Strategic Management, Competitive Advantage and the Balanced Scorecard in the New Zealand kiwifruit industry: A Co-operative group case study.

A thesis presented in partial fulfilment of the requirements for the degree of Master of Applied Science in Agribusiness

At Massey University, Palmerton North, New Zealand

GUSTAVO MARCOS CARDEMIL KATUNARIC

2003

ABSTRACT

Kiwifruit is New Zealand's biggest horticultural industry. The industry, which is lead by Zespri Group Limited, the statutory monopoly for the country's kiwifruit export, is the second most important producer of kiwifruit in the world. In a relative stable world kiwifruit industry, New Zealand has enjoyed buoyant returns in the last seasons. However, it is starting to feel the pressures for consolidation and globalisation, as well as other opportunities and threats. This situation is forcing kiwifruit service providers to plan strategically for the future and change. In this context, Satara Co-operative Group Limited came to life in June 2002, as one of the biggest post harvest operators in the industry, controlling 16.5% and 10% of kiwifruit and avocado volumes, respectively. However, although the hybrid cooperative started after a merger with a new strong corporate identity, it had neither a complete strategic analysis nor a written strategic plan to follow. Separately, a strategic management implementation tool called the Balanced Scorecard (BSC) has had worldwide acceptance and success in the last 10 years. In light of Satara's current strategic circumstances, the tool arises as a feasible and timely strategic solution for the organization.

This research investigated whether Satara Co-op Ltd has a competitive advantage in the New Zealand kiwifruit industry through a complete strategic analysis. The research also studied whether the organization's competitive strategies could be implemented through the Balanced Scorecard framework. The research was based on the case study methodology that used extensive secondary data research, personal interviews and visits to relevant industry stakeholders, including: Zespri Group Ltd, Seeka Kiwifruit Industries, New Zealand Fruit Growers Federation, Aongatete Packhouses, Trevelyans Packhouses, and New Zealand Avocado Industry Council, amongst others, as well as in depth interviews to Satara Co-op Ltd executive and managerial positions. The case study data was analysed using pattern matching and explanation building.

The results showed that it was not possible to conclude based on tangible data whether Satara Co-op Ltd had a competitive advantage. However, when available tangible data was added to intangibles and stakeholder's statements about the organization, along with the application of the SELECT framework, it was possible to determine that Satara's competitive advantage was based in its cooperative structure, scale and geographic diversity as well as its future diversification capabilities under different scenarios. The case study results also acknowledged that Satara Co-op Ltd strategies could be implemented through the Balanced Scorecard framework, as its strategies and available information allow the implementation of the framework building blocks, which are objectives, measures, targets and initiatives in four perspectives, namely financial, customer, internal processes and learning and growth. Satara strategies also match in various degrees the BSC extension framework, the strategy map, with its sub categories of revenue growth, productivity strategy, customer value proposition, internal businesses strategic themes and learning and growth drivers. This allowed the construction of a corporate strategy map, which was presented to the organization. Because the BSC and the organization's improvements due to the framework implementation could not be tested during the time allocated to this research, recommendations were drawn in respect to how the organization's competitive advantage and its competitive strategies will deliver to shareholders vision through the implementation of the corporate BSC presented and further score cards development at different levels in the organization.

Keywords: strategic management, competitive advantage, cooperative, kiwifruit, avocado, packhouse, coolstore, Balanced Scorecard and strategy map.

ACKNOWLEDGEMENTS

To the Ministry of Foreign Affairs and Trade for providing the NZODA Postgraduate Scholarship (PGS) scheme that allowed me to undertake my postgraduate study experience in New Zealand.

To Silvia Hooker, Massey International Support Office (ISO) Leader, for encouraging me since 1999 to apply to the scholarship scheme sending information beyond the strictly necessary requirements of the application form, which resulted in the acceptance of the NZODA PGS scholarship in early 2001. Also to Susan Flynn for her facilitation in the ODA scholarship management.

Special thanks to Craig Wallis, Chief Executive Officer of Satara Cooperative Group Ltd, for his unconditional support towards this research project. From research proposal to the final document he always provided assistance and time, well beyond what was needed. This research would not have been possible with out his vision, focus and energy in my project.

To my Chief Supervisor Professor William C. Bailey for his support since my arrival into New Zealand, both in my academic and professional plans, which ended in the successful accomplishment of this thesis project. Thanks for all the academic guidance as well as for the institutional support that allowed a more flowing and professional project accomplishment.

To Ms Nicola Shadbolt, my thesis co-supervisor, for making me discover the strategic management field and the Balanced Scorecard in earlier paper classes, which triggered my research topic definition. Her knowledge and interest in the topic was fundamental for the successful project completion. Thanks to her always-thorough revisions and suggestions.

To all Satara Cooperative Group Limited staff and employees that participated in this research, providing their time and knowledge about the company and industry. Thanks to: Andrew Fenton, Chairman; Stuart McKinstry, Financial Controller; Tony Clarkin, General Manager Orchards; Barbara King, Technical Consultant; Lon Wheeler, Market Service Manager, Marie Winikerei, Information System Manager and Julie Carlson, Marketing manager.

To Tony A.E. de Farias and Ian Greaves, for providing information from Seeka Kiwifruit Industries Limited, Satara Co-op Ltd main competitor. Certainly this project would not have been the same without their provided information.

To all industry stakeholders that participated freely providing their time and insights about the most complex and successful kiwifruit industry in the world: Prof. Ian Warrington, Massey University; Craig Greenless and Peter Berry, Zespri International Limited; Daryl Richardson, Aerocool Kiwifruit Storage; Rod Calver, Aongatete Coolstores Ltd and Alister Hawkey, Trevelyan Pack&Cool Limited.

And finally, and certainly most importantly I want to acknowledge the unconditional support and assistance of my wife Leonor, throughout our overseas venture here in New Zealand.

Palmerston North, New Zealand, 2003.

To my wife and daughter
Leonor and Catalina

Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABREVIATIONS

ABC	: Activity Based Costing.
ADL	: Arthur D. Little life-cycle (matrix).
AGA	: Avocado growers Association.
AIC	: Avocado Industry Council.
AKEG	: Australian Kiwifruit Exporters Group.
ASBV	: Avocado Sunblotch viroid.
BCG	: Boston Consulting Group (matrix).
BOP	: Bay of Plenty
BOPFP	: Bay of Plenty Fruitpackers Ltd (Baypak)
BRC	: British Retail Consortium
BSC	: Balanced Scorecard.
CA	: Controlled Atmosphere
CAPM	: Capital Assets Pricing Model.
CEO	: Chief Executive Officer.
CIF	: Cost, insurance and freight.
COKA	: New Zealand Certified Organic Kiwifruit Growers Association.
Co-op	: Cooperative.
CSF	: Critical Success Factor.
DMS	: Direct Management Services Ltd.
EAN	: European Article Number.
EBIT	: Earnings before interest and taxes.
EBLITA	: Earnings before lease, interest, taxes and abnormals.
ENZA	: New Zealand's Apple and Pear Marketing Board.
EPS	: Earnings per share.
EU	: European Union.
EVA	: EVA®, Economic Value Added.
FAO	: Foreign Agriculture Organization.
FAS	: Foreign Agriculture Service.
FOB	: Free on Board.
FPTG	: Fresh Produce Traceability Guidelines.
GAAP	: General Accepted Accounting Principles.
GAP (EUROGAP)	: Good Agricultural Practices.
GATT	: General Agreement on tariff and Trade.
GE	: Genetic Engineering.
Gold	: Hort16A. Zespri™ Gold kiwifruit; (*Actinidia chinesis* cv. Hort16A).
Green	: Hayward kiwifruit variety; (*Actinidia deliciosa* cv Hayward).
GST	: Goods & Service Tax.
HACCP	: Hazard Analysis of Critical Control Points.
Hass	: Hass avocado variety; (*Persea americana* Mill cv. Hass)
HEA	: Horticultural Export Authority.
IAC	: Industry Advisory Council.
ICA	: International Co-operative Association.
IOF	: Investor Orientated Firms.
KEPC	: Kiwifruit Export Promotion Council.
KF	: Kiwifruit.
KGI	: Kiwifruit Grower Incorporated.
KMLA	: Kiwifruit Marketing Licensing.
KNZ	: Kiwifruit New Zealand.
KPI	: Key Performance Indicator.
KSNZL	: Kiwifruit Supply New Zealand Limited.
KSRL	: Kiwifruit Supply Research Limited.
MAF	: Ministry of Agriculture and Forestry.
Medfly	: Mediterranean fruit fly (*Ceratitis capitata*).

MFA	: Ministry of Foreign Affairs
MP	: Minister of parliament
MVA	: Market value added.
NGC	: New Generation Cooperative (hybrid).
NOPAT	: Net profit after tax
NPV	: Net present value.
NZ	: NEW ZEALAND
NZKA	: New Zealand Kiwifruit Authority.
NZKGI	: New Zealand Kiwifruit Growers incorporated.
NZKMB	: New Zealand Kiwifruit Marketing Board.
NZSE	: New Zealand Stock Exchange
OGR	: Orchard Gate Return.
OPAC	: Opotiki Packing & Cooling Ltd.
PEST	: Political, economical, social and technological analysis.
PIMS	: Profit Impact of Market Strategy.
PLU code	: Product Look-up code.
PR	: Public Relations.
PWC	: PriceWaterhouseCoopers.
R&D	: Research and Development
RMA	: Recourse Management Act.
ROA	: Return on Assets.
ROCE	: Return on Capital Employed.
ROE	: Return on Equity.
ROI	: Return on Investment.
RONA	: Return on Net Assets.
Satara	: Satara® Cooperative Group Limited.
SBU	: Strategic Business Unit.
SCG	: Supplier Consultative Group (ZGL).
Season	: The period of 12 months commencing on 1 April 200x and ending on 31 March 200x+1.
SEC	: Securities and Exchange Commission.
SGL	: Seeka Growers Limited.
SKSL	: Satara® Kiwifruit Supplies Limited.
SLA	: Service Level Agreement.
Supplier	: All persons with whom ZGL enters into an agreement for the supply of Kiwifruit and Services to ZGL for a season.
SWOT	: Strengths, weaknesses, opportunities and threats analysis.
Tomua	: Tomua kiwifruit variety; (*Actinidia deliciosa* cv. Tomua)
U.S./U.S.A.	: United States / United States of America.
TQM	: Total quality management.
UPC	: Universal Product code.
USDA	: United States Department of Agriculture.
WACC	: Weighted average cost of capital.
WTO	: World Trade Organization.
ZIL	: Zespri™ International Limited.
ZGL	: Zespri™ Group Limited.

1 CHAPTER ONE: INTRODUCTION

1.1 Background

There is perhaps no bigger recognition in the word of a relationship between a fruit and a country as is the case of Kiwifruit and New Zealand. Although 'kiwi' stands for 'New Zealander' or the nation's national bird icon, worldwide kiwi is commonly related with the green Kiwifruit (*Actinidia deliciosa* cv. Hayward), and lately also to the new yellow kiwifruit, called Zespri™ Gold. This is of course no coincidence. New Zealand developed the crop from one single fruit to a 1,000,000 tons industry worldwide, and has been at the forefront of what has become New Zealand's largest horticultural industry. New Zealand is the second largest kiwifruit producer in the world, and leader in kiwifruit marketing and innovation capitalized through the Zespri™ Brand.

However, this story of success and wealth has not been without problems. The New Zealand kiwifruit industry has been involved in crises and changes intermittently since its beginnings, and it is expected to keep changing. Since its last crisis in 1992, the industry has been buoyant and prospers under the statutory monopoly of Zespri. Nonetheless, the last years have shown signs that good times will not last much longer. Acreage has been stagnant, exchange rates have turned unfavourable for exports, the threat of bio security has increased, retailer consolidation and quality standards like EUROGAP, EAN-128 and BRC are forcing small operators to consolidate or close businesses, and the industry as a whole has been forced to optimise even more its superb quality systems and controls to maintain the premiums that sustain the more complex kiwifruit industry in the world.

In this context, two important kiwifruit post operators have merged in 2002 to form Satara® Cooperative Group Limited, a hybrid agricultural cooperative. This new company appeared in the industry to control the 16.5% of the kiwifruit volume and 10% of the avocado crop, and play a mayor role in the future of the New Zealand Kiwifruit industry. Although the new company has a considerable scale and critical mass, a new and appealing corporate brand, and intentions of listing in the share market during 2004, it had at the merger date no clear strategic plan description for the future. Hence, there was also no implementation plan to follow.

According to Norton (2003) investors rely heavily (about a third) on non-financial information, being people, product development and the quality of the strategy important factors for decision-making. Nonetheless, the authors state that the ability to execute strategy is more important than the strategy itself. Various studies have shown that the chance to successfully execute a strategy is only one in ten, or at most, three in ten (Charan, 1999).

In an attempt to overcome this reality, Kaplan and Norton (1996a, 2000b) developed and refined a tool to describe, manage (Kaplan and Norton, 1996b) and implement strategy called the Balanced Scorecard. Since its inception in 1992 the Balanced Scorecard has been implemented in literally thousands of organizations of all types, sizes, and in every region of the planet. For example, and according to Gray (2001), in North America 50% of the 'Fortune 1000' companies are using the tool, in Europe between 40-45% and in Australia about a 35% of the companies. Although no data is available regarding the extent of its use in New Zealand, there is growing awareness of its potential and relevance for management reporting for New Zealand in the 21st century (McNally, 2001).

Among the early adopters in the late 1990's were Cigna, Mobil, AT&T and ZENECA Agricultural product North America. In the 2000s the list continued with companies like DuPont, Hilton Hotels, Saatchi&Saatchi, Siemens, UK Ministry of Defense, Volvofinans (Norton, 2003), and the U.S. Army (Downing, 2003) amongst others. In Europe, a study on German-speaking companies showed that none of the companies currently using the BSC plans to discontinue its use (Russell, 2003). The Balanced Scorecard has been so effective and widely accepted that the Harvard Business Review hailed it as one of the most influential management ideas of the twentieth century (Sibbet, 1997, Niven, 2002). The first book of the series (Kaplan and Norton 1996a) describing the framework has translations into more than 18 languages.

According to Donoso (2003) with the continued liberalization of trade, farmers, growers and food producers in general are being faced with new opportunities and challenges, and co-operatives are no exception. Integration, amalgamation, alliances or joint ventures with other co-operatives or with investor-orientated firms are more common,

situating co-operatives internationally at an unparalleled period of change (Wilson, 1999). But change needs management, planning, direction and control. In this respect, a specific problem will face cooperatives in this changing environment: Co-operatives generally have difficulty in reporting performance to members, as performance is frequently not based on co-operative profit but on the services that are provided to members (Plummer and Rolfe, 2002).

As a result, the Balanced Scorecard arises then as palpable solution for Satara Cooperative Group Ltd to describe its strategy, manage change, plan direction and control performance. However, specific work in New Zealand related to the Balanced Scorecard applied to agricultural companies is limited, with research focused to only a few farm management cases (i.e. (Rawlings, 1999)). No information is available about its feasibility in cooperatives.

1.2 Problem Statement

In June 2002, Satara Co-operative Group Limited was formed. With the mission of maximizing the return to shareholders by being the most efficient horticultural service operation in New Zealand, Satara Co-op begun a new journey as one of the largest kiwifruit suppliers and the biggest post harvest company in New Zealand[1]. Although the company started with a strong new corporate identity to position it self, it did not have a complete strategic analysis and hence no clarity regarding what its competitive advantage was. As a result, it also did not have a written strategic plan to follow[2]. Nonetheless, Satara's re-structuring circumstances allowed unique opportunities to apply and develop plans to incorporate the latest findings in business strategic management without disrupting strong pre-defined internal structures. In the current challenging and unique global kiwifruit environment lead by Zespri™, contemporary actions and strategies implemented by Satara Co-op Ltd are of extreme interest both, for academic and related enterprises interests. Being kiwifruit the most important horticultural export product for New Zealand[3], an analysis on Satara™ Co-op Ltd becomes relevant for the whole horticultural industry.

In regard to the topic of strategic management, considerable progress has been achieved since Satara's predecessor beginnings in the 1970's. New theories, frameworks, and tools are available to assist managers in today's changing environment. One of these tools is the Balanced Scorecard, a strategic implementation and mapping tool, which has had a widespread acceptance and implementation around the word. Nonetheless, its application in New Zealand has been limited (Gautier, 2001, Parmenter, 2002), with no studies registered on Agricultural Cooperatives yet[4]. The first study of a Balanced Scorecard on an agricultural cooperative in Australasia was initiated in 2002 in Australia (Plummer and Rolfe, 2002), and neither Zespri[5] nor Fonterra[6], the two most important agricultural cooperatives in New Zealand are using formally the Balanced Scorecard tool to describe and implement their strategies.

1.3 Objectives of the research

According to the problem statement facts of Satara Co-op Ltd facing the future with no strategic analysis, no defined competitive advantage and no written strategic plan, and, the availability of frameworks including the Balanced Scorecard to overcome these gaps, the research hypotheses that this project was aimed to answer were:

a) **The organization has a competitive advantage in the New Zealand Kiwifruit industry.**
b) **Satara Cooperative Group Ltd competitive strategies can be implemented through the Balanced Scorecard.**

Accordingly, the research objective formulated that would help to analyse these hypotheses was:

Perform a strategic analysis of the firm; identify current or possible competitive advantages, and identify how these competitive advantages with other aspects of the business will deliver to shareholders vision by using the Balanced Scorecard.

The research objective was divided in two main sections, which constituted the two main topics in the analysis and discussion, and, the conclusion sections. Consequently, the case study was constructed by fulfilling the two following objectives:

- Thesis objective part I: To determine whether the organization has a competitive advantage or not, by doing an in-depth strategic analysis of the firm based on secondary data, interviews with company employees at all levels in the organization, as well as with other relevant industry stakeholders and company competitors.

- Thesis objective part II: After fulfilling part I, further information gathering, through interviews with different company's employees in managerial positions to match, or if necessary adapt, Satara Co-op Ltd strategies and data available to the Balanced Scorecard to test its implementation feasibility.

1.4 Thesis structure

The thesis was written as a case study in strategic management within a kiwifruit industry perspective following mainly the research objectives structure.

Chapter one provides a brief overview of the reasons that drove the selection of the case study topic, identifying the problem and describing the questions and objective of the study.

Chapter two follows with an extensive literature review in the topic of strategic management, including both traditional tools, and the more recent Balanced Scorecard, with its adaptation and application to strategy maps and the Strategy-Focused Organization framework. The literature review was developed following the 'design model' of strategic management analysis.

Chapter three describes the methodology used for this research, including the research method, design, data collection, data analysis as well as the study implications and ethical consideration.

Chapter four exposes the Case study on Satara Cooperative Group Ltd. The case study follows essentially the strategic management structure described in the literature review, with emphasis in those areas and topics that would provide information to support the two research hypotheses.

Chapter five analyses and discusses the case study results in two main sections according the two research hypotheses topics: a) Satara Co-op Ltd. competitive advantages, and b) the possibility to implement the organization's competitive strategies through the Balanced Scorecard framework.

Chapter six finishes the study with the conclusions in regard to the research questions.

Chapter seven proposes recommendations and further lines of study.

NOTES

[1] Abundance. New Brand promotional leaflet. Satara Co-operative Group Ltd. June 2002.
[2] Strategic Positioning for the Future. Satara Co-op Ltd report. September 2002. 29 pages.
[3] New Zealand Horticulture facts & figures 2002. HortResearch.
[4] Nicola Shadbolt. (2003). Agribusiness Lecturer. Massey University. Personal communication.
[5] Lain Jager (2003). General Manager Corporate. Zespri International Limited. Personal communication.
[6] Caroline Tosswill. (2003). Fonterra customer services. Personal communication.

2 CHAPTER TWO: LITERATURE REVIEW

2.1 Strategy

2.1.1 Background

"*Do not repeat the tactics, which have gained you one victory, but let your methods be regulated by the infinite variety of circumstances*". (6:28)

"*Therefore, just as water retains no constant shape, so in warfare there are no constant conditions. He who can modify his tactics in relation to his opponent and thereby succeed in winning may be called a heaven-born captain*". (6:32-33)

-Sun Tzu, *The Art of War*. (400-320 B.C.)

Strategy is about winning. According to Michael Porter, one of the fathers of modern business strategy, strategy is the creation of a unique and valuable position, involving a different set of activities. If there were only one ideal position, there would be no need for strategy. But, a strategic position is not sustainable unless there are trade-offs with other positions. The essence of strategy is choosing what not to do (Porter, 1996).

Although dictionaries generally define strategy as the long term plan to achieve a goal, in a competitive environment, like in war, possibilities to succeed and achieve a specific goal are often drastically reduced, and a certain plan and option needs to be carefully selected and pursued.

The concepts and theories of business strategies have their antecedents in military strategy, with Chinese general Sun Tzu's work regarded as the first treatise on strategy. Military strategy and business strategy share a number of common concepts and principles: They are important; they involve a significant commitment of resources, and they are not easily reversible. Nonetheless, war and business are indeed different, with business rivalry not (usually) willing to defeat an enemy or competitor. Strategy is the overall plan for deploying resources to establish a favourable position. Tactics is a scheme for a specific action (Grant, 1998).

According to Grant (1998), the first sight for a separate theory for business strategy was developed by Von Neumann and Morgenstern (1944). In the 1960s a considerable emphasis on longer term planning reflected concern with achieving coordination and consistency in investment planning during a period of stability and expansion. The era of corporate planning was underway. During the 1970s, portfolio-planning matrices came into vogue as frameworks for selecting strategies and allocating resources within the diversified corporation.

Nonetheless, today's strategic knowledge (management, ideas) was still diffuse, and came only into focus with the oil crisis in 1974 and 1979, that forced companies to abandon their corporate plans in favour of more flexible approaches to strategic management where the focus was less on planning for diversification and growth and more on achieving competitiveness.

This refocusing on priorities allowed further development of the field. In the late 1970s and early 1980s, the focus was on companies' environment and competition. In this context Michael Porter pioneered the application of industrial organization economics, with his five forces framework (Porter, 1980). In the early 1990s, strategy shifted more towards a resource-based view of the firm, where internal aspects of the firm were viewed as primary sources of profitability.

In the late nineties, the field continued evolving, with the dynamic of competition, competitive advantage, knowledge, and cooperation as some of the important topics of discussion (Grant, 1998).

2.1.2 Strategic Management

Management is a coordination and integration of all resources of a business, both human and technical, to accomplish specific results efficiently. There are three major components to management: Planning, implementation and control. Planning is the first step in the process. It is an ongoing process of different activities to achieve the desired goals. Implementation is the actioning or doing of the plan developed to achieve the goals proposed. Finally, control is the process of measuring the performance and correcting the deviations from the plan so that goals are accomplished.

Strategic management is concerned with the overall management of the business. It can be defined as the art and science of formulating, implementing and evaluating cross-functional decisions that enable an organization to achive its objectives (David, 1997). In strategic management, there are two basic levels of strategy within an enterprise: Corporate and business strategy. Corporate strategy defines the scope of the firm in terms of the industries and markets in which it competes whereas business strategy is concerned with how the firm competes within a particular industry or market. The latter is also known as competitive strategy. In general terms, strategic management is viewed as linking four sets of factors: The goals and values of the firm, the industry environment, the resources and capabilities of the firm, and its structure and management systems (Grant, 1998).

According to Farjoun (2002), today's strategic management field is based on three main research programs that explain what determines firm performance and identify what affects firm strategy. The first one, known as Structure-Conduct-Performance (SCP), views the external environment as a key determinant of strategy and performance, with Porter's 1980 five forces framework as culminated work.

The second line of study, originated with Chandler (1962), the Strategy-Structure-Performance (SSP) paradigm, highlights the significance of factors complementary to strategy, such as organizational structure, to firm performance.

The third approach, a related and more recently embraced model is the Resource-Based View (RBV), that focuses on the role of resources in firm growth studied by Penrose (1959, 1995).

A central thrust of the RBV is the contribution of core competences as strategic assets, which will be the continuing source of new products and services through whatever future developments may take place in the market, which by their nature are unknowable (Connor, 2002). The main contribution of the resource-based view of strategic management is perhaps its ability to bring together several strands of research in economics, industrial organization, organization science, and strategy it self.

According to Rugman and Verbeke (2002), the Resource–Based approach to strategic management shares four characteristics: Search for above-normal returns, combine scarce resources and distinctive processes (done by capabilities), and induce or reinforce heterogeneity among firms (dis-equilibrium), all to sustain a superior return as compared to rivals. In the end it is all about a search for competitive advantage. The RBV can be seen as an excellent starting point for analysis of the relative strengths and weakness of firms. Several more variations of the RBV model have been proposed with Porter's (1985, 1996) value chain model of firm workflow activities, complementing the external view of the SCP by their minor emphasis on internal firm-specific attributes, like a sustainable competitive advantage that affects strategy and performance.

Despite the fact that these ideas form the foundation for modern strategic business thinking, there is growing awareness that these models and ideas are losing their potency, while more adaptative and less rigid ideas have not gone far enough to renew them or to provide an alternative and more current perspective.

However, there are already some insights about promising new theories that, rather than replace, complement and complete the foundation of modern strategic thinking. One of these theories is the Balanced Scorecard, a strategy management tool developed by Kaplan and Norton (1996a). They state that strategy is one step in a logical continuum that moves an organization from a high-level mission statement to the work performed by frontline and back-office employees. The Balanced Scorecard will help to fill this

gap in the pursuit of the stated goals and the winning of the battle (Kaplan and Norton, 2000b).

Based on the SCP, SSP and RBV lines of studies, strategic management takes form by integrating these different causal models with what is known as the 'design model', widely used as a guide for practice and teaching. Grant (1998) describes the 'design model or school' as a logical process in which strategy is formulated though rational analysis of the firm, its performance, and the external environment. The strategy is then communicated to the organization and implemented down through successive organizational layers.

This view is also shared by Madhok (2002), who sees that as a result of the interdependence of production and exchange relations, strategic management is about coordination and resource allocation both *within and across* firm boundaries.

An important implication in the strategic management field is the concept of 'strategic fit'. For successful strategies, it is central that they are consistent with the firm's goals and values, with its external environment, with its resources and capabilities, and with its organization and systems (Grant, 1998). Johnson and Scholes (2002) define strategic fit in a developing strategy by identifying opportunities in the business environment and adapting resources and competences so as to take advantage of these.

According to Kaplan and Norton (2000b), since the early 1980s, studies were showing that less than 10% of effectively formulated strategies were successfully implemented, and that 70% of the main problems were not in the strategy but in its execution. There was still a gap in the overall strategic management process. This reality lead the authors to develop the Balanced Scorecard framework in the early 1990s, a strategy management tool that will be discussed extensively further in section 2.4.2.

Strategy is about discipline and imagination (Szulanski and Amin, 2001), and formulation of strategy is an art, and it will always remain so. The description of strategy, however, should not be an art. By describing strategy in a more disciplined way there is an increased likelihood of successful implementation (Kaplan and Norton, 2000b).

2.1.3 Strategic processes and development

Three different processes usually describe strategic management: strategic analysis, strategic choice and strategic implementation. However, this framework does not describe how organizational strategies actually come about. Strategy development found in organizations tends to differ from preconceived plans or ideas.

Strategy usually evolves incrementally, with changes that tend to occur as a continual process of relatively small adjustments to an existing strategy. However, there is likely to be an overall strategic direction or momentum, which is persistent over time. Sometimes, depending on the internal and/or external environment, the incremental development is interrupted by periodic transformational changes. In this context, it is important to distinguish between the intended strategy – that which the organization should follow – and the realized strategy of an organization – that which it is actually following (Johnson and Scholes, 2002).

There are different explanations of how and why strategies develop in different ways in organizations. Three broad explanations of strategy development are strategy developed as managerial intent, strategy developed as the outcome of cultural and political processes in and around an organization, and strategy imposed on an organization. Any one of these particular approaches to, or patterns of, strategy development does not exist across organizations, rather there are likely to be a number of different configurations of strategy development processes (Johnson and Scholes, 2002). These ideas are condensed in the 'process school' of strategy, which sees strategy as a 'crafting' process (Mintzberg, 1987) focusing on the realities of how strategies emerge rather than a systematic analysis and discussion based on conceptual frameworks (Grant, 1998).

Nonetheless, it is important to understand the reality of strategy development in organizations, not least because those who seek to influence the strategy of organizations must do so within that reality. So, strategic process becomes significant when it comes to considering how, in practice, managers might influence strategic decisions and implement strategic change (Ambrosini, 1998).

The process of strategy development cannot always be characterized as intentional and planned. Strategy can come about through a number of different influences or processes. The framework developed by Johnson and Scholes (1997) uses six dimensions to describe such processes:

- ***The planning dimension***: Strategy is developed through an analytic, intentional and sequential process of planning.
- ***The incremental dimension***: Strategy is developed in an evolutionary but purposeful manner, through an iterative and adaptive process of trial and error.
- ***The cultural dimension***: Strategy is directed and guided by the cultural aspects of an organization, its history and the shared assumptions and beliefs of its members
- ***The political dimension***: Strategy is developed through a process of bargaining, negotiation and influence between internal interests groups.
- ***The command dimension***: Strategy is defined and determined by a particular powerful individual within an organization.
- ***The enforced choice dimension***: Strategy is developed as a result of external pressures, which limit an organization's ability to determine its own strategic direction.

From the above-mentioned dimensions, no configuration is presented as being representative of 'best practice'. Managers and stakeholders themselves should determine what would represent the 'best practice' within the organization's objectives and environment.

Many of the dimensions in the process of strategic development, as well as the concept that there is no 'best practice', are perhaps better explained by Mintzberg's (1994) idea that strategic planning is not strategic thinking. He stated that managers learn from various sources, both soft (insights from personal experiences and experiences of others) and hard (market data from research and the like), and then synthesize that learning into a vision of the direction that the business should pursue. He stressed that plans and data arranged in the most unimaginable ways through different frameworks

should only help managers to think strategically, rather than develop and plan precise strategies.

Graetz (2002) also clarifies this dichotomy between strategic making and strategic thinking, arguing that the ability of strategic thinking provides another dimension to the process of strategy making. Strategic thinking and planning are distinct, but interrelated and complementary thought processes (Heracleous, 1998). It seems that elements of left-brain thinking reflect the planning side of strategy making (need for logic, analysis, attention to detail, focus on meeting deadlines, etc.) while right-brain thinking mirrors the thinking (creative, inquisitive, intuitive, entrepreneurial) components of strategy making. This approach highlights the 'whole-brained' concept of 'emotional intelligence' (Goleman, 1998) as important to stimulate and engender strategic thinking within an organization (Graetz, 2002).

Nonetheless, it is important to distinguish that strategic thinking, and, further down the road, strategic change, is not heavily dependent on the activities of one charismatic leader. The person or people who develop a strategy may or may not be the same as those who take a lead in actually managing strategic change. The latter is usually managed by a change agent, which is an individual or group within or even from outside the organization (Johnson and Scholes, 2002). However, managing strategy is managing change (Norton, 2002), and there is widespread agreement, that strategic change requires leadership (Appelbaum, *et al.*, 1998, Drago and Clements, 1999, Landrum, 1999, Johnson and Scholes, 2002 and Kotter, 2002), and that leadership is related to 'emotional intelligence' (Goleman, 1998, Graetz, 2000).

Organizations need people to bring order to the unorganised world of management (by right-handed planners) as well as challenge the conventions that managers and especially their organization develop (left-handed planners) to have an interwoven strategy making process (Mintzberg, 1994).

2.2 Strategic Formulation

2.2.1 Values, Goals, Vision and Mission.

According to Grant (1998), all companies possess broader organizational values that are integral to their sense of identity and purpose, and that constrain, augment, even transcend, the fundamental requirement of profitability. Values can constrain the pursuit for profit, but they also play a vital role in building strategic intent and forming consensus and commitment within the organization. In reference to Maslow (1943) classical work on human motivation, Grant (1998) argues that:

"*If human beings are ultimately concerned more with the pursuit of meaning in their lives than with material rewards, then organizations that can help instill within their employees and customers a sense or purpose will have an advantage over those that do not*" (Grant, 1998, p. 46).

In the long term, this linkage of strategy to the broader pursuit of social and moral purpose may facilitate rather than impede further economic performance. This sense of purpose sometimes takes the form of a 'vision' that motivates the founding of the company and sustains its development. According to David (1997), vision statements try to answer the question "What do we want to become?". Because profit alone is not enough to motivate people (Quigley, 1994), only profit and a shared vision among the organization can effectively motivate the workforce, lifting them from the monotony of daily work and putting them into a world of opportunity and challenge.

Vision is the result of recognizing those market forces that will impact on the company's future and shape the nature of its desired future (Raynor, 1998).

'Vision' and 'mission' are words whose power is overshadowed only by the confusion that surrounds them. Consequently, as many strategic management tools, vision is also criticized in distracting managers from relevant issues in strategy formulation. Sometimes vision fails (Haeckel, 1999). Lissack and Roos (2001) argue that companies should not be organized around achieving the vision because the business environment is not stable and predictable, and that people are neither satisfied with the vision, not the

visioning process. They suggest, rather, reinforce the organization's characteristics by being coherent given the current environment.

However, this approach seems to be coherent only in very dynamic industries, known as Schumpeterian (Dahmen, 1984) and Hyper competitive (D'Aveni, 1994) environments like hi-tech industries (Bart, 1996), because there is a wide understanding that vision is a central and still fundamental part in strategy development (Lipton, 1996, David, 1997, Grant, 1998, Raynor, 1998, Kaplan and Norton, 2000b, Johnson and Scholes, 2002).

Grant (1998) describes how popular books suggest that vision should involve goal-setting, team orientation and a futuristic orientation. It may define a pathway to success for the future of the firm or it may describe the goals a firm has set. As several studies have shown, most senior executives perceive vision as a "need". Lipton (1996) suggests that visions serve five purposes: enhancing performance measures, promoting change, providing the basis for a strategic plan, motivating individuals and keeping decision making in context.

After defining vision, the next step in the strategic management continuum is to define the organization's mission in trying to answer the question: "What is our business?" This is known as the mission statement (Drucker, 1974). The mission statement communicates the overall direction and articulates the linkage between a company's vision and values and its strategy. It describes an organization's purpose, customers, products or services, markets, philosophy, basic technology, competitive advantage, and attitudes to survival, growth and profitability. Also, concerns for public image and employees are usually included (David, 1997). The mission makes sure that all these characteristics fit in with the scope of the company's vision (Lissack and Roos, 2001). This scope of the organization, when it is well defined is:

"*[scope definitions] are durable and hence probably do not command regular or on-going strategic attention. Yet they do not last for ever and need periodic reassessment*" (McTavish, 1995, p. 50).

Although a mission statement is an invaluable tool for formulating and implementing an organization' strategy, it can potentially lead to confusions (Baetz and Bart, 1996)

which turn it sometimes into a relatively neglected area of management (Campbell and Yeung, 1991). That means, that mission statements have several pitfalls, which can arise through their use. One important consideration to avoid conflicts is that it should be broad enough to represent an organization's diverse stakeholders, allow for creative growth and new opportunities, and that it should be revisited systematically (Klemm, *et al.*, 1991, David, 1997).

In the strategic management model, goals are essential. Strategy is based on both goals and actions (Chandler Jr, 1962, Andrew, 1971, Porter, 1980). As commonly defined by dictionaries: "a goal is something that someone wants to achieve". Goals give the direction to 'where' the business would like to be. Once identified, these goals become the strategic choice that should be developed so that they (goals) remove weaknesses and develop strengths, while pursuing opportunities and dealing with threats (Steiner, 1997).

According to Kaplan and Norton (2000b), strategy does not (or should not) stand alone as a management process. A continuum exists that begins, in the broadest sense, with the mission of the organization. The overarching mission of an organization provides the starting point defining why the organization exists or how a business unit fits within a broader corporate architecture. Mission and core values that accompany it remain fairly stable overtime. The organization's vision paints a picture of the future that clarifies the direction of the organization and helps individuals to understand why and how they should support the organization.

The key vehicle for communicating strategy is the mission statement, which is a summary statement of the essence of the organization's strategy and purpose (Grant, 1998).

2.2.2 Strategic appraisal

Because the core of strategic analysis is to relate the organization to its surrounding environment, it is important to analyse all relevant macroeconomic and microeconomic variables that affect the organization's decision and its performance. The classical approach is to divide the environment into external and internal factors and then analyse with different approaches and frameworks the relevant variables that will affect the organization's goal achievement.

2.2.2.1 External Analysis

2.2.2.1.1 PEST Analysis

Pest Analysis is the analysis of Political, Economic, Social and Technological (PEST) issues that could affect the organization. As part of the external audit, the objective of the PEST analysis is to develop a finite list of issues with the aim of identifying key variables that offer an actionable response.

According to Proctor (1997), one of the first things organizations have to do in strategy formulation at any level in an establishment is to examine how the organization relates to the environments around it. In particular, focusing on the impact that these environments can have on the enterprise's future prosperity. According to Botten and MacManus (1999), political changes guided by government play a number of roles that go beyond the making of laws and raising taxes. A change in government or laws can dramatically alter the nature and structure of an organization both domestically and internationally. Economic issues are well know to cascade down into both national and domestic economies, with some key variables like exchange rates, inflation, interest rates, Gross National Product (GNP), unemployment and stock markets being extensively analysed in strategic management. Social environment includes demographic changes, culture, educational standards, lifestyles, values and beliefs. Although they move often at slow pace, their impact is likely to far out weigh the result of political decisions in the long term. Technological accelerated changes in information technologies, telecommunications, medicine and defence can alter the nature and structure of almost any working and domestic environment. To narrow some topics

more, legal and environmental subjects are sometimes added to the analysis, shaping the PESTLE analysis (Thompson, 1997, Johnson and Scholes, 2002).

2.2.2.1.2 Porter's five forces Analysis

The Industry Analysis is, according to Porter (1985), the framework that analyses the forces that determine the profitability of an industry.

This framework argues that the competitive environment of the organization depends on five forces: The manoeuvring for position among the current competitors within an industry (Rivalry among existing firms); the threat of new entrants into the industry; the threat of substitute products or services being introduced into the industry; the bargaining power of buyers; and the bargaining power of suppliers (Porter, 1980).

2.2.2.1.2.1 Rivalry among existing firms

Porter terms rivalry amongst existing competitors 'jockeying for position'. Competition may take the form of price competition, advertising and promotion, innovation, or service during and after sale. Where competitive firms are mutually interdependent, retaliation is a key issue. Before deciding upon aggressive competitive actions firms must attempt to predict how their competitors will react; when other firms are proactive an organization must at least be defensive in order to protect market share and profitability. The intensity of competition is affected by the market structure and depends on the following:

- The number of competitors and the degree of concentration
- The rate of growth of the industry – slow growth increases the pressure upon competitors to fight for market share
- The degree of differentiation – the less there is the more likely is price competition.

- Cost structures – where fixed costs are high relative to variable costs companies are very sensitive around the breakeven point, and profits are very dependent upon volume.
- Capacity augmented in large increments – the implications of changing size or supply capacity through investment.
- Exit barriers – the cost related to leaving the industry.

As rivalry among competing firms intensifies, industry profits decline, in some cases to the point where an industry becomes inherently unattractive.

2.2.2.1.2.2 Threats of new entrants

The threat of entry into an industry depends on the barriers to entry that are present, coupled with the reaction from existing competitors that the entrant can expect.

When barriers to entry are high new entrants are likely to be deterred, and if they do attempt entry they are likely to provoke a quick reaction from existing competitors. Low barriers generally mean that responses will be slower, offering more opportunities. A number of factors can create barriers: Economies of scale, product differentiation, capital requirement, switching costs, access to distribution channels, cost advantages independent of scale and government policies (Porter, 1980).

2.2.2.1.2.3 Threats of substitutes

The existence or non-existence of close substitutes helps to determine the elasticity of demand for a product or service. If there are close substitutes, demand for a particular brand will increase or decrease as its price moves downwards or upwards relative to competitors. If products are not seen as close substitutes, then they will be less-price sensitive to competitor price changes (Porter, 1980).

2.2.2.1.2.4 Bargaining power of suppliers

The behaviour of suppliers, and their relative power, can squeeze industry profits. Equally the ability of a firm to control its supplies by vertical integration (acquiring its suppliers) or long-term supply arrangements can be very beneficial. Five major forces affect this relative power:

- Concentration amongst suppliers: If the supply industry is very concentrated then buyers have little opportunity for bargaining on prices and deliveries as suppliers recognize that their opportunities for switch suppliers are limited.
- The degree of substitutability between the products of various suppliers and the amount of product differentiation
- Vertical integration, which might be initiated by either supplier or the buyer
- The extent to which the buyer is important to the supplier
- Switching costs

In general, the greater the bargaining power of the supplier, the less advantage the firm has.

2.2.2.1.2.5 Bargaining power of buyers

Any competitive action by buyers will act to depress industry profits, but specific arrangements with distributors or customers can be mutually beneficial. The bargaining power of buyers is determined by:

- The concentration and size of buyer.
- The importance of the buyer of the purchase in terms of both cost and quality.
- The degree of product standardization, which affects substitutability.
- The cost, practicability and opportunity for buyers to switch supplier.
- The possibility of vertical integration, initiated by either the supplier or the buyer.

2.2.2.1.3 Beyond Porter's five forces

Although Porter's five forces framework is widely used in strategic formulation, it is not without its critics. After all, after more than 20 years of this theory, new ideas and concepts have been generated and are challenging it in different ways. In his 1980 book, Competitive Strategy, Porter identified the previously mentioned five forces, which, in a free market, work continuously to erode profits. Positioning the firm to mitigate and minimize these forces lies at the heart of his proposed strategic approach. The model argues that positioning the firm to maximize its own bargaining power and to minimize that of other is a critical element to success.

However, Grant (1998) describes how McKinsey & Company researchers have identified a number of assumptions in the Structure-Conduct-Performance (SCP) approach from which Porter's framework is part, which do not hold in practice. Two important points are that the model is static in nature and that many business relationships are characterized by privilege thought affection and trust in contrast with Porter's rivalry and competitive approach. After all, strategy is not always about war, position that is driving the five forces framework to be re-interpreted (Hax and Wilde, 2001) and restructured.

Also, Joseph Schumpeter, back in the 1930 to 50s, already recognized the dynamic interaction between competition and industry structure, questioning whether it is possible to use current industry structures as a reliable guide to the nature of competition and industry performance in the future. This gave place to what is know today as 'schumpeterian competition'. Among 'schumpeterian' industries, like computers and telecommunications, the relationship between competition and industry is unstable, and changes in industry structure are rapid and difficult to predict. These ideas were also developed further by D'Aveni (1994) who describes hyper competitive environments and behaviours where new competitive advantages are continually generated and destroyed, obsolescing or neutralizing the opponent's competitive advantage, creating dis-equilibrium, destroying perfect competition, and disrupting the status quo of the marketplace.

Although not matching this thinking so dramatically, Rugman and D'Cruz (1997) agree with the idea of non-static environment, and describe the five forces approach as too simplistic in today's global business environment. Porter's five forces model is based on arm's length relationships and bargaining ability based on market power. As such, they induce a short-term view with each participant only interested in their own profitability. In today's integrated global economy, long-run competitiveness is more a question of entire business systems outperforming each other. This business system consists basically of a "flagship" firm that leads the network and that provides leadership to a vertically integrated chain of businesses with which it has established key relationships. It needs to develop a vision for the network, communicate it and mobilize resources to implement strategy. The network model recognizes that suppliers perform some functions more effectively than the flagship. For suppliers, the key suppliers, or those whose input are critical to the development of competitive advantage, are selected to enter a close relationship with the flagship firm. With buyers, the flagship develops relationships with key customers that involve the sharing of resources and information. The non-business infrastructure represents partnerships with universities, trade unions, research institutes and government bodies to give the network access to intellectual property, human capital and technology. Finally, key competitors that compete with the flagship are incorporated to limited alliances, like for example collaboration in market developing. All these forces together develop strategies that are mutually reinforcing within the business system, fostering the collective long-term outlook between the partners.

These interactions among firms, the absence of which is one of Porter's failures, are also recognized by the 'Game Theory'. Game theory came of age in 1994, when three pioneers in the field were awarded the Nobel Prize. It all began in 1944, when mathematics genius John Von Neumann and economist Oskar Morgenstern published their book 'Theory of Games and Economic Behaviour' (Von Neumann and Morgenstern, 1944). For rule-based games, game theory offers the principle 'to every action, there is a reaction' (Brandenburger and Nalebuff, 1997). The two especially valuable contributions of this theory to strategic management are, first, that it permits the framing of strategic decisions by identifying players, specifying their options, establishing the payoffs from every combination of options and defining sequences of

decisions using tree games, and second, that game theory can predict equilibrium outcomes of competitive situations and the consequences of strategic moves by any one player.

One of the most important insights that the game theory adds to the strategic management field is the ability to identify opportunities for a player to change the rules of the game in order to improve its payoffs. One of these opportunities is to convert win-lose (or lose-lose) games in to win-win situations.

Koppelman (1998) also stated this concept, in his discussion about procurement marketing. Although marketing is most commonly, but not exclusively, associated with manufacturers of products, the marketing concept and certain elements of the marketing mix are essential aspects of the strategic management of service businesses. Under his ideas, he proposes the - coalition theory-, where companies are in a social system, where a company can only prosper as long as all parties involved feel that they are getting a fair share for the work and effort they are putting into the company. This theory on the internal working of a company can also be applied to the relationship between a company and its environment. Buying and supplying also forms a coalition. Such a coalition, however, can only work as long as all parties involved have the feeling that they are treated correctly. Anybody who feels he/she is being taken advantage of will, sooner or later act accordingly. Once the equilibrium within the coalition is disturbed, the parties will start looking for new problems instead of looking for solutions. When this happens, partnership normally does not last very long. Based on this theory, another, the incentive-contribution theory, states that both buyer and supplier are trying to find out what the other party wants and what it is prepared to give. That means that win-lose approaches disrupt the economic equilibrium. Better results are always achieved by convincing suppliers of potential advantages than by putting pressures under them. Another important issue is, again, strategy. When preparing important long-term deals it is important to not get distracted by tactical or operative tasks. The selection of suppliers must be considered from a strategic point of view. This does not only require a thorough analysis of potential suppliers, but also the cultivation of existing supplier relationships. Win-win situations with suppliers have to be established. This is hardly possible if suppliers are changed frequently. Business parents

who remember how they solved problems in the past will find it easier to tackle similar problems in the future (Koppelman, 1998).

