy</td>
<td>Explanatory potential</td>
</tr>
<tr>
<td></td>
<td>Empirical adequacy</td>
<td>Predictive potential</td>
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“Utility refers to the usefulness of theoretical systems” (Bacharach, 1989, p. 501). Theories must be able to explain and predict phenomena. “An explanation establishes the substantive meaning of constructs, variables and their linkages, while a prediction tests that substantive meaning by comparing it to empirical evidence” (p. 501). Bacharach (1989) concludes “only that rare theory which meets all the evaluative indicators may be considered ... to be acceptable and generally superior to the alternative theories against which it is compared” (p. 511).

That theories must be constructed so they can be refuted is likely to impose unnecessary constraints on theory building. Surely techniques for measurement ought to be developed in response to theory rather than constrain the creation of theory. There are a multitude of cases where theory has been developed in isolation of falsifiability. For example, Darwin’s (Huxley & Kettlewell, 1965) origin of species was, and still is, immeasurable. Yet,
the lack of falsifiability does not detract from his theory. The sentiment needs to be acknowledged but should not constrain the process - in due course the paradigm will.

The theory building process to be used in this study (Figure 4.1) incorporates the useful attributes of deductive theory building (Blalock, 1969; Hage, 1972; Merton, 1968; Zetterberg, 1965) and inductive theory building (Eisenhardt, 1989; Glaser & Strauss, 1967). The process must include the structured development of variables, constructs and propositions (Bacharach, 1989) and propositions should be best presented in a graphical form (Blalock, 1969; Hage, 1972; Whetten, 1989). The likely contribution of several paradigms (Burrell & Morgan, 1979) has already been acknowledged and a mechanism for incorporating their different contributions (Gioia & Pitre, 1990) included (see Section 2.1).

The role of theory in the social and organisational sciences was introduced. Theories in the middle range were then discussed. The scope of theories was reported as being significant rather than the position of theories. Theory building in the social sciences was recognised as the basis for current theory building methodologies in the organisational sciences. The important contributions to theory building by the social scientists during the 1960s and 1970s were subsequently presented. Recent theory building literature in the organisational sciences was then reviewed.

In 1964 Homans stated that “no one will go far wrong theoretically who remains in close touch with and seeks to understand a body of concrete phenomena” (p. 976). The theory building literature in the social and organisational sciences implicitly supports Homan’s statement. Theory building must be based on real problems with the aim of meeting peer’s and practitioner’s scrutiny alike.

To summarise, the creation of theory is a useful research output. Smiddy and Naum (cited in Swamidass, p. 810) suggest that theory building rises above “isolated problems” and “business exigency”. Theory building has the potential to produce radically new ideas and initiatives. But by way of caution, Shubik (1987) observed that “theory may become a waste of time for all but the theorists when there is no concern for relevance or application beyond the self-perpetuation of the club” (p. 1521).
4.4 ADDITIONS TO THE Z-FORM MODEL

The implications of the unique attributes of New Zealand's export-dependent land-based industries on the Z-form Model are now discussed. Consideration of the attributes' various effects on management and configuration is provided. The ubiquitous assumption remains that international consumers require land-based goods and services. These products are consumed daily, and heightened levels of consumption are expected for cultural and religious festivals. Therefore, ambient demand will be subject to short-term seasonal and regional requirements. The Z-form Model is reproduced in simplified form as Figure 4.3.

Figure 4.3. Simplified Z-form Model of a New Zealand export-dependent land-based international value system.

The value system is dependent on land-based production: upstream resources at A. Output is enduring, nondeliberate production push ensures mutual dependency between producers and processors, B, in the home-base location. Variability and seasonality of production is expected to result in a range of supply agreements between domestic producers and processors. In addition, processors and distributors in the
international location (E, F) are expected to purchase product from complementary sources (which are easily substituted) to ensure continuity of product in the marketplace. Therefore, the linkages between other home-base locations and the international location may influence the nature of domestic supply agreements.