Finally, the lesson about Porter's five model framework, independently on its current validity is that any company must seek to understand the nature of its competitive environment if it is to be successful in achieving its objectives and in establishing appropriate strategies (Thompson, 1997), and Porter's framework can be used as a conceptual framework for identifying the organization's competitive strengths and weakness, along with threats to and opportunities for the organization from its competitive environment (Botten and McManus, 1999, Johnson and Scholes, 2002).

2.2.2.1.4 Intra-Industry Analysis

For some organizations the central feature of their competitive environment is not the industry, but the behaviour of a single competitor. To understand competition more intimately and to identify profit opportunities more precisely, a more detailed look into industries is needed. To do so, it is important to segment an industry into its constituents, and their key success factors, classify firms into strategic groups based on similarities in their strategies and predict behaviour of individual companies (Grant, 1998).

2.2.2.1.4.1 Segmentation

According to Grant (1998), the segmentation process proceeds in five stages: (1) Identifying key (most strategically significant) segmentation variables, which partition the market most distinctly in term of substitutability among customers (demand-side substitutability), i.e. by products characteristics (Datta, 1996), and producers (supply-side substitutability); (2) constructing a segmentation matrix with the segmentation variables with discrete categories for each, and then (3) analysing the segment attractiveness; (4) identifying the segment's key success factors and (5) finally selecting the segment scope.

Bock and Styles (2002) also recognized that segmentation is important for corporate strategy. They state that by segmenting in a holistic approach called the 'segmentation tree' that brings together demand-side (customer) and supply-side (company) considerations, it is possible to produce unique segmentation solutions for each brand or firm, making segmentation a key source of strategic insight and advantage.

2.2.2.1.4.2 Strategic groups

Another way of analysing the industry is by grouping organizations by their characteristics and forming strategic groups. Porter (1980) defines a strategic group as the group of firms in an industry following the same or a similar strategy along a strategic dimensions, being a strategic dimension, those decision variables that best distinguish the business strategies and competitive positioning of the firms within an industry. By selecting the most important strategic dimensions and locating each firm in the industry along them, it is usually possible to identify one or more groups of companies that have adapted more or less similar approaches to competing within the industry. The basic argument is that mobility barriers between strategic groups permit some groups of firms to be persistently more profitable than other groups, and that profitability within strategic groups is less than between groups (Grant, 1998), although sometimes the difference within groups can be larger (McNamara, *et al.*, 2003).

Strategic group membership is a predictor of the manner by which firms compete with one another, or the frequency with which they undertake competitive actions, cut prices, instigate warfare and imitate rivals (Smith, *et al.*, 1997).

Because firms are always perceived to group (Reger and Huff, 1993), strategic groups analysis is more valuable as a descriptive than predictive tool, contributing to the understanding of the types of firm's in the industry, kinds of strategies used, and positioning amongst firms.

2.2.2.1.4.3 Competitors analysis

According to Grant (1998), the purpose of competitors analysis is to predict the behaviour of the organization's closest rivals. The importance for competitor's analysis depends on the industry's structure. In fragmented industries, like with some agricultural commodities, there are usually so many firms that there is little point in analysing the behaviour of individual firms. On the other hand, in highly concentrated industries, the competitive environment of a company depends critically on the behaviours of a few rivals, and analysing the market in terms of customers preferences and segments can reveal new opportunities for creating competitive advantage (Thompson, 1997).

Botten and McManus (1999) argue that the purpose of undertaking competitive analysis is to give the management of an organization a comprehensive analysis of its competitive environment, which should enable management to further assess its strengths and weakness, and partially ascertain threats and opportunities to the organization from its industry environment. In analysing their competences, organizations will need to assess themselves against 'best-in-class' as an important part of sustaining competitive edge. In doing so, benchmarking, defined as a point of reference from which measurements may be made, can be implemented and deliver its valuable results. Ambrosini (1998) refers to benchmarking as a logical step in competitor's analysis and as a tool for setting objective targets and enhancing performance measurement. This position is also supported by Ghoshal and Westney (1991) who reinforce that benchmarking can be effectively used for competitor's analysis. Pemberton *et. al.* (2001) go even further suggesting that benchmarking is a way of developing a competitive advantage when combined with effective organizational learning. Vision, training and education, a problem-solving culture and human resources strategy are some of the key elements associated with benchmarking , organizational success and superior performance.

When analysing those competitors whose strategies substantially impact on the organization profitability, the use of game theory has proven to be especially useful by providing the structured approach to identify the choices available to the different players, specifying the payoffs, and showing how the game can be changed to alter the

payoffs. Independent of weakness or strengths of the game theory approach that could be limited in complex business situations, competitor analysis is about acquiring information about competitors (field of study known as competitors intelligence) and predicting their behaviour (Grant, 1998).

In trying to predict competitor's behaviours, it is recommended to start identifying current competitor's strategies considering difference between intended and realized strategy. Also, identifying the competitor's objectives and assumptions about the industry can guide in identifying possible changes in its strategy. Although predicting a competitor's strategy is a central part of the approach, identifying its capabilities is also important, because they define the extent to which a competitor can threat the organization market position.

Ambrosini (1998) says that there is no 'correct' way of undertaking competitor analysis, but suggests four techniques described in Johnson and Scholes (2002). These are:

- Impact analysis, which assesses the impact of key environmental factors on both the organization and its competitors.
- Segmentation: Already discussed in section 2.2.2.1.4.1
- Understanding perceived added value: Assesses the importance of how customers stand in relation to the perceived value offered by the products or services of competitors.
- Relative competitive strategies: Rates competitors on perceived price and perceived added value.

For the purpose of strategic formulation, competitor analysis is useful both in predicting how competitors are likely to behave and in influencing their behaviours in favour of the organization's goals.

Other authors, like Thompson (1997), refer to the Boston Consulting Group matrix (BCG) and the product life cycle approach. The former will be discussed in section 2.2.2.2.3, and the latter resembles the Arthur D. Little life-cycle matrix (ADL), which will be discussed also in the same section.

2.2.2.2 Internal Analysis

In general, all organizations have strengths and weakness in the functional areas of business, and no enterprise is equally strong or weak in all areas.

In broad terms, an effective strategy is one that takes advantage of the firm's opportunities by employing its strength to wards off threats by avoiding them, or correcting or compensating weakness. The process of performing an internal analysis or audit closely parallels the process of performing an external audit. The idea of an internal audit is on identifying and evaluating a firm's strengths and weaknesses in the functional areas of business, including finance/accounting, management, marketing, production/operations, research and development, and computer information systems. Because of the broad nature of the field that involves strengths and weakness in different organizations, it is possible to combine the applications of different approaches to perform this analysis. Some of the most used are as follows:

2.2.2.2.1 Financial Analysis

The analysis of the financial performance of the firm is an essential part of both functional and competitive analysis. Any financial analysis must be done on a comparative basis and be conducted over a sufficient length of time to iron out the effect of any one-off events.

There are two basic approaches to financially analyse an organization: cross section (among organizations at one time) and time series analysis (one organization over time) (Ross, *et al.*, 2001). To perform these analyses, financial ratios that cover three main areas are commonly used: 'Liquidity ratios' (Current ratio, Quick ratios), 'Profitability ratios' (Profit margin, Return on assets (ROA), Return on investment (ROI), Return on equity (ROE) and 'Wealth and Solvency ratios' (Net debt/equity, debt ratio, Net interest cover, Debt to gross cash flow). Another important ratio in wealth creation measurement that has become a benchmark in the last decade and regarded as the real key for creating wealth is Economic Value Added (EVA) (Tully and Hadjian, 1993, Van Zyl and Perkins, 1994, Ehrbar, 1998, Stern, 2001).

EVA is defined as net operating profit after tax (NOPAT) less a capital charge that reflects a firm's cost of capital. Thus, if a company's capital is $5,000 and its cost is 12%, the capital charge is $600. If NOPAT is $1,000, the $600 charge is deducted and the result is an EVA of $400. EVA is the residual left over after all costs have been covered (Ehrbar, 1998).

The cost of capital is the required rate of return, the rate that compensates the investors for their perceived risk. This risk varies from industry to industry, from company to company and from project to project. If a company's profits are only equal to the required rate of return, the investor has not made any money. There will be a real profit only if the company earns more than the cost of its capital. EVA has been proven to work virtually everywhere because it is the right approach for all companies in all times and in all environments. One of the virtues of EVA is its adaptability. EVA can be used at a division, factory, store or even product line. It can be used wherever an allocation of revenue, costs, and capital employed can be made (Ehrbar, 1998).

EVA is also an incentive compensation system that puts managers on the same 'footing' as shareholders, rewarding them for actions that increase shareholder returns and penalizing them for failure. The idea is that executives are enriched only by a process that also enriches shareholders (Ehrbar, 1998).

An additional important area also covered in financial analyses is 'Assets Management' with Inventory turnover, Days sales in inventory, Receivables turnover, Days sale in receivables, Fixed assets turnover and Total assets turnover as the most used ratios.

2.2.2.2.2 Value Chain Analysis

According to Porter (1985), the business of a firm can best be described as a value chain in which total revenues minus total costs of all activities undertaken to develop and market a product or service yields value. All firms in a given industry have a similar value chain, which includes activities such as obtaining raw materials, designing products, building manufacturing facilities, developing cooperative agreements and

providing customer service. A firm will be profitable as long as total revenue exceeds the total costs incurred in creating and delivering the product or service. Firms should strive to understand not only their own value chain operations, but also their competitors', suppliers' and distributors' value chains (David, 1997).

Because a competitive advantage can be derived from any part of the business, Porter (1985) contends that an examination of the value chain provides an ideal framework for analysing activities for the business. The value chain analysis is a systematic way of studying the direct and support activities undertaken by a firm. From this analysis should arise greater awareness concerning costs and the potential for lower costs and for differentiation.

However, as with the five force's framework, substantial changes are taking place, and Porter's (1985) theory is also being vigilantly analysed (Kippenberger, 1997b;a), or challenged (Hill, 1988, Murry, 1988).

According to Botten and McManus (1999) the most common criticism has been that, while low-cost and differentiation strategies are empirically identifiable and are linked with above average profitability, Porter's dichotomy of cost differentiation cannot be maintained. On the other hand, Porter states clearly that all competitors, including differentiators, should seek to minimize their costs. This would not be a threat to their differentiation strategy if the cost structure is at least near the industry average. The cost leadership is about lowest cost, not low cost.

2.2.2.2.3 Portfolio Analysis

According to Thompson (1997), it is argued that relative competitive position and growth are the two fundamental parameters that must be considered in determining the strategy that an individual business should follow to overall 'business portfolio'. The key is that strategies should be made to differ widely from business to business as a function of the growth and relative competitive position of each business and the company's overall resource position, particularly with respect to cash. The business portfolio concept developed by the Boston Consulting Group Ltd (BCG) provides a

superior approach for developing the differentiated strategic business objectives, which are necessary for any company to make the most of its opportunities (McName, 1990).

As well as the BCG matrix, other portfolio matrices have been equally used since the 1970s, with, the McKinsey directional policy matrix, and the life-cycle matrix of Arthur D. Little being the other relevant ones. However, the three matrices have pitfalls (Malcom, 1983, Jose, 1996), and none of them explicitly takes into account the resource-based theory (RBV) of the firm or makes any rigorous attempt to determine the firm's key or core competences in order to discover the area in which the company is most likely to succeed (Ambrosini, 1998).

The BCG portfolio analysis model (also called the product portfolio matrix or growth share matrix) was the earliest to hit the market. It is based on the close association between market share and cash generation. According to Botten and Mcmanus (1999), what characterizes BCG portfolio analysis from Profit Impact of Market Strategy (PIMS) is its focus on the specific role of each product in the overall strategy in the firm. The model is based on the generation of cash flow as a measure of success and the allocation to particular product groups. It uses market growth and relative market share as the two decisive parameters. Based on its cash flow characteristics, each product can be positioned in the matrix. The four positions in the model are called Stars, Cash Cows, Dogs and Question Marks. A Star is a product that has a high market share in a growing market. A Cash cow is a product or business with high market share and low market growth. Dogs have low share in static or declining markets, and Question marks, sometimes referred as the problem child, have low market share and high market growth.

Nonetheless, Ambrosini (1998) argues that market growth is only one issue in the quest for attractiveness, which is extensively analysed in Porter (1980) five forces framework. Also, whether growth is important also depends on whether the business unit concerned has a strategic advantage in the key competences that enable the growth to lead to improved results for the organization. Also, market share is also an uncertain surrogate for company strength. Market share can be bought easily by pricing below cost without the possession of any area in internal strength. Despite its drawbacks, portfolio analyses

can facilitate an organization's assessment of the balance of its mix of services, products or businesses.

In an attempt to overcome some of the weaknesses of the BCG matrix, the McKinsey matrix selects more realistic multidimensional axes to represent industry attractiveness and business strengths. If the matrix had been developed after Porter's (1980) competitive strategy and (1985) competitive advantage framework, it may well be that the five forces industry attractiveness model would be recommend as a means of assessing one axis, and the value chain the other. However, the matrix's major weakness is that there is no easily applied means of establishing the appropriate weightings for the many dimensions of attractiveness and business strengths, establishing bias among manager's already established ideas (Ambrosini, 1998).

Finally, the Arthur D. Little life-cycle matrix (ADL) chooses competitive position as its measure of the firm's strengths (as internal measure), which resembles Mc Kinsey business strengths. Its other axis it is quite different, by selecting market maturity as its external measure (Ambrosini, 1998).

2.2.2.2.4 PIMS Analysis

The Profit Impact of Market Strategy (PIMS) was originated in 1973 at Harvard Business School, in a research focused primarily on Return on Investment (ROI) because of its frequent use as a performance measure in strategic planning. The model was designed to answer what factors influence profitability in a business, and how much influence each one has. Also, it was focused on how ROI changes in response to changes in strategy and in market conditions.

The independent variables in the model were assembled under four headins:

- Competitive position of the business (relative market share, product quality, price, promotion, new-product development)

- The business environment (growth in industry, rate of inflation, customers, replacement cycle)

- Structure of the production process (capital intensity, degree of vertical integration, productivity)

- Discretionary budget allocation (R&D budgets, marketing budgets).

According to Botten and MacManus (1999), PIMS is still considered controversial, particularly due to the importance in the model of large market share leading to greater profitability. Although PIMS is out of business in North America (Buzzell, 2002), assessing a firm's internal strengths and weakness with the PIMS framework is still a powerful tool in measuring and comparing their relative position.

2.2.3 Competitive Advantage

The foundation of competitive advantage lies in the fundamentals about the Ricardian principle of international trade of comparative advantage. This principle of comparative advantage holds that each country will benefit if it specializes in the production and export of those goods that it can produce at relatively low cost (Samuelson and Nordhaus, 1998). Making an analogy to businesses, a business has a comparative advantage when it is relatively efficient in the production of certain products (i.e. has a relative lower cost) by making intensive use of resources that are available in relative abundance within the country or region.

However, there are extensive cases of successful businesses in all kind of environments where costs are not relatively low or resources are not relatively abundant. They have an advantage that goes beyond relative production strengths. This is due to a competitive advantage. Business strategy is all about competitive advantage. Without competitors there would be no need for strategy. Businesses must, as effectively as possible, gain a sustainable edge over their competitors to stay in the business in the long term. A good strategy is one in which a company can gain significant ground on its competitors at an acceptable cost to itself.

Despite its ubiquity, competitive advantage is a comparatively recent concept. Until the late 1980s, strategy disclosure was conducted largely without the term.

According to Porter (1985), companies might compete in the industry creating a sustainable competitive advantage in three basic ways:

Cost Leadership: By achieving lower costs than its rivals and competing across a broad range of segments.
Differentiation: Through product differentiation, adding value in an area that customers regard as important.
Focus strategies (Cost or Differentiation): When a company chooses to concentrate on only one segment or a limited range of segments. With this approach it can again seek either lower costs or differentiation.

The lowest cost producer in either a broad or narrow competitive scope must: deliver acceptable quality but produce that product or service with lower costs than competitors and sustain this cost gap and achieve above-average profits from industry average prices. The producer that decides to differentiate must: select one or more key characteristics which are widely valued by buyers and add costs selectively in the areas perceived to be important to buyers, and charge a premium in excess of added costs (Porter, 1985).

In the commodity business, product differentiation is very difficult, leading most agricultural businesses to focus on cost leadership. This lower cost strategy becomes generally then their competitive advantage. But since only one firm can differentiate itself with the lowest cost, the remaining firms in the industry must find other ways to differentiate their products (David, 1997) making the selection of competitive strategy a more complex process.

The fundamental theorem of the dominant paradigm is that an above-average performance can only be achieved by adopting one of the four generic designs. Performance is defined as above-average rate of return (Porter, 1980), sustained over a period of years (Porter, 1985).

Nevertheless, and as usual in the field of strategic management, Campel-Hunt (2000) disagreed, stating that although cost and differentiation do play a high-level role in discriminating between competitive strategy designs, empirical records have uncovered a richer and more fine-grained descriptive system than that originally proposed, and has focused attention on the need for a more complete, and possibly different, specification of the link between competitive strategy and firm performance.

The origins of competitive advantage may therefore lie in the ability to identify and respond to environmental cues well in advance of observing performance-oriented pay-offs (Cockburn, *et al.*, 2000). These effects of the environment are well represented in Song (2002) work, were he identified that high buyer power and high substitution threats were associated with a preference for cost-leadership strategies, and that Japanese managers were significantly more likely to prefer a cost-leadership strategy

than U.S. managers. Under conditions of high buyer power, U.S. managers were less likely than Japanese managers to enter a market with a differentiation or focus strategy.

On the other hand, Powell (2001), investigated whether competitive advantage is a legitimate scientific concept. Powell's results were that (1) competitive advantage is not a necessary and sufficient condition for superior returns; (2) there is no falsifiable theory of competitive advantage without resorting to ideology, dogmatism or faith; (3) at best, competitive advantage is a metaphor which is useful to the strategic management community. Nonetheless, Durand (2002) promptly answered that (1) logically, the conjunction of competitive advantage and a capable organization is sufficient and necessary to lead to superior returns; (2) alternative interpretations of the philosophers cited by Powell (2001) exist; (3) there is no necessity to adopt Powell's pragmatic view of competitive advantage, and there is room for more positivist research on the relationships between competitive advantage, organization, and superior returns.

Flint (2000) also questioned the concept itself, characterizing it as the most overworked and least understood catch phrase. Klein (2002) argues that the concept is surprisingly confused, strategy texts tend not to define competitive advantage and defines it is a tautology, arguing that a greater distinction and definitional clarity should be made between competition and strategy.

In trying to clarify the concept, Hunt (2002), in a summary of all the current usages of competitive advantage, states that business strategy maintains that the strategic imperative of a firm should be sustained superior financial performance and that there is a belief that this goal can be achieved through a sustainable competitive advantage in the market place. He also adds that it is equally clear that no one function can operate in isolation and that intra-, inter- and extra-organizational cooperation is essential.

In the same line of thinking Walters *et al.* (2002) argued that the current approach to both process and capability management offers marketing management an opportunity to take advantage of new business models in which competitive advantage is based upon managing processes, knowledge, technology and relationships that facilitate rapid and flexible responses to 'market' change, and in which new capabilities are based upon developing unique relationships with partners.

Grant (1998) defines competitive strategy as the ability of the firm to outperform rivals on the primary performance goal – profitability. It is the ability to perform (or earn) higher than a rival.

Competitive advantage is the basis for superior performance and comes in different shapes and sizes. Understanding the anatomy of competitive advantage is of paramount importance to general managers who bear the ultimate responsibility for a firm's long-term survival and success. An integrative framework called SELECT can help general managers systematically examine the various facets of the anatomy of competitive advantage: its (1) Substance (position vs. kinetic (knowledge and capabilities (Ma, 2000)) or homogeneous vs. heterogeneous), (2) Expression (Discrete vs. compound or tangible vs. intangible), (3) Locale (Individual-bound, firm-bound or virtual-bound), (4) Effect (absolute vs. relative or direct vs. indirect), (5) Cause (spontaneous vs. strategy or competitive vs. cooperative), and (6) Time-span (potential vs. actual or temporal vs. sustained). Analysing the causes of competitive advantage helps a firm create and gain advantage. Studying the substance, expression, locale, and effect of competitive advantage allows the firm to better utilize the advantage. Examining the time span of competitive advantage enables the firm to fully exploit the advantage according to its potential and sustainability (Ma, 1999).

Accordingly, Rindova (1999) argued that competitive advantage is a systemic outcome that develops as firms and constituents participate in six processes that entail not only use and exchange of resources, but also communication about and interpretations of those exchanges. As interpretations and evaluations of a given firm fluctuate, so do the resources the firm has access to and its competitive advantage in the marketplace.

Continuing in the quest for superior performance, different authors tried to describe precise ways of achieving the specific competitive advantage. Formulas went through Quality – Not costs (Whiteley and Hessan, 1996), Creating value to keep "raiders at bay" (McName, 1990), building synergy in the diversified business, Customer focused strategies (Whiteley and Hessan, 1996), generating competitive advantage through people (Pfeffer, 1994), or gaining comparative advantage in handling tacit information of uncertain quality which is difficult to patent (Casson, 1996).

Gray (2002) goes even further, stating that the ability that makes a company successful and others not, is something that is not quite definable, calling it the X factor.

But beyond statements and counter statements about what is strategy and competitive advantage, like Porter's (1996) work, which states that competitive advantage comes from the way a whole system of activities fit and reinforce one another; there is a clear understanding in the strategic field, that the key to success of an enterprise is establishing a competitive advantage (Grant, 1998).

Therefore, and encompassing all contributions to the term, competitive advantage can be defined as follows:

Definition 1: Competitive advantage is the ability of a firm to outperform rivals on profitability, by an above-average rate of returns sustained over a period of years.

2.3 Strategic Evaluation and Selection

According to Johnson and Scholes (2002), the success or failure of strategies will be related to three main success criteria: Suitability, acceptability and feasibility. Suitability is concerned with the rationale of a strategy according the circumstances. Acceptability is related to returns, risk and reaction of stakeholders, and feasibility is concerned with whether an organization has the resources and competences to deliver a strategy.

To help managers to evaluate and select strategies that will be successful, different tools have been developed. Some of the more used and studied are as follow:

2.3.1 SWOT Analysis

The SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis is a strategic audit that determines where the business is currently positioned in the strategic sense.

The fundamental objective of a SWOT analysis is to assess how well a business fits in the environment (Thompson, 1997). According to Weihrich (1982) the wizardry of SWOT is matching of specific internal and external factors, which creates a strategic matrix, which makes sense. Internal strengths and weakness are controllable activities within the organization, like management, marketing, finance/accounting, production, research and development (R&D), information systems, etc., and external opportunities and threats refer to political, economic, social and technological trend and events (known as PEST analysis) (David, 1997, Botten and McManus, 1999). Some authors (Thompson, 1997) also include other areas to PEST, like Legal and Environmental factors referring then to the PESTLE analysis.

Although SWOT has become a popular analytical tool in strategic management, it is starting to show its pitfalls in the rapid changing environment. According to Grant (1998), SWOT is handicapped by difficulties in distinguishing strengths from weakness and opportunities from threats, and it is more important to carefully identify all external and internal factors and appraise their implications on the organization. Also Hill and Westbrook (1997) agree that the SWOT cannot be an effective tool of analysis in the 1990s because of its lack of rigor and relevance and afforded inadequate insights. They also recognize that the method does not go beyond description, which is an essential part of any analysis. Nevertheless the method can still be valuable if it is taken with more rigor (Ambrosini, 1998), challenging assumptions and subsequent validation and investigation, particularly for performing structured lists for strategic position discussions. This is why although SWOT analysis is still useful, it can no longer serve as a primary model to guide strategic choice.

Nonetheless, new uses are being found for the tool, like serving as a great 'stepping stone' to build the key performance indicator (KPI) of the Balanced Scorecard (Kaplan and Norton, 1996a) strategic management tool (Lee and Saw On Ko, 2000) or to facilitate the BSC implementation through a combined tool called the Balanced Scorecard SWOT (Brown, *et al.*, 2001).

2.3.2 Gap analysis

According to Ambrosini (1998) Gap analysis is one approach to assessing the need for change and it understands the incentive to change. Gap analysis is defined in dictionaries as a physical space between things, as a period of time, to something missing that prevents the successful completion of an activity or as a great difference between two things, people or ideas. Gap analysis in strategic management is the analysis of all four of these forms of gaps. The classical approach in gap analysis is to recognize first that there is a gap, develop strategies to close the gap, manage the process of change and monitor and widen the advantage over competitors. The author warns that although the tool might appear superficial, it is an impression mistaken from the purpose of the tool. Gap analysis is a first stage technique that gives managers an understanding of the size and nature of the strategic problem.

Botten and MacManus (1999) describe five gaps in the strategic management context for service organizations. The model is based in Zeithamel *et al.* (1990) work about service quality, where they argue that these gaps are primary factors that can be used to measure service performance. Botten and MacManus (1999) describe gap one as the result of service providers not knowing their customer's requirements. Gap two is the discrepancy between the manager's perception of customer's expectations and actual specifications they establish for service delivery. Gap three is a service performance gap, which is a difference between a service specification and actual delivery. Gap four is the difference between what a company promises and what it actually delivers and gap five is the combination of gaps one to four, which represents the overall differences between the perceptions of the service provider and the customer.

2.3.3 Scenario Analysis

Scenario building started back in the 1950s, with Hernan Kahn developing a methodology for scenario writing (Drucker, 1958). Nonetheless it was not until the mid 1970s that scenario building started to emerge as a forecasting tool (Argenti, 1974). According to Kippenberger (1999b), scenarios are classified by management literature in three categories. Intuitive logic, Trend-impact analysis and Cross impact analysis.

Grant (1998) describes Scenario analysis as a process for thinking and communicating about the future. The multiple scenario approach constructs two or more distinct and internally consistent views of how the future may look 10 or 25 year into the future. Scenarios are useful tools for identifying possible threats and opportunities, and for developing a practical approach to risk management. They develop alternative views of the industry structure and realize implications for competition and competitive advantage.

According to Botten and McManus (1999), scenarios seek to answer two basic questions: What are the precise steps that might cause some hypothetical situation to develop, and what alternatives exist for preventing facilitating the occurrence of the hypothetical situation.

Although there are a variety of approaches for writing scenarios (Huss and Honton, 1987), Botten and McManus (1999) suggest eight chronological steps based on Swartz's (1991) work: Identify focal issues or decisions, key forces in the local environment, driving forces, rank by importance and uncertainty, select scenario logics, flesh out the scenarios, implications and selection of leading indicators and signposts.

Bood and Postma (1997) described Swartz' ideas in six sequential phases: Problem identification and demarcation of its context, description of current situation and identification of relevant factors, classification, valuation and selection of scenario-elements, construction of scenarios, analysis interpretation and selection of scenarios and, finally, support of strategic decision-making with scenarios.

Multiple scenario analysis is claimed to fulfil a wide range of different functions, some concrete and clearly visible, others more abstract and intangible. The main functions are the evaluation and selection of strategies, the integration of data, the exploration and identification of future possibilities, the increase in awareness about uncertainty, the stretch in manager's mental models and the triggering and accelerating process for organizational learning.

Because one of the aspects of strategic management is the acknowledgment that the future cannot be predicted, using scenarios in forecasting future outcomes, the process of testing should assess whether the range of strategic options is adequate to meet the conditions being anticipated (Kippenberger, 1999a).

2.3.4 Quantitative Planning

According to David (1997) after ranking strategies there is only one analytical technique in the literature to determine the relative attractiveness of feasible alternative actions. The technique is called 'Quantitative Strategic Planning Matrix (QSPM), and allows to objectively indicate preference to a certain strategy. The QSPM determines the relative attractiveness of various strategies based on the extent to which key external and internal critical success factors are capitalized upon or improved. The relative attractiveness of each strategy within a set of alternatives is computed by determining the cumulative impact of each external and internal factor by assigning weight to each factor and giving an attractiveness score to each factor under each strategy. The result will give a quantitative final score that will give an objective preference toward a specific strategy. Nonetheless, QSPM is not without some limitations, like intuitive judgment and educated assumptions. Rating and attractiveness scores require judgmental decisions. QSPM can be only as good as the prerequisite information and matching analyses upon which it is based.

2.4 Strategic Implementation

2.4.1 The Classical view

Strategy implementation is the cause of many problems (Mintzberg, 1994). According to Johnson and Scholes (2002), putting strategy into action is an extension of the linear planning process. To implement, the emphasis is on getting the logic of the strategy right and then persuading people of that logic; designing structures and control systems appropriate to the strategy and using them as mechanisms of change; putting in place the resources required; and planning the timing and sequencing of changes required. Control mechanisms and feedback systems also need to be in place so that the strategies can be refined and amended.

Successful strategy formulation does not guarantee successful strategy implementation. Strategy implementation means change. Successful strategy implementation requires support, discipline, motivation and hard work from all levels of the organization. Management issues central to strategy implementation include matching organizational structure with strategy, linking performance and strategy, leadership, political relationships, a strategy-supportive culture, adapting operations and managing human resources (David, 1997). However, before the BSC there was no single tool available to describe, implement and control strategy.

2.4.2 The Balanced Scorecard

In the early 1980s and 1990s strategic planning companies were in a process of linking strategic planning to operational decision making and of integrating the different components of strategic management into a cohesive whole (Bonn and Christodoulou, 1996).

At that time in the early 1990's Nolan Norton institute, the research arm of KPMG, sponsored a one-year multi-company study, "Measurement Performance in the Organization of the Future" in conjunction with Robert Kaplan from Harvard Business School as academic consultant. The findings were summarized in the groundbreaking article by Kaplan and Norton (1992), where a new measurement system was proposed to allow executives to view a company from several perspectives simultaneously.

After 1992, rapid development of the framework lead to a recognition of the importance of choosing measures based on strategic success (Kaplan and Norton, 1993). Around 1996 the Balanced Scorecard (BSC) began to evolve to a comprehensive framework system that allowed managers to translate a company's strategic objectives into a coherent set of performance measures. At this stage, the tool was becoming a strategic management system (Kaplan and Norton, 1996a, Kippenberger, 1996, McClintock, 2000), with wide acceptance from both academics and practitioners (Butler, *et al.*, 1997).

The term 'Balanced Scorecard' reflects the balance between short- and long-term objectives, financial and non-financial measures, lagging and leading indicators, and external and internal performance perspectives (Hepworth, 1998).

Nowadays, the Balanced Scorecard is a powerful tool for implementing (Grunig and Kuhn, 2002) and managing strategy (Frigo, 2002). Starting as a simple idea in 1992, today the BSC is deployed in more than half the Fortune 500 companies, and the BSC concept was named one of the most important and influential management ideas of the past 75 years by Harvard Business Review (Miyake, 2002).

The Balanced Scorecard is a descriptive rather than a prescriptive framework. It builds a view of strategy that, while developed independently of Porter's framework, is remarkably similar. The Balanced Scorecard design process builds upon the premise of strategy as hypotheses. Strategy is more about the unknown than the known. It is a best guess at a point in time about how to achieve a certain goal (Norton, 2001). Therefore, strategy implies the movement of an organization from its present position to a desirable but uncertain future position. Because the organization has never been to this future position, its intended pathway involves a series of linked hypotheses. The scorecard enables the strategic hypotheses to be described as a set of cause-and-effect relationships that are explicit and testable (Kaplan and Norton, 2000b), and finally test the strategy's validity itself (Campbell, 2002).

Central to the Balanced Scorecard methodology is the holistic vision of measurement system tied to the strategic direction of the firm. The Balanced Scorecard is based on strategic implementation through focus on four perspectives, with financial objectives and measures supported by customer, internal and learning and growth objectives and metrics. By measuring and managing the business using this balanced set of measures, an organization can ensure rapid and effective implementation of the strategy and facilitate organizational alignment and communication (Inc, 2000). Thus, financial results are obtained by successful implementation of strategic initiatives in key business process perspectives (Mooraj, *et al.*, 1999).

Nonetheless, as in every field, there are detractors and challengers. According to Kanji and Sa (2002), the Balanced Scorecard, as presented by Kaplan and Norton, is not

without limitations. The author states that the causality links suggested among the four perspectives are particularly problematic and ambiguous. Additionally, it fails to recognize explicitly the contributions of important stakeholders such as employees and suppliers (Maltz, *et al.*, 2003). Kenny (2003) goes even further stating that the framework is arbitrary, making crucial measures almost inevitably overlooked, and that its well know status is a result of 'right place - right time' in history, great marketing and powerful organizations with interests involved, among others. Norreklit (2000) considers that these relationships are problematic, that there is no empirical basis for the relationship quality –financial results, and that if a cause-and-effect dimension requires a time lag between cause and effect, the it is problematic that the time dimension is not part of the scorecard. This means, that there is no causal relationship between measures from the four perspectives.

McAdam and O'Neill (1999) also reviewed the BSC based on the total quality management framework and concluded that the tool remains a means of effectively measuring strategy rather than a means of deciding strategy.

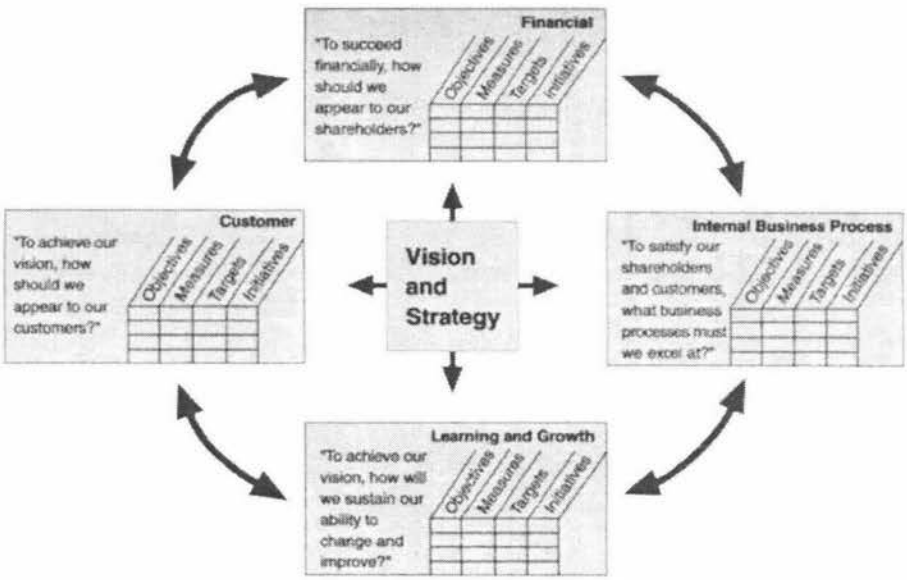
However, and as Hepworth (1998) describes, the added value of the Balanced Scorecard is in drawing together all of the key business areas and identifying the linkages that deliver success. According to Walker (1996), the BSC is consistent with the approach of decentralizing decision-making through empowerment, improved efficiency and competitiveness, increased co-operation and execution of strategy.

Used correctly, it can empower an organization by operationalizing the strategy discussion, and then by assigning the accountability for well-defines results (Gering and Rosmarin, 2000), and forces managers to develop a clear and shared view of what they are trying to achieve and what the critical levers and means are to reach those objectives (Epstein and Manzoni, 1998). According to Porter (2002), the BSC, when properly connected to a unique strategy, is a very powerful tool for communicating the strategy throughout an organization.

Like every other major change, the development and adoption of the BSC requires the full engagement and commitment of the leadership at the top. After all organization's have to be managed and lead (Kaplan, 2002). For that, the unique culture and existing

company philosophy have to be incorporated in the scorecard for it to be acceptable to managers (Letza, 1996). Introducing a BSC inevitably brings some change and resistance. Changes affecting the availability of performance-related information can be particularly threatening, as they have the potential to modify the balance of power within the organization (Epstein and Manzoni, 1998).

Finally, and according to Niven (2002), organizations are not much different than the people that compose them. 2,500 years ago, the Greek playwright Euripides noted the importance of balance in people's lives saying: "*The best and safest thing is to keep a balance in your life, acknowledge the great powers around us and in us. If you can do that, and live that way, you are really a wise man.*" The principle applies to organizations, and the Balanced Scorecard (Figure 1) is the tool to implement this balance.



Source: (Kaplan and Norton 1996a)

Figure 1. The Balanced Scorecard framework.

2.4.2.1 Financial Perspective

According to Kaplan and Norton (1996a) financial objectives represent the long-term goal of the organization: to provide superior returns based on the capital invested in the unit. Financial objectives serve then as the focus for the objectives and measures in all the other scorecard perspectives.

Although the ultimate goal of any business is to maximize equity, financial objectives can differ considerably depending on the stage of a business's life cycle, particularly when different business units are involved. Depending on each of the three stages of growth, sustain and harvest, there are three financial themes that drive the business strategy, namely: Revenue growth and mix, cost reduction/productivity improvement and asset utilization/investment. The drivers in the financial perspective are then customized to the industry, the competitive environment, and the strategy of the business unit. The authors also noted that many organizations are concerned with risk and variability of their returns, making risk management the four financial objective schemes in the financial perspective.

2.4.2.2 Customer Perspective

The customer perspective of the Balanced Scorecard identifies the customer and market segments in which the organization has chosen to compete, which will deliver the revenue component of the financial objectives. The customer perspective enables organizations to align their core customer outcome measures (lag indicators) – share, retention, acquisition, satisfaction and profitability – to targeted customers and market segments. It also enables them to identify and measure explicitly the value propositions – Products and service attributes, customer relationship and, image and reputation - they will deliver, day-to-day, to targeted customers and markets. These value propositions represent the drivers (lead indicators) for the core customer outcome measures (Kaplan and Norton, 1996a).

2.4.2.3 Internal-Business-Process Perspective

The internal-business-process perspective identifies the processes that are most critical for achieving customer and shareholders objectives. To do so, the Balanced Scorecard defines a complete internal-value chain that starts with the innovation process (identifying current and future customer's needs and developing new solutions for these

needs), proceeds through the operation process (delivering existing products and services to existing customers), and ends with post sale service (offering services after the sale that add to the value customers receive from an organization's product and service offerings) (Kaplan and Norton, 1996a).

2.4.2.4 Learning and Growth

According to Kaplan and Norton (1996a), the fourth and final perspective on the Balanced Scorecard develops objectives and measures to drive organizational learning and growth, to meet the ambitious targets for financial, customer and internal-business-process objectives. The enablers for learning and growth come primarily from three sources: employees, systems and organizational alignment. Satisfaction, productivity and retention are a core group of three employee based outcome measures for investment in employees, systems and organization alignment. These drives are somewhat generic and less developed than those of the other three balanced scorecard perspectives, but leave a opportunity for future development of customized metrics that could be more closely linked to a business strategy, like human capital, which is firmly acknowledged as a strategic source of value creation (Frangos, 2002).

Morey and Frangioso (1998) suggest that 'knowledge transferring events' (KTE) within the organizations could be rewarded and used as a metrics in the learning and growth perspective. By doing so, teaching others in the organization becomes everyone's job, improving the quality of information in an organization over time, and building the key long-driver for the organization's success.

Finally, a summary of the most common measures used for the four perspectives of the Balanced Scorecard is shown in Table 1.

Table 1 Commonly used measures in the four Balanced Scorecard perspectives.

Financial Perspective	Customer Perspective
▪ Total assets; Total assets per employee ▪ Profit as a % of total assets; ROA, RONA, ROCE, ROI, ROE, EVA, MVA ▪ Revenues/total assets, Gross Margin, Net income ▪ Profit as a % of sales, Profit per employee ▪ Revenue, Revenue/new products, Revenue/employees ▪ Value added per employee ▪ Compound growth rate ▪ Dividends, EPS, Market value, Share Price, Shareholder mix, Shareholder loyalty ▪ Cash Flow, Total costs, Credit rating ▪ Debt, Debt to equity, Times interest earned ▪ Days sales in receivables, Accounts receivable turnover ▪ Days in payables, Days in inventory, Inventory turnover ratio.	▪ Market share ▪ Customer satisfaction, Customer loyalty, Customer complaints, complaints resolved on first contact ▪ Return rates; Response time per customer request ▪ Direct price, price relative to competition ▪ Total cost to customer, average duration of customer relationship ▪ Customer lost, Customer retention, Customer acquisition rates ▪ Percentage of revenue from new customers ▪ Number of customers ▪ Annual sales per customer ▪ Win rate (sales closed/sales contacts) ▪ Customers visits to the company, hours spent with customer ▪ Marketing cost as a percentage of sales, Number of ads placed, number of proposals made ▪ Brand recognition ▪ Response rate, number of trade shows attended ▪ Sales volume, share of target customer spending, sales per channel ▪ Average customer size, customer per employees, customer service expense per customer, customer profitability ▪ Frequency (number of sales transactions)
Internal Processes Perspective	**Learning and Growth Perspective**
▪ Average cost per transaction ▪ On-time delivery, Average lead time, inventory turnover, Stock outs ▪ Environmental emissions ▪ Research and development expense, ▪ Community involvement ▪ Patents pending, average age of patents, ratio of new products to total offerings ▪ Labour utilization rates ▪ Response time to customer requests ▪ Defect percentage, Rework; Customer database availability ▪ Breakeven time ▪ Cycle time improvement, Continuous improvement, Warranty claims ▪ Lead user identification, Products and services in the pipeline ▪ Internal rate of return on new projects ▪ Waste reduction, Space utilization, Downtime ▪ Frequency of returned purchases ▪ Planning accuracy, time to market of new products/services ▪ New products introduced ▪ Number of positive media stories	▪ Employee participation in professional or trade associations ▪ Training investment per customer ▪ Average years of service ▪ Percentage of employees with advanced degrees ▪ Number of cross-trained employees ▪ Absenteeism, Turnover rate, Employee suggestions ▪ Employee satisfaction, participation in stock ownership plans ▪ Lost time accidents ▪ Value added per employee ▪ Motivation index, Outstanding number of applications for employment ▪ Diversity rates, Employment index (number of managers) ▪ Quality of work environment ▪ Internal communication rating; Employee productivity ▪ Number of Scorecards produced ▪ Health promotion; training hours ▪ Competency coverage ratio; personal goal achievement ▪ Timely completion of performance appraisals ▪ Leadership development; communication planning ▪ Reportable accidents ▪ Percentage of employees with computers ▪ Strategic information ratio ▪ Cross-functional assignments ▪ Knowledge management ▪ Ethics violations

Adapted from: Niven (2002)

2.4.2.5 The Strategy-Focused Organization

As already mentioned, after Kaplan and Norton's (1996a) breakthrough concept of the Balanced Scorecard, the initial framework kept changing through reflections and modifications. Since the early 90's the tool was applied on hundreds of companies in different areas and countries. The authors found that these companies, collectively, continuously utilized three words when describing a successful BSC implementation (Norton, 2003):

- Strategy: As the strategy has to be clear to both the executive as well as the whole organization.
- Focus: By having the strategy described through the BSC gives the company an incredible focus.
- Organization: By using standard management organizational tools, like, compensation, budgeting, goals, etc, the organization can be mobilized around the strategy.

These concepts, evolved into the 'Strategy-focused organization' (Kaplan and Norton, 2000b), which suggests that the successful implementation of a strategy by using the BSC is based on five principles: 1) Translate the strategy into operational terms, 2) Link and align the organization's strategy, 3) Motivate the organization by making strategy everyone's job, 4) Learn and adapt by making strategy a continuous process and finally, and most importantly, 5) That the executives mobilize the organization by creating a process of on-going change.

2.4.2.6 The Strategy Map

In short, and according to Miyake (2002), a strategy map is a one-page description of the cause and effect drivers of a strategy. Strategy maps complement the Balanced Scorecard tool in aligning people resources and business objectives (Wright, 2001). The Development of the strategy map is the formalization of the relationship between the BSC and strategy implementation (Miyake, 2002).

According to Kaplan and Norton (2002), in the same way troops need detailed maps about the mission they are on, in business, a workforce needs clear and detailed information to execute a business strategy successfully. After multiple transformations, the creators of the seminal tool adapted it to create strategy maps. This new concept came about after they built hundreds of scorecards (more than 300) and analysed them, discovering and mapping a pattern that they called a strategy map (Figure 2). These maps allow organizations to describe and illustrate – in clear and general language – their objectives, initiatives, target markets, performance measures, and the links between all the pieces of their strategy. Employees get a visual representation of how their jobs are tied to the company's overall goals, while managers get a clear understanding of their strategies and a means to detect and correct any flaws in those plans. The authors separated the strategies into several focused themes, allowing the organization to deal with the conflict priorities of long-term versus short-term, or growth versus profitability. By doing this, the strategic map becomes a generic architecture for describing strategy with the strategic themes reflecting what the management team believe must be done to succeed. According to Kaplan and Norton (2000b) the strategic themes provide a way to segment the strategy into several general categories:

- Build the franchise: The long wave of value creation; developing new products and services and penetrating new markets and customers segments.
- Increase customer value: Expand, deepen, or redefine relationships with existing customers (for instance, cross sells services, become trusted advisor and consultant, transform unprofitable customers) through multiple sales cycles.
- Achieve operational excellence: The short wave of value creation through internal productivity management and supply chain management that enables organizations to provide efficient, zero-defect, and timely production and delivery of existing products and services to customers. Also, the management of assets utilization and resource capacity.
- Be a good corporate citizen: Manage relationships with external legitimizing stakeholders, especially in industries subject to regulation (e.g. Utilities, health care, broadcasting, telecommunication) or safety and environmental risk.

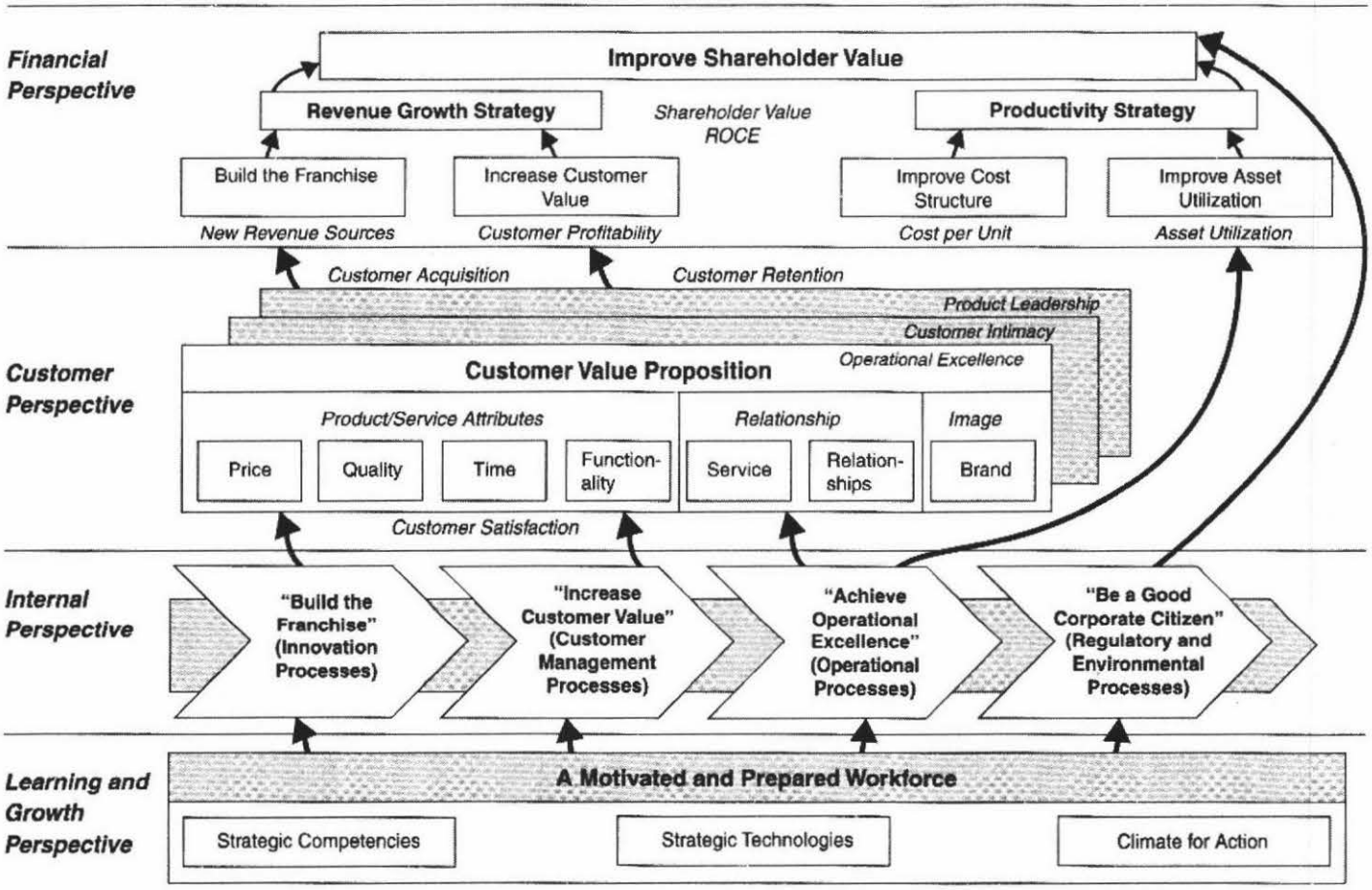
Each of the four strategic themes provides a 'pillar' for the strategy defining long-term ("Build the franchise"), mid-term ("increase customer value"), and short-term ("operational excellence") value propositions for targeted customers. Balanced Scorecard strategy maps portray the cause –and-effect relationships of how the strategic themes drive improved customer and financial outcomes (Kaplan and Norton, 2000a).

According to Irwin (2002), Kaplan and Norton (2000a) have developed a powerful technique that can be applied to any business and non-profit organization.

The systemic nature of the BSC, and its strategic maps, enables it to be used as a launching pad for a general strategic plan within the organization (Solano, *et al.*, 2003).

Strategy maps have the impact of charting an organization's success in achieving objectives. Strategy maps serve as useful reminders that more than just the destination matters: the route along the way is a powerful source of learning, too (Wright, 2001).

Figure 2 The Balanced Scorecard Strategy Map.



Source: (Kaplan and Norton, 2000b)

2.5 Cooperatives

Rapidly changing business environments are altering preconceived definitions of what a cooperative fundamentally is. In general a cooperative is a user-owned and user-controlled business that distributes benefits on the basis of use (Barton, 1989). Other definitions are 'a co-operative is an agricultural producer organization that is user-owned, user-controlled and user-benefited' (Cook, 1997), or 'a co-operative is an autonomous association of persons united voluntary to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically controlled enterprise' managed by six principles: Open membership, democratic control, service at cost, limited return on capital, duty to educate, and cooperation among co-operatives (ICA, 2001), with the objective of providing a service that individual producers cannot or would not efficiently provide them selves.

The benefits of being part of a co-operative are many: economies of scale, timing of capital investments, bargaining power, uncertainty reduction, existence of statutory support, special tax laws, among others. Co-operatives can be classified according to size (large, small), financial structure (stock and non-stock), organizational structure (centralized, federated, mixed), geographic area served (local, regional, national, transnational), function performed (marketing, supply, processing, bargaining and service), scope (horticulture, dairy, meet, etc,) or according to the principles that rule them (Rochdale, Traditional, Proportional or Contemporary) (Barton, 1989).

Cooperative members differ with investor-orientated firm's (IOF) shareholders, in that the latter invests capital in strictly search for return on equity, while cooperative members invest capital in order to make needed services available to themselves (McBride, 1986). Cooperative members must maximize value at cooperative/firm level and at a member level (Lynch, 1998). Other key differences with IOF is that cooperatives are user-owned, user controlled either in a proportional or democratic basis, and user-benefit orientated, which means that the benefits are distributed to its members on the basis of their use (McBride, 1986, Barton, 1989).

The way relationships among cooperative members occur (Board, Management and members), particularly due to the involvement of members in management, generates several complications like low investment incentive, coordination, governance and control problems (Schaffner, *et al.*, 1998).

Nowadays Cooperatives, particularly agricultural related, are facing a number of economic and social trends, like saturation of markets, increase in retailer's bargaining power (Ricks, 2000) globalization and deregulation, government supported reduction (Harte, 1997, Wilson, 1999), increasing exporting and internationalization. According to O'Connor and Thompson (2001) major changes in the cooperatives in the U.S. and E.U. are horizontal integration through mergers, capital management and changes in governance and control. Based on these same facts, Nilsson (1998) forecasted a precarious future to the traditional cooperative model. Indeed, the 90's have seen the emergence of a new cooperative model, so called New Generation Cooperative (NGC) or hybrids (Katz and Boland, 2002). This new model differs with the traditional in that capital is not treated as common property, members hold tradable shares proportional to their delivery rights, and there is restricted membership (O'Connor and Thompson, 2001, Katz, 2002). Frampton (2002) argues that the NGC model enables to increase the member share along the value chain capturing more value, and some of the traditional limitation of co-operatives (the free rider, horizon, portfolio, control and stakeholder conflict problems) can be overcome without weakening the essential co-operative principles. Katz (2002) said that NGCs are a strategic response to an increase in the flexibility of the firm.

Future opportunities and challenges to cooperatives will depend on their rational selection among the various choices available to them due to new trends. Strategic planning and commitment by co-operative members will certainly be required to make this selection (Lang, 1995), being internationalisation part of any co-operative strategic analysis (Book, 1992).

3 CHAPTER THREE: METHODOLOGY

3.1 Research Method

According to Yin, (2002) three criteria can be used to select a research strategy: The form of research questions, the degree of control required over behavioural events, and whether the focus is on contemporary or historical events (Table 2).

Table 2. Relevant situations for different research strategies.

Research Methodology	Form of question	Requires control over behavioural events?	Focus on contemporary events?
Experiment	How, why?	Yes	Yes
Survey	Who, what, where, how many, how much?	No	Yes
Archival analysis	Who, what, where, how many, how much?	No	Yes/No
History	How, why?	No	No
Case Study	How, why?	No	Yes

Source: Yin (2002).

The objective of this research was to perform a strategic analysis of the cooperative organization; identify the current or possible competitive advantage/s, and identify how this/these competitive advantage/s with other aspects of the business will deliver to the shareholders' vision by using the Balanced Scorecard.

Based on the research objective, the hypotheses that drove the research were the following: "The organization has a competitive advantage in the New Zealand Kiwifruit Industry" and "Satara Cooperative Group competitive strategies can be implemented through the Balanced Scorecard". The former could be answered by the questions: "What is the organization's competitive advantage", or "Why is a specific organization's characteristic a competitive advantage?". The latter hypothesis was tested by asking the question: "How should the organization's strategies be implemented using the BSC?".

Based on the characteristics of the proposed research topic, which are based on the 'How and why" questions, the inexistent control of the researcher over the contemporary events that embrace the research questions, and the mixture of historical and contemporary data and events necessary to collect data to answer the relevant questions, a single-case study methodology was the most suitable methodology to follow. This research strategy can explore, describe and explain certain phenomena using both qualitative and quantitative evidence (Chetty, 1996). It places more emphasis on a full contextual analysis of fewer events and their interrelations (Cooper and Schindler, 1998), by using multiple sources of evidence, making it a comprehensive research strategy (Yin, 2002) for the current study inquiry.

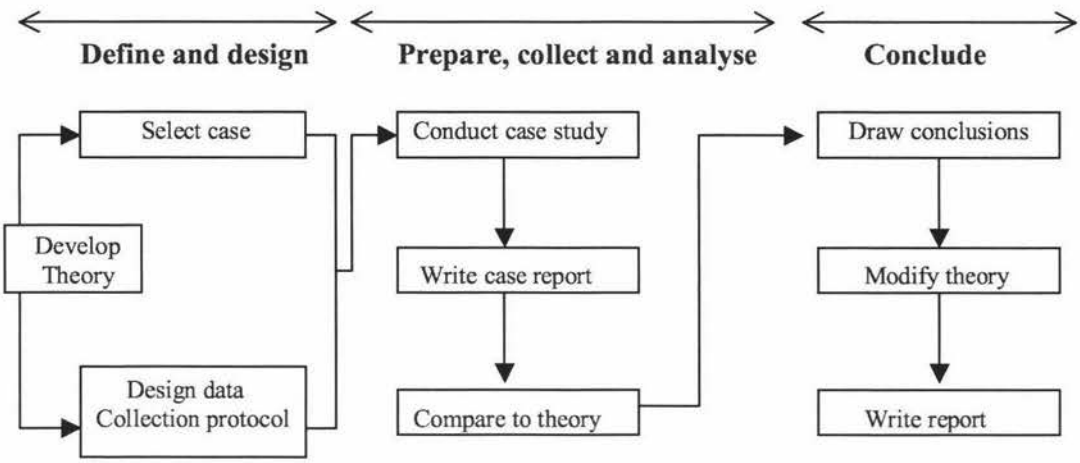
Another advantage of the case study is that an entire organization can be investigated in depth and with meticulous attention to detail when cooperation from inside the organization is given. It also gives freedom to search for data depending on the researcher's criteria, creativity, alertness and motivation (Zikmund, 1997), increasing progressively the understanding of the phenomenon, and making the researcher able to ask more specific questions (Leedy and Ormrod, 2001) towards the study questions.

3.2 Research design

Based on the 2x2 matrix for case studies proposed by Yin (2002) a single-case design with embedded approach (multiple sub-units of analysis) was used. The unit of analysis and the main boundary of the study was Satara Co-operative Group Limited. Nonetheless, the New Zealand kiwifruit industry was defined as a secondary boundary, particularly in the quest for the organization's competitive advantage. The subunits of analysis were within the organization the four strategic perspectives according to Kaplan and Norton (1996a).

The research design followed the sequential framework proposed by Yin (2002) for steps in case study research, which are define and design; prepare, collect and analyse; and conclude, (Figure 3).

Figure 3. Single case study method.



(Adapted from (Yin, 2002))

The define and design phase involved the development of theory through an in depth literature review, the case selection through multiple emails, letters and interviews with the possible company candidates, and the design of the data collection protocol.

The selection criteria was based on the importance of the organization in the New Zealand kiwifruit industry (history, market share, future), strategic changes undertaken or underway, innovativeness and leadership within the industry, and openness to the research proposal. Satara Co-operative Group Limited fulfilled, and was among the leaders, in all the selection criteria's. Also, and perhaps the most important of all criterions, it was open and willing to work with the researcher in the project, a condition upon which any case study depends completely.

The second stage involved conducting the case study, writing the case reports and comparing the outcomes to the theory identified in the literature review. The evidence collected followed the priority that was consequent with the two-research hypotheses. First, industry information was gathered, then information towards defining the competitive advantage, and, finally and internally, information sought to build a BSC and answer the relevant research question.

The techniques used in this case study to collect information were documentation (secondary data) like annual reports, magazines, books; archival records like internal documents, etc.; various interviews with decision makers, competitors and customers and, direct observation through on-site visits to industry stakeholders. To gather particular data (strategy development at Satara) also a questionnaire (Appendix 3) was used. For the customer perspective of the Balances Scorecard, a survey performed by the company was also used. Although surveys are commonly grouped as a different research method, Yin (2002) accepts their inclusion in case studies when necessary.

The interviews were structured taped interviews that followed a response sheet built specifically for each interviewee. These response sheets were used as checklists as well as brief list of topics and additional data that could be used during the interview. Nonetheless, because the information gathered was going to be used to answer the same research questions, a general response sheet for the strategic management field was developed (Appendix 4). This general outline was then used to create a tailored adaptation for the different interviewees. The interviews were based mainly on open-ended questions following the usual three stages of interviewing: Opening (rapport building), developing and closing (Keats, 2000). When probing did not yield reasonable responses, multiple-choice questions, ranking types questions or even closed-ended questions were used to focus the interviewee's responses (Shipley and Wood McNulty, 1996). In two cases, particularly with Satara's CEO, a combination of oral and written questions (Appendix 5, Appendix 6) were used. This strategy was followed because the extension of some topics would have required an excessive period of time to be completed, time that would have been beyond what is reasonable for a one-on-one interview. Also, another reason for including written questions is that some answers required deeper thinking and analysis, or further enquiring with other organization members. Finally, for the BSC perspectives, specific response sheets were developed (Appendix 7,
Appendix 8, Appendix 9, Appendix 10).

The interview's results were combined with other documentary evidence provided by the organization. The information was then sent back to the interviewees to be checked for accuracy. Once accuracy was confirmed, the case evidence was deemed suitable for analysis.

Ultimately, by making several field visits, an opportunity for direct observation was made. It was possible to detect some relevant behaviours or environmental conditions for observation.

The final stage of concluding involved drawing conclusions by identifying the important outcomes relevant to the research questions and finding similarities and differences between the research findings and the literature. Finally the report was written and submitted for revision to the organizations and to the pertinent University stakeholders.

According to Yin (2002), case studies can be exploratory, descriptive or explanatory. Nonetheless, the clarification does not imply that the boundaries between the strategies are always sharp. As a matter of fact, there are large overlaps among them. The important point is to avoid gross misfits.

Based on the research questions, the current case study was mainly explanatory, but performed the other two functions described earlier as well. First, the case study had exploratory functions, as it explored the organization for a competitive advantage, as well as for how the BSC framework could be developed and implemented to achieve the cooperative vision. This function is usually related to questions focused on the word "what?" (Yin, 2002) ("What is the organization's competitive advantage"). The exploratory function was useful in that it provided orientation in a topic not well developed, and that it is a diagnostic tool for important issues facing the organization. The evaluative function was used to test and refine concepts and in the end to generate new ideas. Then, the case study had also a descriptive function because it described the organization's competitive environment, capabilities, resources and strategies underway during the period of analysis. Finally, the case study was mainly explanatory because it explained the cause and effect of multiple factors on the organization's strategy, particularly within the BSC framework. This main explanatory function is supported by the 'how' and 'why' questions, which are more explanatory and likely to lead to the use of a case study (Yin, 2002) ("Why is a specific organization's characteristic a competitive advantage?" and "How should the organization's strategies be implemented using the BSC?"). In the end and according to Hamel (1993) case studies arrive at an

explanation that must be accurately and completely transmissible in a written statement with new information, transcending the field data collected.

3.2.1 Study protocol

The research steps are defined in the case study protocol, which describes the procedures and general rules that should be followed. The sections of the protocol are as follows:

- An overview of the case study project (project objectives, auspices, case study issues, and relevant readings about the topic being investigated.)
- Field procedures (permissions or access to the case study 'sites', general sources of information, and procedural reminders).
- Case study questions (the specific questions that the case study investigator must keep in mind in collecting data, 'table shells' or frameworks for specific arrays of data, and the potential sources of information for answering each question)
- A guide for the case study report (outline, format for the narrative, and specification of any bibliographical information and other documentation).

The Case Study protocol was as follows:

a) Overview
- Literature review. Complete at least 50% of all the relevant readings for the case study before going into section b) and 80% for section c)

b) Procedures
- Determination of persons to be interviewed.
- Allocation of resources.
- Asking for material to be analysed (Annual reports, specific company documents, etc)
- Gaining access to key interviewees and scheduling for field visits.
- Defining schedule and preparing for the visits.
- Defining unanticipated events.

c) Questions.
- Define the track for data collection.
- The New Zealand kiwifruit industry. Past, present and future.
- Strategic Planning: Topics to analyse and summary of questions.
- Competitive advantage: Topics and summary of questions.
- The Balanced Score Card: Topics and summary of questions.

d) Analysis Plan and the Report.
- Descriptive information
- Analysis
- Outline of individual draft reports
- Revision by key informants
- Final individual case study report

3.3 Data Collection

The data collected came from primary and secondary sources. Primary data was obtained from interviews with representatives at all levels of the Co-operative organization and other relevant industry stakeholders.

People interviewed for the case study are shown in Table 3, which is organized according to the two main research questions.

Table 3. Case Studies interviewees according to relevant topics.

Hypothesis/Question	Sub-topic	Interviewee
Satara™ Co-operative Group Limited has a competitive advantage in the New Zealand Kiwifruit industry.	History, industry competitive environment, future, and organization's competitive advantage.	Satara Co-op CEO, Craig Wallis. Satara Co-op, Technical Assistant, Barbara King. Satara Co-op, Information System Manager, Marie, Winikerei.
	Industry competitive environment.	Satara Co-op Chairman and Vice-president of NZ Fruit Growers Federation, Andrew Fenton.
	Industry competitive environment.	SEEKA, CEO, Tony de Farias.
	Industry competitive environment.	TREVELYAN, General Manager, Alister Hawkey.
	Industry competitive environment	ZESPRI Chairman, Craig Greenless.
	Industry competitive environment	Aongatete Ltd. Hort. Manager, Rod Calver.
	Industry social and technological trends.	Prof. Ian Warrington, Professor of horticultural science at Massey University/Former HortResearch CEO
	Competitive advantage	Satara Co-op CEO, Craig Wallis.
	Competitive advantage	Ian Greaves, Te Puke NZKGI representative.
Satara™ Cooperative Group competitive strategies can be implemented through the Balanced Scorecard.	Financial Perspective	Satara Co-op Financial Controller, Stuart McKinstry; Marketing Manager, Julie Carlson.
	Customer Perspective	Satara Co-op General Orchard Manager Tony Clarkin; Customer Service Manager, Scott Flat; Market Services Manager, Lon Wheeler.
	Internal Perspective	Satara Co-Op CEO, Craig Wallis. Satara Co-Op General Orchard Manager, Tony Clarkin
	Learning and growth perspective	Satara Co-Op CEO, Craig Wallis.

Additionally, and as part of secondary data, onsite visits were carried out to Zespri Headquarters, Satara Washer Road packing facilities, Seeka Headquarters, DMS central

office, Aongatete Packing facilities, Trevelyans' packing facilities, Apatacentrepac packing facilities, Aerocool facilities, Ag First laboratories, HortReseach facilities, AIC headquarters, as well as visits to several kiwifruit and avocado orchards in the BOP area. The researcher also participated in the Satara-Zespri Road Show in April 2003 and Avocado Growers' Association (AGA) conference July 2002.

3.4 Data Analysis

The general strategy to analyse the data was to rely on theoretical propositions. When analysing the data, each case was compared to theory. There was, therefore, continuous interaction between the theoretical issues studied and the data collected. The case study data was compared to the theory and not analysed to make statistical generalization.

Two analytic techniques used were:

- Pattern matching logic: Actual and expected patterns were compared. The logic compares an empirical based pattern with a predicted one (or with several alternative predictions).
- Explanation Building: To explain causality.

Using these techniques allowed the analysis to focus on specific data, thus overcoming the major problem with the case study approach – the huge volume of data that is generated (Yin, 2002).

The taped interviews were tape-recorded and later fully transcribed. Information was then coded and analysed to identify key factors and conceptual themes (categories), so as to condense the information. All raw data (interviews), and analysed data (codified information) were kept in independent files.

3.5 Study implications and Ethical considerations

The most probable implication from the study was that it would become a functional tool for a any single pack house to compete more successfully against Satara Co-Operative Group Limited, making the project a competition sensitive document.

Secondly the research would become useful for the New Zealand Kiwifruit Industry as a strategic analysis document and industry database, both in industry related data as well as strategic management tools, including the Balanced Scorecard.

The case study concluded that having a cooperative structure, scale and a diversification adaptability constitute a competitive advantage in the New Zealand kiwifruit industry. Also, it was possible to conclude that the Balanced Scorecard can be implemented in NGC like Satara Co-op Ltd. These generalizations are possible to make because the aim of using the case study methods is to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization). Because case studies like experiments are generalisable to theoretical propositions and not to populations or universes, it is possible to generalize the findings to other organizations (packhouses/cool stores) under the same conditions (Yin, 2002).

The central limitation was the access to information. Due to the competitiveness of the industry, access to all the required information to perform the case study in an optimal way was not possible without internal assistance. Also, because of the competitive sensitive information, the report was embargo by Satara for 3 years until November 2006.

Due to the sensitivity of many of the topics analysed, precautions were also taken to ensure the participant's confidentiality. It was made clear to the participants that the collected information was kept confidential and used for the case study only, and that other outputs of the research would be in a summarized form with individual responses unidentifiable. Under request, the interviewee could ask that individual details and names would not be revealed at any time. However, this option was not requested by any of the stakeholders interviewed. All quotations that arose from the research interviews and used in the final report were granted under signed permission of the person (interviewee) on an information sheet, describing the research and its main objectives (Appendix 1), and a consent form, explaining the nature of the project and the rights of the participant (Appendix 2).

4 CHAPTER FOUR: SATARA COOPERATIVE GROUP LTD CASE STUDY.

4.1 Company Overview

Satara® Cooperative Group Limited is one of the largest growers and providers of post-harvest services for the New Zealand kiwifruit industry. The company is a hybrid co-operative that is the result of the merger of Bay of Plenty Fruitpackers Ltd (Baypak) and Katikati Fruitpackers Co-operative Ltd (Katipak) in December the 4th, 2002.

In 2002 the company had $40 million of gross assets, $90 million of growers funds flowing through annually and a projected turnover in excess of $40 million. The organization has eight cool stores and nine pack houses, employing more then 2,000 people during the peak-harvesting season. With a packing capacity of 11.5 million trays of kiwifruit, the company is positioned to account for 16.5% of the industry total volume, with 80% of this generated in the Western Bay of Plenty. The company also grows around 2 million trays of its own kiwifruit, and has more than 250 grower shareholders[a] (King, 2002). It manages and lease over 550 hectares of orchards from the Bay Of Plenty through the Waikato, Coromandel, South Auckland, Whangarei and Kerikeri. The cooperative also contributes about 10%[b] of the country's annual avocado volume[7].

Internationally the company has a relevant share in the Australian kiwifruit Class II exports market since the late 1980s, and recently also with avocados after the 2002 merger with Katipak. In Thailand the co-op is working with two parties to plant and grow green kiwifruit and is considering conservatively and carefully further international opportunities[8].

Locally, the company has a 20% in Tauranga Kiwifruit Logistics Ltd, an incorporated joint venture that handles 90% of the industry volume involving Satara Co-op Ltd, Seeka Kiwifruit Industries Limited, G6 Kiwi, Southlink and CMS logistics. The cooperative is involved also in other activities including direct marketing of kiwifruit in

[a] 25 of these growers have avocados and kiwifruit on their orchards.
[b] The avocado volume comes primarily from the Katipak merger. Due to the successful avocado packing at Katipak the first Del Monte operational office in New Zealand was opened at Katipak in 2000.

New Zealand, sundry kiwifruit industry related services (Kiwigreen Monitoring, Eurogap, etc.), Coldstorage, research activities through Kiwifruit Supply Research Ltd (KSRL) and sales and support of related electronic information systems.

As a hybrid cooperative, the company has two classes of shares. Transacting shares, which receive a rebate based on the numbers of trays, packed, and are priced at a nominal $1 each. Investor shares, the other part that represents the hybrid, represents the balance of the firm's capital and receive a dividend. The board of the company is lead by its chairman Andrew Fenton, who is also vice President of the NZ Fruit growers Federation. Deputy Chair is Mary McTavish[c] a well-respected figure in the organic sector. Other directors are Hendrik Pieters, director of Kiwifruit New Zealand; Jenny Natush, a director of Zespri Innovation Limited; Leo Whittle, Chair of COKA[d], the industry organics group; Graham Drury, grower director, lawyer and director of Zespri since August 2003; Peter Jensen, Chairman of Balance Agri-Nutrients and Farmers Mutual Group; and David Bainbridge, ex-CEO of PDL Industries and past owner of Bay City Motors; Vern Pain, inaugural chair of Katipak; and Don Thwaites, former Deputy Chair of Katipak, and grower/shareholder (King, 2002).

4.2 Company History

In 2002, 30 years have past since the start of the Satara story. Although the company is the result of the merger between two cooperatives in 2002, the reality is that Baypak[e] absorbed Katipak[f].

It all started back in 1971 with Bay of Plenty Fruitpackers (BOPFP), or Baypak as it was known for the next 28 years. Baypak was the first kiwifruit co-operative to be formed and is the largest in the Southern Hemisphere. Based in Te Puke, the company has been deeply involved in many aspects of the kiwifruit industry since its beginnings

[c] Mary McTavish, Don Thwaites, Vern Pain and Peter Jensen were re-appointed to the new Satara Board from their Katipak positions. McTavish was former Chairman of Katipak.
[d] COKA: NZ Certified Organic Kiwifruit Growers Association.
[e] Baypak had for its 2000 annual report (28th) (March 2001) had 26.5 million in total assets and 11.3 million in total liabilities.
[f] Katipak last Annual report (22nd) was completed in March 2002. The company was registered in The Companies Act 1993 and the Co-operative Companies Act 1996 as packing and coolstore of fruit. As of November 2001 it had 6.6 million in total assets and 2.8 million in total liabilities.

at Road no 3 in Te Puke, and certainly took part in many of the early entrepreneur moves and decisions that shaped and expanded a few orchards into today's world kiwifruit industry.

Te Puke's Bay of Plenty Fruitpackers was mooted in 1968, when pioneering kiwifruit grower Gwilym Jones suggested the building of one large post harvest facility at a Fruitgrowers Association day, an idea that was supported by other kiwifruit pioneers like Doug Torr, Ian Torlesse and Jack Hardie. Torlesse and Hardie came from the dairy industry with a strong co-operative structure (1970s) (Yerex and Westbrook, 1983) seeing tremendous advantages in having a large pack house and cool store complex. According to John Axbey (another original Board director), with the explosion in planting in the 1970s it was clear that the bigger the operation the more ability the cooperative founders (and members) had to take advantage of the new technology (McLaughlin, 1996).

In 1970 the Bay of Plenty Co-operative Dairy Association approached the Te Puke Fruitgrowers Association to coolstore kiwifruit in its off-season. The Dairy Association offered to progressively convert its large dry-storage buildings into four coolstore units, providing staff and equipment. The idea was strongly supported by many growers. Two days before the 1971 season began (in May), Bay of Plenty Co-operative Growers Ltd was formed with 19 shareholders (91 in 1972).

At that time the industry was highly competitive with more than 13 exporters. As a result, in April 1972, more than 100 growers attended the general meeting, because it was becoming clearer that a co-operative had considerable benefits. After a hard 1972 trial season, with 11 staff, two dairy employees and two lane Orbit grader the company packed 28,332 trays over five weeks from a total of 28 growers. The original board of directors in 1972 was made by Tennant Fenton, Ian Torlesse, Dough Torr, John Axbey, Bob Griffin, Ken Gillespie, Rex Clapp and Gwily Jones.

In 1974, two days after packing had begun for the season, the new packhouse manager returned to Canada after his first year in office. With the new formed cooperative under threat, and based on the facts, the board and founders took over the operation themselves. After the 'storm' and with the packing finished, Westbrook Haines, took

over management until 1978. During those years the company expanded, both in crop and management techniques. In five years the company's packout rate went from 28,000 to 542,000 trays; staff from 14 to 90, shareholding from 70 to 145 and shareholders funds from $3,600 to $404,000 (Earp, 1988).

In 1975 BOPFP built its first cool storage complex for $800,000, and a second cool storage was finished in April 1978. The largest coolstorage, the Sayce Rust (coolstore No 3) was completed in 1980 and was opened by former Prime Minister Sir Robert Muldoon in March that year. Two more rooms were added to No 2 in 1981 and No 4 (with CA) in 1985.

On June 5, 1979, Bruce Townshend, Kaimai Member of Parliament (MP), collected the millionth tray from the grader. It was the beginning of a decade of tremendous expansion and change, not only within Baypak, but within the industry. By the 1980s BOPFP was recognized by some growers and exporters as a show place for the industry. The co-operative brought the first FMC grader into NZ for sizing kiwifruit in 1973, and introduced the first electronic grader almost a decade later. It also initiated packaging changes that have remained the basis of today's design.

For many years Baypak led the way for the kiwifruit industry, both in production and technology, and in research. It started its own laboratory, introduced the first electronic kiwifruit grader in the world (Smith, 2003) and trailed many forms of packaging. Much of its research material was handed down to the industry without a price. It broke new grounds by introducing pre-cooling and controlled atmosphere storage (CA) in 1985. During the eighties, the company excelled, delivering record productions, but had to restructure due to a dip in the economy towards the end of the decade. By the end of 1983, the company had five Tamkin graders and two packing sheds, the second shed having been extended to fit the final grader. By 1993 the packing shed was a lot quieter. Wooden trays were discarded in 1993, so there were no longer sounds of bangings in the background from staple guns. The graders were all electronic, containing less moving parts to clank and rattle. In 1994 Baypak's gained its ISO 9002 quality standard certificate for coolstorage. Its profit was more than half a million, continuing to grow in 1995. By 1986, the company had stepped up its operation, and for the first time packed

continuously for six months around 4.5 million trays. Towards the year 2000, Baypak was packing around 6 million trays (McLaughlin, 1996).

Right from the beginning BOPFP packed other fruits and vegetables after the kiwifruit season. In 1973 it was tamarillos and grapefruit, which continued over a period of about ten years. Packing asparagus began in the late seventies, along with avocados and followed by melons and persimmons. The company's engineers even designed a persimmon grader. However, these activities ceased because of bulk storage, which allowed the company to use the graders for six months, instead of six weeks on kiwifruit (McLaughlin, 1996). However, avocado packing came into sight again after the merger with Katipak in 2002 that contributed significantly with growers and volume of the fruit, due to its booming results in Australia and U.S. since the 1999/2000 season, and early attempts in Japan in the 2001/2002 season.

The company was also involved in the early kiwifruit processing industry. In 1976 Baypak developed a deal with Reckitt and Coleman, later to develop Mount Processors. The contract lasted almost ten years. Due to high competition and quality problems from other companies that were undercutting Mount Processor's results in Europe, the company reneged on payments to Baypak in 1985. By 1986 the tonnage was significantly reduced on previous years and the market was in decline. This year was a turning point in processing for the industry, not just Baypak (McLaughlin, 1996). This decayed processing industry only changed by 2001 with NewCo, with the processing unit of Zespri Group Limited that would be called later Aragorn.

In the local market fruit was sold right from the first packout in 1972. For many years it was sold with success and growers received good returns, but by the mid eighties, there was so much kiwifruit that demand declined. Quality also varied and remained a problem throughout the market. By 1986 Baypak supplied less than 1% of its second-class fruit for the local market. To overcome this problem, in 1988 Baypak sold its first shipment of second-class fruit to Australia through an exporting firm, boosting the rebate to shareholders. In 1993, Baypak exported in its own right, promoting the Baypak label through Woolworth's supermarkets. In 1994, Baypak was one of the leading exporters in the AKEG group by volume, and during the 2003 season it supplied 2/3 of the Kiwifruit to Coles supermarkets in Australia.

In the 1990s the company management and directorship was back on track. Andrew Fenton founding shareholder and chairman since 1992 (who's father Tennant, was also director and shareholder) lead the company, and so the company its self was ready to lead the industry again. In 1997, Craig Wallis[g] was appointed Chief Executive and drove the company beyond the year 2000, through Southern Kiwi[h], K2[i], and finally BK-Mergeco, the temporary name for the Baypak-Katikati merger that resulted in Satara Co-operative Group Ltd in June 2002[7]. Satara's current constitution was adopted in April 1999 with the "Principle Activity" defined in clause 1 as: *"To grade, pack, store and transport fruit, and supply associated services to the company's shareholders and contract growers"* (Baypak, 2001, p. 1).

Since the formation of K2 Kiwifruit Suppliers Ltd, another legal entity different from the Group has been having supply contracts with Zespri International Ltd on behalf of Satara Growers, protecting the Co-operative group Ltd from any liability in the event of overpayment to the pools it administers on grower's behalf. K2 name was changed to Satara Kiwifruit Supply Ltd (SKSL) in 2002.

By late 2002, Satara Cooperative Group Limited had already consolidated its new corporate identity that took most of the industry by surprise. Continuing with its change and proposed leadership in the industry, in December 2002 the company introduced the 'Bin Charge' to growers. This approach was unique (and new) in the NZ kiwifruit industry, and differentiated Satara from all other suppliers that charged their customers by trays packed. In July 2003 the company launched its Satara Brand in Sydney, replacing its former Baypak brand across the Tasman Sea.

The company considered listing in the New Zealand Stock Exchange (NZSE) since 2002[9] and during early 2003 was in discussions with the NZSE to develop the AX Board, a scheme designed to accommodate co-operative shares. In the social area,

[g] Craig Wallis (BSc) grew kiwifruit for eight years and has background in packaging. In the years before becoming CEO at Baypak he held a managerial position with Carter Holt Harvey in the timber industry (McLaughlin, 1996).

[h] Southern Kiwi was a group of four post harvest operations that sold their fruit to NZKMB, (now Zespri international) under one name.

[i] By March 2001, Baypak and Katipak were already registered as one single supplier to Zespri Group. The supplier entity was called K2 Kiwifruit Suppliers.

Satara has been sponsoring many activities, like the Te Puke Women's Volleyball team for 5 years, which has 6 National titles as well as the Te Puke festival with cuisine events.[10]

In summary, the company's history can be recapitulated as follows:

- 1971 Bay of Plenty Co-operative Growers Ltd formed in Te Puke.
- 1972 Bay of Plenty Fruitpackers Ltd formed in Te Puke.
- 1974 Amalgamation of Bay of Plenty Co-operative Growers Ltd and Bay of Plenty Fruitpackers Ltd.
- 1980 Katikati Fruitpackers Co-operative Ltd formed in Katikati
- 1982 Manakau Horticulture Ltd formed in Auckland
- 1990 Katikati Fruitpackers Ltd purchases Procool and Pack Ltd – name changed to Katicool
- 1992 Manakau Horticulture Ltd purchases Bay Hort Ltd – and enters BOP Kiwifruit.
- 1992 Bay of Plenty fruitpackers Ltd purchases Collins Lane from Cool and Cold Storage Associates Ltd.
- 1994 Katikati Fruitpackers Ltd purchases Ashdelle Grove – Katipak.
- 1997 Bay of Plenty Fruitpackers Ltd purchases Manakau Horticulture Ltd – Baypak
- 2001 Baypak and Katipak merge – BK mergeco Ltd created
- 2002 (20 July) BK Mergeco becomes Satara™ Co-operative Group Ltd.

As of 2003, the physical distribution of the branch network was as follows:

- National Support Office: Washer Road – Te Puke
- Auckland Region: Riverhead
- Northland Region: Glenbervie and Poroti.
- Bay of Plenty Region: Washer Road, Te Puke; Collins Lane, Te Puke; Bell Road, Papamoa; Totara Street, Mt Maunganui; Marshall Road, Katikati; Wedgewood Street, Katikati; Griffin Road, Tauriko.

4.3 The Kiwifruit Industry and New Zealand

4.3.1 The Origins of the Kiwifruit Industry

Although it is not clear who brought the first seeds in the early 1900's from China[j] into New Zealand, it is agreed that New Zealand growers developed the crop worldwide, and have been at the forefront of what has become New Zealand's largest horticultural industry.

[j] Yerex and Westbrook (1983) state that probably Miss Frazer took seeds from China and gave them to a Wanganui nurseryman called Alexander Alison. These plants grown in New Zealand were then the source of today's kiwifruit industry throughout the world (Warrington and Weston, 1990).

Yerex and Westbrook (1983) state that in the early days, the plant was introduced for no good reason other than that it was new and different to the New Zealand scene. How ever, what one grower once said remarks the potential for its success: "*If kiwifruit were worthless, they'd be the worst weed in the country.*" Also, and according to Smith (2003) the first major attempt at commercial production in the world was centered on N°3 Road in Te Puke, New Zealand. It's soil, climate and topography and that of much of the rest of Bay of Plenty have proved ideal for kiwifruit culture. This is no more than an amazing coincidence, but a vital ingredient in the success of the industry.

But today's worldwide success of the industry started with the hard work and vision of the early growers, like the Bayliss's, Wills, MacLoughlins and Arthur Wright. Then Fruitfed introduced the first small export volumes of Chinese gooseberry (as kiwifruit was originally called) onto world markets, activity continued by Turners & Growers who supported the early exports and in 1959 suggested the new name of kiwifruit. In the 1960's Grahame Bayliss led the move to the Hayward variety with its bigger fruit and better storage qualities (Smith, 2003). In the early 70's, due to increasing New Zealand exports, various fruit growers in many countries started to import plants from New Zealand. The argument about if New Zealand should have exported its 'golden goose' freely will for sure never end, but in the late 70's vines were found in commercial quantities in France, South Africa, Chile, Japan, Israel, Spain and the United States. The industry continued to grow till today, reaching and maintaining worldwide around 1 million metric tones for the last 10 years. Hence, after more than 30 years of free international growth, it becomes clear that New Zealand's distinct advantage in the world, represented today by Zespri™, is more a result of its quality controls and efficient organization right from the first exports, than its soil or climate.

4.3.2 World Kiwifruit situation

The kiwifruit industry is unique among global fruit industries in being so totally dominated by one variety, the Hayward variety. Most consumers are not even aware that other varieties exist *(Belrose, 1998)*.

According to Warrington and Weston (1990) only two of the many different species of *Actinidia* have so far proved to be of economic importance. Namely: *A. deliciosa*, the kiwifruit, and *A. chinensis*. Recently, *A. arguta*, which is suited for colder areas than the generic kiwifruit is starting slowly to be commercialized around the world.

According to UNECE (2002) kiwifruit cultivars in international trade are:

- *Actinidia deliciosa*:
  - 'Hayward' Syn 'Chico', 'Chico Hayward', 'Kramer Hayward' includes most of the fruit sold under the name Zespri™ GREEN Kiwifruit.
  - 'Qinmei', probably being exported from China.
  - 'Top Star®' a mutation of Hayward.
  - 'Yate', which is grown in Shaanxi, the province from which most kiwifruit are currently exported. Small quantities might be exported.

- *Actinidia chinensis*:
  - 'ChinaBelle ®', with commercial plantings just established. Fruit may be sold outside of France.
  - 'Hort16A', that is being commercialised under the name Zespri™ GOLD Kiwifruit.

- *Actinidia Arguta*:
  - 'Anna', possibly 'Ananasnaya' an old Russian cultivar, possibly a cross between *A. arguta* and *A. kolomikta*. Grown in Oregon, USA and some shipments to Singapore and Japan.
  - Other varieties grown and exported by many countries, including New Zealand and Chile. HortResearch NZ has three candidates for commercialisation being trailed through New Zealand (HortResearch, 2002).

According to FAS (2003a) kiwifruit is produced worldwide mainly by eight countries: Italy. New Zealand, Chile, France, Spain, Portugal, Greece, and the United States (Figure 4 and Figure 5). In the 2001/02 season, production in these countries totalled 93 percent of FAO's world production total. In 2002/03, FAS forecasted the total production of these countries to increase to 939,990 tons. Although not monitored by FAS, Japan is the sixth-largest kiwifruit producer with 2002/2003 crop forecasted of 46,000 tons. Approximately 84 percent of world production was traded globally in

2001/2002. The top three producing countries that control this trade are: Italy, New Zealand and Chile.

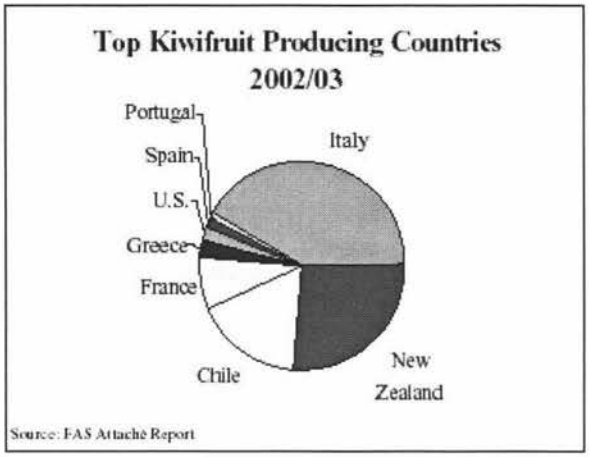


Figure 4. Top Kiwifruit Producing countries in the world.

Italy produces the most kiwifruit in the Northern Hemisphere (Figure 5). Besides the United States, most other smaller producing countries are in Europe. Production in Italy was forecasted to increase by nearly 19 percent in the 2002/03 season due to increased planted area, high yields, and beneficial weather throughout the growing season. Most of the other countries in this hemisphere recorded increased production, except for Greece and the United States. It is estimated that Greece lost approximately 37 percent of its harvest due to frost damage during 2002/2003. The reduction in the United States is a result of reduced acreage (FAS, 2003a).

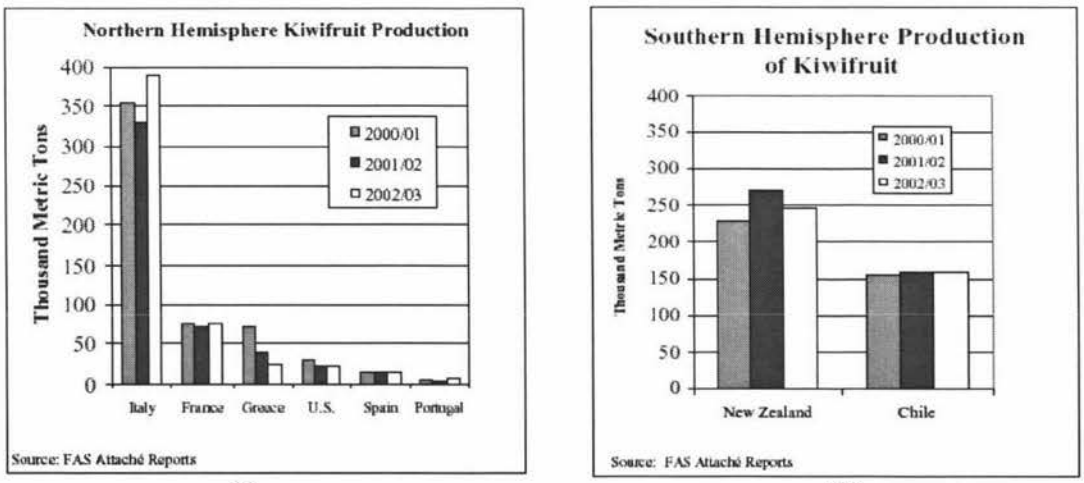


Figure 5. Northern (a) and Southern (b) Hemisphere Production of Kiwifruit.

In Spain and Portugal the future of the kiwifruit industry remains problematic due to limited suitable land, small orchard sizes and retiring growers with no new replacements. Also competition from France and Italy is intense and Spain, in particular, is also an attractive market for the Southern Hemisphere. Therefore, price conditions in the next few years will determine whether the kiwifruit in Spain and Portugal fades away or gets a new lease on life (Belrose, 2003).

The increased production will intensify competition for export markets for the 2003/2004 season. In 2001/02, Italy exported about 76% of its kiwifruit production. European countries absorbed approximately 63% of those exports. Approximately 91% of U.S. exports are shipped to Canada and Mexico. According to the Global Trade Atlas, Italy's growing markets are in China and Eastern Europe, and the U.S. growth markets are in Latin America and Asia (FAS, 2003a).