The volume of product available on the international market is, in most countries, influenced by multi-domestic agricultural policy over which New Zealand has little sway. To repatriate wealth from stages of the value system located in the international location New Zealand must, therefore, establish and maintain processing and distribution at E, or F (identified in Figure 4.4). Failure to do so will result in New Zealand suppliers being paid no more than the international clearing price for land-based commodities. Ownership of processing and distribution stages in the international location would ensure that benefits accruing from substituting between alternate suppliers, necessary due to characteristics of production, are repatriated to New Zealand. More so with commodity products that are readily substituted rather than differentiated products.

Figure 4.4. Critical stages of ownership in the value system to mitigate characteristics of land-based production.
New Zealand's land-based producers, despite best management, will produce output of variable quantity and quality. Output volume, and its quality, will inevitably fluctuate from expected levels. Each of the land-based industries must accommodate this variability. Output volumes inevitably peak on a seasonal basis. Processing capacity, particularly for highly perishable products, must cope with peak output volume even if this peak is relatively short-lived. Therefore, each industry will maintain a gross over-capacity in the off-season - hence high exit barriers (previously noted at Figure 3.7). Within each industry, however, there reside opportunities for individual participants to exploit the seasonality and variability confronting others. Small processing plants have the ability to operate at full capacity year-round thereby minimising throughput costs per unit output, providing they can favourably manipulate their supply pattern. Within the home-base processing stage (B) quite different business strategies are expected to exist, of which the sum capacity meets, or exceeds total processing demand.

One result of many producers and few first stage processors is the establishment of federations amongst producers of which one form is the producer cooperative (Izraeli & Zif, 1977; McKinlay, 1992; Ward, 1975). In addition to cooperatives producers have captured legislation (Hussey, 1992, 1993) in an effort to enhance investment opportunities downstream in added-value and perishable products, and alleviate bargaining power amongst first stage processors (caused by small numbers). Within the current discussion this action is highly rational. However, it presupposes that the benefits to the producer from cooperatives are greater than those to be gained by having, even few, buyers at the first stage processor (notwithstanding the discussion of opportunism in Chapter Two, benefits supposedly stimulated through competition for product - an argument fully rebutted in Chapter Six). The net effect on the value system, particularly in the case of added-value and perishable products, is that ownership is extended through A, B, C, and even beyond. Common ownership of the upstream stages of the value system is depicted in Figure 4.5.

Key variables from the literature review relating to management and configuration of the value system are now added to the Model. The core business of New Zealand's export-dependent land-based value systems is assumed to remain the repatriation of wealth to New Zealand participants.
Managers with a broader perspective of the value system are expected to show an interest if not an attempt to influence the value system downstream. One role of federations is to provide a conduit for extending managerial attention beyond the boundary of the firm. If managerial perspective is considered in conjunction with pluralistic goals the behaviour of the firm may not be confined to an individual stage in the value system. These two variables alone provide adequate reason to anticipate the pursuit of relationships in addition to those between adjoining stages in the value system as depicted in the Z-form Model.

The international linkage is critical to New Zealand's export-dependent land-based value systems. Irrespective of the paradigm, models of the multinational enterprise (whether multinational, international, global or transnational) internalise the international transaction. The benefits of this form of organisation were identified as the retention of assets unique to the firm through subsidiaries and then the utilisation of these advantages in conjunction with local factor inputs.

The transnational prescription incorporates the specific advantages of each of the other three: namely, global competitiveness, multinational flexibility, and worldwide learning capability. Providing New Zealand's land-based industries possess unique assets vis-à-vis other nationalities firms are expected to retain these advantages through foreign subsidiaries.
The potential boundaries of a multinational enterprise are depicted in Figure 4.6, potential in that an exporting MNE is one particular form of multinational enterprise. They extend beyond the area of interest in the Z-form Model, representing activity in both the home-base domestic market and complementary acquisition and processing in international markets.