In the Southern Hemisphere, New Zealand and Chile are major players in the world market, producing almost half of the world's kiwifruit. This intense competition has led to structural changes within their respective kiwifruit industries. The New Zealand government has been working for years to privatise producer boards, which has created unique production and marketing systems for kiwifruit. Chile has been strengthening its quality controls for its export markets (FAS, 2003a).

During the 2002/03 season New Zealand's production decreased nearly 9% due to poor weather conditions. However, the industry has been contracting with growers worldwide to grow their Zespri brand kiwifruit. Therefore, although New Zealand's production appears to be falling, Zespri's global production continues to expand. Chile's kiwifruit production is stable due to no new plantings and beneficial weather. As New Zealand steps up competition for export markets through worldwide grower contracts and introduction of the new GOLD varieties, Chile retains more fruit in its domestic market (FAS, 2003a).

Although the production forecast in this hemisphere is not expected to increase, tough competition for export outlets remains. The United States, Italy, and Spain are the top markets for Southern Hemisphere kiwifruit (Figure 6). According to the World Trade

Atlas, major growth markets for both countries are Italy and Spain. However, exports to the U.S. have dropped 8% from Chile and 22 % from New Zealand (FAS, 2003a).

However, according to Belrose (2003) the tracking of trade flow is sometimes inaccurate, particularly for Southern Hemisphere fruit that is transhipped through Belgium (fruit from New Zealand mainly) or the Netherlands (fruit from Chile mainly) may be reported as originating in the latter two countries. Excluding Belgium, which is primarily a distribution centre for New Zealand exports to continental Europe, the 10 leading traders of kiwifruit in 2001 were (in tons) Germany (108,667), Spain (81,616), U.S. (50,822), Japan (39,564), Netherlands (37,469), Italy (33,762), U.K. (33,395), France (30,940), Russia (20,289) and China (18,816).

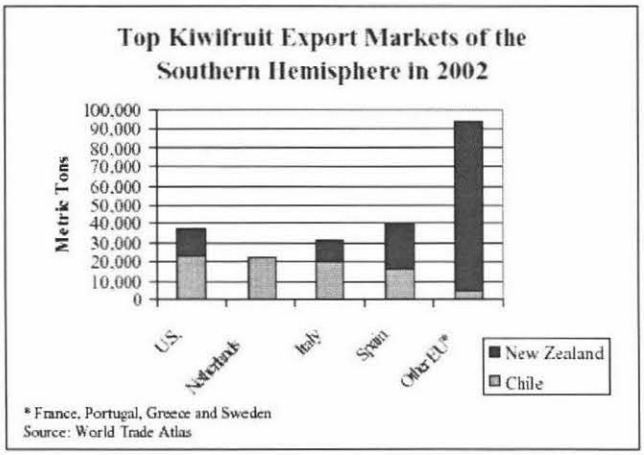


Figure 6 Kiwifruit Export Markets of the Southern Hemisphere in 2002.

In the southern hemisphere Chile will continue to have en early season advantage over New Zealand in Northern Hemisphere markets. For example, in the U.S., Chilean imports arrive and peak one to two months before New Zealand supplies. This is why it is possible that one or more Chilean firms will wish to work with New Zealand in exploiting Zespri as a twelve-month brand (Belrose, 2002). The seasonal production per country is detailed in Table 4.

Table 4. Phasing of season supply of kiwifruit according to producing country.

Country	Jan	Feb	Mar	Apr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dec
Northern Hemisphere												
Italy												
France												
Greece												
U.S.												
Southern Hemisphere												
New Zealand												
Chile												

Source: (Zespri, 2001); (Warrington and G.C., 1990).

In summary, worldwide acreage between 1991 and 1998 has been downward. During that period, acreage dropped by over 20 percent as many producers adjusted to sharply lower prices. Since 1998, the general trend has been steadily upward. Nonetheless, weather in major producing countries has maintained world kiwifruit production at reasonably stable levels. However, the law of averages proposes that in the future all major producers will have a large crop at some point in time, affecting supply and prices if demand is not expanded (Belrose, 2003).

4.3.3 The New Zealand kiwifruit industry structure

At an organization level, since the 1970s, the New Zealand Kiwifruit industry has changed several times its representative structure. The Kiwifruit Export Promotion Council (KEPC) was the first formal grower-marketer co-operative structure for the industry. Later in 1977 the Kiwifruit Marketing Licensing (KMLA) was formed adapting its predecessor as an advisory committee, to change name again in 1979 to the New Zealand Kiwifruit Authority (NZKA). The industry was deregulated between 1977 and 1988, when the New Zealand Kiwifruit Marketing Board (NZKMB) was established as a statutory producer Board (Yaf, 1998). Then for the last 30 years, the industry has followed a cyclical process. The 1980's saw the explosive investment in orchards. By 1993 the NZKMB was under threat due to the 1992 crisis[k] that almost

[k] The 1992 crisis can be tracked down from 1965 when the area planted in kiwifruit grew rapidly and the value of exports continued to rise until 1992 when returns to growers were reduced owing to the oversupply of fruit in the international markets. The reason for the reduced export returns was largely connected with the increasing level of world production and from severe competition for NZ from Chile, Italy and California. In addition, there was a changing in attitude to kiwifruit in many countries. Kiwifruit was once regarded as a rare exotic seasonal crop (meriting high prices), but became a year-round mainstream fruit (Seager, 1998).

made the industry collapse. In the same year, the United States imposed a 98% dumping tariff on all New Zealand Kiwifruit in response to dumping allegations, which lasted for 8 years. Kiwifruit Grower Incorporated (KGI) was formed in 1993. In 1997 NZKMB separated its operations between Kiwifruit New Zealand (KNZ as former NZKMB) and the marketing subsidiary Zespri International Limited. In 1998 onshore operations were deregulated and in 1999 Zespri became a grower-owned corporation, with Zespri Group Ltd., being the holding company, Zespri International the marketing company and Kiwifruit International to increase its capital base. According to Donoso (2003), the last main chapter in the NZ Kiwifruit industry up to date, is that in November 2000 growers introduced a voting system tied to production levels, protecting Zespri from corporate takeovers like that experienced with ENZA[1], and establishing a co-operative like control mechanism within a commercial company structure, giving Zespri its co-operative hybrid like structure.

Nonetheless, structurally Zespri has kept changing. Today three new subsidiaries complement the Zespri organization structure. The first one is Zespri Fresh Produce, which is the unit responsible for offshore procurement and licensing, as well as taking care of the collaborative marketing initiatives and partnerships. The second unit is Aragorn Ltd concentrated on processed kiwifruit and related products, and the third new unit is Zespri innovation, which is in charge of Research and development. This unit works with all research providers (Crown research institutes like HortResearch, University, private R&D providers) and research users within Zespri (ZIL, Aragorn, growers, post harvest operators). Established to close a perceived gap between these two groups, the main areas of research are fruit quality, environmentally sustainable crop protection, logistics and value added and new cultivars. According to Zespri (2003a) part of Zespri's strategy is to build an integrated innovative company and seek new commercially viable innovations that will fulfil consumer wishes, and that are protectable and exclusive to Zespri. Certainly Zespri innovation is the right step forward in achieving this strategy. Reinforcing the above mentioned gap, former HortResearch CEO, Ian Warrington stated that "*Zespri has been very conservative at dealing with innovation and introduction of new products*"[11], and that it will need to deal differently

[1] The Guinness Peat Group (GPG), one of the two corporate shareholders at ENZA took control over the statutory pip fruit exporter forcing its deregulation. Turner&Growers chair Tony Gibbs (also owned by GPG) was named new ENZA chairman.

with innovation to achieve what it is looking for. For example: "*they had arguta options for the best part of 10 years and they haven't commercialised one of those yet*"[11]. Warrington said. Zespri's chairman added on this view: "*(at) Zespri (we), have to yet determine whether we are interested in pursuing arguta, because arguta is quite different*"[12].

To illustrate better the challenges in innovation that the New Zealand kiwifruit leader (as statutory monopoly) will face, Ian Warrington stated: "*The Kiwifruit Industry is spending on research about the same now than it was 10 years ago, which in real terms means that it is spending about 30% less*"[11].

Currently, at a higher organizational level, Zespri's statutory monopoly is under question due to multiple pressures and comments from influential industry stakeholders, like Joe Pope, former head of New Zealand's Apple and Pear Marketing Board (ENZA). He said[m], among other things, that a producer board structure might be sensible, but it was not sustainable in the prevailing political climate, with the push for deregulation coming from Government officials and disaffected sectors of the kiwifruit industry. According to Austin (2003), foreign kiwifruit buyers backed by local kiwifruit interests are mounting a case to be lodged with the World Trade Organization (WTO) against Zespri International. Such export marketing monopolies are still on the agenda as potential trade barriers within the agricultural trade organizations of the WTO (Belrose, 2003). On another front, the Ministry of Agriculture and Forestry (MAF) has laid a charge against a Hamilton-registered company Oak Shore Holdings for allegedly exporting kiwifruit to the world and, in particular, the Asian market. The national president of the New Zealand Export Institute, Murray Davies, said Zespri's monopoly could well contravene World Trade Organization rules. "*Zespri is just fortunate that a foreign company has not gone to the WTO and said it wants to buy New Zealand kiwifruit, but it does not want to deal with Zespri.*"

Also according to Austin (2003), Mike Chapman, chief executive of the regulator KNZ (equivalent to the New Zealand Kiwifruit Board), said that there were no plans to deregulate the industry. For deregulation to occur, 75% of growers would have to be in

[m] By Philippa Stevenson. The New Zealand Herald, 9th September 2002

favour. Chapman refused to comment on the issue of illegal kiwifruit exports or if Zespri was flouting WTO rules. Then Fresh New Zealand export manager John Thompson said deregulation was important because it "*all comes down to freedom of choice.*" He said while he thought Zespri had done a good job of exporting kiwifruit, there "*is a smarter way this business can be done.*" There was no reason why the kiwifruit export monopoly should continue. If producers continued to support Zespri in a free supply market "*that is their right.*"

Zespri Group Ltd clearly recognizes that the statutory monopoly, or single point of market entry as it is called, provides an unmatched point of difference and a vital competitive advantage in the changing environment (Zespri, 2001;2003a). However, its Chairman acknowledges that this privilege is not taken for granted and that "*we (Zespri) are also conscious about the fact that nothing is constant and it could change one day...so our vision for Zespri is that we have to evolve...so that we have a structure that is most durable if deregulation was to occur.*"[13]

In general there are concerns in various degrees among industry stakeholders about deregulation, but there is agreement that in it would be more damaging if it comes without anticipation and in a disorderly manner. Ian Greaves acknowledged that it could be damaging if suddenly a percentage of the production goes away from Zespri's main markets, like Japan. Even a 5% of volume running out of Zespri's hands could be detrimental. Zespri Chairman agreed: "*5% can cause you a lot of trouble*"[13]. A 5% decrease represents only 3 million trays.

Today, the New Zealand kiwifruit industry is compounded into three main groups: The New Zealand Kiwifruit Growers incorporated (NZKGI), the suppliers/post harvest operators and Zespri Group (Figure 7). Additionally, Kiwifruit New Zealand (KNZ) is a regulatory organism with the role to control and ensure Zespri's single point of entry. Also, within the suppliers/post harvest operators three main organizations coexist among different players: Kiwifruit Supply New Zealand Limited (KSNZL), Kiwifruit Supply Research limited (KSRL) and Tauranga Kiwifruit Logistics Ltd (TKL) (handles 90% of industry volume).

Lately, during April-May 2003 an Industry Advisory Council (IAC) was formed with the aim of having a better mechanism to resolve on-shore industry issues. The IAC is comprised of fifteen members, five Zespri representatives along with five supplier representatives and five NZKGI members representing growers (Zespri, 2003b). Hence, the New Zealand Kiwifruit industry structure can be represented as follows:

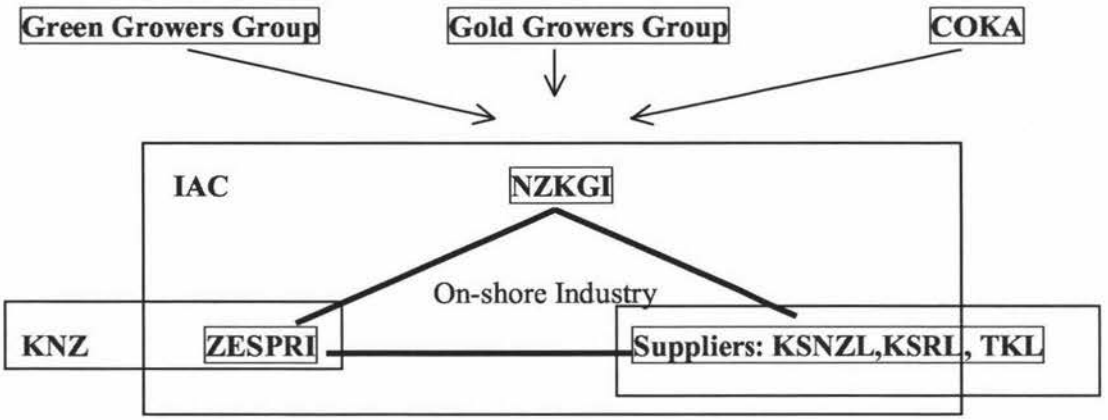


Figure 7. On-shore New Zealand Kiwifruit Industry structure.

The initial (interim) KGI representatives were Grant Eynon, Dave Kelly, John Allen, Chris Dunstan and Leo Whittle. Suppliers were represented by Dave Goodwin (Apatacentrepac CEO), John Burke (Huka Pak General Manager), Don Atkinson (Eastpack Chairman), Ian Craig (OPAC CEO) and Tony de Farias (SEEKA[n] Managing director). Zespri appointees were Craig Greenless (Chairman), Graham Cathie (Director), Tim Goodacre (CEO), Grahame Coles (GM Global supply) and another representative not confirmed at that time. The key role of the IAC is to ensure full onshore industry participation on logistics and quality issues, financial industry implications, payments issues and supply contracts. Also, other key issues that will come under discussion are likely to be further debate on payment and net submit, fruit specification and ratios, grower contracts and pool payments (Webby, 2003).

Despite its evident importance, Satara Co-op Group Ltd decided not to participate in the IAC. As mentioned already, Satara as early Baypak contributed extensively to the industry beginnings, a situation that continued also during the 1990's. Satara's CEO, Craig Wallis said that the IAC will be mainly politically orientated; "*In the last 5 years*

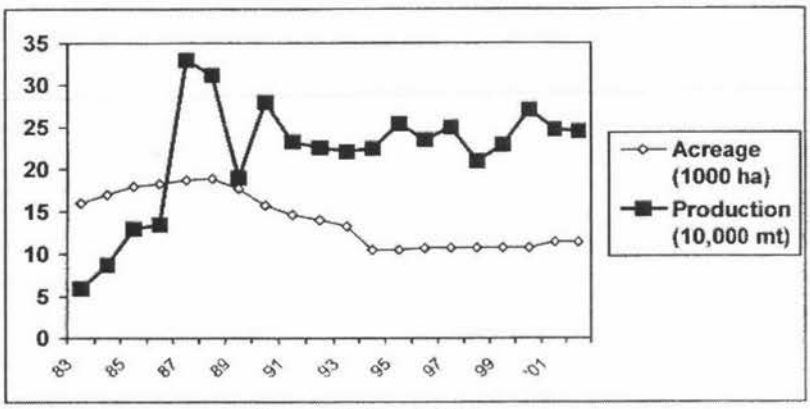
[n] Seeka Kiwifruit Industries Limited is the second most important shareholder at Zespri Group. However is controls only 128,461 shares of 21,195,000 (0.6% of total) (Zespri, 2003a).

we have contributed hugely to the industry debate at the expense of doing things for our selves...we will spend time now for our selves"[14]. He participated actively in the 'Evolution working party' for 18 months, trying to devise the future for the industry with little or no results. The CEO was of the opinion, that the real work would be done by the Industry Supplier Consultative Group (SCL), where Murray Gough (Satara's Operational Manager) is Chairman. Also, due to Satara's size and scale, it is impossible that the IAC take significant actions without Satara Co-op Ltd input. "*This is an advantage of size*"[14].

4.3.4 The New Zealand kiwifruit acreage and production

According to Belrose (2002) New Zealand kiwifruit acreage and production has been very stable in the last decade. The industry has been more focused on environmentally sensitive production and in diversifying its source of product from different parts of the globe to ensure a twelve-month supply.

Globally, from the 1989/2001 period to 1999/2001 period, kiwifruit supply increased by a 66%, with New Zealand decreasing 4% in the same period. Also, New Zealand's share of global kiwifruit supply declined from 29% to 20%. Since 1998 production within New Zealand has been strongly influenced by climatic variability, as well as conversions of Green variety to Tomua, Organics and Gold (Wallis, 2002). This is why Craig Wallis, Satara's CEO is more drastic in his view about the industry, and states that New Zealand kiwifruit supply is approaching maturity (Figure 8), with most of its productive low risk land already under production.



Source: (Belrose, 2003)

Figure 8. New Zealand Kiwifruit Acreage and Production 1983-2002.

The situation described in Figure 8 is not likely to change, because any adding in production reached by increased yields/hectare, maturing vines, bare land conversions, shelter removal, conversion of T-Bar to pergola, will be taken away by losses in productive land by urban/industrial developments. The pressures of population on orchard practices, like Hi-Cane (Hydrogen Cyanamide) spraying, will only worsen this trend. This situation can be ratified in Table 5 and Table 6 that show static or declining hectares along the country with exception of Gold kiwifruit.

Table 5. New Zealand Kiwifruit Regional Analysis.

2002/2003									
Location	Green			Green Organic			Gold		
	ha	Δ % 2000	Trays /ha	ha	Δ % 2000	Trays/ ha	ha	Δ % 2000	Trays/h a
Northland	335	-4%	5,204	-	-	-	154	-2%	6,088
Auckland	472	0%	5,420	-	-	-	57	14%	5,995
Bay of Plenty									
- Katikati	1,125	-5%	5,486	31	-32%	4,322	144	38%	6,257
- Opotiki	412	-4%	6,989	10	0%	5,547	83	19%	9,774
- Tauranga	1,297	0%	5,157	254	4%	4,019	197	20%	6,306
- Te Puke	3,229	0%	5,864	109	-22%	4,877	461	43%	6,032
- Waihi	155	-7%	3,709	-	-	-	17	18%	7,097
- Whakatane	335	4%	5,592	5	-80%	5,548	16	56%	5,877
Waikato	189	-34%	4,718	93	69%	3,566	25	24%	5,862
Poverty Bay	198	-2%	4,337	-	-	-	32	3%	8,823
Hawkes Bay	120	-2%	5,197	14	7%	4,953	20	-15%	9,338
LowerNorth I.	120	-9%	3,136	-	-	-	-	-	-
South Island	601	4%	4,246	16	-81%	3,046	30	20%	3,269
Other	-	-	-	20	-	-	-	-	-
Total	8,588	-2%		552	0%		1,236	27%	
Averagetray/ha			5,513			4,182			6,577

Source: (Zespri, 2003a)

Table 6. New Zealand Kiwifruit Industry Statistics.

	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03
Number of Orchards Registered	944	943	1,008	888	822	889
0-2 hectares	1,251	1,225	1,292	1,417	1,438	1,526
2-5 hectares	428	400	421	451	505	558
5-10 hectares	100	114	122	105	137	145
over 10 hectares	**2,723**	**2,682**	**2,843**	**2,861**	**2,902**	**3,118**
Total (KPINs)						
Number of Packhouses used	77	74	70	59	67	59
0-500,000 trays	25	20	19	20	14	23
500,001 – 1,000,000 trays	19	19	19	16	17	11
1,000,001 – 2,000,000 trays	5	5	5	7	8	8
over 2,000,000 trays	**125**	**118**	**113**	**102**	**106**	**101**
Total						
Number of Coolstores used	70	69	65	59	62	60
0 – 500,000 trays	25	20	20	18	14	17
500,001 – 1,000,000 trays	9	10	11	12	14	14
1,000,001 – 2,000,000 trays	7	7	7	9	11	8
over 2,000,000 trays	**111**	**106**	**103**	**98**	**101**	**99**
Total						

Source: (Zespri, 2003a).

As can be seen from Table 5 Gold is the only group that has increased since 2000 due to that internationally, Zespri's share of exports has gone from less than one percent in the 1999-2000 season to 13.6 percent in the 2002-03 season. Sales in 2002-03 increased by over 50 percent, while prices increased by 9 percent (Belrose, 2003). This has meant Zespri Gold to become New Zealand's third largest horticultural export after Zespri Green kiwifruit and apples, and that Zespri Gold received the 2002-2003 Trade New Zealand Exporter of the Year Award (Zespri, 2003a).

However, also according to Belrose (2003) there are many unanswered questions about the potential future role of the Gold kiwifruit. It price premium over Zespri Green has fallen from NZ$6.75 in 1999-2000 to an estimated $2.06 in 2002-03. That premium is likely to continue to shrink as supplies continue to expand. Given the relatively large investment in product development and promotion there is also uncertainty about when in the future Zespri Gold project will break even either for individual growers or for the industry as a whole.

Craig Wallis, CEO of Satara shares this perception. He states "*Internally, we seriously are questioning were we are going with Gold*"[15]. In the last two seasons, and particularly in the last winter he has observed a starting trend on Green and Gold kiwifruit growers that are going back to Green kiwifruit only. He added "*3 hectares of Green and 1 of Gold is not worth it*"[15], because the costs of managing that additional hectare are well above those required by Green. Also, the yields growers are obtaining are not as high as Zespri promised in the beginnings, with many growers obtaining yield equal or below those of Green.

This could become a great problem for suppliers, like Seeka, which invested in Greenfield developments and focused its strategy on Gold. Wallis stated: "*This strategy could become a big problem (to them)*"[15].

Seeka's Managing Director ratifies this by saying *"(In Gold) we...have invested in new plantings...we have, for the first time, quite large increases in production coming forward*"[16], but recognizing the problem that "*the technology in fruit grading equipment is not there yet that will actually enable us to grade and pack Gold at the same rates and volumes that we are for Green*"[16] To solve this problem, Seeka industries trailed in the 2002/03 season shipments of fruit to Italy, to be packed in an overseas facility. This would allow Seeka to manage its increasing volume without investing in more packing facilities in New Zealand, and hence to decrease charges of the less efficient operations (or at least maintain them) to Gold growers who will face a decreasing return for their investments.

In the meanwhile, Zespri continues its strategy of sourcing kiwifruit outside of New Zealand°, both for Green and Gold, with only limited success (Belrose, 2003). With Gold, plantings are licensed mainly in Italy, Japan and California, and also in France and a small area in Chile.

De Farias adds: " *our present view is that growing Gold in countries outside New Zealand is, to be honest, with the exception maybe of Chile, ...not good enough for us. There are to many unknowns*"[16]. Some Seeka's related growers or shareholders have

° Counter seasonal sourcing for the 12-month supply strategy represents in total over 1 million trays marketed through the Zespri™ System (Zespri, 2003).

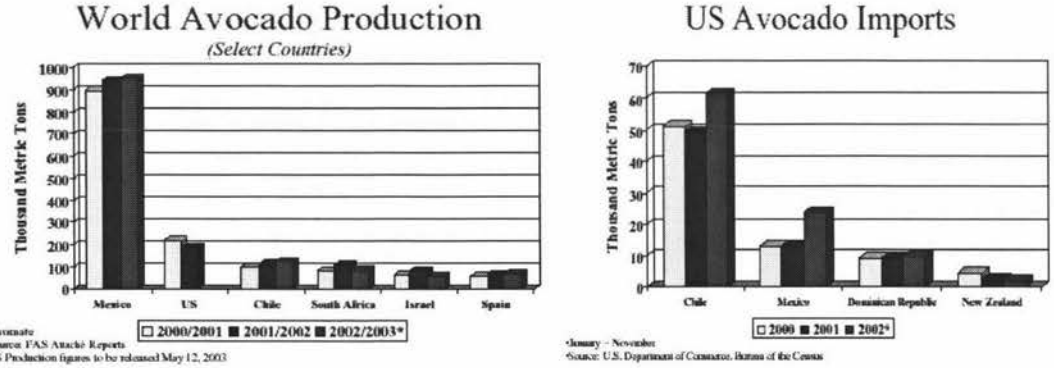
independently started with Gold projects in Italy and California with numerous problems and contingencies. In conclusion, regarding Seeka's possible involvement in overseas production or technical assistance with Gold, De Farias stated "*they had...many, many setbacks, and maybe, when they will have learned all the techniques, maybe we might come across*"[16].

4.4 The Avocado Industry and New Zealand

4.4.1 Market overview and New Zealand trade history in the Pacific Ring

After almost 500 years of the discovery by the western world of the avocado fruit, the world production of avocados reached 2.4 million tons in 2001. World trade in avocados has increased steadily since the 1980s and early 1990s, although it has been limited primarily to the United States and Europe. Japan, the most Westernized of Asian countries, has begun to import large volumes of avocados but is the only Asian country to do so as of yet (Fintrac, 2001, FAO, 2002).

World production of avocados has increased by 550,000 metric tons during the past 15 years (FAS, 2002). Today's commodity profile is lead by Mexico by producing 952,000 tons, 40 percent of the world total (Figure 9). The United States was the second largest producer with 297,000 tons. Other countries included Indonesia (130,000 tons), Chile (125,000 tons), South Africa (110,000 tons), Peru (89,800 tons), Spain (72,000) and Israel (55,000) (FAS, 2002), (FAS, 2003b).



(a) (b)

Figure 9. World avocado production (a) and imports by the United States of America (b).

The top exporters in 2001 were Mexico (22 %), Chile (17 %), South Africa (10 %), Israel (15 %) and Spain (14 %) (Figure 10). In 2000, France led the world importing countries by 105,249 tons of avocados, 31.2 percent of total world imports of avocados that year. The United States imported 78,533 tons with the second largest amount in 2000 (Figure 9). Other key importers included the Netherlands, United Kingdom, Japan

and Canada (Fintrac, 2001). The seasonal supply of these countries can be seen in Table 7.

Table 7. Phasing of seasonal availability of Hass avocados according to producing country.

Country	Jan	Feb	Mar	Apr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dec
Northern Hemisphere												
Mexico												
U.S.												
Spain												
Israel												
Southern Hemisphere												
South Africa												
Australia												
New Zealand												
Chile												
Peru												

Source: (GAMA, 1998); (AGA, 2000); (Homsky, 2000); (Papademetriou, 2000); (Silva-Castellanos, 2002); (Hofshi, 2003).

Figure 10. Top world avocado exporters in 2001

With no more than 14,000 tons of production, New Zealand is still a minor player in the avocado world market representing only 2% of world exports (Figure 10) (FAS, 2003b). Despite the production of quality avocados and pending production increases, New Zealand does not have comparative advantage over other countries in growing avocados (Laurenson, 2002).

Nevertheless due to its importance in the agricultural commodities business, its particular know-how of fruit marketing, its MedFly (*Ceratitis capitata*) free status and last years improvement of the industry played by AGA and AIC, it is starting to play a role in some important niche markets. The evolution of the industry in the last 7 years can be seen in Table 8 and Table 9.

Table 8. Industry growth 1996 to 2003. Hectares per Region, yields and OGR per hectare.

Year	FN	MN	BOP	AUK	Rest of NZ	Total hectares	Hectare Planted	Yields (*)	OGR/ha National Average	OGR/ha 15 ton/ha
96/97	88	132	676	30	20	946	-	3.65	-	-
97/98	109	178	687	45	20	1,039	-	5.22	-	-
98/99	131	207	692	50	20	1,100	253	6.35	-	-
99/00	155	246	771	55	20	1,248	355	7.18	$17,709	$36,996
00/01	215	292	801	60	55	1,423	425	8.86	$18,052	$30,563
01/02	235	340	932	70	60	1,637	340	7.24	$14,176	$29,371
02/03	255	405	1,100	75	60	1,890	375	7.01	$13,581	$29,060

Source (AGA, 2003). Notes: FN: Far North; MN: Mid North; BOP: Bay of Plenty district; AUK: Auckland; Rest of New Zealand is primarily the Gisborne, Taranaki and Wellington regions.
Planted area is an estimate based on Statistics New Zealand census data and grower declared data.
*: National average yield data may be distorted by the inclusion of young orchards, which constitute a disproportionate amount of the total acreage. The calculation of Farm Gate Return is based in industry gathered data for income, national average yield and national pack out. The elite property represents the stated industry goal of 15 tones per ha average for the industry. There are a very small number of growers who are achieving yields above 25 tones per hectare.

Table 9. Industry Growth – Fruit volumes and values.

Year	5.5 Kg trays				Total Tones	Fruit value $millions			
	Export trays	Local Market	Process	Total		Export FOB$	Fresh domestic	Processed Domestic	Total
96/97	377,000	271,000	-	628,000	3,454	$9.42	$5.9	-	$15.4
97/98	602,000	385,000	-	987,000	5,429	$15.0	$7.5	-	$22.4
98/99	845,000	425,000	-	1,270,000	6,985	$21.5	$6.7	-	$28.2
99/00	1,125,000	555,000	-	1,680,000	9,400	$33.75	$8.3	-	$42.1
00/01	1,400,000	712,000	180,000	2,292,000	12,606	$37.8	$10.2	$0.69	$48.7
01/02	1,321,000	678,000	155,000	2,154,000	11,847	$34.35	$9.2	$0.30	$43.9
02/03	1,259,000	1,075,000	75,000	2,408,570	13,248	$33.36	$14.0	$0.25	$46.6

Source: (AGA, 2003).

By the 2002/203 season New Zealand's primary export markets were Australia (70%) and the United States of America (27%). The United Stated is extremely important to

New Zealand because many competing promising producing countries like South Africa, Argentina, Peru, Israel, Spain and Australia, have the Mediterranean Fruitfly, which impedes them from sending fruit to the U.S. or Japan. This situation is not likely to change in the short term, because of the lack of a protocol by USDA-APHIS that will permit the entry of Avocado fruits into the mainland USA (Hofshi, 2002). Other smaller markets to New Zealand include Singapore, Hong Kong, Korea, Taiwan and the Pacific Islands (3%). Market opportunities have been identified in Japan but commercial consignments have not been considered seriously until the 2001/2002 season, due to the historical grower return differences between Japan and either Australia or the USA.

The trade history to Japan started during the 1982-1983 season when 28 kg of New Zealand avocados were sent on a trial basis to Japan to see the consumer reactions (Findlay, 1985). Since this initial sending, New Zealanders just sent samples over several years, until the 2001/2002 season with the first formal avocado shipment to Japan. This was result of a co-operative exporter approach among the NZ exporters Freshco, Team Avocado and Primor called Avanza Group. The group nominated Fresho to front the Japanese market and the importer Union Co Ltd. The three companies made equal contributions of fruit and packed it under a single brand, sharing developing costs and market developments. The two shipments of a total of 38.5 ton (7000 trays) were sent in November and December 2001. Although excellent fruit quality, Japanese Plant Quarantine found scales, and Fumigated the product with Hydrogen Cyanamide. Fruit was sold without any quality problems on the shelf with an excellent response from the consumer (Bramwell, 2002). In 2002 the export increased to 25,000 and for the 2003 season an expected volume of 60,000 trays was forecasted. Japanese markets were demanding originally 100,000 trays but due to poor fruit set for the 2003 season, this volume was out of a feasible supply (Bramwell, 2003). Despite the short supply of fruit, the Avanza has increased export volumes to Japan, which bodes well for the future (AGA, 2003).

Finally, Cutting (2003) acknowledges the limitations of the local industry in that there is a limited skill base, both in the area of technical support and in grower's knowledge and ability in general. For example, less than 20% of growers have been in the industry for

more than 5 years. Another main problem, he states, is that land values[P] have reached levels where it is very difficult to obtain a sustainable and acceptable return on investment, with growers making losses and injecting capital from 'off-orchard' incomes. These facts in conjunction with a disadvantageous tax situation in the country results in a large number of growers avoiding investment and improvements in production and yield potential, as the value of their orchards lies in the land and their lifestyles rather than the production history or prospects. New Zealand is at the extreme, at least in terms of climate, for growing avocados and requires more, rather then less, skills when compared to its competitors.

From a structural point of view, the industry is crowded. According to AIC (2003) the following registered packhouses for the 2002/2003 season had to share 14,000 tons of fruit: Aongatete Coolstore Ltd, Apata Centre Pac Turntable Road Ltd, Apata Centre Pac Northland Ltd, Birchwood Packhouse Ltd, Bridge Cool Corporation Ltd, Clark, AF & P, Coles Packhouses, Deltapac, DMS Te Puna, Far North Farms Ltd, Fat North Packers, Golden Mile Fruit Packers Ltd, Hevila Pak, Hine and Associates Ltd, New Zealand Fruit Ltd, New Zealand Kiwifruit Ltd, Opotiki Packing & Coolsotre Ltd (OPAC), Orange Lane Packhouse (1999) Ltd, Orere Avocados, Palmer, RK Packhouse, Satara Marshall Road, Satara Glenbervie, Sunripe Packing Ltd, Tandara (Opotiki), Te Awanui Huka Pak, Trevelyans Pack and Cool Ltd. The registered exporters for 2002/2003 were: Agro Exports Ltd, Chevalier Wholesale Produce Ltd. Del Monte Fresh Produce (NZ) Ltd, Far North Farms, The Fresh Fruit Company of NZ, Global Fresh New Zealand Ltd, Intergrow Marketing Ltd, Intermax Ltd, Primor Produce Ltd, Team Horticulture Ltd and Turners & Growers Exports.

4.4.2 Domestic trade of the product

The initial avocado production in New Zealand is believed to have started in 1919, when the Department of Agriculture introduced four varieties into the country (Lyon, Northrup, Harmon and Miserve), and planted them in the horticultural station in

[P] In Katikati, a prime avocado area in the BOP, a hectare of bare land cost around $NZ 100,000 or NZ$250,000 for a canopy hectare. A good producing kiwifruit hectare in Te Puke suitable for avocados can cost around NZ$400,000. Other areas like Whakatane and Opotiki sell in the range NZ$30,000 to NZ$60,000 (Yousef, 2003). In Chile a 80 hectares Hass project with an internal rate of return of 15% can not economically justify land values above NZ$15,000 – 25,000 (Wilhelmy, 1998).

Tauranga as an experiment. Then in 1923 Mr. Charles Gray, of Ormond, Gisborne, was given six avocado seeds which where part of a lot sent from California, U.S. (Findlay, 1985). However, New Zealand's domestic avocado market formally began in 1935 when the Gray's orchard sent avocados to Auckland to be sold. Until 1976-1977 avocados were sold only on the local market. According to Morris (1983) and Findlay (1985), during the 80's the fruit was a relatively expensive item in NZ reaching around $1.50-2.50 each. This generated a view of the avocado as a luxury fruit, low consumer awareness and a feeling that the fruit does not belong to normal household spending. Only a 30% of the local fruit was bought by households and the 70% left was being bought for catering purposes.

Since the establishment of the Avocado Promotion Committee in 1978, the local market has not grown considerably in comparison with other fruits. As can be extrapolated from Figure 11, the domestic consumption has not increased in any considerable way even since at least the early 90's. This is in opposition with the almost triplication of the cultivated area, from 741 hectares in 1982 to more than 3,600 hectares in the year 2003. However, during the 2003/2003 season the New Zealand domestic market exceeded all expectations in its ability to consume fruit. The market grew by 58% in one year from 3,730 tones to 5,912 tones. Per capita consumption increased to 1.48 Kg[q], with promising outcomes: "*...last season (2002/2003), avocado growers received more from the local market than from Australia*"[17]. These results, in conjunction with increasingly television campaigns like "Pick the Tick' labels seem to suggest that there is still considerable scope for growth in the New Zealand market (AGA, 2003).

Initial low internal consumption can be explained principally by a cultural matter. Avocados have never been in the diet of Anglo-Saxon people. This fact, in addition to lower quality varieties present in New Zealand in the past decades, can explain a slow or static consumption increase.

[q] According to Requejo-Tapia (1999) per capita consumption in New Zealand in 1999 was 0.5 – 0.7 Kg, considered low compared to other avocado exporting countries like Mexico (9kg), US (1Kg) or Chile (3.8 Kg) Hofshi (2002a).

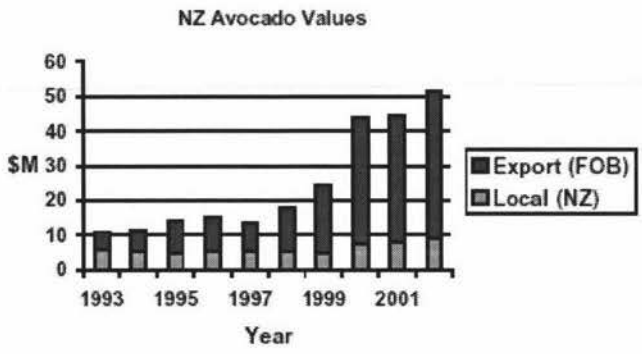


Figure 11. New Zealand values of avocados sold. Period 1993-2001. Source: (AIC, 2000)

Some 50 years ago, Fuerte was the most important avocado variety in the world, and was the predominant variety in the embryonic New Zealand industry in the 1970's. Unfortunately for the local NZ market due to the wet climate, Fuerte like Zutano (the former second most important variety in NZ) has a thin skin and is prone to splitting prior to harvest (Sale, 2001). This generated a basic consumer quality concern, that in addition to low oil content because the fresh climate obtained poor quality and not tasty fruits. This situation didn't convince consumers to make a considerable change in their diets. Today, the strong Mexican-food influence does not seem to boost the consumption in New Zealand.

4.4.3 Internationalization of New Zealand Avocados

The New Zealand avocado industry did not, before going international, increase considerably its local production to generate a real surplus that triggers exports. Also, in the early 1980s the freight cost across the Tasman Sea was catalogued as the most expensive in the world due to expensive port services (Magan, 1987), generating further unfavourable conditions for exports, so proximity to Australia was also not a main factor. From 1976 to 1979 a few kilos were sent overseas. But, the period 1979-1980 was the real beginning of the avocado exporting market, when New Zealand exported 21,365 Kg to six different countries. The main consignment went to Australia with 20,856 Kg (Findlay, 1985).

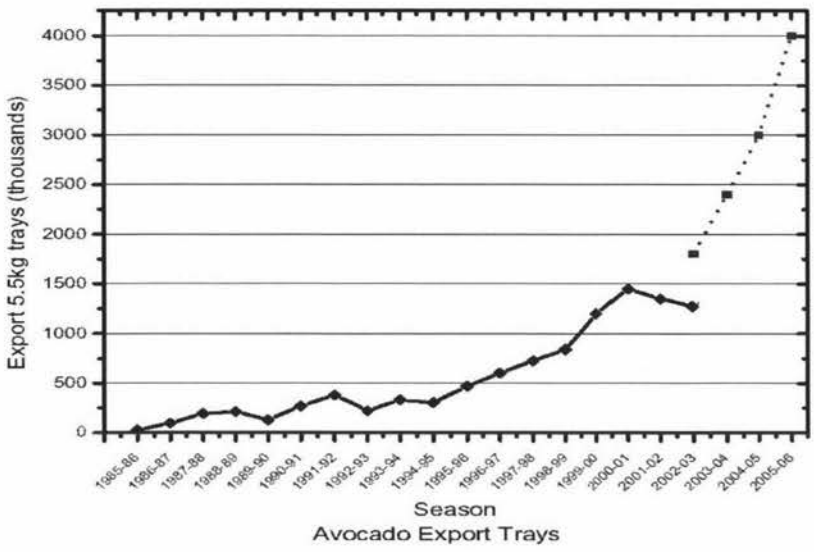
The New Zealand avocado industry differs from the classic four stages theory of development in internationalization suggested by Seyoum (2000). In contrast, New Zealand exports started from the recognition that the Australian market was out of Hass fruit between December to March, which is New Zealand's natural harvest period, and a index program that proved Australian's that the New Zealand fruit was free of the Sunblotch viroid, (ASBV) a disease that is still threatening Australia's' own avocado industry. Sunblotch is a viroid disease, which has proven to be a major threat in California and other avocado growing states in the United States of America.

Prior to 1980 the Australian avocado market was closed to New Zealanders due to the ban enforced on fruits that may have been exposed to the Sunblotch viroid. During 1979-1980 New Zealand was able to convince the Australians that the fruit was clean throughout an indexing scheme. A first shipment of 1500 trays was sent, with fruits reaching good prices, an issue that encouraged New Zealand considerably to keep exporting. The freedom of the viroid at this time and the development of the indexing program allowed New Zealand to be the sole supplier to the Australian market in the months from December to March. The 1980-1981 season gave unrealistic prices, stimulating speculators to "jump on the bandwagon" and finally consolidated the exports across the Tasman Sea. But during 1983 Australian announced that Californian avocados were been accepted into Australia. Nevertheless, the 3-year monopoly allowed a raise in the New Zealand avocado industry and strengthened the export industry (Findlay, 1985).

Today, the geographical distribution of the viroid is in almost all avocado-growing areas as follow: Australia, South Africa, USA, Israel, Peru, Venezuela and New Zealand. During the 1999/2000 season MAF collected 125 samples, and 39 tested positive with several different variants, but no SB-1, which is considered the most severe. After the consequences of this, findings were analysed for possible effects on the industry (Harding, 2000) a nursery parent material testing scheme was built by the AGA/AIC, and by 2003, 238 samples were sent for testing, with no material testing positive for the ASBV viroid.

4.4.4 The Future of New Zealand Avocados.

New Zealand export sales account for approximately 65% of total avocado production and this percentage is expected to increase further as growers implement improved production systems. Avocado exports have increased from 122,0000 trays (5.5kg tray equivalents) in 1989/90 to 1.40 million trays in the 2000/2001 season, settling for the moment around the 1.30 million trays in the last two seasons (2001-2003). As this increase has occurred, avocados have become a substantial export-earning horticultural crop in New Zealand.



Note: The thick line (◆—◆) represents export tray numbers until the 2002-2003 export season. The dash line (▪·····▪) is the projected industry volume for each export season from 2002-2003 until 2005-2006.

Figure 12 New Zealand Avocado Export Trays.

The number of avocado growers registered for export increased from 700 for the 2000/2001 season to 1,150 for 2002/2003. Yields per hectare average just fewer than 10 tones per mature hectare but vary widely from less than 3 tonnes to more than 30 tonnes per ha. It is estimated that approximately 60 growers (out of 1,150) manage 60% of the national crop volume[18]. Consequently, the technical level of skill within the industry differs quite markedly limiting the possible achievement of the industry average target of 15 tonnes per hectare. Overall production will increase as new plantings come into production and improved orchard management systems deliver higher yields. There are

more than 1,600 ha of young trees (less than 5 years and considered non-bearing under New Zealand conditions) (AGA, 2003).

But, as mentioned before, New Zealand has no competitive advantage in producing avocados. Its flora and fauna makes compulsory a higher number of sprayings than in other producing countries and its rainy and windy climate generates a considerable increase in fruit diseases (end rot and anthracnose), tree diseases (*Phytophthora*) and physical damage to fruits (lenticels damage) (Laurenson, 2001) (and fruit ridging). Many of the post harvest and physiological disorders start manifesting themselves only once the fruit has ripened, making the fruit age (time from harvest to shelf place) a crucial and limiting factor and post harvest fruit decay a major problem for the New Zealand industry (Farber, 2001). Ultimately, all these issues mean a more intensive management in the orchards and the industry, which in the end increases the costs in the value chain that could eventually reduce the profitability of the business if the marketers are not able to extract premiums as it has happened till today. This is probably why the production for 2003/2004 is expected to stay around the same 1.2 million trays of 2001/2003 (MAF, 2003).

In an attempt to re-position the New Zealand avocado industry and fruit in the world, AGA and AIC have used several regulations and created innovative processes to achieve the aforementioned goal. From a regulations point of view, the AIC had the power to restrict the number of exporters and program and deliver a controlled volume flow plan into a market or market segment, which helped to order the market. However by 2003, the Horticultural Export Authority (HEA) changed these regulations because they were contrary to international obligations under the General Agreement on Tariff and Trade (GATT). With more than 16 exporters and 26 pack houses for no more than 14,000 tones of fruit, the possibilities to develop new markets are reduced drastically. Fortunately for the industry, from the 15-16 exporters in the industry, 3-4 of them have 75% of the crop which enables them to have a significant effect on the marketing chain. There is an opportunity for the industry to learn from its national heritage single desk, and combine it with the international multi exporter system, and make a voluntary agreement to manage the volumes necessary to reach the markets that will allow NZ to play its 'high value contribution' to the avocado market (Laurenson, 2001). However, to reach these new markets, the industry will have to improve several of its already

mentioned problems, by for example: updating its germplasm as one of the solutions (new rootstocks and varieties). Regarding this point, the industry remains exceedingly frustrated in its attempt to import and release promising new germplasm to growers due to MAF Bio security requirements and the lack of sustainable post entry level 3 quarantine facilities, which the Crown is not intending to finance (AGA, 2003).

Regarding innovation, in an attempt to improve the easily damaging New Zealand avocado fruit and decrease fruit quality problems, an out-turn monitoring program in the USA has been carried out successfully in the last season. Also a mandatory library tray program to record storage defects was implemented. Other innovative actions are on line grower spraying data accessible by packhouse (up from 2003/04 season), a HACCP food safety program in the local market, the AVOGreen® integrated pest management, a sun blotch high health scheme, Gene Blocks with the cultivar Lamb Hass and Thomas root-stock, Growers road shows and successful local market campaigns, among others. Nonetheless, the future does not look easy for the industry managers. The lack of commitment by growers expressed earlier is a constant obstacle for progress. Reiterated disappointing low grower turnout to annual conferences, lack of voluntary data supply (i.e. rain data at harvest[r]), and a lack of commitment within the post harvest sector to supply the volumes required during late December and early January (MAF, 2003), which is the peak of the market window to Australia, is only delaying further progress and growth. There is a wide concern within the industry and no doubt that the 'Kiwi' holiday attitude is not a serious way to conduct the business (AGA, 2003), situation that could damage New Zealand's avocado image internationally.

The terrorist attack of September the 11th, showed how easy the New Zealand fruit for the U.S. market diverted to its safe niche Australia, through a mixture of good management and good fortune (Orman, 2002). This situation repeated itself in 2002/2003 with the wharf lockout in USA. Again, New Zealand fruit was blessed, suffering little or no loss as the ships were only delayed by a day, and an early entry into the Australian market was again fortunate (AGA, 2003). But, fortune does not always make money, and according to (Requejo-Tapia, 1999), the Australian national production would be self sufficient to cover its own domestic demand in the short term.

[r] Satara Co-op Ltd asked its growers to acquire a rain gauge due to future mandatory requirements of rainfall recording prior to harvest. Satara Co-op Ltd Avocado newsletter. September 2002.

Also late season poor quality can not continue to be an embarrassment for New Zealand Exporters, as well as the problems of supply during the Christmas holiday period[s] are not helping to make availability consistently to their long term commitment market, Australia (AGA, 2003).

Due to the mixture of promising expectations but reversal in production, the post harvest sector is divided in the real prospect of this business segment. Because increasingly kiwifruit growers have been planting and also managing avocado trees, many post harvest operator have included avocados in their business mix. Some suppliers like Bridgecool, Apatacentrepac and Aongatete[t] have taken even a leadership position in the industry. Other main suppliers that handle avocados are Satara Co-op Ltd, Trevelyans and DMS[u]. Nonetheless, there are also important stakeholders that have decided to stay away from this crop. Seeka, Eastpack and Eleos, all main players in the kiwifruit industry, and with certainly access to avocado supply have apparently denied its promising future. Seeka's Managing Director stated that "*because the volume of avocados that is available to all of us, when it is diluted, it gets so small that it is not actually a very viable thing*". "*I have tried putting the numbers of avocados that we could secure over (together) and we would be running at a loss*"[19]. Although not shared so strongly, this view is also discussed inside Satara. Because of its last merger with Katipak and its deregulated market, Satara became a relevant player in the NZ avocado industry (10%), and therefore its CEO Craig Wallis clearly states, "*avocados are important now*"[20]. However, the energized expectations about the industry future are not as clear. Satara's Financial Controller, Stuart McKinstry said "*Even if the avocado volumes grow by ten times (nationally from 1 to 10 million trays), situation that I doubt seriously, the amount available to us would be insignificant*[v] *compared to kiwifruit*"[21]. In 2003 Satara avocado growers received for the first time a rebate on their avocado trays submitted of 9 cents/tray (in comparison to 30 cents/kiwifruit tray).

---

[s] Satara Co-op Ltd recognised that supplied over the holiday period is important to the industry. Two facilities opened for this reason over the period: Glenbervie on the 20th, 23th, 30th December and 6th January. Marshall Road on Friday 20th December and 6th January. Satara Co-op Ltd Newsletter December 2002.

[t] Aongatete sells the Avojet™ injecting syringes as well as other products for avocado husbandry operations. It handles avocado leases and has interests in Olivado New Zealand Avocado oil.

[u] DMS has an NZ$ 207,000 investment in Avocado Oil NZ Ltd ('The Grove' avocado oil) in which it is an associate.

[v] Satara Co-op Ltd packed by June 2003 138,425 trays, with a gross margin from trading of $50,764 and an avocado EBIT of $23,771 which would represent a rebate to avocado shareholders of $0.089

In conclusion, the New Zealand avocado industry has made important progress in the last years, with no doubt promising expectations. However, it's geographic, climatic and cultural/demographical contexts are a serious difficulty for its growth. Certainly, more years will be needed to move the industry as a whole to the level of professionalism, technical excellence and volumes like those in the New Zealand Kiwifruit Industry.

4.5 Recognition for change

Satara handles a 16.5% of the kiwifruit volume and a 10% of the avocado production in New Zealand. The company grew from its simple beginnings through multiple crises and management structures, to become one of the main players in the industry. However, this scale was not a spontaneous result of its evolution.

Since its beginnings the organization has recognized the importance of scale in the business. Andrew Fenton, current chairman stated referring to the organization's early days:

"*Having the volumes, meant we could afford to put sophisticated equipment – whereas the smaller grower/packhouse operation had to rely on labour*" (McLaughlin, 1996, p. 52).

But even since the 1990s the business has grown and changed significantly. The kiwifruit industry has changed (1989/1991 to 1999/2000), both locally from 246,333 to 236,316 metric tons (down 4%) and globally from 718,000 to 1,193,000 metric tons (up 66%) (Belrose, 2003). In the same period, New Zealand's share of global kiwifruit supply declined from 29% to 20%.

Kiwifruit production since 1998 has been strongly affected by climatic variability, and conversions of Green orchards to Tomua (and back to other varieties)[w], Organics and Gold, as well as bare land developments of new orchards. The Kiwifruit supply from New Zealand is approaching maturity with most of the good productive low risk land already under production[22]. All new Gold planting are licensed with no more licenses until further notice by Zespri.

[w] In 2000 Zespri Group Limited determined that the continued marketing of the Tomua variety was economically detrimental to suppliers, grower and the Company. The company negotiated with, and on behalf of, suppliers and growers, a support package to encourage Tomua growers to graft across to other varieties. Zespri has been paying Tomua growers since 2001, and will finish in 2004. The full amount payable to grower was $14,672,000 (Zespri, 2003a).

On the other hand, retailers are consolidating rapidly and increasingly buying direct from the very large grower-shipper entities. Retailers are placing the highest premium on those suppliers that can deliver consistent quality, consistent on-time delivery, provide PLU or UPC coding and deliver a supply large enough to fill the demand of the majority of their stores (Ricks, 2000).

Also, exchange rate and bio-security issues, decreases in communication between growers and the corporate interface of Zespri, and pressures on the statutory system[x] have lead to considerable talks about future deregulation[y] of the industry adding more uncertainty to the current business status.

By 2002, when the merger was publicly announced, Craig Wallis, Satara CEO, stressed five reasons for creating a larger business entity:

- Corporatisation of Zespri needs more critical mass by the supplier in order to negotiate (Around 10 million trays).
- Global consolidation in the marketplace (retailers).
- Risk Management (National crop growing and currency exchange risk).
- Maintain co-operative structure (with Katipak cooperative) to maximise return through rebates and dividends
- Scale to attract people (King, 2002).

As a result of the competitive environment and the strategic momentum experienced by the new company, its CEO went to a strategic course of the Macquarie graduate school of management in Australia to strengthen the knowledge necessary to make the next strategic decisions. Also, in the same line of thinking, the CEO agreed to work in this strategic case study looking forward to have also an input from a tertiary education institution that can have access to the latest and finest thinking in the topic.

The change was underway; the only question was the exact direction and the vehicle by which the future position would be reached. The following sections describe the thinking and actions taken since June 2002.

---

[x] Zespri has estimated that illegal kiwifruit from New Zealand to China via Australia alone were undercutting grower's returns by up to $3 million a year. Hortnews 24/03/2003.

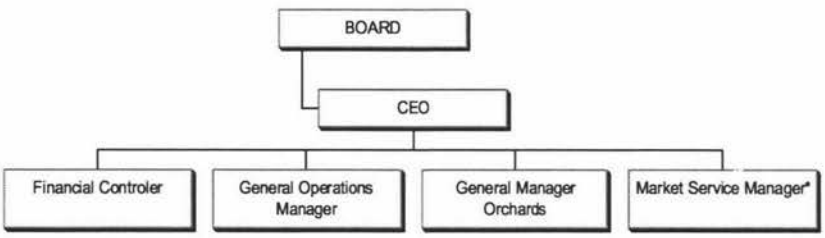
[y] Former head of New Zealand's Apple and Pear Marketing Board (ENZA) Joe Pope, and 2002 Chairman of Hortresearch stated in September 2002: *"(Zespri) is the last export monopoly in New Zealand ... and Zespri is ready to Change"* The New Zealand Herald, 9th September.

4.6 Organization structure

Satara Co-op Ltd organization structure is what is know as a 'mechanistic (highly bureaucratic) functional' structure (Robbins, *et al.*, 1997), where management organizes its structure by grouping similar and related occupational specialties together.

Satara's organization chart as of May 2003 is as follows (Figure 13):

Figure 13. Satara Co-op Ltd General Organization chart.



Note: (*) This position was going to be reallocated under a new Manager in May 2003[z].

Due to the business activities performed by Satara (growing, packing, cool storing, and exporting fruit) the organization benefits from the obvious strength of specialization of having specialties together. This generates some economies of scale, minimizes duplication and makes employees comfortable by working in a 'used to and familiar' environment. However, and as Robbins (1997) stated, no one function is totally responsible for end results, with not a complete understanding of what other functions are doing, leaving all the coordination role to the top management or CEO, who then is the only one who sees the whole picture. For example, in may the 6th 2003, the CEO explained to middle management for the first time after the merger the strategic context and why certain actions have been and would be taken in the future.

Also, in the mechanistic functional structure the diversity of interests and perspectives among tasks can generate conflicts between functions. A clear example of an important internal conflict in the organization is about the avocado segment. The CEO stated:

[z] Before May 2003 the executive was made up of the CEO and the three department managers. This team was the same that managed Baypak before the merger with Katipak. The Market Service manager was reporting directly to the CEO but was not part of the executive team. In August 2003 a new Manager was added to the executive team.

"*Avocados are now important*"[20]. Its Financial Officer:" *Avocados are irrelevant*"[23]. Technical advisor "*Why not let avocados in another company?*"[24]. Market Services Manager "*yes huge potential...(in the future) there will be a huge influence (on volume)*"[25]. This exemplifies on how important a coordination and communication mechanism for a functional organizational structure is. Another important weakness of this model is that frequently it fails to prepare successors for the Chief executive role. Functional managers usually do not have the broad perspective on the organization's activities (Robbins, *et al.*, 1997). However, according to Schermerhorn (1993) this structure can work well for smaller and less complex organizations dealing with only one or a few products or services.

On the other hand, Satara cannot implement either a 'mechanistic divisional' structure, which is made up of autonomous self-contained units or an Organic (decentralized and flexible authority) structure. This is not possible, first, because of the organization's size. Satara just recently (May 2003) contracted a Marketing Manager (Figure 13) to work initially one day during the week. The scale and seasonality of the business does not allow yet to have specialized employees in all areas all year around. Hence, there are no resources to set up a full team for more than one self-contained unit. Also, the nature of the integration among division does not allow total independence. Fruit has to be grown, then packed, cool stored, moved and exported through whatever exporter the organization has the ability to choose, which means that different managers have to be in constant contact and interaction. It is not within the cooperative business model to disintegrate these functions into separate and autonomous functions. Hence, the cooperative structure does not allow an organic approach.

"*Stability strategies will be more successful when supported by mechanistic design alternatives; growth strategies will be more successful when supported by organic design alternatives*" (Schermerhorn, 1993, p. 318).

The CEO recognizes that the environment will change and that the some strategic objectives are likely to include the needs for innovation and flexible responses to the environment. Operations and plans are likely to require change over time, and either an appropriate structure or system that facilitates and supports these changes will have to be in place.

"*The organization structure to deliver the strategy is going to change in the next months*"[26] Satara CEO.

4.6.1 Orchard Management

This division is perhaps the first one from a supply chain point of view, but has indeed been with the company only for the last six years. This division comes actually from a purchase made by Baypak of Manakau Horticulture, which was a company focused on orchard management. As the cooperative grew, it started to experience a low through-output of product, and acquiring growers by purchasing a management business was seen as the feasible solution. The leasing segment consolidated itself as a response of post harvest operators to keep their facilities working. For the 1992 crisis, many independent, as well as orchard under management, could not sustain themselves. They could not pay the fees. In an attempt to keep the fruit flowing and export the fruit (prior to single desk), the leasing contract became formalized.

Today the division has three clear defined customers:

a) Shareholders (54% of fruit supply),
b) Leasing and Management orchard owners (42% of fruit supply) and
c) Free agents, also known as contract growers (4% of fruit supply), who are growers that change frequently from post harvest operator or growers that are new in the business and that have not yet decided who to work with.

The Leasing and Management segment characterizes itself according the service it provides. Leasing owners are people that do not what to keep involved in the operations and want only the shared returns and risk of the investment. This group represents retiring or exiting shareholders or investors. Satara runs on the owner's orchard a corporate business, according a contract and defined policies. The lease charge is mainly market driven, and adjusted every three years. Satara receives all kiwifruit income up to $4.30 (plus GST) for each Class I tray equivalent harvested and packed from the Lessor's property. The Lessor then receives a base rental from the $4.30 (plus GST) for each Class I tray 70 cents (plus GST). Then after $4.30 and a 90 cents service

charge for packing, cool storing, logistics, condition checking and repackaging services are recovered, all excess is shared between the Lessor and the Lessee in a 50%/50% basis[aa]. Also, any profit made form Class II fruit is shared 50%/50%[27]. For profit its profit calculation the lessee charges itself the growing costs plus any other additional operational cost (like picking) in the same way it is charged to grower-shareholders.

The management segment is made up of active growers that either need permanent assistance in their operations (major part) or those that need one-off assistance in some husbandry operations along the year (minor part). This kind of operations is more flexible, which presents some problems when applying the corporate management policy. Nonetheless, the grower is legally responsible for the fruit and payments, taking responsibility for the market risk.

This issue of risk sharing, which is an intrinsic attribute of the service of leasing, is seen by the organization's financial controller as a business risk that has to be decreased. "*One financial objective would be lower the financial risk of the leasing operations. The idea would be to switch as many leasing orchards to management orchards as possible*"[28]. However, the natural progression in the orcharding life goes the other way round, from grower shareholders asking for assistance in management to then finally taking a lease contract to retire or exit the operations. This is why that although its high risk exposure, and the orchard division is considered by its Manager, Tony Clarkin "*the loss leader*"[29] and that "*its main financial objective is to break even*" (Stuart McKinstry) (Table 10) it has a strategic importance in that it is providing the fruit to keep the facilities with an appropriate capacity utilization. As will be shown later in section 4.8, the aging of the grower's population in conjunction with other factors make the leasing and management functions essential for post harvest operators to maintain the adequate throughout put, generating a kiwifruit business structure which is unique in the world.

[aa] These values are adjusted every three years according market conditions. For example, for 2001 the base rental was $1.00 (plus GST), with a minimum of $40,000 per annum. The Lessee retained up to $4.00 (plus GST), and the surplus was shared wit the Lessor according: $4-5 net fruit value (60/70), $5-6 (75/25), $6-7 (80/20) and >$7 (90/10).

Table 10. Satara Co-op Ltd Consolidated Profit & Loss 1999-2002

	1999	2000	2001	2002
Packhouse & Coolstore Throughput				
Trays Class I	5,398,000	6,430,000	6,761,423	7,871,353
Trays Class II	570,000	616,000	821,501	887,228
Total Trays	5,968,000	7,046,000	7,582,924	8,758,581
CONSOLIDATED PROFIT & LOSS				
Orchard Division Profit & Loss				
Class I net profit contribution/tray of Coolstore	6.7	5.02	5.18	6.29
Class II & III net profit contribution/tray of Coolstore	0.25	0.18	0.13	0.25
Leased Orchard Trays	-	2,273,614	2,337,586	1,936,800
Revenue	5,222,000	6,459,000	6,689,000	7,165,000
Total Costs	4,583,000	6,556,000	7,049,000	7,579,000
Profit contribution	639,000	-97,000	-360,000	-414,000
Packhouse Profit & Loss				
Revenue	9,931,000	13,529,000	15,553,000	17,353,000
Total Costs	9,757,000	12,925,000	14,211,000	15,921,000
Profit contribution	174,000	604,000	1,342,000	1,432,000
Coolstore & Coldstore Profit & Loss				
Revenue	5,472,000	6,204,000	6,689,000	8,573,000
Total Costs	3,141,000	3,400,000	3,379,000	4,617,000
Profit contribution	2,331,000	2,804,000	3,310,000	3,956,000
Logistics Profit & Loss				
Revenue	749,000	890,000	1,320,000	1,242,000
Total Costs	627,000	635,000	948,000	843,000
Profit contribution	122,000	255,000	372,000	399,000
Administration Expenses	-713,000	-790,000	-863,000	-1,260,000
Business Development	-173,000	-254,000	-250,000	-596,000
Corporate Services	0	0	0	0
Pool Administration	0	160,000	74,000	125,000
IT Deparment	0	0	-57,000	-75,000
NET Profit B/F interest & Tax	2,380,000	2,682,000	3,568,000	3,567,000
Total Revenue	**21,374,000**	**27,082,000**	**30,251,000**	**34,333,000**

Also, considering the aging and low replacements of orchardists in the New Zealand Kiwifruit Industry (see later section 4.8.1), the segment has a considerable potential to grow. Nonetheless, under current competitive pressures, the unit can be profitable only under extremely good payout, extremely good production year, and less competition. This is why the real margins are made out from packing and cool storing, a situation that has not changed in the last 20 years.

This high pressure and competition on performance means that the unit will have to maintain and increase the number of orchards in the next years to keep providing fruit to the expanding operations[bb]. According to Tony Clarkin, the main indicators for measure, retention and customer satisfactions are simple: Trays per hectare, size profile and relationships. Almost all the new contracts are being gained by 'word of mouth', by

[bb] A Sales Manager (Figure 14) was appointed in November 2002 with the objective of expanding the supply base through attracting new customers and exploring other alternatives to meet the objective of being the major participant in the New Zealand fruit serving industry. Satara Co-op Ltd Newsletter November 2002.

people that recognize the good image and reputation on the orchard's operators. "*The first issue is people. It is very much a people's business*"[30]. This is why, although the organization applies the very latest knowledge and technology on the orchards, and has a well-structured corporate reporting system to owners, all comes back to the orchard manager, the regional manager or the General Manager – Orchards. This relationships is indeed able to maintain contract despite a relative lower market performance. Tony Clarkin stated: "*It is a very personal business. It is surprisingly. We have 190 (growers), and it is still very personal*"[30], also "*Sometimes, growers just want to talk with you, not about the orchard performance, but about the industry or other issues. They just want to talk*"[30].

The general organization chart for the orchard unit is as follows:

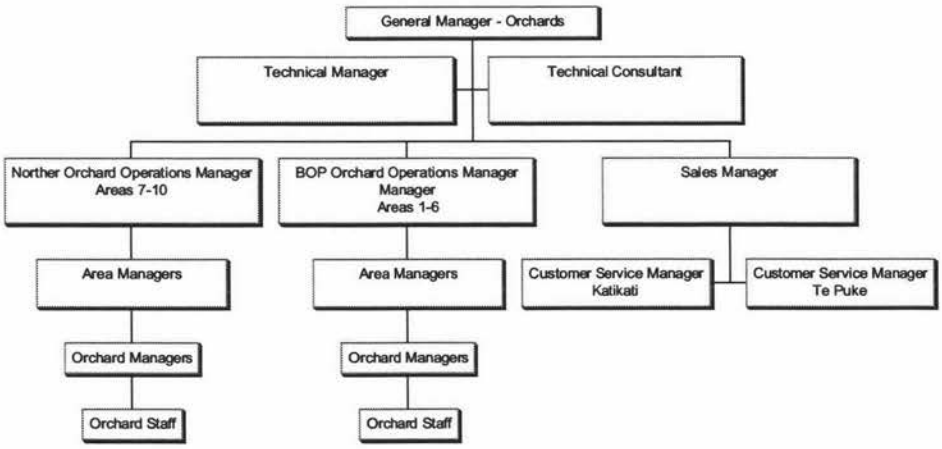


Figure 14. Organization Chart for the Orchard unit at Satara Co-op Ltd.

Finally, according Satara's Business plan 2003, the critical success factors for leased orchards are Class I trays (as total and per hectare), Zespri average income, average lease per tray, net income per tray, total growing costs, managed orchards and spray division costs.

4.6.2 Operations

Satara Co-op Ltd operation unit is not much different from any other company with an industrial perspective. This unit manages the procurement of inputs, supply of goods, transformation of the product, outbound logistics, among others functions. Therefore Satara General Operation Manager functions match Schroeder's (1993) definition about the topic and its functions:

"*Operation managers are responsible for producing the supply of goods or services in organizations. Operation managers make decisions regarding the operations function and the transformation system used. Operations management is the study of decision making in the operations functions*" (Schroeder, 1993, p. 4).

Therefore, Satara Co-op Ltd operation unit has a responsibility in the five major decision areas in operations: Quality, process design, capacity planning and scheduling, inventory management and work-force management (Schroeder, 1993). The team responsible for these areas is shown in Figure 15 as follows:

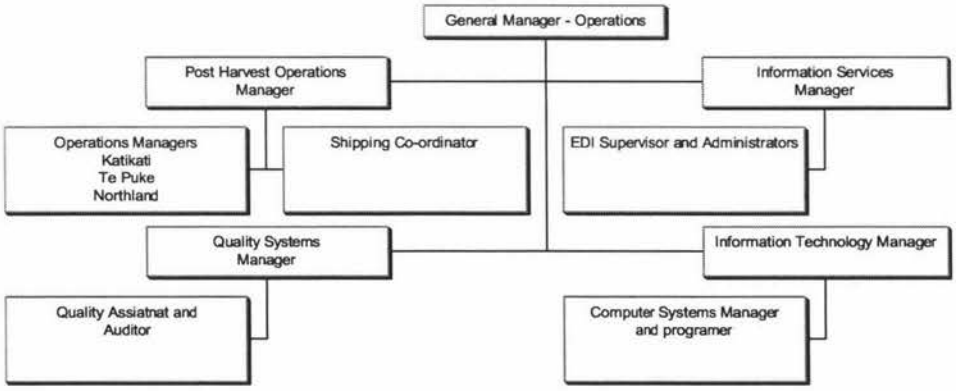


Figure 15 Satara Co-op Ltd Operations organizational structure.

The operation unit is indeed responsible for performing those processes that constitute the organizations principal activity according its constitution, which is grade, pack, store and transport fruit, and supply associated services to the company's shareholders and contract growers. But this unit is also the one that interacts more directly with the second customer, the wholesaler/exporter. To be able to grade, pack, coolstore and

transport the fruit successfully from Satara's premises to the agreed location, the unit has to manage effectively and efficiently the five major processes already mentioned in operation management. Because these processes are critical for the organization, all functions and responsibilities are clearly stated in annual contracts with the two customers involved. The contracts are the 'Grower supply agreement contract' and the 'ZGL supply contract'. The latter also has attached two further specifications manuals, namely the "ZIL Quality Manual" and "EDI Manual" to control and assure the standards behind the Zespri brand. Both contracts cover in different extent the five operation areas mentioned.

In the Quality area the unit is responsible for taking care of the grower's fruit and meeting Zespri's requirements for that fruit. These processes include activities like meeting EUROGAP and BRC requirements, Kiwigreen standards, Class I, II and II maturity and size standards (Brix degrees, Dry matter and %back seeds), as well as the sub-categories of Kiwistart, Low pest and Taste Zespri specific requirements. To guarantee quality, Satara as SKSL takes responsibility for pest monitoring, picking, transport, condition checking, packing, repacking, cool storage and logistics management until FOB of the grower's crop. However, the grower can optionally perform harvesting and transport from the orchard to the packhouse. Satara also has the responsibility to check maturity standards and monitor during the season.

In the process design area, Satara led the industry for many years in the industry beginnings, introducing new grader types, packing processes, pre-cooling and controlled atmosphere, amongst others innovations. Nonetheless in the last years the organization has had a more conservative approach than other suppliers like for example Eleos[cc] or Aongatete. Satara technical assistant stated: "*We are not leading the industry*"[31], and the CEO: "*We are lagging*"[32], "*We cannot afford to make mistakes*"[32]. According to the CEO, this lagging approach is a result of the industry cooperative characteristics (Zespri is a co-operative like organization) in which major technology improvements are usually shared, losing by this any potential as a source of competitive advantage. Also, because only one customer, who happens to have a statutory monopoly power, regulates

[cc] In October 2001 Eleos Ltd received the Primary Business of the Year Award at the Tauranga Regional Business Awards due to its industry-leading practices. For example Eleos records the dry matter content of all fruit through NIR technology as opposed to the industry norm of a 30 fruit sample. Source: http://www.eleos.co.nz/about.php

the industry, 'the rules of the game' are perceived to be unstable. If deregulation occurs, packing and cool storing regulation could change enormously, making some process and operational improvements obsolete: "*We have to be very careful about where we put our investments because the rules are going to change and will have huge impacts*"[32]. This perception of operations processes improvements is also shared by Seeka, who stated: "*we tend to lag...we tend to try to work with proven technology and allow somebody else to test the new technologies*"[33]. This is, among other reasons, why Satara has not yet become involved with the Near Infrared technology to measure dry matter, like Eleos.

However, Satara has to manage and improve those key factors that have an impact on their main processes to achieve or exceed industry average performances. From a supply chain point of view, the first process in the operation area is picking, which starts normally in mid April. Depending on the year and the growing season characteristics, this date can change either by days or weeks, affecting the whole process of planning and scheduling. The later the harvest period starts, the shorter the window for suppliers to pick the fruit before the first frost damages the fruit on the vines. This demands significant capacity utilization and efficiencies. Just a few days have enormous operational implications. To improve the efficiency of the picking and packing activities, processes like Bin Storage, precooling capacity, Kiwistart and Gold conditioning help to extend this short operational window.

According to the CEO, one of the main problems still to be solved in the picking area is the reject rates for Gold (30%)[dd], which should to be reduced to 20%. To do that the process design has in place audits to pickers, a new Bin Trailer and a new truck handling process. Also managing maturity levels and using soft Bin tippers could help to reduce the reject rate.

At Satara, the packing activity efficiency is measured by Bins tipped per hour which has had an average 39 in later seasons, with an increase in the 2002/2003 season to 48. To increase efficiency it would be possible to increase machine (grader) speeds by the

[dd] Satara Co-op Ltd participated during 2003 in an industry conditioning trial as well as in an internal Gold physical damage assessment. As part of the project, Satara developed Bin trailers with oscillating tandem axles to reduce damage to the fruit. Satara Co-op Ltd Newsletter. Week 17. 2003.

accumulative effect of many small improvements like: split drops, extended packing arms and more grading tables. Of course, automation is also possible, and the organization is conservatively investigating the topic.

To reduce operational costs (other than labour costs) it would also be possible to make the following improvements:

- Reduce packaging costs from 72 cents/tray to 68.
- Negotiate improved supply arrangements with two key suppliers
- Reduce wastage from 1.2 to 0.8%
- Work with Zespri to reduce pack numbers/variety. Actually Satara manages more than 400 lines items (different packaging, either for fruit size, destination, graphics, language, etc.), which is highly inefficient.

According to Satara's CEO the number of different pack types is an increasingly worrying factor of inefficiencies. He stated: "*if the industry were deregulated and another marketer came into the country, they could simplify packaging, like run and have two pack types, for example, and our estimate is that they could save anywhere from 40 to 60 cents a tray, which they could give immediately the grower*"[34].

After basic operational process changes, Satara has made some important improvements also in other areas, like traceability with EAN-128. Since 2002, Zespri has been in discussion with EAN (European Article Number) International about the implementation of a Fresh Produce Tractability Guideline (FPTG). Zespri has been in a pilot program operating the UCC/EAN-128 system in several packhouses in New Zealand (EAN, 2003). Since the last food scares in Britain and Europe, the EU passed a legislation requiring track-and-trace on all edible items within the EU, law that will take effect from January 2005. In the light of this future requirement, Satara, Seeka and Mainland were trailing in 2002 and 2003 the EAN system. According to Murray Gough, Satara Co-op Ltd Operational Manager, the track-and-trace system under trial will be a considerable improvement on the current system. He stated: "*on receipt of the fruit, an organization will have full information on what was done to it, full information on who the fruit was passed to including any associations along the way*"[35].

After packing, coolstorage is the next process in the organization's supply chain, in which Satara has the prime objective to be better than industry average in any one year. To achieve this improvement through coolstorage management the following activities are under way:

- Manage/monitor airflow/temperature using new available electronic devises.
- Refine technical data on individual grower's fruit performance using the organization specialised software (Kiwitracker).
- Manage to a higher level the inventory in all classes through Kiwitracker.
- Apply new technologies like 'Harvest Watch' and Ethylene monitoring.

In regard to process efficiency the company has an implicit benchmark with its most efficient facility. As a matter of fact, it is a one grading line, Line 1 at Washer Road. For example this line has a cost per Bin of $22. In this regard there is one specific goal to all other facilities: to be efficient and achieve Washer Road efficiencies. Nonetheless the Operation Manager stated that there are still some faults to overcome. For example: "*Line managers do not know how well they are doing. The problem is the ability to generate the information for them. Packout information is good and bad, depending on the place*"[35].

To increase capacity utilisation the organization is considering also some major changes in the process design and assets structure, recognising the significant differences between packing green, organic and particularly Gold kiwifruit. Seeka Managing director acknowledged these differences, particularly in Gold: "... *the best packhouse we have got only an output of 1/3 of the volume of Gold that it does for Green*"[36]. Hence and in the industry context, Satara's strategies in this field are to reduce the number of facilities for packing from eight to five, reduce the Gold packing sheds from four to three, dedicate only one facility to Organics, start packing earlier in the season and finish later and add further working shifts to the packing process, i.e. 23 hours per day – packing segments of the total crop.

In the capacity planning and scheduling area, Satara Co-op Ltd (as SKSL) has responsibilities to ZGL to estimate supply (Crop estimate, onshore fruit loss and supply estimate) and to deliver the product according to 9 periods (from the 1 April until 25

November onwards) and pack types determined by the ZGL model called Proportional Allocation Model (PAM). To coordinate and record all actions, ZGL also developed an EDI manual, which each supplier has to attain. The regulations to assure standards in operation, planning and scheduling are so important for the whole industry that ZGL established a Supplier Consultative Group (SCG) to assist ZGL in the development of specific ZGL supply specifications, with a focus on the standard of the product and process specifications.

This tide and regulated system of regulation and standards also creates opportunities for good operators. As mentioned, because the industry has a cooperative perspective, the premium and penalties are made to match the industry average. That means that if a supplier manages for example to lose less fruit than average, it could get greater compensation from Zespri for time related payments (a premium paid in response to the risk of storing fruit and losing some fruit over time). Other opportunities can arise from ZGL premiums for short notice orders, multi supplier arrangements, and changes to committed production plans or, even grader accuracy. Eleos for example defines Grading accuracy as "*the ability to take advantage of the tolerances for reject fruit in export product whilst staying within the grade standards set by Zespri*"[37]. This assessment of specifications, to extract as many opportunities as possible from the ZGL manuals, turns sometimes to manipulation of the rules by some suppliers, forcing ZGL to adjust them the next year. This is another reason why the 'rules of the game' are perceive to be unstable.

In work force management, the operation unit has to deal with the two main issues that the whole industry is facing (see later section 4.8.1). One is the lack of capacitated and specific skills in certain jobs, and the second one is the lack of labour for operating the mass activities like picking and sorting in the packhouse facilities. "*Labour issues: It is a problem at all levels in all areas*"[35] Murray Gough, Satara Co-op Ltd Operation Manager. For example, in the line sorting tables, it has become more common that companies poach the seasonal employees, as it is cheaper to offer greater wages than train them. This also happens with line managers, considered as a very limited and select group of people. In this regard, Satara based on its size and geographical distribution has the strategy to employ them for 12 months, and achieve a high retention ratio.

According to the Satara Business plan 2003 the key operational planning issues facing the organization are:

- To pack 1,080,000 trays of Class I and Class II Gold, within a 4-5 week period, without any impact on the packing of the Green crop.
- To accommodate the effect of peak packhouse outputs and CA demand on the Precooling Capacity at the Washer Road, Coolstores.
- To acquire 1,200,000 trays of Kiwistart in order to maximize the utilization of the packhouse and coolstore facilities.
- To accommodate the impact of Zespri only committing 85% of Satara's packaging plan during the packing season.
- To have sufficient coolstore facilities available to manage a limit of 31% movement by Zespri within the packing season (including Kiwistart).
- To efficiently utilize the Tandarra Packhouse and Coolstore.
- To negotiate a profitable packing contract with Golden Mile.

Also, the packhouse critical success factors (CSF) are Bins Received, yield of Class I, trays packed Class I, trays packed class II (all for Green and Gold kiwifruit). Also picking and transport costs, repairs and maintenance (R&M) and electricity costs[ee]. For the coolstore operations the CSF are Trays packed Class I and Class II, local market, cold storage, others, trays repacked, R&M and electricity costs. For the logistics part of the business, the CSF are the number of trays packed, both Class I and Class II.

[ee] Due to the energy crisis in the country in first semester 2003, Satara was able to negotiated a fixed term hedge contract for energy supply for 12 months beginning 1 June 2003. Satara Co-op Ltd. Newsletter. Week 21.

4.6.3 Market Service

The Market Services unit encompasses primarily all the necessary activities to export Class II[ff] kiwifruit to Australia, as well as taking care of the local market and processing grade from all Satara's facilities. After the merger with Katipak it has also started to look after the new avocado segment.

Satara is an exporter in its own right. However, because of the New Zealand kiwifruit industry characteristic, Satara's first customer for class II kiwifruit is Zespri, which handles K1W1™ (Zespri's Class II fruit brand) on the world market. After Zespri, the next customer in importance for the organization is Coles-Myers in Australia with Chiquita as distributor. Coles is the supermarket chain with more distribution in the country. Satara supplies Coles-Myers into Western Australia, Victoria, New South Wales and Queensland.

To distribute its fruit even further to other markets it also uses two other exporters, Freshco and Le Fresh International (NZ) Ltd. These two exporters enable Satara to allocate a percentage of its fruit to Woolworth supermarkets (the biggest operator in Australia). Finally it also reaches three wholesalers in Australia, Carter&Spencer[gg] in Brisbane and SunFresh Fruit & Vegetable Merchants and Lewdell in Sydney, who then disperse the fruit in the wholesale market which goes into the independent stores, and other areas were the Satara has not got a presence. By supplying to Coles and Woolworth, Satara has access to a distribution channel (both supermarket chains) that control 75% of the whole Australian fruit market. Both chains are expanding, with Woolworth always looking for further growth overseas (Clairs, 1995).

Locally, the fruit[hh] is sent to Auckland, Hamilton, Christchurch, Wellington, Tauranga and Dunedin, through Carter & Spencer, FreshMax, MG Marketing and Del Monte. The fruit is not sent directly to supermarkets, because Satara does not have facilities to keep inventories in each city as well as the ability to respond to problems (like fruit rejection) in every selling place.

[ff] Satara Co-op Ltd handled 939,497 Class II trays in 2001 and 848,495 trays in 2002.

[gg] Carters & Spencer Group is one of the biggest private companies in Australasia covering all spheres of perishable foods. Source: //www.carter-spencer.com.au

[hh] During 2002 Satara Co-op Ltd supplied over 500,000 Kg of fruit into the local market. Satara Co-op Ltd Newsletter, December 2002.

As a percentage of revenue, Satara's most important clients for Class II and III are: K1W1™ (32%), Carter & Spencer (17%), Sunfresh (15%), Lemdell (13%), Fresco (10%), Le Fresh (8%), Fruitlynx (4%), Primor (1%) and Local market (1%).

In the avocado segment Satara is not an exporter yet. It uses 5 different exporters to get the fruit into the markets, namely Fresco[ii], Intermax[ij], Turners&Growers[kk], Intergrow Marketing Ltd[ll] and Del Monte. The grower has to choose with which exporter to export his fruit, leaving Satara only to pack the product. This creates some operating inconveniences for Satara, of having 5 different pack types for a small volume of fruit. Nonetheless, because of the necessity to have the grower's fruit packed, the multi-exporter framework has sustained itself properly. However, in the last year Satara was seeking an export license, a process which stopped in favour of signing a joint-agreement with some exporters, seeking to build up the customer base and knowledge in avocados. Also, the feasibility and profitability of reaching the Australian avocado market with the Satara brand are not as clear as with kiwifruit, which is another reason why the avocado export venture has been stopped. However, the potential of exporting avocados is imminent. According to its CEO, "*it would be on the back of our kiwifruit business an easy exercise to us to export avocados*"[38]

From a Marketing perspective, the unit has benefited from the new brand that along the increasing scale has positioned Satara well among its clients. Since the official launch of the brand in Australia in July 2003, Lon Wheeler, Manager of the Market Service units stated: "*we have got customers that now only want the Satara box. They just want fruit that is in there, that they know that it is good*"[39]. As of December 2002, the contribution of Class II trays to every Class I tray packed doubled from last year.

[ii] Fresco has since 1998 an independent export license from Zespri to export Class I kiwifruit. Source: //www.freshco.co.nz. Satara's avocados (66%) represents 35% of Fresco's business. Fresco is Seeka's expoter.

[ij] Intermax exports to more than 30 countries and is particularly interested in developing opportunities in New Zealand to market both Apples and Pears under a deregulated environment and Kiwifruit under the Collaborative Marketing process. It has currently a Collaborative marketing project with Aongatete Coolstores Ltd. Source: //www.intermax.co.nz

[kk] Turners&Growers Group is a New Zealand global produce marketer that incorporated ENZA into its portfolio in 2002. Among other grand is market the 'King Kiwi' brand. Source: www.turnersandgrowers.com

[ll] Intergrow is an affiliate company of the - 2002 Trade New Zealand Export Award - Delica (N.Z.) Ltd. Source: //www.intergrow.co.nz

Quality has been and will continue to be an issue in the fruit export business and kiwifruit Class II is not much different. As a matter of fact, the market in Australia was over supplied and with poor and variable quality prior to 2002. But due to a joint program between Zespri and the exporters a flow plan was proposed with excellent results. For 2002 the return to the Australia market was as good as those for K1W1™ which goes to the global market. The only difference is perhaps that the supply is limited from New Zealand only, which gives Australian companies less bargaining power against their exporters. This is confirmed by Lon Wheeler who said: *"(the fruit) basically sells it self"*[39].

Satara has positioned itself well, with a unique brand that delivers a uniform quality and service. Because of the proximity, there is no space for error and customer satisfaction is known almost instantly. From the time that the fruit is sent to when it gets to the client there are usually 10 days. This is why any excessive rot problems would jeopardize the continuity of the season directly. Wheeler adds that even though the fruit is condition checked, sometimes rots appears, but generally "*9 out of 10 we don't get many (problems)*"[39]. According to the manager, this consistent quality and single brand was one of the reasons why Coles supermarket changed from being supplied by three different exporters (Primor, Global-Fresh and Prendo Produce New Zealand Ltd) to Satara only.

4.6.4 Financial Control

The financial control unit is not different from any other company. Its main task is to control and record all relevant financial and accounting events during the year in the organization, as well as take part in the initiatives and projects relevant to its functional areas i.e. share listing project, financial reports, distribution policies, etc. Of course, different approaches can be used to manage accounting data, like for example use Activity Based-Costing (ABC) (which Satara doesn't use), but in essence the information is handled according to industry best practices. The various functions possible to be carried out by this unit certainly go beyond the financial control only. For example, the unit was in charge of installing a finger-scan time and attendance system at all Satara's facilities in March 2002 (iDt, 2003). The financial controller has also in the last year initiated an inter-company financial benchmarking and business intelligence program, from which much of the financial information of this report came.

The organization unit structure is shown in Figure 16 as follows:

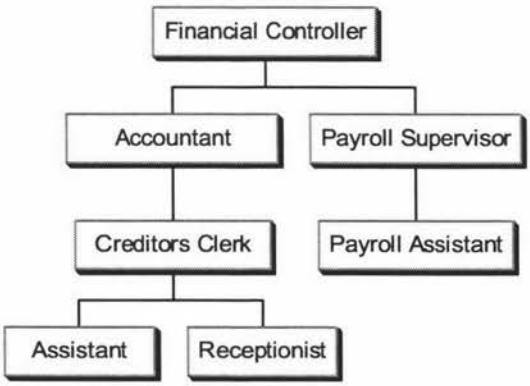


Figure 16. Satara Co-op Ltd Financial control unit organizational structure.

The payroll accounts are in charge of employee's wages, deductions of income tax and other insurance charges. However, although the organization performs an extended variety of functions it is lagging in one important point: Employee's rewards. Although it is widely accepted that performance and rewards are tied and important for the management of an organization (Schermerhorn, 1993, Robbins, *et al.*, 1997), and that the topic of influencing employee's behaviour has been extensively studied (Agarwal,

1998), Satara does not have a reward system in place. The organization has no rewarding system in place, with exception of the CEO. The CEO is evaluated by the Board, and can increase his/her salary up to 25%, depending on performance in five areas: Profit, Assets, Grower retention, industry relationships and employees (each weighted 5%). Middle management has been consulted lately about the possibility of implementing a rewarding system, with a unanimous opposition to the initiative. However, it is important to remember that money, although important in a reward system (Schermerhorn, 1993), is not the only driver (Nelson, 1994) for performance achievement (Pfeffer, 1998).

Remuneration management is increasingly about gaining a return on the organization's investment in people and variable rewards offer one way of ensuring that both the organisation and employees benefit when performance objectives are achieved. Taking into account that the remuneration strategy is not developed in isolation, and that it is directed by the organization's broader HR strategy, business strategy, stakeholder values, corporate mission as well as the business environment, the CEO installed an informal reward system based on unspecified outstanding results. In 2002 only 3 employees received a reward due to good performance.

It is important to consider that the strategic objectives of remuneration are reward past performance, remain competitive in the labour market, maintain salary equity among employees, control salary costs, attract and retain good staff and reduce unnecessary staff turnover (Nankervis, *et al.*, 1999). A reward system complements these functions by adding to an important objective: motivate employee's future performance.

Regarding a further development of the scheme to a formal reward system the CEO stated: "*Certainly, now with the listing of our investor shares, a new opportunity for an employee reward system may arise*"[40].

4.6.5 Marketing

Schaffner *et al.* (1998) defines food marketing as all the activities needed at all stages in the food system to facilitate the exchange of products and services which satisfy the needs and wants of individual customers and organizations.

Before early 2003, this definition was not matching with what Satara was doing at a marketing level. The successful new brand campaign was bilateral with no clear plans for its continuance and the marketing efforts were disaggregated. Craig Wallis stated: "*There is not much advertisement in magazines. Satara is not doing very much. Also, the internal participation in the Newsletters is poor...there are areas that should be exploited further*"[41]

As part of the structural reorganization, a new Marketing position was appointed in May 2003. Although not clear by the time this report was completed, there were two possible accountability superiors to this position, the CEO or a new business development manager. The new employee started to assist in executive meetings to promptly gain the necessary background to start organizing this essential management activity. As part and start of this process, he/she performed a SWOT analysis through a questionnaire to staff, which had extremely low and disappointing response. Nonetheless, during the months to follow further analysis was carried out with the following main findings: Weak sales and marketing team, low empowered staff, non-internal communication activities, no sales plan[mm] (to growers) and no clear marketing achievements with the exception of the astonishing new brand launch that took most of the industry by surprise.

The problem was stated to be in the structure rather than the people. As a solution, prioritising goal achievement on the strategy was suggested, with a focus in the short term on the grower, for then working back on the service chain. "*Focus on orchard to distribution channel not consumer sales given current Zespri make up*"[42] Some of the actions to be taken were as follow:

[mm] There is a well developed sales plan every year for Class II kiwifruit to both Australia and local market. The Market Sales manager and the CEO perform this plan in the beginning of each season.

- Appoint a communication manager.
- Appoint a sales liaison person(s).
- Sales and Marketing manager become part of management team.

Also the organization's core values were identified as professionalism, world-class products, leadership, integration, trust, dynamism and teamwork co-op relationship driven.

Satara had an extensive database on its grower-customers with information like names, addresses, packing companies, grower type (shareholder, lessee), production history, contact people, product types, location. However, from a marketing perspective the following information was lacking: Important dates to growers, associations with other products, complaints records, industry links, and grower profitability.

By July 2003, the marketing team was using the same mission as used for the merger in early June 2002: "To maximize the return to shareholders by being the most efficient horticultural operations and services operation in New Zealand".

Some of the communicational strategies proposed were to integrate many of already in place communicational tools with other new ones. The central idea was to coordinate all of them together by the same guiding principals and objectives, a situation that prior to July 2003 was not done formally. The main communicational vehicles would be face to face appointments, newsletters, grower forums, 0800 number, Field days, regularly updated website, product displays Class II, public relations, industry meetings, seminars and tours.

Finally, the key elements of the marketing mix that would guide the actions to be taken in the following months were professionalism, operational excellence, know-how, added value, and reputation. A clear differentiator, or 'something that makes Satara stand out', was still on analysis.

4.6.6 Future structure

According to the processes underway, and the reality of the organization's growth, both in size and complexity, a new organization structure was underway. Satara's strategic processes were triggered by factors not different from those affecting other players across the industry. Industry people were in general under pressure to keep up with their present jobs, without even considering the capacity they have got to grow further. There was a gap between current and required employee skills.

"*As a broad generalization, people feel fear in their positions in the industry*"[43]. Said Satara CEO. In Satara, the situation however is slightly different. "*I don't think people feel fear at Satara. I don't see employees thinking like that (that they will lose their jobs). But I see big changes coming.*"[43]; "*Our culture (people), skills & competencies, structure & systems that we have today got us to this position, but will not take us into the future*"[22] CEO, Satara Co-op Ltd.