Figure 4.6. The multinational enterprise in the Z-form Model - internalising the international transaction.

The effect of bargaining power was summarised in Chapter Three as an organisation’s ability to either invoke change in other organisations or resist change. Further, one motivation for collaborative linkages was recognised as an attempt to relieve bargaining power. Therefore, in the absence of bargaining power generic stages will integrate forward or backward to capture supply or buyers (one objective of producer federations). However, when bargaining power is present an individual stage will display resilience to integration. The organisation will be able to extract market rent without unnecessary investment either downstream or upstream of its current position. The concept is far from being operationalised at this stage of the discourse, suffice to say that the current configuration of the value system is a plausible measure of ambient bargaining power.

Hypercompetition provides a directive for business strategy with respect to product and market mix. Hypercompetition may even provide a direct measure of where specific
industries are in terms of competition in that the ladders may be employed as diagnostic tools for industry and predictors of time. Firms observed to be competing on price and quality face a no-win situation unless they develop full-line production. However, seasonality of production, variability of output, and supply inertia generally preclude New Zealand's processors from full-line production without sourcing product elsewhere.

Up until now linkages between organisations in the modified Z-form Model have been considered competitive. The introduction of collaborative linkages enables management of any stage to develop business relationships with management at any other stage. The benefits from business relationships, whether strictly as industrial networks or dyads, were reviewed in Section 3.5. Business relationships require some form of complementarity of objectives; they provide a source of information to participants; they result in a bond that can withstand a disruptive force; they require investment; and, they develop an atmosphere of conflict and cooperation. Importantly, relationships may result in adaptation between the participants enhancing the generation of value.

Multiple connectedness was postulated to mitigate bargaining power: one significant advantage of networks over dyadic relationships. Therefore, deliberate connectedness - strategic networks - may result from actual or perceived bargaining power being held by intermediary participants in the value system. The multitude of potential collaborative relationships in the form of multiple connectedness are depicted in Figure 4.7.

The aim of strategic management is to match the firm's capabilities with environmental opportunities and threats. Management will, therefore, position the firm within the value system through either deliberate or emergent strategy. The process of positioning the firm within the value system is, however, likely to be ongoing. Strategic management is the tool used to identify the boundaries of the firm and the collaborative relationships pursued. New age management provides a strategy no longer constrained by fit. Management seeks to overcome constraints imposed by the value system to develop opportunities beyond current resources and capabilities. Management seeks to create the external environment to its benefit rather than taking the environment as given.
Figure 4.7. Potential collaborative relationships in the Z-form Model, in addition to those existing between adjoining stages.

The adoption of new age strategy requires the creation and maintenance of an environment of change. Change forces are those external to the organisation and will reside collectively in the value system. In this respect change forces are related to bargaining power: an organisation may have to enhance bargaining power to overcome strong change forces.

4.5 SUMMARY

The two common processes of theory building in the organisational sciences were discussed. The deductive process of creating theory of lesser scope from general theory was introduced and then contrasted with grounded theory. The process of theory building to be used in this study was described. The procedure combines deductive contributions from general theory with inductive contributions from empirical evidence. The process adopted for this study was found to require both extant contributions (deductive) with empirical evidence (inductive).
Important concepts identified during the literature review were introduced into the Z-form Model. Of note is the multinational enterprise and those factors that motivate it as an organisational form. Bargaining power was viewed as a constraint to integration, in that the organisation can extract market rent without additional investment. Collaborative relationships within a dyad may be viewed as a means of enhancing adaptation while those resulting in multiple connectedness may serve to mitigate bargaining power. The Z-form Model provides a descriptive framework from which to consider implications provided by relevant literature and the unique attributes of New Zealand’s agricultural systems. The literature review has provided insight into the sorts of configurations that may be expected, and indeed recommended for the value system. The unique attributes serve to temper wild flights of fantasy.