Since 1997 the cooperative had close to zero staff turnover, uncommon even in the recently stable New Zealand kiwifruit industry. Nevertheless, during the first semester 2003, the organization lost two key employees in operational areas, triggering a period of position reallocations, new recruitments, and job creations due among other events to the unexpected new recruiting results. The new people hired had a higher skill level than their predecessors, and delivered accordingly higher results. According to Satara's CEO, for example one of these new positions had a key strategic role during 2002 and ongoing 2003 by implementing EUROGAP and BRC programs in the organization. "*He/she picked it up and it was a success*"[43], a situation which constituted a big message for the rest of Satara's employees.

"*The probabilities to get a highly skilled graduate in that kind of job is very rare in the kiwifruit industry. Very rare.*"[nn,43]

Consequently, and as part of this ongoing change, a full analysis of skills and talents was performed to identify the competencies need in the business and the extent to which

[nn] This position corresponded to an Assistant Manager for Quality Systems. The employee had a University Science Degree and previous experience in MAF. The position responsibilities were mainly BRC accreditation and EUROGAP compliance by growers. Satara Co-op Ltd. newsletter March 2003.

each person possessed those competencies. In August 2003, a new business unit was proposed (Figure 17).

This new business unit was going to be in charge of the already ongoing business development and new project areas. Due to its strategic and operational importance, this manager was intended to form part of the Executive team (as a 5th member).

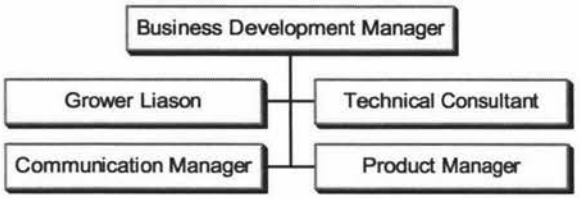


Figure 17. Satara Co-op Ltd proposed business development business unit

The position intended to separate the tasks of managing existing grower shareholders (leasing and management) and those of acquiring new ones and expand the crop base. Also, the position was defined as to taking charge and responsibility for the various research projects underway by the organization, being directly accountable to the CEO.

4.7 Strategic Processes

After the merger in June 2002, the CEO had prepared the strategic positioning[44] of the company, preparing a document that was given only to top executive management. The rest of the organization was not aware of further strategic changes or direction more than the recent company merger and re-branding of BK Mergeco to Satara.

In January 2003, a questionnaire was distributed among all the company's managerial staff[oo], looking for the trend or agreement in the strategic processes (Ambrosini, 1998, Johnson and Scholes, 2002) underway at Satara. The results were as follow:

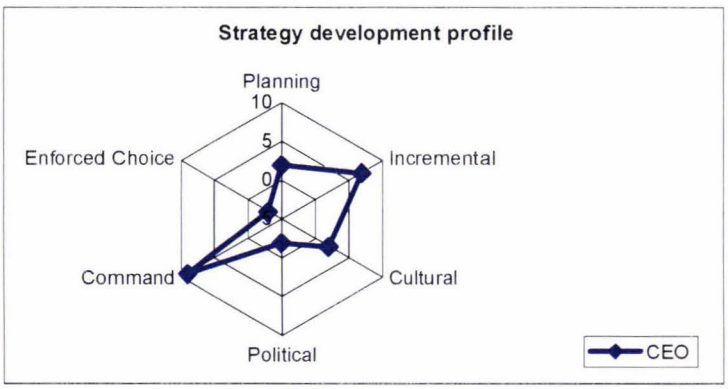


Figure 18. Strategy profile of the Chief Executive officer

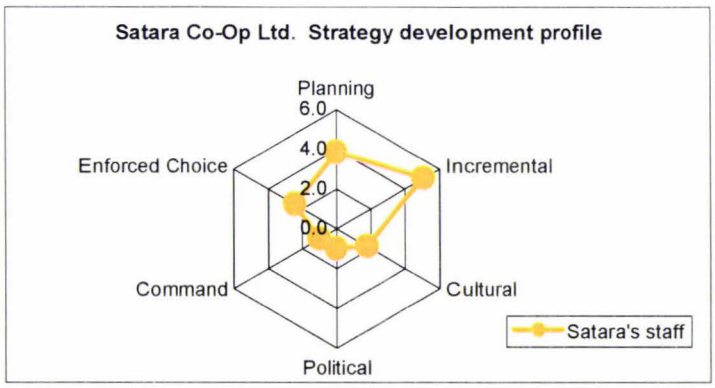
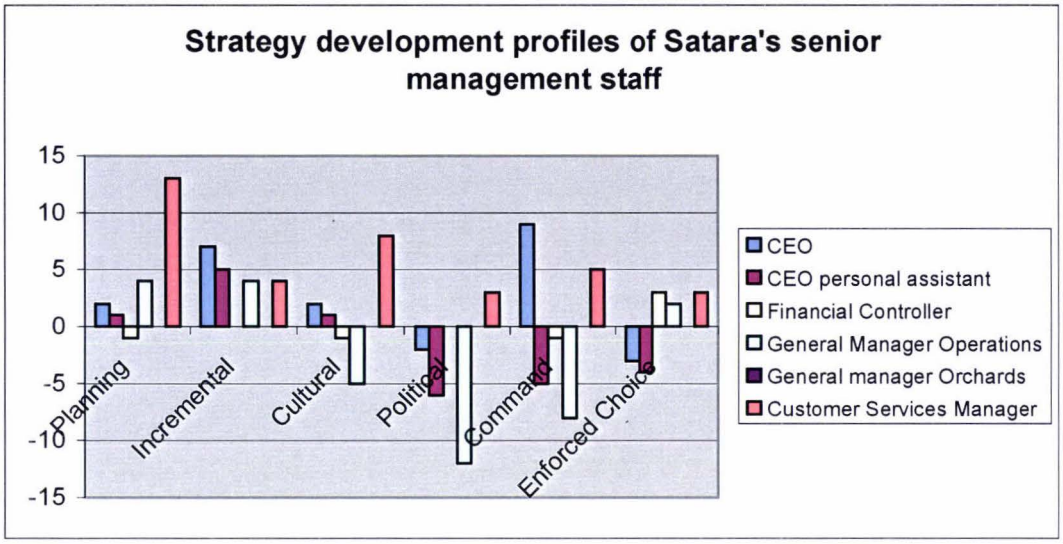
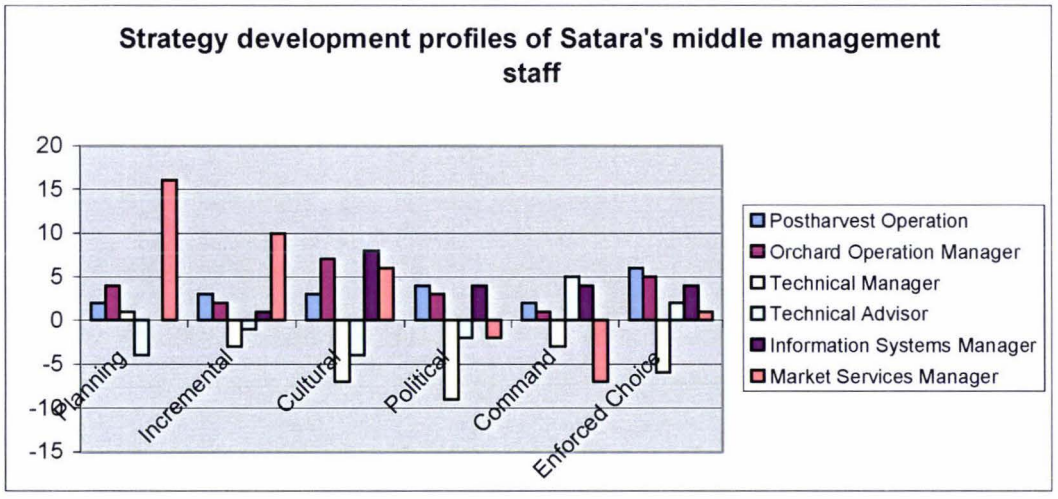


Figure 19. Satara's overall strategy development profile

The details of the different staff profiles according to hierarchy are in Figure 20.

[oo] The questionnaire had an overall 60% of response rate with 100% at high management level.





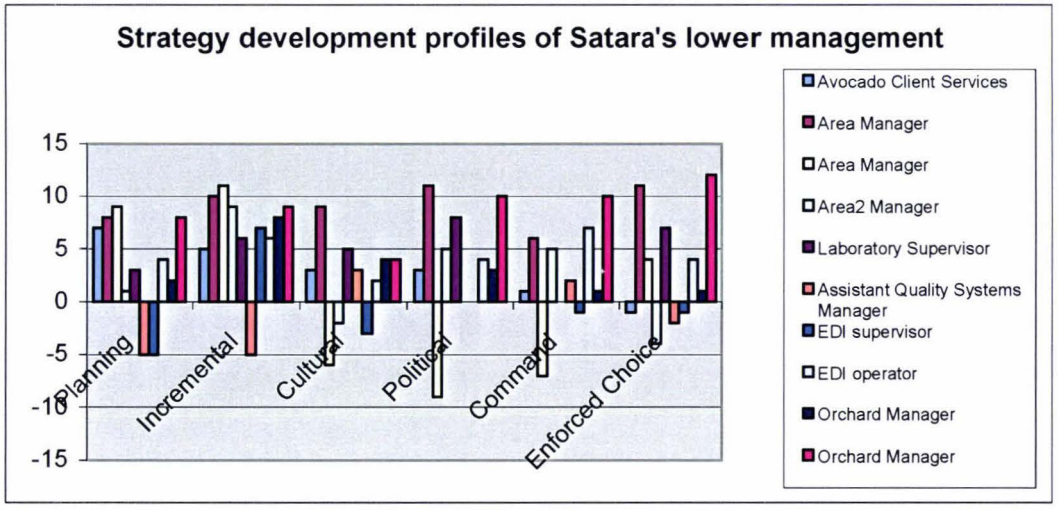


Figure 20. Strategy development profiles of members of Satara Co-Op Ltd

According to Figure 19 and Figure 20, there were considerably different opinions regarding which dimension of strategic management development was underway in the organization. The senior management tended to favour planning and incremental changes.

Medium management spread its opinions even wider, with some common agreement in cultural and political issues. Lower management was also wide spread in its perception, with the incremental dimension being pointed out more times. These sometimes-diverse opinions tended to amalgamate and smooth when added all together (Figure 19), focusing on the following dimensions according to decreasing importance: Incremental, planning, and enforced choice. This perception could be well explained taking into account Satara's strategic momentum in its history. The company was after the merger still planning and defining the moves in the uncertain future given by the Zespri era. This lack of defined strategic planning, which was shared along the organization, explains the incremental attitude towards this issue.

Although forced by the environment, or by choice, learning by doing seems to have be an important part of the strategy until the current state of the business. Finally, the enforced choice was well explained by the statutory monopoly imposed by Zespri on the NZ kiwifruit post harvest service providers, and other players in the industry.

As mentioned earlier, in May 2003, the whole Management team met for a first of many strategic meetings. The CEO explained to its staff the strategic background, the main strategic objectives, as well as the introduction of a new position in Marketing, to sustain and reinforce Satara's recent change in corporate identity.

4.8 Strategic Formulation

4.8.1 External Analysis

4.8.1.1 Industry and Environment Analysis

As part of the first whole management team strategic meeting at Satara in May, its CEO exposed the importance of the external environment to Satara's future, highlighting that environmental opportunities and threats must be evaluated for their potential impact on the organization. Also, it highlighted that the organization's resources and capabilities must be managed and developed in such a way that they match the needs of the environment, and deliver a competitive advantage.

To analyse the organization's environment, there are two widespread tools used in the field of strategic management, namely the PEST analysis and the Porter's Five Forces Analysis (Porter, 1985).

Craig Wallis expressed in a employee's strategic communicational meeting the company's views regarding the critical mass need to success in Zespri's environment, the organization's presence in Australia and future market implication in Australasia, the regulatory changes that happened in the last months, with particular emphasis in EUROGAP and BRC[pp]. In the end of the meeting[45], he expressed also that he was aware that Satara's staff hasn't been well informed about the organization's strategy, but that a strategic plan was going to be developed in the future.

Separately, and according to interviews with relevant industry stakeholders during the first semester 2003, as well as previous field visits to other stakeholders, a PESTLE[qq] table was developed (Table 11). This table, summarizes the view of an important part of the industry, and highlights the main concerns to growers, supplier groups as well as to the only marketer Zespri.

[pp] The BRC (British Retail Consortium) is the lead trade association representing the whole range of retailers, from the large multiples and department stores through to independents, selling a wide selection of products through center of town, out of town, rural and virtual stores.

[qq] The PEST analysis can be expanded and segmented more to what is known as PESTLE analysis, by adding Legal and Environmental factors.

Among all the opinions that agreed in various degrees with Satara's CEO's view of the industry, two main drivers were repeatedly mentioned: deregulation and regulations requirements like EUROGAP and BRC. Based in the combination of both variables, many stakeholders also put forward a strong emphasis on possible opportunities overseas, where South America and Chile could take a place.

As it is well known, Chile and New Zealand have many things in common. From *Pinus radiata*, fisheries, wine production, apples, kiwifruit, avocados to more macroeconomic issues like APEC, Cairns Group, and lately the 3P Closer Economic Partnership (MFA, 2003). Nonetheless, questions often arise: if both countries produce so many similar goods, and are competitors, what could be gained by getting closer together? Are Chile and New Zealand not indeed natural competitors? The paradox, and as the Minister of Foreign Affairs and Trade of New Zealand stated through its Latin America strategy, is that "*there is much to be gained by cooperation and sharing of experiences*" (Goff, 2001). The Ministry states that Chile is New Zealand's getaway to Latin America, and that its likeliness offers the New Zealand horticultural sector enormous opportunities to develop the on-shore business further (Goff, 2001).

Tony de Farias, Managing Director of Seeka Industries Limited also stated that there are opportunities that should be starting to be considered: "*Gold (can only be grown successfully and profitably) in countries outside New Zealand, to be honest, with the exception maybe of Chile*"[46]. Also in a separate topic: "*maybe we could find a Chilean partner also and we could operate this pack house (in Italy in conjunction with New Zealand and Italian kiwifruit) 12 months of the year and just do kiwifruit*"[46].

Table 11 also highlighted another main topic that concerned all industry stakeholders at all parts in the value chain. A lack of well-trained young people (Clements, 2001) that will replace today's positions. Ian Warrington, Professor of Horticulture at Massey University, and former HortResearch CEO, also had the view that this is an issue that will have an impact over the whole industry. "*I think there will be a crisis in about 10 year's time that won't happen immediately but in 10 years it will get there progressively, as far as supply of skilled manpower is concerned. Things will get progressively worse*"[47]. The issue has its origins at University enrolments "*We used to have 30 first year students in 1996, 30 first year students! We now have less than 10*" "*I*

have gone out to 50 different industry representatives saying here is what has happened since 1996"[47]. (Appendix 11).

In attempt to reverse this situation, the whole industry lead by the Fruit Growers Federation has started to offer cadetships and scholarships to new trainees. Programs like the 'Young horticultural leader" have had good response, but the general trend has not been reversed yet.

Satara, foreseeing this trend, implemented a student mentoring and sponsorship support program at a local school during 2002. The organization supported a student that had a project focused on girdling kiwifruit vines and measuring fruit size response. The company also supported a Massey Postgraduate student at both his program and further thesis project as well as several cadets as part of the BOP cadet scheme program.

Satara Co-op Group Ltd. has been involved with the Horticulture cadet scheme since its reintroduction in the Bay of Plenty in 2002. The scheme involves people working full time in orchard positions that are also studying towards a Certificate in Horticulture Fruit Production Level 4 (as developed by the NZ Horticulture Industry Training Organisation), taught by the Bay of Plenty Polytechnic. The cadetship takes three years to complete and will facilitate them to entry into a range of orchard supervisory and management positions, post harvest operations and further management study. Satara employed three cadets in 2002 and a further three in 2003. There will be a new intake of three cadets at the start of 2004. The cadets are already making a valued contribution to the orchard leased and managed business and are regarded as "future-proofing" for the organization[48].

Table 11. PESTLE Analysis for Satara Cooperative Group Limited in the NZ kiwifruit industry.

P.E.S.T.L.E	Opportunities	Threats
Political	- Governmental (MAF) approval of the levy on avocado for research & development. - Free trade or closer economic partnership with other countries - Deregulation of the KF industry[47 49 53]	- Worldwide Terrorists attacks - Middle-east conflict (increase in fuel costs) - Kyoto protocol ratified by NZ government - Higher taxes - Deregulation of the KF industry[46 47 49 50 51 52 53 54]
Economical	- U.S. Economic recovery - Good NZ internal growth - Australian Economy doing well - Japan will start to recover from almost a decade of economic stagnation - NZ Horticulture is healthy growing at 10% for the last 20 years[47] - Avocado industry booming [53] - Partnerships with Chile for franchising and developing further different products and services[47] - Consolidation of NZ suppliers[51 53]	- NZ currency exchange (appreciation)[51]. - World economic slow down and instability - NZ high interests rates - Japan falling again in a economic crisis - More countries competing against NZ - Chile entering free trade agreements with EU and US, meeting GAP's, and country multi-product fruit promotional campaign to retailers . - Fuel cost (NZ transport to Europe and North America) [47]. - Electricity costs and crises in NZ[49] - Consolidation of retailers worldwide - Consolidation of NZ supplier[51]
Social	- Consumer awareness about healthy eating[47] - Aging population of growers and people involved in the industry (Orchard leasing)[52]. - Mexican food (guacamole) insertion in various countries (avocados). - NZ 'Clean and green' image. - Great Opportunity to attract new people from other areas than horticulture to develop the industry further[47] - EUROGAP, BRC[rr] (force small player out of business)	- NZ (and worldwide) shift from rural (agricultural) to urban issues[47]. Loss of orchards by urban development [49 53] - Aging population of growers [49 53]and people involved in the industry. - Orchard getting bigger [53] - Low enrolment of new horticultural students in NZ universities[47 53]. - Low availability of unskilled workforce within NZ[53] (pruning, harvesting, etc.) - Higher employee responsibilities and costs[51] - Consumer awareness for safety food (residues). - EUROGAP, BRC (increase in costs)[49]
Technological	- Genetic applicability to plants (avocados and kiwifruit with more favourable characteristics) - New Packing technologies (less labour) - Pack fruit kiwifruit overseas (Italy)[52] - Good research relations with Australia. - Gene sequencing program by HortResearch[47], Investments in Science[47] -*Actinidia arguta*[47], New variety[56] (green)	- GE organism released in NZ - DNA trace ability - Cheaper and better residue detections - NZ competitive (and destructive) research environment[47]. - Zespri's low spending in research[47]. - Run down in NZ extension capability[47]. - New product – varieties coming from overseas (particularly China in KF) [47]
Legal	- NZ Close Economic partnership with Australia. - Avocado Industry Council organizing the industry. - Zespri legal ability to control volume for foreign markets. - Legal and structural benefits of cooperatives against corporate[54].	- Avocado Industry Council power and control over this industry - RMA (HI- Cane use restriction)
Environmental	- No Mediterranean fruit fly (Medfly) in New Zealand. - RMA act (positive regulations) and impact on Clean and Green Image. - GE Free country	- Biosecurity[47 53 55 56] (Tauranga international passengers[50 52] port or future airport[53]) (Market access)[51] - El Nino-Southern Oscillation phenomenon (climatic risk)[52] - RMA act (excessive regulations and costs)

Note: See end of section Notes for stakeholders references.

[rr] BRC: British Retailer Consortium regulations applicability to NZ kiwifruit suppliers were shifted from April 2003 to the 2004 because many suppliers could not meet compliance for the 2003 season.

4.8.1.2 Industry competitiveness[ss]

Based on many of the factors mentioned in the PEST analysis (Table 11), and the lack of strategic direction the company had at the time of the Merger with Katipak, Satara's CEO went into a strategic management course at the Macquarie graduate school of Management[tt] during June 2002. After this, Satara, based on Porter's (1980) framework, defined the five forces that were ultimately determining profitability in the New Zealand kiwifruit industry.

4.8.1.2.1 Threat of new entrants and barriers to market entry

a) Economies of scale: There is a clear benefit in the scale of the business, as more services are necessary to perform above average (R&D, Administration). There is a potential to lower unit costs even more as the next steps in automation (of packing) have not been taken (like in Italy).
b) Production differentiation: It is difficult and time consuming for suppliers to capture a grower base, establish relationships, and create or maintain a brand. In the case of cooperatives, there is a high cost of growers exiting the business.
c) Capital requirements: The cost of capital required to pack and process a tray of kiwifruit is above $4/tray. This imposes a high risk for groups that do not have a large supply (growers) of Green or Gold kiwifruit. Adding services beyond this packing is costly and increases the $4/tray requirement.
d) Access to distribution channels: Individual growers can supply to any packhouse, old or new comers. This entry is restricted by orchard leasing & management because of capital & management resources, plant, equipment, etc.
e) Other cost disadvantages: Land, Resources Management Act (RMA), environment, location, geography, know-how & technology, systems, procedures, experience, people.
f) Government policy: Zespri's regulated environment. This makes the entry of new comers very unlikely, as well as many more Greenfield's developments.

[ss] Based on the 'Strategic Positioning for the Future' report. Craig Wallis. CEO. Satara Co-operative Group Ltd. September 2002.

[tt] The Macquarie graduate school of Management was ranked 42th among the top 100 MBA in the world, being the only in Austral Asia. Source: //www.gsm.mq.edu.au

g) Expected retaliation: In the event of potential new entrants coming into the industry, the established participants would act aggressively, and battle on price (packing costs).

4.8.1.2.2 Rivalry amongst existing competitors

a) Number and scale of competitors: The industry is composed of a few large players, and many small operators working within defined geographic locations. Some players are working co-operatively within the industry and many have short-term growth goals. Price is not squeezed for competition, but as the market tightens, this could change rapidly.
b) Industry growth: Once the present Zespri Gold expansion is accommodated in the market, continuing growth rates will be at the expense of some competitor's fruit. It will be more difficult to increase market share.
c) Commodity services: Because of Zespri's regulation, it is difficult for suppliers to differentiate, and value has to be created from other activities rather than packing and cool storing. Technical advice is not a clear differentiation. Again, under these conditions, price discounting is easy and a big temptation.
d) High fixed costs: There is a high capacity installed, the use of which is determined by the weather pattern. The need to increase Gold capacity does not fulfil the need to fill expanded facilities.
e) Strategic stakes: Some competitors (Satara Co-op Ltd included) are committed to a long-term dominance of the market. As the market approaches maturity, price discounting could enhance the competitiveness to reach this goal.
f) Exit barriers: Equipment used in the kiwifruit packing and cool storing does not have another use in their geographic working areas. Also, equipments cannot be easily used in other industries, once their life use has been completed. This exit barrier causes inefficient competitors to stay in the market at any price.

4.8.1.2.3 Pressure from Substitute services

There are no close substitutes for the basic services of packing and cool storing. There are nonetheless potential threats that could work as substitutes within the industry:

- Simplified product range like sizes, product range, pack types
- No Kiwistart
- Some packing moving offshore (Like Seeka trial in 2003).
- Extended packing times using CA and other variants.

At a growing level, there is a shift with investors substituting the owner-operator.

4.8.1.2.4 Bargaining power of Growers (Fruit suppliers).

There is a threat of growers switching packhouse/coolstore operators if the price is not in accordance with the industry, but in general there is little bargaining power that could affect the industry's profitability. This could change in the future. Currently, large growers (some are investors) can and will use their leverage unless the value equation is in their favour. On the other hand, favourably, some investors and life-stylers are shifting the growing/return risk from them to the packhouse through leasing and management. Small growers 'locked' to a supplier structure mostly accept a service/price, with little or no debate.

Growers, independently of the market, make decisions based on the mix of price, people, relationships, service, location, quality and reliability.

Under conditions of low fruit supply (a bad kiwifruit season) growers could bargain more, forcing operators to supply services at least close to cost.

4.8.1.2.5 The bargaining power of suppliers

Because Satara Co-op Ltd, as well as any other packhouse/coolstore facility, has only one buyer, Zespri, the analysis has been focused on the suppliers of products and services to the industry, like packaging and labour. The bargaining power of Zespri could be seen either as total, as it is the only buyer, or as nil, as it is regulated by the government and the growers themselves, not allowing for any bargaining outside the written regulations. Nonetheless, if the environment changes, i.e. deregulation, the

picture would be very much different, with different buyers and wholesalers attracting valuable fruit from the supplier's groups.

Accordingly, the suppliers of packaging for the kiwifruit industry leave little room for negotiation. There are two major suppliers (Carter Holt Harvey and Kiwi), and a third is expected (Visy). The kiwifruit industry is extremely important for their business. This has forced the formation of buying groups and other arrangements. Nonetheless, large users receive little buying incentive. Despite this, the price of these products is not a limitation to the industry profitability, because the packaging suppliers need the industry for their healthy performance.

The picking and pruning labour is not unionised for now, and price is expected to change under the rules of supply and demand. Also, the kiwifruit industry (the horticultural segment) is not an attractive option for qualified young people.

Concluding about the five forces, it is possible to say that the entry costs to the industry are high, implying low new entrants. Big facilities will get bigger at the cost of the small operator. Some will reallocate themselves into niches as the regulated environment allows. The rivalry within the system is moderate with no clear substitutes under constant rules. The industry is expected to stay moderately profitable, with increasing costs of labour, and starting of price discounting strategies in the medium term. The general trend is, without any doubt, to declining profits.

4.8.1.3 Value shifts[uu]

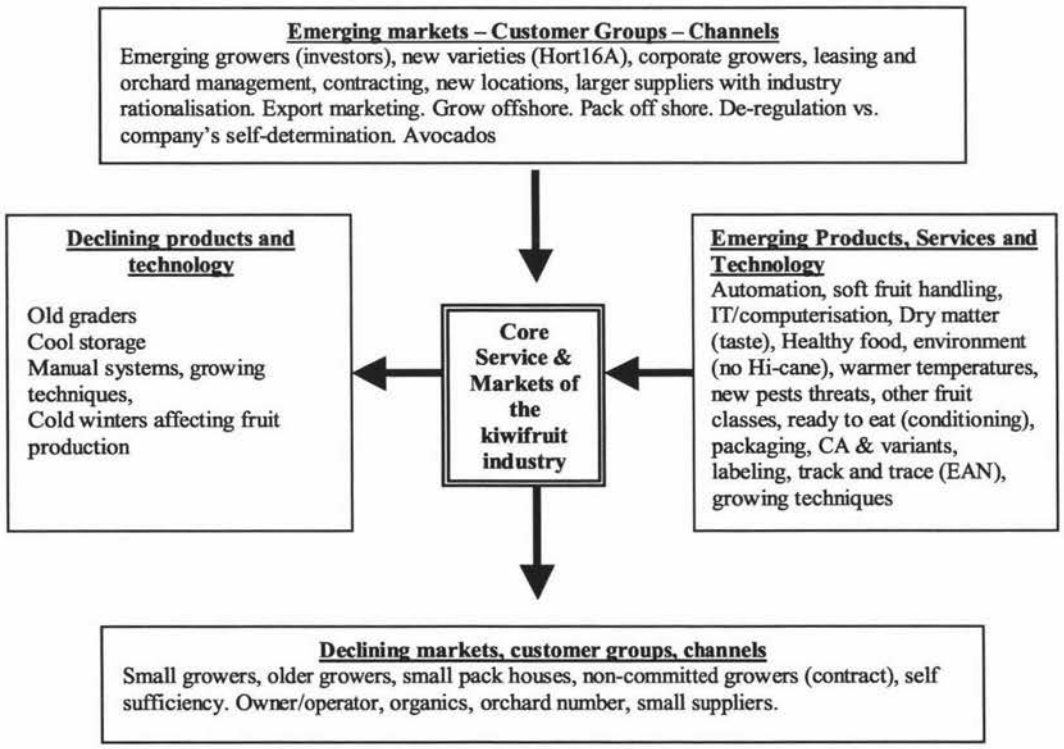
The New Zealand kiwifruit industry is changing. As a matter of fact it has been changing itself since its beginnings in the early 1900s. Today, Zespri sets the standards for the industry, within which every pack house and coolstore as well as grower has to operate. This generates a tendency to force all service providers to have very similar 'products', i.e. quality (Zespri standards), special products (Kiwistart), special product specifications (dry matter, taste), logistics, etc.

[uu] Based on the 'Strategic Positioning for the Future' report. Craig Wallis. CEO. Satara Co-operative Group Ltd. September 2002.

Nonetheless, because the industry has been evolving within the international market and its requirements, certain changes and shifts in the service and suppliers group related markets are taking place (Figure 21). These shifts are changing what is considered a commodity packhouse/coolstore service. The service has increased in value, shifting away from its basic core. These changes are also a consequence of, or have been triggered by, the factors and forces of the industry environment and competitiveness.

Depending on the supplier's decision towards the new emerging market, customer of channel to choose, there is a potential to enhance the difference among players, and perhaps, help to build on a competitive advantage against its competitors.

Figure 21. Service and Market shift in the NZ kiwifruit industry.



4.8.1.4 Intra Industry Analysis

4.8.1.4.1 Industry allocations and groups

According to Satara's CEO, Craig Wallis, over the last five years rationalization and concentration of supply has been accelerated and facilitated mainly by Zespri's corporatisation. In the early 1990's, suppliers groups packing 3 to 4 million trays were considered a to be a big company. Currently it is believed that this volume is around 10 to 12 million trays.

Today, four companies control around 50% of the market, with trays packed per packhouse increasing a 42% in the last 5 years. Within all others (other 50%), there are groups of players like Eleos, Trevelyans, DMS, Huka Pak, Aerocool, Bridgecool, Aongatete, etc that are generally based around one or two graders (this second one for Class II fruit) packing 2 to 4 million trays. The share of the NZ kiwifruit industry is detailed in Table 12.

Table 12. New Zealand Kiwifruit supplier groups

Supplier group	Market Share	Trays millions (P/M)	Detail/comment	Handle Avocados
G6	23%	13.5	For detail see Table 13	Table 13
Seeka	16%	9.5/2.5	Corporate. Includes Waimapu	No
Satara	14%	8.5/3.5	Cooperative. Includes Katipak	Yes
Eastpack[vv]	10%	6	Cooperative	No
Apatacentrepac	9%	5.5	Cooperative. Strong in Avocados	Yes
DMS	6.5%	3.5	Hukapak-Kericold and others	
Southlink	5%	3	Aongatete, Verikiwi & others	
Bridgecool	5%	3	Strong in avocados.	Yes
Mainland	5%	3	Nelson Region	
Indendant	4%	2.5	Aerocool and others	
Gisborne	2%	1		
Maketu	0.5%	0.3		

Note: Market share and trays for a 60 million Class I tray harvest. P=Packed; M=Leasing and Management.

[vv] Prior to 2002, Satara Co-op Ltd was in merger discussions with Eastpack, which finished unsuccessfully. It is very unlikely that these conversations would be reinitiated in the short term. Eastpack subsidiaries included: Eastpack Kiwifruit Operations Ltd (Leasing and Managing in Te Puke, Opotiki and Hawkes Bay), Southlink Ltd (logistic company established under Southern Kiwi), Opotiki Learning Center and Jetstick (a labelling equipment company) (Eastpack, 2001).

There are some linkages across their relationships, like for example DMS[ww] and Traypac or Seeka[xx] and OPAC. These relationships are more important than the G6 group that contains many of them. Although the G6 mission is 'to be the leading supplier of kiwifruit and services to Zespri, while lifting the performance and financial success of its members and growers' (G6, 2003), the reality is that there is no fundamental reason for any of these members to stay within G6 or move to another supplier group. "*There is no real glue in G6*".[57]

Table 13. G6 individual suppliers characteristics.

G6 Member	Million trays of kiwifruit			Handle Avocados
	Packing capacity	Coolstore/CA	Manage/Lease	
Awapuni Coolpack				No
Birchwood Packhouse Ltd* **	1.0	1/no CA	13 ha / 8 ha	Yes
DMS (** Te Puna)	3.0		1.7	Yes
ELEOS Ltd	3.0		1.0	No
Harbour Cool Ltd				No
Hume Pack Pack-N-Cool*	1.5	1.50	72 ha	No
NZ Kiwifruit Ltd* **	0.01	0.25	30 ha (own)	Yes
Opotiki Packing&Coolstoring Ltd**	3.0			Yes
Orangewood Fruitgrowers Ltd	1.5			No
Punchbowl Coolstores Ltd*	0.85	1860 pallets/160,000	40 ha	No
Riverlock Orchard	0.75			No
Roberts Packhouse				No
S.A. & A.M. Wright				No
Traypac Packhouse	1.0			No
Trevelyan's Pack&Coolstore**	2.0			Yes
Wairoa Coolstores	0.5			No
Whitehall Fruitpackers				No

Source: (*) Based on personal communications with individual packhouses as of 30/08/03. (**) Registered avocado packhouse for 2002/2003 season (AGA, 2003). All other data are estimations based on available Satara Co-op Ltd intelligence.

Seeka, Satara and Eastpack are growing their market share by acquisitions and organic growth. The other main player, Apatacentrepac has not been able to increase it share in the kiwifruit business and has put important efforts into the avocado market in the last years. All other companies outside the 5 to 12 million trays group are actively competing for market share amongst themselves, with the aim of getting into a 6 million trays group where another grader can be justified.

[ww] DMS owns 19% of Traypac (an investment of $154,000), cool storing 400,000 Traypac trays. A DMS director is also director at Traypac (DMS, 2003).

[xx] OPAC is Seeka's 2nd most important shareholder, with a 14.2% of the shares. Seeka director holds a directorship at OPAC.

Industry consolidation of the kiwifruit industry is also a function of the industry approaching maturity, with high entry barriers effectively limiting the number of new players and benefits of scale increasing. Also, industry profitability is extremely attractive compared to historical norms. It is very likely that, in the short term, some companies will be affected by the cost of concentration among companies that will continue to follow the strategy of growth to increase market share.

Based on industry stakeholder's opinions and, if grouped according to Kaplan and Norton's (2000b) value proposition theory (product leadership, customer intimacy and operational excellence) and the possible ways of excelling internal processes (innovation, customer management and operational efficiency), the main industry players can be grouped as follows (Table 14):

Table 14. Identifying Strategic Internal Processes in the Kiwifruit Industry according to the value proposition of the Balanced Scorecard.

Strategy	Internal Processes excelled		
	Innovation	**Customer Management**	**Operational**
Product Leadership	★ ELEOS Aongatete	✓	✓
Customer Intimacy	✓	★ Trevelyan DMS Apatacentrepac	✓ Satara Co-op Ltd SEEKA
Operational Excellence	✓	✓	★ Eastpack Aerocool OPAC

Note: ★: Strategic Practice; ✓: Meet Basic Requirements.

4.8.1.4.2 Orchard Gate Returns

In Zespri's Workbook 2001, the company recognizes that it is important for their business having key performance indicators that are aligned with Zespri business strategy and objectives. Among a few, two central indicators were proposed: Orchard Gate Return (OGR) and FOB Return.

According to Bosch[yy] (2002) it is often suggested that what really counts is the money individual growers receive in their bank accounts at the end of the day. This money figure is the one that ZESPRI is intending to deliver throughout the OGR performance indicator. Nonetheless, OGR reports made by supplier companies are far more complex than a final value. The complexities of the various payments categories have created a situation in which only those who spend sufficient time to research the finer details will have more than an average understanding of the whole picture. The reality behind the OGR is so complex that Zespri does not even explain the ratio in the 2001 Workbook.

In a customer study prepared for Satara (Mustard, 2002), growers expressed their real concern that they do not have sufficient price information to make comparisons between pack-houses and they rely on reputation of honesty and integrity to help in their decision-making.

Orchard Gate Return (OGR) is all money paid to growers by the supplier after post harvest and logistics charges have been deducted. The money includes payments made for all classes of fruit before the deduction of harvest and transport cost from orchard to packhouse. The result of this sum is then divided by the number of Class 1 trays packed to arrive at a per tray figure (Bosch, 2002).

The factors that impact on the OGR are the orchard and its management, the post harvest facility, the marketer and the mathematical method for calculation of the indicator.

From a supplier point of view, the factors that are affecting the comparison among companies are the impact of the size profile, the reject rate and the Class II recovery rate. Not taking into account these factors causes errors in the OGR comparison of between 10 cents and 20 cents per Class 1 tray equivalent, which is considerable. Tony de Farias, from Seeka said "*if a grower is making a profit of 1 dollar, 30 cents becomes very important in one dollar*" And that is why Seeka is trying to increase its grower's return by 30 cents by "*do(ing) a very good job with our second grade fruit, better*

[yy] NZ Kiwifruit Journal. January/February 2002. John Bosch is part of ELEOS management team.

storage conditions, so they lose less fruit and all those type of things, that is what we try to do differently to our competitors".[58]

To set a benchmark, Zespri calculates and publishes estimated OGR figures for kiwifruit green, gold and organic fruit in their monthly newsletters to growers. However, different packhouse groups vary their presentation of revenue figures to growers considerably, which still makes comparisons difficult and controversial (Belrose, 2003). Nevertheless this situation has improved over the past year (MAF, 2003). Craig Wallis[59] agrees that supplier's signals to growers based around OGR are confusing and not transparent enough.

Bosch (2002) says that ELEOS suggests that a better way of comparing results is using returns per kilogram of fruit submitted, still correcting these results for size profile, would be more appropriate, but that a large group of packhouses does not agree with this change. This is why, for the past seasons, and at least for 2003/2004, OGR will be one of the strongest marketing weapons for many suppliers in the industry. SEEKA kiwifruit Industries Limited strongly supports the OGR, and uses it as one of its main differentiators. The figures according to SEEKA 2002—are as follows:

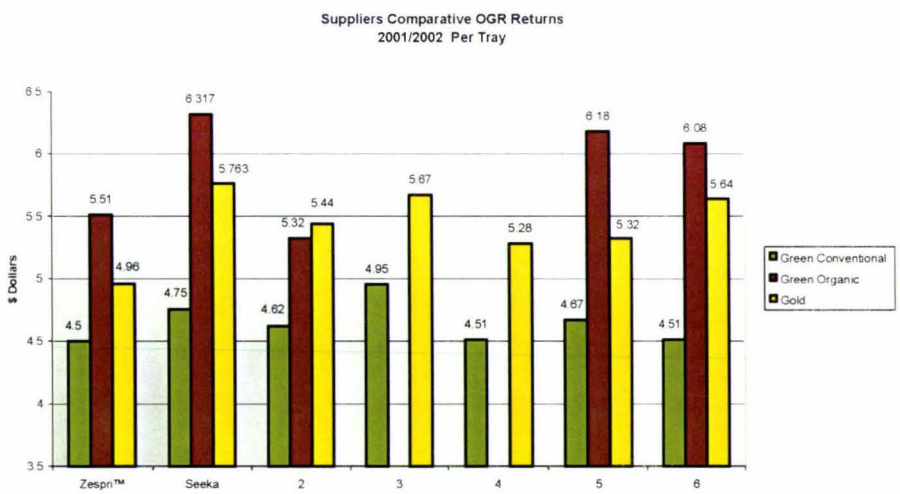


Figure 22. New Zealand Kiwifruit suppliers comparative OGR Returns per tray for 2001/2002 according Seeka Kiwifruit Industries Limited.

When analysing in detail the figures (Figure 22 and Appendix 12) it is possible to notice that the results are a consequence of various payments and costs that are not equal to all suppliers.

First, the figures have to be adjusted to Zespri's predicted fruit value, because every supplier group has different average fruit sizes, which of course have a different market value. Then, following the adjusted of fruit value, the Service payments, are made up of the five fruit premium programs described earlier (Taste Zespri, Low pest, Kiwistart, Storage risk, Fruit size and Eurogap) (Punter, 2003).

Because of its incidence but low relationship with the supplier group performance, the Kiwistart premium has to be highlighted and separated (Appendix 12). This is because the ability of a supplier to get higher Kiwistart values depends on the geographic location of its growers, which then allows the packhouse and coolstore facility to pick, pack and load out fruit early, getting the compensation from Zespri, and hence, increasing considerably the final OGR. This is how, for example, supplier 3, who has the lowest fruit size for Green (and low fruit loss%), has the highest OGR for Green (4.95). Taking Kiwistart away would considerably lower this value. This is a result probably of having growers from warm regions, like Mt. Maunganui or the islands. On the other hand, supplier 4, has an extraordinary average yield per hectare (8,648) with the best size among the 6 organizations tested, as well as a high Kiwistart income stream. This could mean that, 1) the supplier contracts fruit from extremely good growers, b) the supplier grows all fruit itself (leasing or managing), or c) it has an extensive technical service with tailored consultancy programs to help its growers to achieve high production standards, that in the end will deliver more money to both, the grower and the packhouse/coolstore. The latest explanation is what really is happening. Supplier four bases its competitive advantage in tailored technical transfer to its growers. As an additional data, this service has in this particular case no additional charge.

When analysing the two main competitors, Seeka and Satara (supplier 2), it is possible to see that Seeka outperforms Satara OGR in all three types of kiwifruit. The causes for this could be Seeka has slightly better growers than Satara, who grow more fruit per hectare (8,043 against 7,045 tray/ha), and with better sizes (35.05 against 35.4 counts).

Nonetheless, Seeka has a higher fruit loss than Satara (4.10% against 3.55%), but the fruit loss difference is not significant ($0.2364 against $0.2300). This is, according to Seeka, the result of different load out strategies applied by the organization that in the end delivered a higher fruit value. These different load out strategies depend on the seasonal contract between the supplier and Zespri, towards, for example, a certain percentage of fruit late in the season. Zespri pays more for the risk of losing more fruit in the coolstore. But, if the coolstore manages its stock in state-of-the-art facilities and with the right management, it can lose less than the 'industry' (as an average) and gain from Zespri a time related premium. According to Ian Greaves, the key for succeeding is to take all the advantages, premiums, specifications, etc. supplied by Zespri, and find the best fit combination that will deliver the highest possible return[60]. This strategy is clear in the Seeka organics group, where the company again chose to load out its organic as late as possible for the 2001/2002 season, relying on its 8 organics growers who delivered good quality fruit. Although Seeka does not have superior yields (4,780 against Satara's 4,635), or sizes (36.09 against Satara's 35.6's), its good fruit condition gave lower fruit losses (1.9% against Satara's 7.75%), which then gave an exceptionally high OGR for organics ($6.32/tray against $5.32/tray).

One general competitive advantage that both Seeka and Satara have is that because their operations are big in scale, they can identify grower's fruit that is losing condition and load it out completely very quickly. On the contrary, a small operator which identifies a big grower with problems in its coolstore will not be able to load all its fruit out to Zespri because it would have had its contract, and its monthly load out program already agreed in advance with little or less contingency margin than the bigger operators. This strategic move of adjusting to Zespri's requirements was also taken by Satara, which stated in its Business Plan 2003 "*To accommodate the impact of Zespri only committing 85% of our packing plan during the season*" and "*To have sufficient coolstore facilities available to manage a limit of 31% in movement by Zespri within the packing season, including Kiwistart.*"[zz]

According to the CEOs of the two main players in the industry (Seeka and Satara), the other area where suppliers can differentiate is in the Service level agreement (SLA).

[zz] Satara Co-op Ltd. Business Plan 2003 as of 24th April 2003.

This is a special program and contract between the supplier and Zespri for fruit with special characteristics or packaging. In this area, clearly, the scale of the operation is significant, because Zespri needs volume to suit its international markets. This income is represented by 'Plus other grower income'. Satara was able to perform several of these agreements[aaa] during 2002/2003 only because it had the volume and capacity to process Zespri's orders. In the case of Seeka, the SLA represent a program call ENVIROGROW, which is composed of fruit without detectable residues. This program is exclusive to Seeka, and seems to yield considerable additional income ($0.1153 per Green tray).

The other area where the supplier can differentiate in an attempt to increase the OGR to its growers is in the Class II fruit that is generally sent to Australia. Satara has its own brand (Formerly Baypack, now Satara), which is supplied to Woolworth and Coles[bbb] supermarkets. However, Seeka, exporting through Freshco, manages to supply Woolworth[ccc] and the whole sale markets, getting in the end $0.22 per Class II tray, in comparison to Satara's $0.13.

One consistent criticism from some supplier groups is that Satara includes in its grower payment forecast the shareholder's rebate, which is really not a standard figure in the industry and therefore not part of the OGR. Nonetheless, for Satara the final figure (dollars that the growers receives in his bank account) is not called OGR. Instead it is simply a total available distribution to grower, which is the equivalent of the OGR[61] to Satara growers, due to their compulsory shareholding for supplying fruit. This can be seen as a packing cost, and is therefore reimbursed back through the rebate payment.

Finally, and to put the figures in context, it is important to consider that Zespri's OGR figures reflect the company's cooperative type structure. Although the company is listed under the NZ companies Act, Zespri is a grower-owned-controlled organization with a genuine co-operative voting system, tied to production levels and shares, being closer to a hybrid cooperative (Donoso, 2003).

[aaa] Satara 2002 SLA (T/E): 220,000 Green CK 46's; 8,000 27 and 30's Gold with Barcodes; 8,000 Green OB 46's, class II Gold to Aragorn, 5,000 42's Gold and a EAN trial.
[bbb] During 2003 Satara supplied 2/3 of Coles kiwifruit in Australia.
[ccc] Seeka is the largest supplier to Woolworth Australia.

This cooperative type structure results in cooperative specific issues, for example acceptance of members that do not perform well. Although Zespri argues that it has a very tight and clear quality system that sets the rules of the game: "(b*ase quality requirements for the product) If they don't meet, we don't take the fruit. Now if the packhouse or the growers are poor performing, and they are inefficient in achieving that or, much of their fruit is under-graded, well that's their problem, we don't take it*"[62], the reality is that the industry adjusts it self to its own lowest common denominator. It has to accept all the fruit from its growers and packhouse, within a reasonable standard. Even the lowest performer has to participate. This fact was confirmed during the 2003 harvest when the BRC standards were not applied, because not all pack houses were able to adjust to the changes. The reality is that these pack houses were generally smaller entities tied out to growers who could not make the changes due to financial constrains. This is why having a better performance than Zespri should really be the starting point for those packhouses that are looking for a place for the day after deregulation. The day after, all those small and sometimes inefficient operations will probably disappear and the new industry OGR suggested by Zespri or perhaps the IAC will be definitely different from today's figures.

4.8.1.4.3 Cash flow to growers and others

Cash flow has always been a main concern to any business, particularly to farmers and growers, and kiwifruit is not different in this respect. As a matter of fact, cash seems to be a mayor differentiation point among suppliers. Eastpack for example stated: *"(Eastpack) advances monies to its growers well before the industry. This payment has given Eastpack grower's cash flow advantages over other post harvest competitors*"(Eastpack, 2003).

Although information is limited in the industry, some like Seeka Growers Limited (SGL) state that they focus on providing the highest-possible level of orchard gate return, and are acutely aware of the benefit of getting payments to all growers as soon as possible. When fruit is submitted a payment of $0.70 per tray is made. Three further progress payments are proposed, subject to cash flow, of $0.20 to be made in July,

August and September, noting that individual grower progress payment will be adjusted for fruit size[63]. On the other hand, Satara Co-op Ltd, through its supplier entity Satara Kiwifruit Supplies Limited (SKSL), does also make advance payments for all Class I as shown in Table 15

Table 15. Product and Cash flow comparison to growers. Satara SKSL v/s Seeka Growers Ltd. Season 2002/2003.

Differentiation features	Satara Co-op Ltd (SKSL)	Seeka Industries Ltd (SGL)
Class I pools	Hayward Conventional Hayward Organic Hort16A – will include Organic Hort16A Hayward 46's Hayward Organic 46's	Hayward Hayward Organic Hort 16A Hayward 46's Hayward Organic 46's
Class II pools	Hayward Conventional Hayward Organic Hort16S and 42's	Hayward Hayward Organic K1W1 Gold and 42's
Advance payment	$1.60 after completion of the packing its total crop of one variety $0.15 as minimum[ddd] in July $0.15 as minimum in August. $? depending on ZGL payments to SKSL and depending on fund available. $250 per banded canopy/ha	$0.70 at submit $0.20 in July $0.20 in August $0.20 in September Total: $1.30
Further ZGL progress payments	Paid on or before the 16 or 17 of each month	Paid the same-day received (or as soon as possible)

[ddd] SKSL makes progress payments to the Grower, in relation to fruit payments received from ZGL for the seasons crop, between July of one year, and June of the next year. The progress payment is made at a flat rate across each size and each payment pool.

4.8.2 Internal Analysis

4.8.2.1 Financial Analysis

According to Roos *et al.* (, 2001), there are two basic approaches to analyse an organization financially: cross section (among organizations at one time) and time series analysis (one organization over time). To perform these analyses, financial ratios that cover three main areas are commonly used: 'Liquidity ratios' (Current ratio, Quick ratios), 'Profitability ratios' (Profit margin, Return on assets (ROA), Return on investment (ROI), Return on equity (ROE)) and 'Wealth and Solvency ratios' (Net debt/equity, debt ratio, Net interest cover, Debt to gross cash flow).

According to the analysis performed on Satara's financial statements for the period 2000-2002 (Appendix 15 and Appendix 16), the financial ratios (Appendix 17) calculated were as follows:

Table 16. Satara Co-op Financial ratios for the period 2000-2002.

Satara Cooperative Group Limited			
KEY PERFORMANCE INDICATORS - RATIOS	**2000**	**2001**	**2002**
Liquidity			
Current Ratio	1.72	1.31	1.58
Quick Ratio	1.77	1.21	1.47
Working Capital	2,627,224	1,973,590	4,133,013
WEALTH			
Wealth creation			
Equity	15,226,629	19,714,778	25,049,327
Change in Equity	—	4,488,149	5,334,549
Solvency/Leverage			
Net debt/equity	0.74	0.67	0.48
Debt ratio	0.74	0.71	0.65
Net Interest Cover	1.43	1.50	1.42
Debt to gross cash flow	3.39	3.15	2.99
Asset Management			
Inventory turnover	159.37	53.09	55.71
Days sales in inventory	2	7	7
Receivables turnover	13.70	11.98	17.58
Days sales in receivables	27	30	21
Fixed assets turnover	1.58	1.41	1.42
Total asset turnover	1.20	1.06	1.04
Profitability			
Profit margin (rebate as a cost)	2.39%	2.91%	2.61%
Return on assets	2.88%	3.10%	2.70%
Return on equity	5.01%	5.31%	4.47%
Profit margin (*:rebate as a profit)*	4.80%	5.95%	5.39%
*Return on assets**	5.78%	6.33%	5.58%
*Return on equity**	10.07%	10.85%	9.23%
Return on investment (Capital lease)	25.10%	23.89%	23.52%
Return on investment (Operating lease)	10.87%	10.39%	9.07%
EBLITA	6,656,323	8,072,789	9,742,510

Also, and based on the limited information available, an industry comparison[64] was possible among five important suppliers groups (and some also the best performers) for the year 2000 only (Table 17). Nonetheless, this comparison has some limitations. First, many other companies do not have annual reports or do not submit them to the public when required, and secondly, many companies have different balance dates, making comparisons difficult to perform. Although the average has a strong bias as it was calculated from top performers, it could be argued that this gives the value in the end more validity and focus, because all companies have similar size and business characteristics. This could be interpreted as making the comparison more 'equal and fare'. Based on the data available, the results were as follow:

Table 17. Financial ratios for different kiwifruit supplier for the year 2000.

		2000				
Key Performance Indicators - Ratios	**Industry**	**Satara**	**Seeka**	**Eastpack**	**Apata**	**DMS**
Liquidity						
Current Ratio	1.37	1.72	2.22	1.00	1.02	0.88
Quick Ratio		1.77	0.00	0.00	0.00	0.00
Working Capital	1,212,049	2,627,224	3,539,000	-778	70,340	-175,540
WEALTH						
Wealth creation						
Equity	8,792,462	15,226,629	12,294,000	9,661,341	4,672,673	2,107,667
Change in Equity		—	1,206,940	5,058,820	920,689	439,080
Solvency/Leverage						
Net debt/equity		0.74				
Debt ratio	0.93	0.74	0.99	0.59	1.07	1.28
Net Interest Cover		1.43				
Debt to gross cash flow		3.39				
Asset Management						
Inventory turnover		159.37				
Days sales in inventory		2.29				
Receivables turnover		13.70				
Days sales in receivables		26.64				
Fixed assets turnover		1.58	1.87			
Total asset turnover		1.20	1.07			
Profitability						
Profit margin (rebate as a cost)	0.0%	2.4%	3.9%	-4.2%	-0.3%	-1.9%
Profit margin (rebate as a profit)	7.2%	4.8%	7.4%	13.9%	6.3%	3.8%
Return on assets	9.4%	5.8%	8.0%	17.7%	11.0%	4.7%
Return on investment	21.4%	25.1%	20.2%	28.3%	21.7%	11.5%
Return on equity	17.5%	10.1%	15.8%	28.1%	22.8%	10.7%

Additionally, and founded on the fact that kiwifruit suppliers (packhouse and coolstores) have minor[eee] activities in the period between the 31st December and 31st of March, a cross-sectional analysis could be extended for certain ratios until 2002 for two companies only (Table 18), namely Seeka Kiwifruit Industries Limited[65] and Direct Management Services (DMS)[66], under the same assumptions made for Table 17.

[eee] According Satara Co-op Ltd Payment pool records, the months of January, February and March constitute only for 0%, 2.1% and 2.9% of the total payments made to growers respectively, which is in concordance with Zespri's progress payments to suppliers for Zespri Green for the same months of 0%, 2.3% and 3.3%.

Table 18 Financial comparison among Satara, Seeka and DMS for the period 2000-2002

RATIOS	SATARA			SEEKA			DMS		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
Wealth creation									
Equity	15,226,629	19,714,778	25,049,327	12,294,000	20,422,000	22,284,000	2,107,667	3,574,529	4,269,548
Change in Equity	—	4,488,149	5,334,549	1,206,940	8,128,000	1,862,000	439,080	1,466,862	695,019
Solvency/Leverage									
Debt ratio	0.74	0.71	0.65	0.99	0.87	0.97	1.28	1.13	0.86
Asset Management									
Fixed assets turnover	1.58	1.41	1.42	1.87	1.61	1.41			
Total asset turnover	1.20	1.06	1.04	1.07	0.88	0.98			
Profitability (rebates as profit)									
Profit margin	4.8%	5.9%	5.4%	7.4%	8.1%	4.6%	3.8%	7.1%	6.7%
Return on assets	5.8%	6.3%	5.6%	8.0%	7.2%	4.5%	4.7%	8.6%	8.4%
Return on investment	25.1%	23.9%	23.5%	20.2%	18.0%	14.3%	11.5%	21.8%	23.8%
Return on equity	10.1%	10.8%	9.2%	15.8%	13.4%	8.9%	10.7%	18.4%	15.7%

Note: Data adjusted as of year ended 31st December. See Appendix 18 and Appendix 19 for more Seeka and DMS account summaries. (DMS, 2003); (Seeka, 2003).

Before analysing the organization's financial ratios against Table 17 and Table 18 it is important to make some clarifications about how certain ratios were calculated in contrast with the company's annual report.

The main difference between Satara and other corporate companies is that due to a tax advantage for the company generated by the New Zealand cooperative law, rebates are considered as costs. This consent reduces NOPAT, and hence taxes. However, and fundamentally, these funds are part of the organization surplus that is attributable to its shareholders. Rebates are a profit, and they should be used as such in the calculation. Also, in an Industry analysis about some kiwifruit suppliers prepared by Satara[67], dividends were initially considered as 'costs' to equalize the effect of the rebates in the cooperative. Again, this situation is underestimating the real Net Operating Profit After Tax, and does not correspond to the net surplus attributable to shareholders. Under the over mentioned conditions, for example, Satara had for 2000 a Return on Assets (ROA) of 2.9%. Nonetheless, according to the real profit distribution, the ROA corresponded to 5.8%; or, the Return on equity (ROE) calculated from its accounts for 2000 was 5.0% (Table 16), but when considering rebates as a profit, the return was really 10.07%. To maintain consistency in the comparison among companies, Table 17 and Table 18 consider rebates and dividends as a profit, including them in the NOPAT. On the other hand to be consistent with Satara's public annual reports, Table 16 calculations on profit margin, ROA and ROE were made with both data taken directly from the accounts (considering rebates as a cost) and adjusted (taking into account rebates as a profit distribution).

Also, when comparing Satara's values, it is important to consider the different account procedures followed by every company as well as other possible distortions. For example[fff]:

- Seeka (as of March 2002) could delete $4 million in non-performing orchard development costs. ROI would have increased then by 3%.
- Eastpack (as of December 2001) had $900,000 in EBIT that other companies would have had in their grower pool and $4.5 million missing from shareholder funds, because of no land & building revaluation. Considering this, ROI would have decreased more than 10%.
- DMS (as of March 2002) did not revalue its land & buildings.
- Apatacentrepac (as of March 2002) had its sales & pool revenue combined. Sales are a calculation between group & company figures.

4.8.2.1.1 Cross-sectional Analysis

The following Peer group analysis compares Satara's financial ratios against two main competitors in Table 18 and the available 2000 average industry ratios (Table 17). It is important again to make a warning about Table 17, and take into account that these industry figures are averages of only one year, and it could include companies that could have unrelated lines of businesses, different ways of operating or even business units that are not competitive. In addition, variation in accounting procedures, differences in the end of the fiscal years or unusual or transient events of some players could have lead to a distortion in the average figure. Therefore, the following analysis must be taken into the over mentioned context, and the signals handled with care.

4.8.2.1.1.1 Liquidity

When analysing the ability of the firm to pay its bills over the short run without undue stress, it is possible to observe that for 2002 that the company has $1.58 in current assets

[fff] Based on Satara Co-op Ltd report 'Strategic Positioning for the Future'. September 2002.

for every $1 in current liabilities. This value is higher than the industry of $1.27, which is a very acceptable figure. This cover of current liabilities allows a working capital ($4,133,013) well above the average ($1,212,049). Now, when analysing the added effect of the inventory over liquidity, the situation does not change considerably, because at the end of the year, almost all the stock has been depleted. Unfortunately, there is no industry average figure for the Quick ratio (Acid-Test ratio).

4.8.2.1.1.2 Solvency/Leverage

Solvency measures provide an indication of a firm's ability in the long term to meet all its obligations. When analysing Satara's Net debt/equity ratio (0.48) for the year 2002 it becomes clear that although there is no industry value, the firm is solvent, with 48 cents of interest-bearing debt for each dollar of equity. This figure is confirmed with the Debt Ratio in 2002 (0.65), which is lower than Seeka or DMS values (0.97 and 0.86 for 2002 respectively) and lower than the only industry figure available for 2000 (0.89). As a matter of fact, when contrasting Table 16 against Table 18 it is possible to notice that Satara has had a better debt ratio than Seeka and DMS since 2000.

The net interest cover ratio for the firm (1.42) does not have a benchmark in the industry. Nonetheless, this means that Satara is earning 1.42 times more than the interest commitments that the company will need to meet, which is not considerably high compared to other industries[ggg]. The Debt to gross index for 2002 (2.99) tells that if Satara decides to repay its debt, it could do so in 2.99 years. Again, although there is no industry figure to compare it with, it seems that Satara is not strongly geared and that this value in addition to the net debt/equity ratio supports the point that it could undertake more debt ("*we have got capacity to take on much more debt that we do now*"[68]) Craig Wallis, Satara Co-op Ltd CEO.

[ggg] Other related industries like -Fish and Livestock- have a five-year average of 2.6, with certain companies delivering ration in between 10 and 30.

4.8.2.1.1.3 Asset Management

Again and unfortunately, with the exception of limited data for Seeka Kiwifruit Industries Limited, there were no industry values available for all the asset management ratios. Nonetheless when measuring the efficiency of the company in the utilization of its assets, it is possible to observe through the Inventory turnover ratio for 2002 (55.71), that the company sold off or turned its entire inventory 55.71 times in that year. However, this figure is not representative of reality, because, in December the stock is extremely low, and a great proportion of all revenues would have been received from Zespri already. This analysis is also valid for the Days sales in inventory.

The receivables turnover measure quantifies how fast the company is collecting the money for the sales. Although there is no industry value to compare, the ratio says that Satara is collecting the credit accounts and reloaned the money 17.58 times during the year. There is no parameter to determine if Satara is moving its inventory faster (selling faster), or collecting the revenues faster than the industry. In average, Satara is collecting the credit sales every 21 days.

Considering more general efficiency figures, the fixed assets turnover ratio gives a good indication. The ratio simply says that for every dollar in non-current assets (fixed) in 2002, the company generated $1.42. Although there was no industry reference value, when compared against Seeka, it is possible to notice that the competitor was slightly less efficient with $1.41 (2002). However, in 2001 and 2000 the situation was different with Satara's fixed assets turnover of 1.41 and 1.58 lower than Seeka's 1.61 and 1.87 (Table 18), respectively.

On the other hand the total assets turnover ratio for 2002 reveals that Satara generates $1.04 in sales for every dollar in assets. When comparing against Seeka for 2002 (0.98), 2001 (0.88) and 2000 (1.07), it is possible to observe that Satara had better performance in 2002 (1.4), 2001 (1.06) and 2000 (1.2). This shows that Satara has been more efficient in the use of its assets than Seeka, although Satara's[69] own understating is the opposite. This perception of Seeka being in general more efficient in the use of its assets is ratified by Satara's CEO statement: "*(Seeka) they probably have more supply than they can pack. So, they operate right on the limit of their capacity*"[70] (See Appendix

20). Also, and in line with this fact, Satara's Financial Controller views the cooperative strategic goals in the future as: *" increase capacity utilization as close as possible to a 100%"*[70].

4.8.2.1.1.4 Profitability

Based on the assets turn over described in the last section, it could be anticipated that perhaps Satara would also have better profitability rations. However, the situation is variable and not absolute. The company had a real profitability margin (considering rebates as a profit) for the year 2002 of 5.39%, which is higher than Seeka's 2002 value (4.6%) but lower than DMS 2003 (6.7%). Satara's value is a 1.8% less than industry figures for 2000 (7.2%). In an accounting sense, Satara generates $5.39 dollars in profit for every dollar in sales.

The return on assets (ROA) for 2002 (2.7%) (or 5.6% with rebates as profits) is lower than the industry reference value (9.4%) and DMS 2002 (8.4%) but slightly higher than Seeka 2002 (4.6%).

When analysing the return on investment (ROI[hhh]), the situation improves considerably for Satara, with a 23.52% for 2002, over the industry reference value of 21% or Seeka 2002 of 14.3% or DMS 2002 of 23.8% (Table 18). However, in this ratio it is important to take into consideration the lease component and whether it is treated as a finance (capital) lease or an operating lease[iii]. For example, Satara, includes lease expenses in other expenses (operating lease expenses for 2002 were $5,983,994). Seeka on the other hand considers financial leases ($637,000 for 2002) as effectively transferring to the company the entire risks and benefits incidental to ownership of the leased items. Therefore, Seeka capitalizes at the cost of the assets concerned and depreciated them in accordance with the accounting policies of the company[71]. Considering that orchard

[hhh] Returns on investment (ROI) is the earnings of the firm that is shared between the equity holders, debt holders and the government in the form of taxation. It is calculated as EBLITA (earnings before finance lease charges, interest, tax and abnormal items) divided by total assets (Ross, *et al.*, 2001).

[iii] A lease is a finance lease when a) it is not cancellable + b1) the length of the lease is equal or more than a 75% of the useful life of the leased property or b2) the present value of the lease at the beginning of the lease term equal or exceed 90% of the fair value of the leased property (Hoggett, *et al.*, 2002).

lease contracts are usually renewed every 3 to 4 years and that the useful life of a kiwifruit orchard exceeds easily 10 years, the ROI value at Seeka could be well underestimated depending on their proportion of leased lands, buildings or plants and equipments, or, Satara ROI could be overestimated by considering lease charges as a financial lease[iii]. If Satara's lease expenses were treated as part of an operating lease, the ROI value for 2002 would decrease to 9.07%. Because Satara's main competitors judge their orchard leases as finance leases the Table 18 comparison considers all lease costs as a capital costs, which is indeed a return for the Lessor for the assets provided to the organization.

Finally, and in an accounting sense, the true bottom-line of the business, the return on equity of Satara has a low but again relative performance when compared with the industry. Satara had in 2002 a return on equity of 4.47% (or 9.23% with rebates as profits), against Seeka 2002 (8.9%) or DMS 2002 (15.7%) or the industry reference average of 17.5%. That means that for every dollar in equity, Satara generated 4.47 cents (or really 9.23 cents) in profit.

This shows that even if rebates are considered as a cost, a serious inconsistency in profitability is generated, as the distributions to shareholders from the organization's assets (ROA 5.58%) is lower than the return on equity (9.23%) and the cost of debt (7%). This could suggest the point that shareholders are being subsidised (see section 4.8.2.1.3), that the assets are overvalued or that lease expenses are not correctly handled. Of course, the other main explanation is that the cooperative is in considerable financial discrepancy. However, and despite the low ROA, it will be shown (section 4.8.2.1.4 about Economic Value Added) that the Cooperative is generating a surplus over the cost of capital (equity and debt), and is hence profitable.

[iii] Seeka and Satara orchard operation units had during the year 2002, 445 and 550 hectares, respectively.

4.8.2.1.2 Time-series Analysis

The time series analysis of financial ratios is an historical examination of these financial indicators within the firm.

4.8.2.1.2.1 Liquidity

The ability of the business to meet financial obligations as they come due without disrupting the normal operation of the business has been maintained over time. With 1.72 for 2000, 1.31 for 2001 and 1.58 for 2002, it is possible to see consistency in the liquidity management. The quick ratio shows again a stable trend, and is consistent with the current ratio.

4.8.2.1.2.2 Solvency

Satara has been improving its solvency over the past three years. Its Net debt/equity ratio from 2000 to 2002 moved from 0.74 to 0.48. This means that the interest-bearing debt for each dollar of equity has decreased from 74 cents in 2000 to 48 cents in 2002. This situation is sound with the debt ratio that decreased from 74% in 2000 to 65% in 2002, and the Net interest cover that decreased from 1.43 times the interest commitments that the company had to met, to 1.42 times. Finally, the Debt to gross cash flow evolution showed the same general picture, and the over mentioned proportional decrease in liabilities over time. In 2000 it would have taken the company 3.39 years to repay all of its debt. For the year 2001 it was 3.15 years and for 2002, 2.99 years.

When analysing the statement of financial position, it is possible to state that the company is using more debt. Nonetheless, the organization is also increasing its equity and assets, and proportionaly, it has managed to improve, slightly and consistently, its solvency.

4.8.2.1.2.3 Asset Management

Regarding the efficiency with which the company is using its assets, there is no doubt that there has been a considerable reduction along the years. With a change in inventory turnover from 159.37 for 2000 to 55.71 in 2002, the apparent efficiency has decreased dramatically. Nonetheless, sometimes-high inventory turnover is desirable due to more efficiency of the storage facilities. With too high ratios it is possible to run out of stock and thereby forego sales when the factor is not properly managed. However, the decrease in inventory turnover is positively related with improved sales (31.9 million in 2000 to 42.9 million in 2002). When analysing the receivables turnover, there is an opposite trend. Although many ratios are showing a decreased performance (Asset Management and further on in profitability), the receivables turnover has improved along the years. In 2000 Satara collected on average the credit sales in 27 days and for 2002 in 21 days.

Finally, both fixed assets turnover and Total asset turnover ratios have decreased over the years. Fixed assets turnover decreased from 1.43 in 2000 to 1.42 in 2002, and Total assets turnover from 1.2 in 2000 to 1.04 in 2002. This situation could be the result of the recent merger, which inherited expensive assets that are not generating the necessary sales. Also, stock has almost tripled in the last three years. Finally, the current bank account for 2002 was $4 million, a situation that has a slight impact on the asset's management ratios.

4.8.2.1.2.4 Profitability

Taking into account the clarification made on certain profitability calculations (ROA and ROE) made in the Peer group analysis section, Satara has maintained almost all of its profit ratios at least below the industry figures available. The profit margin has improved slightly since 2000 (4.8%) to 2002 (5.39%). The return on assets is almost static, with 5.78% in 2000 through a 5.58% in 2002. The return on investment, which is the only figure that is above its competitors average (21%), has decreased since 2000 (25.10%) to a 23.89% in 2001, and 23.52% in 2002. Finally, the return on equity, the true financial bottom-line, is certainly the lowest of all its financial performance

indicators. ROE has not improved either. With a 10.87% in 2000, a 10.39% in 2001 and a 9.07% in 2002, it is still far away from its competitor's average for 2000 of 17.5%, or a competitor like DMS with a performance of 15.7% for 2002. However, it is worth mentioning that, from a time series point of view, Seeka has decreased its ROE from 15.8% in 2000 and 13.4% in 2001 to 8.9% in 2002. In contrast, Satara has maintained an approximately even 10% in the same period, which shows more stability in the returns to shareholders. This statement was confirmed by Seeka Managing Director by: "*over the last 5 years, they (Satara) have improved more that we have in percentage terms, and in fact this year they probably are the closest to us that they have ever been*"[72].

In summary, it is possible to state that Satara, is not the leader in financial performance, and has some faults in profit margin, return on assets and return on equity. This could mean that either Satara has too many assets or they are overvalued, or, that Satara's core competencies, namely its resources and capabilities that are supposed to be the source of competitive advantage for the firm over its rivals, are not delivering their full benefits, affecting its competitiveness in a future where competitors will be even more efficient, capable and effective in their operations. On the other hand, there are trends of stability and improvement, which suggest a stable and consistent management and business performance in an environment that can only change and fluctuate further.

4.8.2.1.3 Hybrid Capital Structure[kkk]

Satara Co-operative Group Ltd. is a company registered under both the Co-operative Companies Act 1996 and the Companies Act 1993. Due to its hybrid structure it has two types of shares: Transactor shares with a par value of $1, and Investor shares, with no par value.

In 1997, Baypak had Net Tangible assets of $13.80 millions. Of this $2.4 was grower-shareholder capital with a $11.40 million balance unallocated to anyone. With the co-operative capital structure in place, retiring growers were not benefiting from the value of assets built up over more than 20 year. As a result, the directors examined the options to allocate the excess of capital, concluding that a hybrid co-operative was the best alternative, a decision which was endorsed overwhelmingly by shareholders in April 1999 (McKinstry, 2003).

The company choose to have a hybrid capital structure because this helps to preserve the grower's control, reduce takeover risks, and keep the entry cost (to a cooperative membership) for new shareholders low. It also allows a better system and mechanism to distribute the retained earnings and increase its company value, and to lower what is know as resumption risk, which is the risk of having to buy sharess back at too high values. By choosing a hybrid structure, the company splits its returns in two parts (transacting and investment), giving the co-operative a commercial as well as a grower focus. It also reduces the risks of takeovers by allocation a small proportion of the company value to the transactor shareholders, but keeping grower's control.

Transactor shares are issued only to growers in relation to production of kiwifruit, and it is considered that 1 share should represent 1 export tray submitted by the grower. This amount is based on a 3 year average[lll] on the grower, due to the variability of production that can be generated every year. These shares have a par value of $1, which is surrendered to, and bought back by the cooperative when the growers' retire. These

[kkk] Stuart McKinstry. Satara Co-operative Group Limited Hybrid Structure experience. Presentation. July 2001.

[lll] 4 years of production are considered. The lowest year is taken out, and the average is calculated among 3 years.

shares have the first right of redemption on liquidation and are not freely tradeable. They carry 60% of voting power of all shares on issue regardless of actual shares in each class and are compulsory for packing fruit. This mechanism keeps the control among the growers. In 2001 there were in total 224 transactor shareholders (7,376,347 shares), and of these 48 (21%) are only transactor shareholders. There are also 195 investor shareholders (16,453,161 shares). With 17 of these (9%) being investor shareholders only.

Investor shares were initially issued from reserves, as a bonus issue in 1999[mmm]. They have no par value, and therefore are valued by the market. They earn dividends and are not required to be surrendered when the grower retires from the company. They have second right of redemption and on liquidation are freely tradeable. These types of shares carry 40% of voting power of all shares on issue regardless of actual shares in each class. It is optional to be a shareholder/investor.

Another mechanism to keep more power with growers is that its constitution requests that at least 6 directors have to be shareholders, and that 4 of them must buy transactor shareholders, and 2 must be investor shareholders. The hybrid model is structured according its capital as follows:

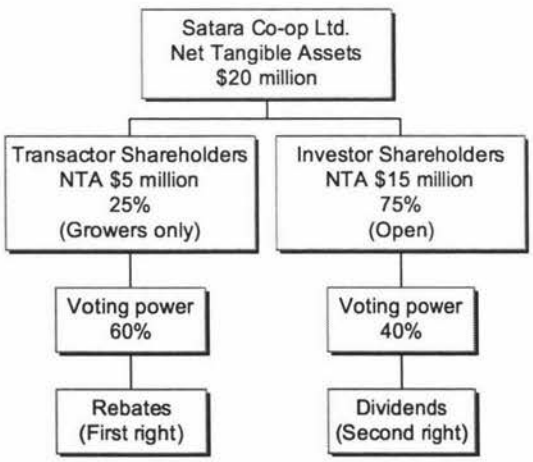


Figure 23. Satara Co-op Ltd Hybrid Capital structure

[mmm] Prior to the merger, Katipak had $3.29 million of unallocated capital. After the merger this capital was allocated to Katipak growers by an issue of investor shares in Satara Co-op Ltd.

To separate the different interests of both kinds of shareholder over time, Satara Co-op Ltd came up with the –Satara Distribution Model © ® -. The model was created to be clear and consistent with the different shareholders interests. Accordingly, the model says that rebates are only paid to grower (transactor) shareholders from profits generated from grower transactions. The balance of profits is split between retained earnings and dividends, with no guarantees of profit distribution for anyone.

The Satara distribution model © assumes that the value of assets required to pack & coolstore a tray of kiwifruit is $3.5 (Appendix 13). Because the transactor shareholder pays only $1 of capital, the remaining $2.5 must be funded with additional capital that is charged at 11.5% (as the capital charge). For 2001 (see Appendix 14 for other years), the number of shareholder trays was 3,630,600. Considering each tray at $1, the value of the additional assets required was $9,076,500. With a cost of capital (both debt and equity), the value of this charge was $1,043,798. Then, the profit related to the transactor's activity is separated as EBIT (Earning before interests and tax) ($2,132,848), less the capital charge ($1,043,798) equals as a profit related to transactor shareholders of $1,089,050. With 3,630,600 trays that season, it equals a rebate per tray in the 2001 season of $0.3; then, the NOPAT and after rebate is distributed to investor shareholders (as of 2001 50% retained earnings and 50% dividends). The total distribution to investor shareholders for that year was of $526,224 (10 cents/share).

The changing profit distribution among shareholders over time can be seen in the following table:

Table 19. Changing Profit Distribution over time at Satara Co-op Ltd.

Share type	Year					
	1996	1997	1998	1999	2000	2001
Rebates – per tray	0.32	0.32	0.15	0.30	0.22	0.3
Dividends – per Share(*)				0.05	0.05	0.1
Per Tray return (initial issue 3 for 1, and subsequent 1.66 for 1)						
Rebates – per tray	0.32	0.32	0.15	0.30	0.22	0.3
Dividend – per tray	-	-	-	0.15	0.15	0.3
Total Return per tray	**0.32**	**0.32**	**0.15**	**0.45**	**0.37**	**0.6**

(*): Fully imputed.

As can be seen from Table 19 and from the Satara Distribution model, there is a great emphasis on the grower and the profits generated by its trays transactions, with around 30 cents per transactor share for the last 3 years. When analysed according to Satara's payments structure, constitution and financial targets (which states a rebate goal of 30 cents for each year[73]), this payments takes a similar form of debenture. The grower buys a share at $1/tray, keeps it for all its orchard life (say 20 years), and then will get back its money as a redemption value (par value) from the cooperative at the same $1. In between, the grower will receive a rebate each year for its shares that, according to its target goal, is of 30 cents, which represents the coupon rate.

Now, if the analogy is followed and a present value for this debenture is calculated, it is possible to see that cost ($1) of the transactor share is well undervalued. Assuming a cost of capital to the grower of 11.5%, the present value of the 30 cents coupon payments for 20 years is $2.31, and the present value of the face amount (par value), $0.11. In total, the 'debenture' should cost today $2.42.

If, on the contrary, the rebate is seen as a dividend, with infinite payments in to the future, but no further growth (zero growth, assuming a fixed 30 cents rebate), the share takes the form of an ordinary perpetuity. Then, the share value is given by 30 cents/11.5%, which is $2.6. Again, this could mean that the value of the share is well over the $1 entry costs, or that the real cost of capital for the grower is not at 11.5%, rather at 30%.

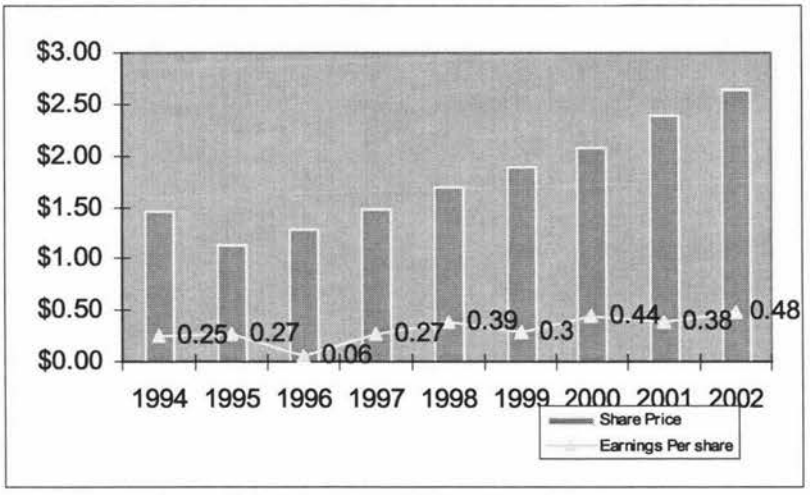
Now, if, on the other hand, the rebate is seen as a share with a future constant growth of 7% (average growth for the rebate since 1996), the share price is in this case, according to the dividend growth model[nnn], $7.13, a value that is again well over the initial $1. This could also mean that the real cost of capital for the growers is a considerable 39.1%

These results show that the entry cost is actually kept low, as the model intends to, but that at the same time, 'some one' is subsidizing the entry costs (and its further returns) to the grower. This view is shared by Ian Greaves[74], from Seeka, who sees the

[nnn] The dividend growth model ($Po = D1 / (r - g)$) determines the current price of a share (Po) as its dividend next period (D1) divided by the discount rate (r) less the dividend growth rate (g), with $r > g$.

subsidization of the cooperatives towards new-comers as the single biggest threat to Seeka or any other corporatized kiwifruit supplier. The potential of attracting further growers and fruit to grow the business is enormous under the current conditions. Nonetheless, the expectations of future returns are not as clear as they are today.

The great challenge for Satara will be to create the adequate incentive (liquidity for investor shareholders) to attract new investors to raise more cash for new plants, mergers or acquisitions, or to encourage all transactor shareholders to own more investor shares. This will be particularly important after some date in 2003, when Satara will be listing on a secondary board of the NZSE (New Zealand Stock Exchange). By listing in the proposed AX market, Satara investors will get a market price signal to make the decisions on whether to sell or buy investor shares in the cooperative. According to McKinstry (2003) depending on the discount applied by the market on future income, liquidity and control in Satara Co-op Ltd, Satara's investor share can be expected to list in the range of $0.40 to $0.80 per share with a net asset backing of $1.00. Satara's target listing price per share is of $0.70. In the mean time, Satara has an advantage to its growers in that it offers them a very rewarding return on capital over its transactor shares. Any growers with a cost of capital below 30-39% should take advantage of the cooperative rebates policy and distribution model, as it will return well over the industry's best corporates like Seeka (±18%) (Figure 24).



Source: Seeka Industries Limited Annual report

Figure 24. Seeka Kiwifruit Industries Limited share price and earnings per share.

More over, if growers-shareholders decide to purchase the shares using annual rebates[ooo] distributions, they will find that they can build up capital by only paying a $100 non-refundable deposit, which constitutes an extraordinary opportunity to build up equity.

4.8.2.1.4 Economic Value Added (EVA).

According to Van Zyl and Perkins (2002), profit is an opinion and cash flow is a fact, and clearly Satara's grower-shareholder are receiving both, an extraordinary profit over their transactor shares as well a very competitive cash flow of 30 cents per trays packed. However, and as already stated in the profitability section of the financial analysis, there could be some conflicts between the return of assets and equity over the required return of capital. Also, if Satara starts with its stock market venture for its investor shares, the classic 'shareholder-manager conflict' could start to arise. Equity is not for free and future investor shareholders (that own 70-80% of capital) will start to demand profitability and cash as well. This situation has raised questions: Is Satara extracting more value from its business than it is creating? Is the Satara Distribution model© sustainable in the long term? The answers seem to be in the Economic Value Added indicator, which Satara doesn't use.

Since 1989, when EVA was launched by Stern Stewart & Co, more than 300 companies worldwide have adopted the discipline – among them Coca-cola, Quakers Oats, Siemens, Telecom New Zealand, Telstra, Monsanto, JCPenney, US Postal Service, etc. Satara Co-operative Group Ltd does not use EVA neither for shareholders internal reporting nor internal financial analysis. EVA is (and will be increasingly) important to Satara because according to Ehrbar (1998) the real market value change of a company is explained in less than a 10% by sales, around 18% in EPS, 21% by Cash flow, 32% by ROE and a 50% by EVA. EVA aligns the interest of managers with those of shareholders, when compensation is tied to EVA. There is no point in manipulating EPS, RONA, ROE or ROI.

[ooo] The other two methods for purchasing shares are: Purchase from a retiring shareholders or paying in cash, providing that at least a 10% of the entitlement is purchased in any one year.

Satara, as any other company, is not required and cannot replace General Accepted Accounting Principles (GAAP) earnings with EVA in their public reporting, of course. But no regulations prevent them from using a different earnings calculation for internal decisions, or from reporting that number to investors alongside the one mandated by the Securities and Exchange Commission (SEC) (Ehrbar, 1998).

But despite its simplicity, EVA is not so trouble-free. To calculate a reliable EVA, some adjustments to the GAAP regulations have to be made. The most common adjustments are to research and development costs, advertising and promotion and staff training and development. A more detailed list of adjustment could be the timing of expense and revenue recognition, research & development, depreciation, passive investments in marketable securities, securitized assets and other off-balance-sheet financing, restructuring charges, inflation, foreign currency translation, inventory valuation, bookkeeping reserves, bad-debt recognition, intangible assets, taxes, pensions, postretirement expenses, marketing expenditures, goodwill and other acquisition issues and strategic investments (Van Zyl and Perkins, 1994, Ehrbar, 1998).

Following the EVA principles, Satara Co-operative Ltd EVA was calculated based on the following assumptions:

a) Cost of equity: The cooperative has two types of shareholders. Investor shareholders who choose to invest in the pack house/cool store business (and provide 70-80% of capital), and transactor shareholders (remaining 20-30% of capital), the grower, who has the requirement of buying shares to supply the fruit. Because of the enforced shareholder status, it is assumed that he could have invested that capital in its main business activity. His real cost of equity has to consider this opportunity cost of not investing more capital in its core business: kiwifruit orcharding. Based on the Capital Assets Pricing Model (CAPM[ppp]), the cost of equity for investor shareholders and transactor shareholders was determined to be 16.9% and 21.1% respectively for 2002. See Table 20 for details.

[ppp] CAPM: $Re = Rf + (\beta \times Mrp)$. Where: Re = Return on equity; Rf = Risk free rate of return; β = Systematic risk Beta value; Mrp = Market risk premium or (Rm-Rf), which is the excess of return of the market portfolio over the risk-free interest.

b) CAPM assumptions: The risk free premium (6.1-7.1%) was assumed to be represented by the 10 year governmental bond rate (NBZ, 2003) and the market risk premium (7.5%) was based on New Zealand PriceWaterhouseCooper reports about cost of capital and market risk premiums (PWC, 2003a;b). This value is in accordance with the range (7-9%) suggested by McCullock (2002) up to 2002[qqq]. The business beta (β) for kiwifruit orcharding (2.0) was estimated based in other business group's systematic risk values that have an inherent lower risk than fruit orcharding in New Zealand, like Agriculture (Farming 0.78) (Nartea and Pellegrino, 1997), (Richmond Ltd 0.61, AFFCO 0.96, Wrightson Ltd 0.9) or Forestry (1.8-1.9) (PWC, 2003a). The systematic risk beta value for packing and cool storing fruit (1.44) was calculated directly using the capital charge or Weighted average cost of capital (WACC) value used in Satara's distribution model (11.5%). This beta value (1.44) is sound for (PWC, 2003a) beta values for different businesses in New Zealand.

c) No adjustments (*): No Research & Development, nor Marketing costs were capitalized over the period of years during which the research outlays could be expected to have an impact. Also, no other (any) adjustments to GAAP were made. This was done to obtain what is known as the 'basic EVA' (Ehrbar, 1998), which is the value got by using unadjusted GAAP operating profits and the GAAP balance sheet values. This 'basic EVA' is the lowest possible value obtainable because almost all adjustments will tend to increase the EVA value. By making the first basic adjustments recommended by Van Zyl (1994) it would have been possible to obtain the 'disclosed EVA', which is generally used for public reporting. Then, if adjusted further it could have been possible to obtain the 'tailored EVA' (internal use) and even finally reach the 'true EVA', which is the most theoretically correct and accurate measure of economic profit. However, this 'true' value is normally so complex that it becomes unfeasible to calculate in a periodic way. According to (Ehrbar, 1998) the 'basic EVA' < 'disclosed EVA' < 'tailored EVA' < 'true EVA'.

The EVA calculation for Satara for 2000-2002 is in Table 20 as follows:

[qqq] McCullock (2002) suggested that the rage 7 to 9% for the Market risk premium will have to be given away to be replaced it in the future with the range 3 to 5%.

Table 20. EVA calculation for Satara Co-op Ltd. Period 2000-2002.

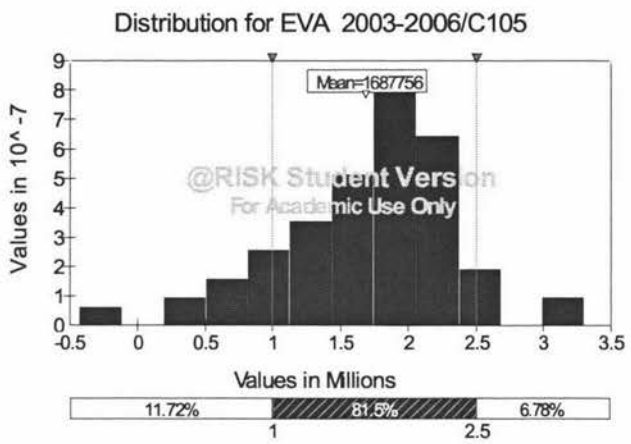
EVA			
NOPAT (before interest)	**2000**	**2001**	**2002**
Net Sales	$31,925,797	$35,950,963	$43,091,222
Operating Expenses	$24,002,529	$26,544,285	$31,386,555
Other Expenses (less interest)	$1,133,829	$1,903,397	$1,967,082
Adjustments*	$0	$0	$0
Tax paid	$475,470	$569,608	$551,381
NOPAT (before interest)	$6,313,969	$6,933,673	$9,186,204
CAPITAL CHARGE	**2000**	**2001**	**2002**
Tax rate (Tc)	33%	33%	33%
Cost of Debt	8.8%	7.1%	6.4%
Cost of Equity (Investor and transactor shareholders)	19.27%	18.87%	18.24%
Investor shareholders cost of equity:	17.90%	17.30%	16.90%
Risk Free Premium	7.1%	6.5%	6.1%
Business Beta	1.44	1.44	1.44
Market Risk premium	7.5%	7.5%	7.5%
Transactor shareholders - Growers cost of equity:	22.10%	21.50%	21.10%
Risk Free Premium	7.1%	6.5%	6.1%
Business Beta	2.0	2.0	2.0
Market Risk premium	7.5%	7.5%	7.5%
Weighted cost of capital post tax (WACC)			
Debt ratio	0.74	0.71	0.65
Equity	57.4%	58.3%	60.5%
Debt	42.6%	41.7%	39.5%
Transactor shares ($1 par value)	4,981,940	7,376,347	8,006,980
Investor shares	7,931,992	16,453,161	16,378,513
Transactor shareholder contribution to equity	33%	37%	32%
WACC (post tax) : (E/V) x Re + (D/V) x Rd x (1-TC)	**13.6%**	**13.0%**	**12.7%**
Total Assets	$26,514,633	$33,788,245	$41,428,231
Capital Charge (b)	$3,602,235	$4,392,418	$5,268,070
NOPAT (before interest) (a)	$6,313,969	$6,933,673	$9,186,204
EVA (a-b)	**$2,711,734**	**$2,541,255**	**$3,918,134**

As can be seen in Table 20, Satara's 'basic EVA', which is the lowest figure possible to obtain, was $3,918,134 for 2002. By considering 2001 and 2000 values it is possible to see that the cooperative has improved considerably in adding value to its shareholders from an average of $2.7 million to $3.9 million annually. This means that if the proper adjustments are made to reach a 'tailored EVA', EVA should increase further. Based on the organization's promising investments and projects as well as its new brand, this increase should not be minor. Satara Co-operative Group Ltd is creating value for all its shareholders.

However, current or past EVA values do not secure the future for shareholders. This is why: to be able to estimate future performance it is necessary to take into account all relevant variables that have an effect on the EVA value. To obtain an average value for the 2003 – 2006 period, all relevant variables (see Appendix 21) had applied a probability (risk) distribution (i.e. Interest rate, inflation, Zespri FOB values/tray, national kiwifruit production, kiwifruit acreage evolution, revenue and costs per business unit, etc.). Also, correlations (Appendix 21) were applied to give consistency

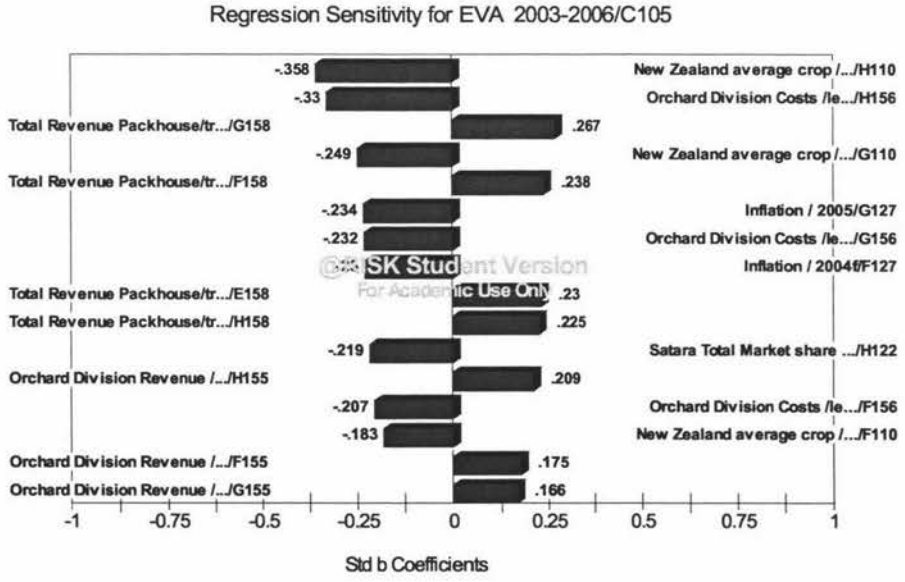
to certain distribution relationships (i.e. increase in trays-increase in revenue per tray packed, inflation-direct costs, etc..). Accordingly, the average EVA value distribution for the next 3 years, based in all possible scenarios based on the above-mentioned assumptions is as follows:

Figure 25. Average EVA value distribution for Satara Co-op Ltd, period 2003-2006



The variables that have the greatest impact on these outcomes are shown in Figure 26:

Figure 26. Variables with the highest impact on the 2003-2006 EVA values calculation.



The most important factors likely to affect Satara's EVA in the future (and indeed grower's returns) are in decreasing importance: New Zealand Average crop, Orchard division costs, packhouse revenues, inflation, Satara market share, and the orchard division revenue.

4.8.2.2 Value Chain

According to Porter (1985), companies might compete in the industry creating a sustainable competitive advantage in three basic ways: cost leadership, differentiation or focus strategies.

At Satara, primary and support activity (Thompson, 1997) cost and differentiation strategies can be identified within its organization. These primary and support activities are according to Porter (1985):

- **Inbound logistics** are activities relating to receiving, storing and distributing internally the inputs to the product or service.
- **Operations** are activities relating to the transformation of inputs into finished products and services.
- **Marketing and sales** is the marketing mix that includes activities like advertising and promotion, pricing, and sales force activity.
- **Service** relates to the provision of any necessary service with a product or service.
- **Procurement** refers to the function or process of purchasing any inputs used in the value chain.
- **Technology development** is defined in its broadest sense, including know-how, research and development, product design, process improvements, etc..
- **Human resource management** involves all activities relating to recruiting, training, developing, and rewarding people throughout the organization
- **Firm infrastructure** includes the structure of the organization, planning, financial controls and quality management designed to support the whole of the value chain (Figure 27).

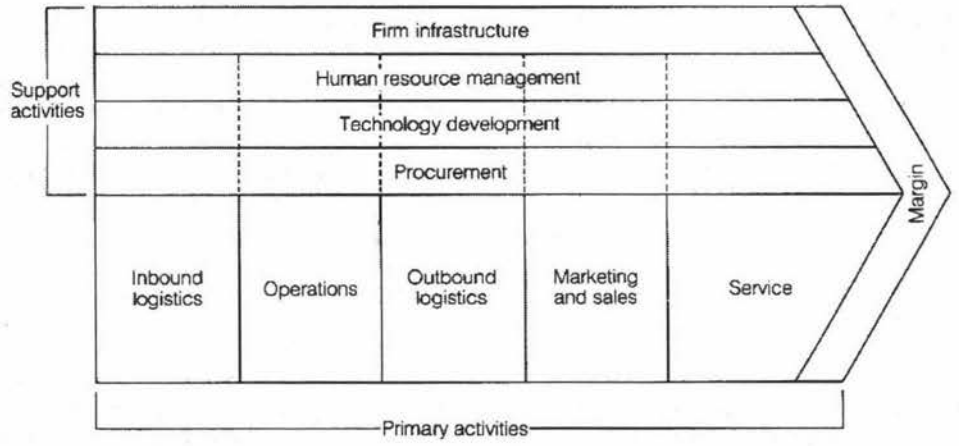


Figure 27. Value Chain according to Porter (1985).

When grouped according to its two customer groups, the strategies are as follows (Table 21):

Table 21. Results of the Value chain questionnaire at Satara Co-op Ltd.

Customer:Zespri and others	Business strategies	
Primary Activities	**Cost %**	**Differ %**
Inbound logistics	50%	50%
Operations	50%	50%
Outbound logistincs	67%	33%
Marketing and Sales	33%	67%
Service	50%	50%
subtotal	**50%**	**50%**
Support Activities		
Procurement	20%	80%
Technology and Development	80%	20%
Human Resource Management	80%	20%
Firm Infrastructure	40%	60%
subtotal	**55%**	**45%**
Total	**52%**	**48%**
Customer:Grower	**Business strategies**	
Primary Activities	**Cost %**	**Differ %**
Inbound logistics	50%	50%
Operations	50%	50%
Outbound logistincs	67%	33%
Marketing and Sales	33%	67%
Service	50%	50%
subtotal	**50%**	**50%**
Support Activities		
Procurement	40%	60%
Technology and Development	40%	60%
Human Resource Management	40%	60%
Firm Infrastructure	20%	80%
subtotal	**35%**	**65%**
Total	**43%**	**57%**

According to Table 21, it seems that Satara is not following any particular strategy according to Porter's (1985) competitive advantage proposition. As a matter of fact, it seems to be in what is known as a 'stuck in the middle' position. These companies are known to possess no competitive advantage (Porter, 1985). A firm that is stuck in the middle will earn attractive profits only if the structure of its industry is highly favourable, or if the firm is fortunate enough to have competitors that are also stuck in the middle. The former is true, in the sense that the NZ kiwifruit industry is buoyant, as a matter of fact, it is in its best condition ever since the 1992 crisis. The latter is also in part true, because of the cooperative like statutory regulation (Zespri); there is little space for packhouse/coolstore to differentiate, and a great part of them do not have considerable differences. They all deliver similar services to growers and definitely, very similar, if not the same, to their only customer, Zespri who sets the 'rules of game'. However, when looking deeper into the Value Chain at Satara, it is possible to see some strategic business choices (Figure 28 to Figure 32).

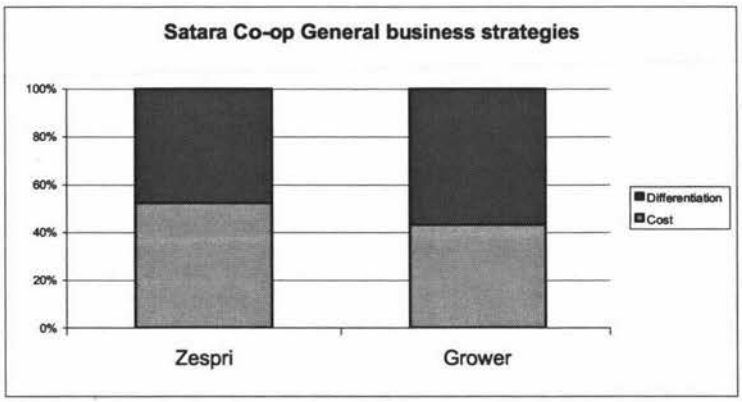


Figure 28. Satara Co-op Ltd. business strategies for its two main customers according to Porter (1985) competitive advantage sources.

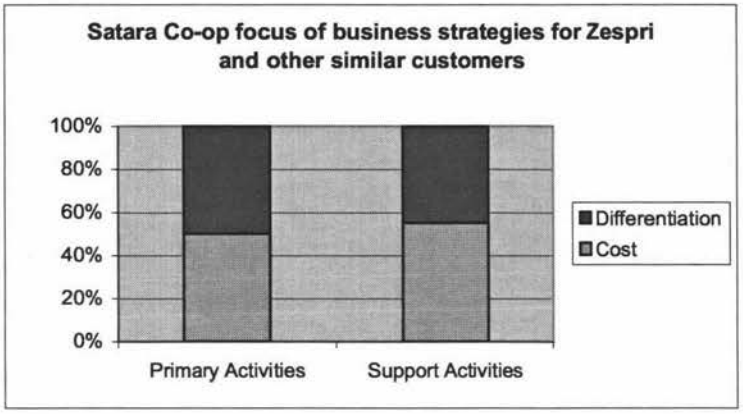


Figure 29. Satara Co-op Ltd business strategies for the wholesale/exporter customer according to Porter (1985) competitive advantage sources at different levels in the Value chain framework.

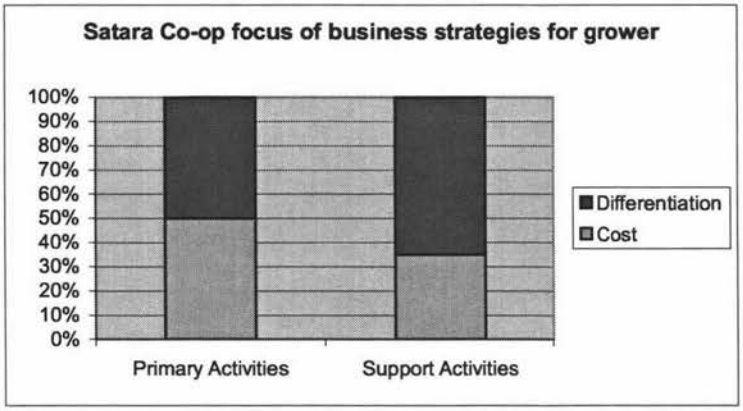


Figure 30. Satara Co-op Ltd business strategies for the grower customer according to Porter (1985) competitive advantage sources at different levels in the Value Chain framework.

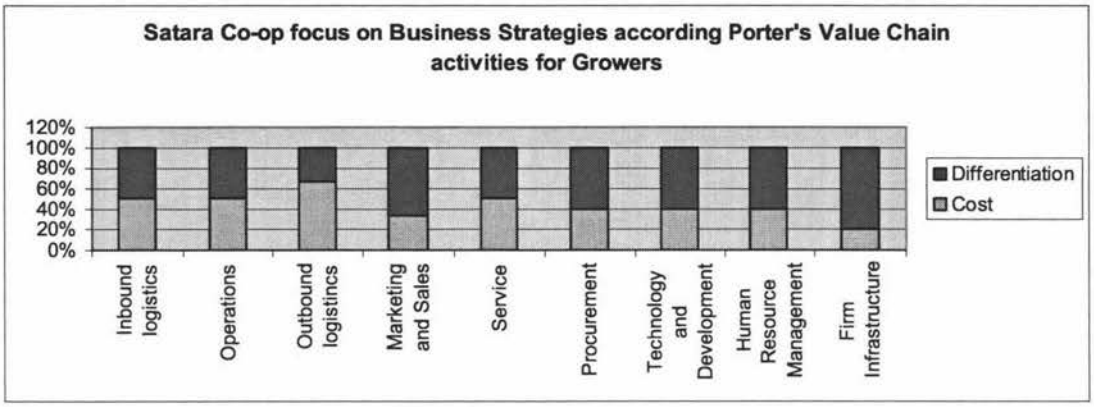


Figure 31. Satara Co-op focus of the business strategies according to Porter's Value Chain activities for the wholesaler/exporter customer

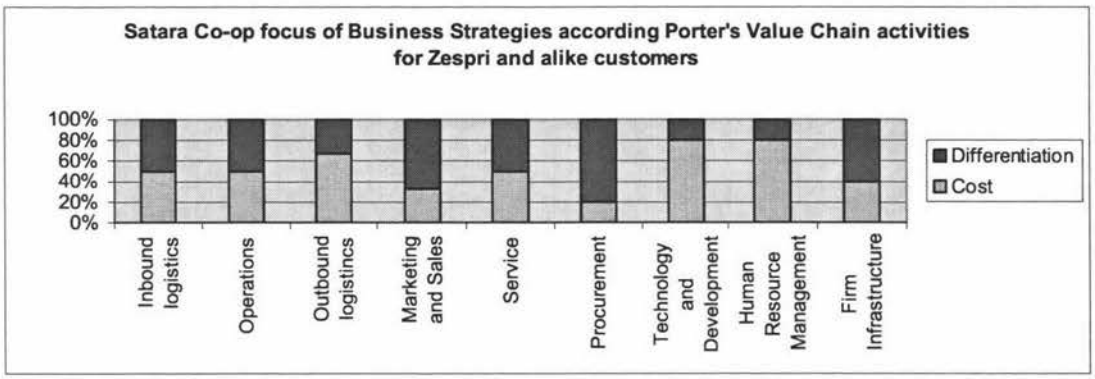


Figure 32. Satara Co-op focus on the business strategies according to Porter's Value Chain activities for the grower customer.

In general terms it is possible to say that Satara has a slightly low-cost strategy towards Zespri (the wholesaler/exporter customer), and a slight differentiation strategy for its grower-customers, but in the end, there is no clear difference in its strategy (Figure 28).

The theory proposes that the value activities (primary and secondary) are the building blocks of competitive advantage. How each activity is performed combined with its economics will determine whether a firm is high or low cost relative to competitors. How each activity is performed will also determine its contribution to buyer needs and hence differentiation (Porter, 1985). In the primary activities, those involved in the physical creation of the product and its sale and transfer to the buyer as well as after-sale assistance, Satara has no clear strategy (According to Porter's 1985 model) for its two customers. Both wholesale/exporter and grower-owner have 50% cost strategy and

a 50% differentiation strategy (Figure 29 and Figure 30). For the wholesale/exporter customer, it is worth noticing that the support activities 'Technology and Development' and 'Human Resource Management' are highly orientated towards cost reduction. This is a result of what is part of the current company strategy. Stated by its CEO: "one of *my roles is to lower the costs and increase the efficiency*"[75].

According to Belrose (2003), for the fifth season in a row (1998-2002), the New Zealand kiwifruit industry enjoyed returns far above historical norms[rrr]. This is why Satara is focused on costs reduction. Satara sees that the industry environment is going to change[sss], returns are going to fall, and the buoyant industry will not be able to sustain all the players in place today. Nonetheless, it seems that Satara is not expressing a strong commitment towards cost reduction strategies, perhaps because of the industry characteristics and its Zespri System that is focused on quality standards. However, Satara should be able to deliver consistent quality at a lower cost than its competitors. After all, the organization is delivering packhouse services and cool storage to only one customer. As quality standards are set equally by Zespri to all suppliers, the only opportunity to differentiate is mainly by cost. Differentiation opportunities lie in the class II export possibility to Australia, collaborative marketing, or Service Level Agreement (SLA), that are special contract between Zespri and the supplier for specific markets. Nonetheless, the main decision factor for Zespri to choose a supplier, after quality is met, is scale (size), that makes possible the supply of special exports (SLA) to particular markets. For the grower-customer, the differences between cost and differentiation strategies are more even. This could have its explanation in that the only way to differentiate to growers is by higher returns and/or better services. Because of its scale, Satara has difficulties in delivering superior services that would overcome not being the top profit returning company, but it is reluctant to weaken its differentiation strategies towards growers. After all, all goes back to the Zespri system, with standard quality as the main driver.

[rrr] According Belrose (2003) in the five seasons 1998-2002, the average returns, including packing costs, were NZ$7.21 per 3.6 Kg trays compared to NZ$4.48 for the previous four seasons, 1994-1997, with much of the improvement related to favourable movements in currency rates and domestic inflation.

[sss] In July 2003, Zespri restructured its organization with the assistance of PriceWaterhouseCoopers with aim of improving business efficiencies and effectiveness. Around 25 positions were expected to become redundant (Zespri, 2003).

4.8.2.3 Portfolio Analysis

4.8.2.3.1 BCG Portfolio Matrix

The relative market share position is defined as the ratio of a division's own market share in a particular industry to the market share held by the largest rival firm in that industry. The size of the circle represents the proportion of corporate revenue generated. A pie slice should indicate the proportion of corporate profits but no accurate information was available because the organization's accounting system did not allow this segmentation of profits. The y – axis represents the industry growth rate in sales, measured in percentage terms.

Figure 33. BCG Matrix for Satara Co-op Ltd. Products handled to wholesalers/exporters.

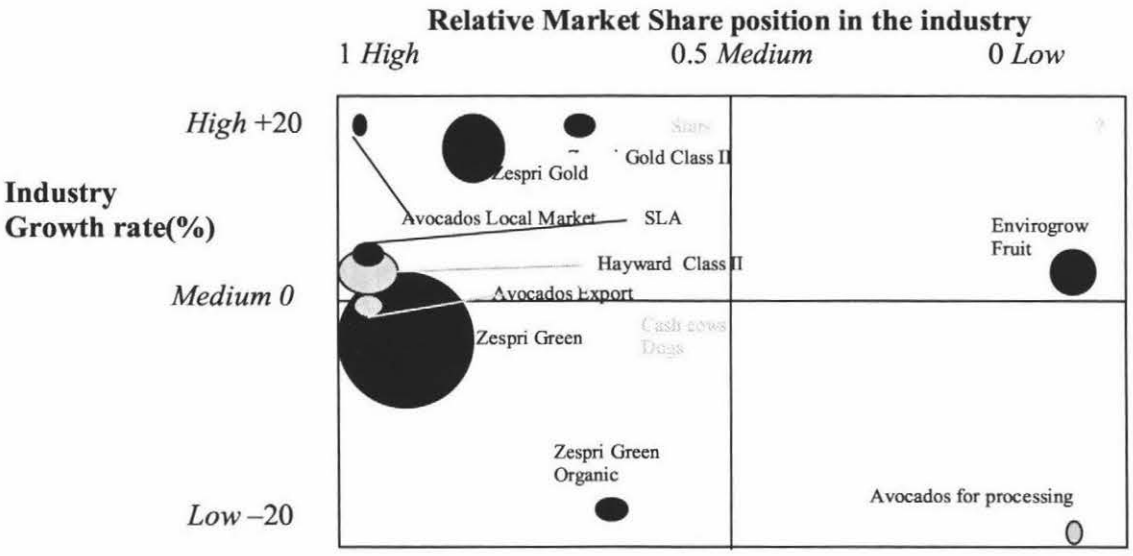


Figure 34. BCG Matrix for Satara Co-op Ltd Services to growers.

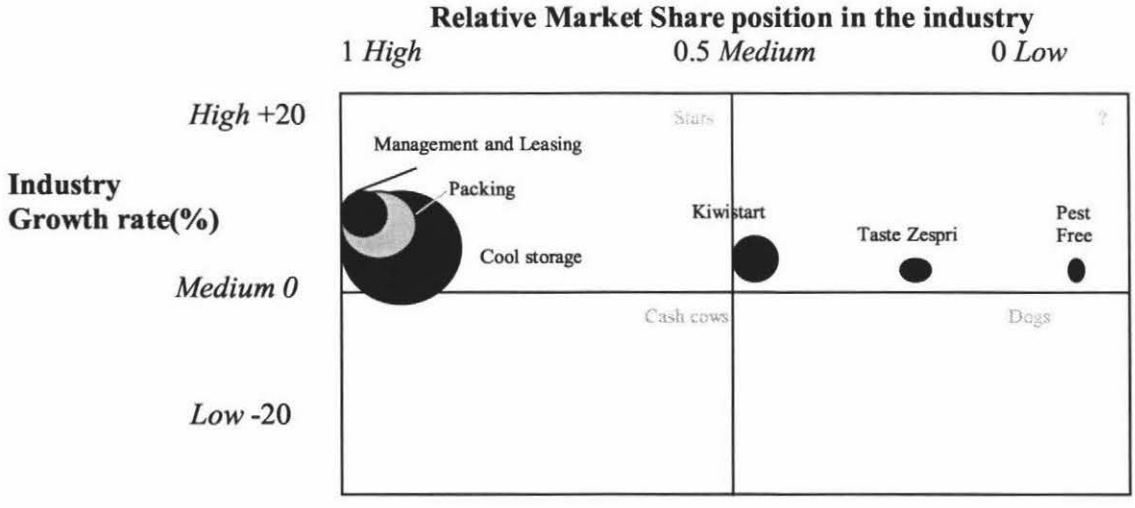


Table 22. National Industry growth rate for different products and services handled by Satara Co-op Ltd.

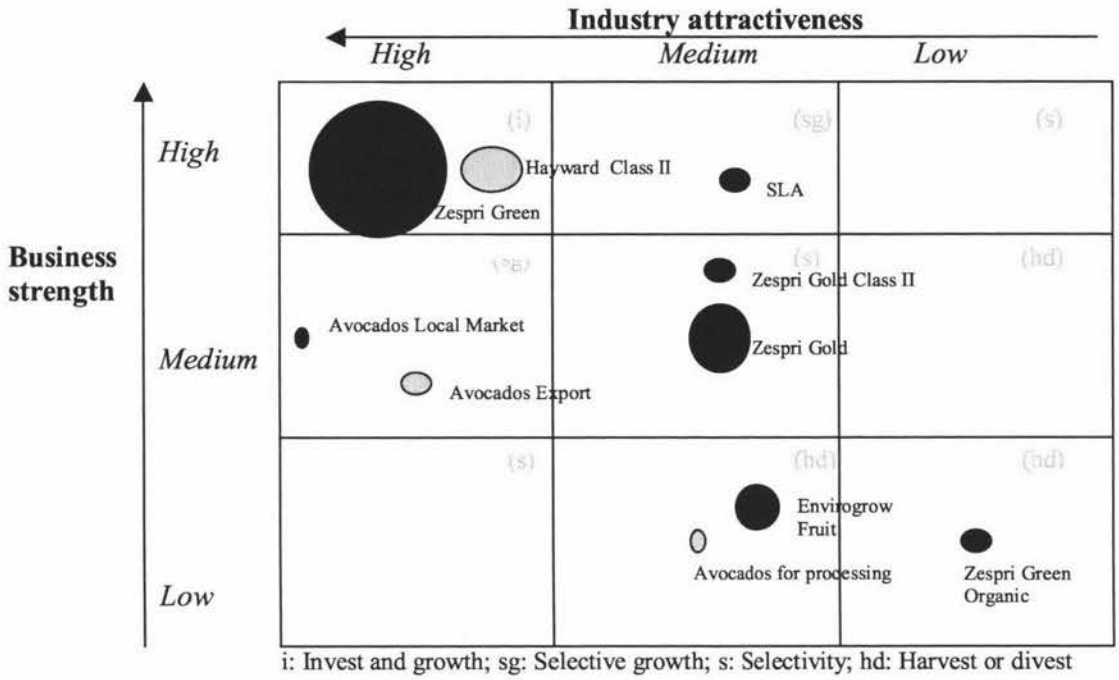
Products (T/E) (million trays)	2000/01	2001/02	2002/03	Grow rate
Zespri Green Kiwifruit	53.1	54.7	47.6	-5%
Zespri Green Organic	3.1	2.5	2.4	-12%
Zespri Gold Kiwifruit	4.7	5.2	8.1	33%
K1W1 Green Kiwifruit	2.0	2.5	1.9	1%
K1W1 Green Organic Kiwifruit	0.1	0.1	0.1	0%
K1W1 Gold Kiwifruit	0.4	0.9	0.4	35%
K1W1 Gold Class 3 Kiwifruit	0.0	0.0	0.2	0%
Avocados Export	1.40	1.32	1.26	-5%
Avocados Local Market	0.71	0.68	1.07	27%
Avocados Processing	0.18	0.15	0.07	-33%
Service (T/E)	**2000/01**	**2001/02**	**2002/03**	**Grow rate**
Trays packed per packhouse	624,262	625,386	615,703	11%*
Trays stored per coolstore	649,742	656,347	628,141	7%*
Orchards (KPINs)	2,861	2,902	3,118	3%*
Zespri Service payments(**)				
Kiwistart				
Green	7,372,996	8,534,372	9,079,737	7%
Green Organic	175,000	100,595	410,534	89%
Gold	-	-	1,55,7370	-
Taste				
Green	-	-	5,863,964	-
Green Organic	-	-	298,088	-
Gold	-	-	-	-
Pest Free				
Green	-	-	6,343,120	-
Green Organic	-	-	536,764	-
Gold	-	-	2,817,864	-
Storage Risk				
Green	34,533,713	33,713,214	29,329,281	-5%
Green Organic	2,240,740	1,509,506	1,335,613	-15%
Gold	1,651,178	5,005,352	5,952,094	74%
Zespri Pack Type(**)				
Green	2,403,3568	25,021,772	20,790,403	-4%
Green Organic	3,133,709	2,521,184	2,359,726	-33%
Gold	4,731,382	5,135,608	7,883,562	21%

Note: Kiwifruit T/E = 3.5 kg; Avocado T/E = 5.5 Kg; (*) includes season 1999/2000 (**) Source: Zespri (2003) Personal Communication. Other Sources: (AGA, 2003) and (Zespri, 2003a)

4.8.2.3.2 McKinsey directional policy Matrix

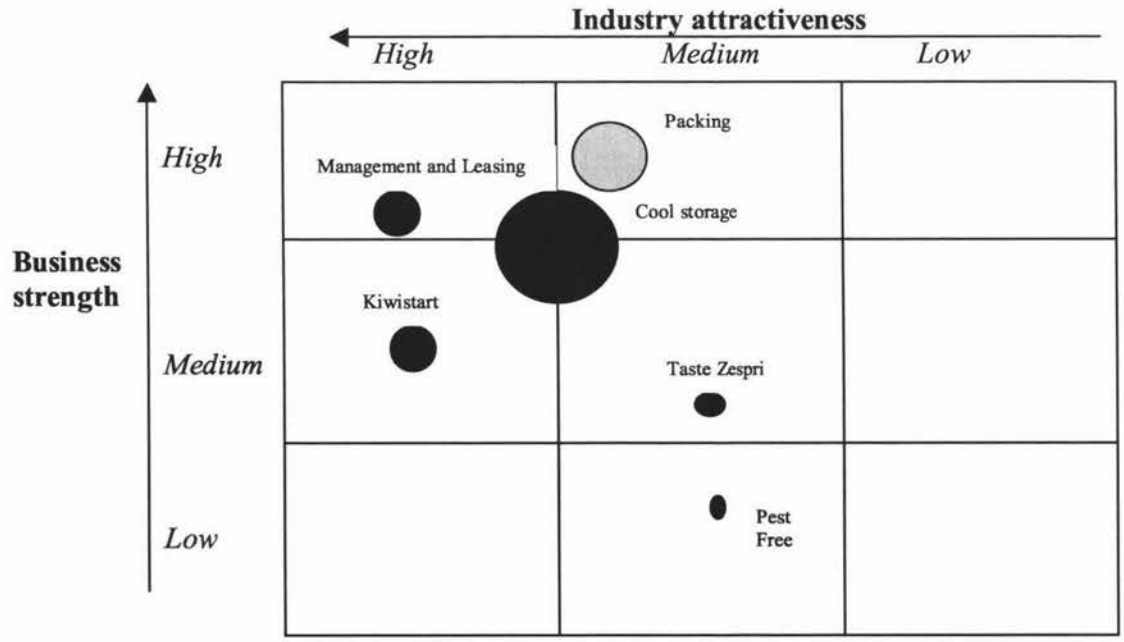
According the Industry attractiveness and Business strength's perceptions expressed by the CEO as well as the researcher view, Satara's product and services can be organized in the following two matrices (Figure 35 and Figure 36).

Figure 35. Directional policy matrix for Satara Co-op Ltd products handled to wholesalers/exporters



i: Invest and growth; sg: Selective growth; s: Selectivity; hd: Harvest or divest

Figure 36. Directional policy matrix for Satara Co-op Ltd services to growers.



4.8.3 Uniqueness and differentiation in the New Zealand Kiwifruit industry.

According to Craig Wallis, with only one customer (Zespri), the potential for a real differentiation of services is limited[22]. This reality has been the main obstacle for many operators to clearly offer a different customer proposition. Some suppliers have tried to focus more on management, others on the new prospects of avocados, but intrinsically, under Zespri's regulations and activities, the fundamental differences are minor.

Tony de Farias, Managing director of Seeka industries stated: "*We can differentiate in the quality of systems and services for growers. Many activities done by Zespri could be done by Seeka*"[52]. This reflects the concern by the industry that Zespri's costs, and spread of activities are still too wide for a fruit marketer.

Nonetheless, the industry has indeed, at least at a supplier level, one major point for differentiation: Company structure, to be a cooperative or a corporate. According Andrew Fenton, vice president of the Fruit growers Federation, and chairman of Satara "*There is no doubt about that, it is an advantage for us (being an cooperative), growers like that sense of belonging to a company were they have some ownership, and have some control of their company*"[76]. This seems to be a reality that is generating some problems in the corporate sector. Tony de Farias from Seeka reinforced: " *the thing we are struggling with is delivering for growers the feeling of belonging to an organization*"[77], and " "*The issue for Satara and Seeka is a philosophical one. They are a cooperative and we are not*"[77].

Reinforcing the philosophical differences between co-operative and corporate and its advantages to the organization Craig Wallis stated: "*If we change from a cooperative to a corporate, we'll certainly lose a mayor element of our uniqueness, no doubt.*"[78]

Ian Greaves, NZKGI representative for Te Puke also supported the point that the choice is about fundamentals: "*There are growers that would never change from one to another...only about a 5% could switch from Satara to Seeka. May be 10%*"[79] De Farias stated as Seeka's main difference from the cooperatives: "*The difference of Seeka is that it focused on return, not costs*", "*we can make the difference in returns*". "*We are not a cooperative*"[77]. By not being a cooperative, the Managing director argued that it is

possible to select more carefully your growers (not cooperative open membership), and that it is at least possible to expel the bad performers. In a cooperative it is not so easy to do the same. This type of problem can be observed in Satara's leasing division, where former shareholders entering a leasing agreement with the organization keep getting the transactor rebates. Tony Clarkin, Satara's Orchard unit manager said: "*We don't like shareholder-leasing people. They get double income...we have some of these growers, but only because they were shareholders*"[80].

The issue of higher returns rather than quality service has been a major issue in the industry, which indeed has developed a war on returns among suppliers, particularly among cooperatives. For example, the Satara rebate already discussed was set to match as close as possible Eastpack's rebate. According to Stuart McKinstry "*the rebate target is more market driven*"[81] rather than a fair and precise profit distribution calculation. Also Satara's CEO saw that a target of 40 cents per rebate could well position the organization and would facilitate the grower's attraction program.

This fact was supported by Peter Berry from Zespri who said: "*growers will judge their packhouse and coolstore group by performance...although service is important it tends to lag behind payment in growers eyes.*"[82]

However, the industry and financial analysis showed that there are four main players in the industry: One corporate, Seeka, and three cooperatives Satara, Eastpack and Apatacentrepac, all very successful and with a promising future. Eastpack has been one of the best performing cooperatives (as show in the financial analysis), and as a consequence it is expanding. Seeka Kiwifruit Industries Limited managing director said: "*we find them (Eastpack) a very, very difficult competitor*"[83]. Satara Co-op Ltd CEO agrees that, "*The competitor, who is probably the best, financially would be Eastpack*"[84].

Finally, and as acknowledged by Pfeffer (1994), a majority of the industry recognizes that competitive advantage will be gained through people. According to Craig Greenless, Chairman of Zespri, the main features that will allow today's supplier groups to be good performers in the future will be to have good people. "*I think (this business)*

is basically about management...you will need certain skills to go forward, to have the good people and the spread of skills."[85]

Satara did strongly recognize this critical factor and was strongly building and redefining its management team to suit the present and future industry environment. This was reinforced in the new brand-opening letter in June 2002: "*Together with our most valuable assets, our people*"[86]. Nonetheless, the competition did not perceive this feature as an uniqueness at Satara. Tony de Farias: "*I wouldn't necessary see Satara as having any better people than what I perceive in the Industry*"[87] and Craig Greenless from Zespri: "*Perhaps they got a stronger management team than some, but I am not aware whether they are fundamentally different*"[88]. This is why Craig Wallis knew clearly that the organization had not reached after June 2002 that point where its people constituted a clear uniqueness or competitive advantage. In June 2003, just before a major organizational re-structuring he stated: "*The organization's structure to deliver the strategy is going to change*"[89].

Another differentiation point, which has already been mentioned, is size. Size gives bargaining power, scale and a whole set of opportunities and benefits. Satara, with nearly 9 million trays of through output in 2002 definitely has scale. Tony de Farias: "*Satara has one large site in Te Puke*"[87] which gives them scale, "*But, their company has changed from what it used to be, and they have now probably as many individual sites as we have and more geographically spread*"[87]. This geographic spread generated the conflict of getting away from some growers to the point of losing some, particularly in the far north region. However, geographic spread gives the organization a risk diversification factor, allowing a flexible and timely asset utilization adjustment depending on different harvest flows in different regions. Supplier groups with only one site do not have any flexibility nor risk diversification.

According to Rod Calver from Aongatete Coolstores Ltd, Aongatete is performing above average because of its reduced size that allows it to have a close grower-staff relationship. Also, its innovation and superior client servicing are the base for delivering superior OGR to their growers. "*We are totally independent and aim to have the best orchard gate returns for our growers*"[90]. He sees in Satara two main uniqueness "*loyal shareholders and economies of scale*"[90].

Andrew Fenton also agreed on the size-relationship issue. He said: *"...(Trevelyan's) personal approach of the company, with that size, is very, very nice"* *"Size obviously has an advantage, but it has its flip side with its disadvantages... I used to know every grower... Today I can't"*[91].

According to Alister Hawkey, Trevelyan Pack&Cool Limited General Manager, Trevelyan's advantage and uniqueness is its *"Medium Size, friendly staff, expertise and access to management, quality and OGR payments to growers"*[92]

Daryl Richardson, Technical manager or Aerocool also stated that size was important, along with efficiencies and variety of services offered. However, when asked about Aerocool distinguishing advantages he stated: *"our number 1 advantage is being able to year on year perform in the top 15% of packhouse in terms of providing high OGR to our growers"*[93]. He stated that this was gained through competitive pricing, operating efficiencies, incentives to growers upon fruit quality, contact with growers, and management techniques assistance.

The different industry Stakeholders views about Satara's competitive advantage can be summarized in the following Table:

Table 23. Industry stakeholders perception of Satara's competitive advantage in the industry

Company	Interviewee	Satara Co-op Ltd competitive advantage
Zespri	Chairman	People, Cooperative structure.
NZFGF	Vice-President	Cooperative structure – size.
Seeka	Managing Director	Cooperative structure – economies of scale in Te Puke
Trevelyans	General Manager	Size, efficiency and branding
Aongatete	Horticultural Manager	Loyal Shareholders- captative market, economies of scale
NZKGI	Te Puke Representative	Cooperative structure

Also, in the light to undercover what makes kiwifruit post harvest operators different, Satara's own staff (35 asked) were asked the question: "What is Satara Co-operative

Group good at? The various and mixed answers (57% response rate) were grouped and ranked into the following main areas:

Table 24. Satara Co-op Ltd employees' answers regarding the questions "What is Satara good at?"

What is Satara Co-Operative Group good at?	Rank	N° of times the idea was mentioned	Percentage
Kiwifruit & Avocados growing and/or post harvest operator	1	7	29%
People and/or Change management	4	5	21%
Kiwifruit growing and post harvest operator	2	3	14%
Kiwifruit post harvest operator	3	2	8%
Quality and Maximizing return to growers	5	2	8%
Horticultural service provider	6	1	4%
Kiwifruit & Avocado service provider	8	1	4%
Leadership and transparency	9	1	4%
Maintaining market share	10	1	4%
Accessibility to clients	11	1	4%

As expected from the organization's core business activity, a great proportion (79%) of the answers related the organization's competitive advantage to Kiwifruit growing and/or post harvest operations, and more than 46% to kiwifruit post harvest operations specifically. When grouped according growing or handling fruit, 42% considered that growing was an edge, and 46% that post harvest operation was better (than others) performed.

On the other hand, 29% of the answers were related to non-grower related advantages, being people and/or change management the most important (21%). The distinction between the organization's point of view and the customer's appreciation towards this view is important because having a competitive edge or uniqueness and making sure that customers understand that uniqueness do not necessarily happen together. The basic idea is that answers from employees and customers towards the companies uniqueness should be similar, if not, the organization's has not clearly identified what gives it a special place in the industry. Customers do not buy features (Leadership, Company size, Market share, business portfolio) or advantages (people and/or change management, being the best at what the organizations does), they buy benefits (Quality service or higher returns) (Lake, 2002).

Finally, and based on Satara Co-op Ltd uniqueness and the industry environment analysis, its CEO expressed the following strategic intent (Lake, 2002) for the organization[94]:

" We provide: Get the growers' fruit from the orchard to the marketer and do all the thing in the way to make that happen as efficiently as we can, to the highest level of quality.
Main Beneficiaries: Growers (shareholders)
Satara is good at: Operational part of doing that, as well of growing kiwifruit through orchard Management and Leasing (generator of more crop).
Uniqueness: The sum of all those parts. Rules within the cooperative Business. Cooperative – main part of uniqueness"

Finally, and according to all stakeholders interviewed, the characteristics that seem to make the difference between successful and unsuccessful organizations that are in the same business (in today's New Zealand kiwifruit) environment can be summarized in the following figure:

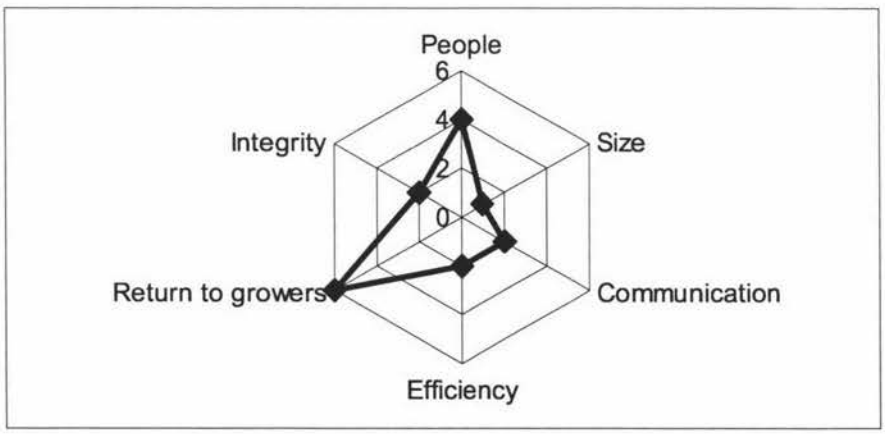


Figure 37. Features in the New Zealand Kiwifruit Industry that are differentiators among suppliers (packhouses & coolstores) to growers.

4.9 Strategic Evaluation and Selection

4.9.1 SWOT Analysis

According to Satara's CEO, much of the information carried out during the case study could be summarized in the following SWOT table. However, he stresses the faults of the framework in not dealing correctly with threats that could be opportunities or weaknesses that could be developed into strengths. Nonetheless, the analysis is useful for organizing ideas and is as follows:

Table 25. Satara Cooperative Group Ltd SWOT Matrix and strategies

SWOT MATRIX	**Strengths** Access to finance, business strategy, corporate strategy, distribution network, entry barriers, financial accounting skills, information technology, leader's ability and skills, loyalty of workforce, organizational structure, quality of brand, reputation in the market and relationship with Zespri.	**Weaknesses** Cost structure of business, exit barriers, innovation and research, technical engineering skills, personnel administration
Opportunities -New and strong global brand -Strong presence in Australia -Investments in Thailand -Registered NZ avocado exporter -New products (*Arguta, other varieties - future new licenses*) -Extensive knowledge and know-how in the kiwifruit business -NZ KF growers and professionals not being replaced -NZ kiwifruit deregulation -NZ green and clean image -No med Fly in NZ -Influential positions in the industry	*Strategy using strengths to address opportunities:* (S): Strong and healthy cooperative in the KF and avocado industries (O): Collaborative marketing, Australia, Avocados and overseas kiwifruit **Possible strategies**: -Expand exporting businesses -Joint ventures overseas -Acquire and merge with smaller suppliers to expand local market share	*Strategy to reverse weaknesses in order to address opportunities*: (W): Low innovation and research, exit barriers (O): Collaborative marketing, Exports, avocados **Possible strategies:** -Expand exporting businesses -Joint ventures overseas -Acquire and merge with smaller suppliers to expand local market share
Threats -NZ dollar appreciation -Dry spells in BOP -NZ KF growers and professionals not being replaced -NZ kiwifruit supply declining -NZ suppliers consolidating -NZ Bio security -Interest rates -NZ kiwifruit deregulation -GAP, EuroGAP, BRC and others-	*Strategies to counter threats with strengths:* (S): Strong and healthy positioned cooperative (T):Deregulation and Biosecurity **Possible strategies**: -Acquire and merge to increase scale -Expand overseas	*Strategy to take corrective action where the business is vulnerable*: (W): Low innovation (T): Deregulation and Biosecurity **Possible strategies:** - Expand exporting business - Australia - Avocados

Note: (S): Main Strengths, (W) Main Weakness, (O) Main Opportunity, (T) Main Threat.

4.9.2 Scenario Analysis

Since its merger, Satara's CEO has been driving the company to match the two main possible scenarios: Status-quo or deregulation. Based on section 4.8.1, the scenarios that were driving the strategic development processes were as follows:

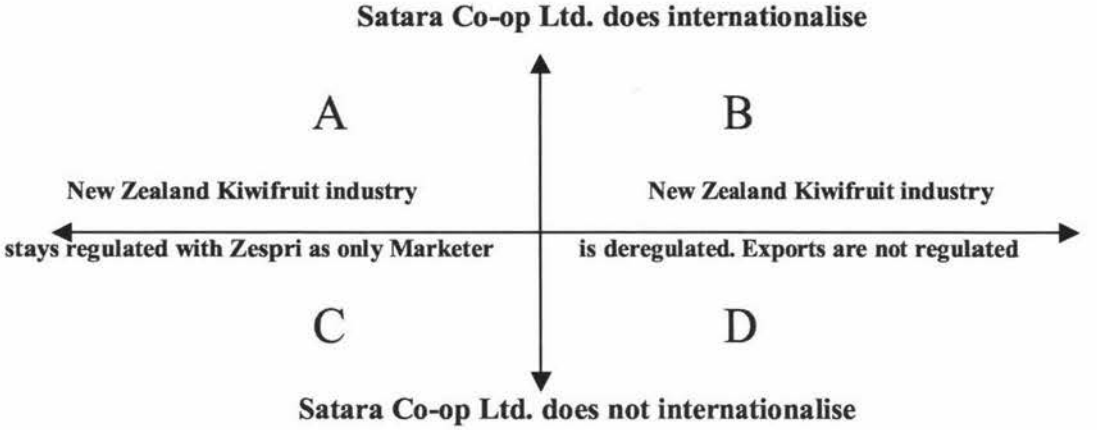
Table 26. Satara Co-op possible scenarios of the future based on the PEST analysis.

SCENARIO 1: ***NZ Kiwifruit Deregulates***	**SCENARIO 2:** ***NZ detects Med-fly***
Changes: Lowering of Zespri premiums by competition of NZ exporters in the same markets with the same fruit. **Satara's response**: Export a percentage of its volume directly. Major part stays with Zespri. **Kind of Organization Satara needs to become**: No significant changes. The organization is prepared for this scenario already. **Early warnings signs**: Several indications. ENZA deregulated, illegal export through Australia, Relevant industry stakeholders forecasting deregulation, WTO pressures, supplier groups preparing them selves for deregulation. Zespri is NZ's last statutory monopoly.	**Changes**: Export ban of all NZ fruits to Japan and US mainly. **Satara's response**: Cost reduction and rationalization due to lower grower income and fruit throughout put. Satara could maintain production in geographic areas free of the pest **Kind of Organization Satara needs to become**: Operationally efficient and more financially solvent and profitable to overcome major industry downturn. **Early warnings signs**: Continues pressures of new pest entering NZ (painted apple moth in Auckland), Increasing tourism breaking quarantine regulations
SCENARIO 3: ***Internationalisation of Satara***	**SCENARIO 4:** ***Globally Zespri Kiwifruit losses its premiums and shelf space in the retail place.***
Changes: Global supply of fruit for its export unit, possible rebate increase due to franchise and royalties of products, software or services. **Satara's response**: Aggressive growth both locally and globally. Would pressure to deregulate industry to benefit fully from overseas ventures. **Kind of Organization Satara needs to become**: More vertically integrated. Develop extension of services, improve employees base for more complex operations **Early warnings signs**: Satara's alternative *Actinidia chinensis* project in Thailand, seeking avocado export license to Australia, looking in joint ventures to pack fruit in Italy, growing aggressively in scale.	**Changes**: The whole industry lowers its profits; probable third major downturn in 30 years. **Satara's response**: Assets liquidations, maximisation of export to Australia, increase in leasing and management market share **Kind of Organization Satara needs to become**: As with any major treat, operationally efficient and more financially solvent and profitable to overcome major industry downturn. **Early warnings signs**: Taste Japan program by Zespri to justify premiums, EU retailers compromising NZ premiums with other cheaper products with similar quality, worldwide economic volatility, NZ competitors reaching NZ quality standards at lower costs, low 'retail store traffic' by kiwifruit.

Framework source: (Lake, 2002)

Subsequently, and according to the researcher, the two main scenarios facing Satara Co-op Ltd are:

Figure 38. Scenario analysis for Satara Co-op Ltd, 5 to 10 years into the future.



The combination of the two variables (Regulation of the Kiwifruit industry and Satara's internationalisations process) generate the following four scenarios of the future:

- Scenario A: Satara reaches the 20% local market share. Nonetheless, after this it starts to supply Zespri fruit from competitor countries to deliver to Zespri's 12-month program. It develops an overseas service division to assist overseas growers and packers to produce under Zespri's standards. Eventually overseas growers could become shareholders.
- Scenario B: Satara increases over 20% market share to fully capitalize on Zespri's deregulation. It keeps a volume with Zespri. It also capitalizes in another Gold variety to complement the low Hort16A supply due to Zespri's exclusivity. Overseas operations or services are not as well developed as in scenario A due to Zespri's temporal downturn and lack of support in the internationalisation process.
- Scenario C: Status-quo. Satara competes fiercely to reach over 20% of market share. Due to internal competition and no significant additional profit contributions, it develops and avocado joint venture (i.e. Calavo) to export directly in the light of contributing to its profits. It also capitalizes in alternative Gold variety to work with Zespri. Apples, Mandarins could be added to the portfolio to diversify in narrow and restrictive markets.
- Scenario D: Satara reaches 20% of market share and diverts volume to a major fruit trader like (Dole or DelMonte) to reach new market opportunities and regain ground for

its grower-shareholders. By competing for 12 months supply against Zespri a technical transfer could happen. Without Zespri's full support, overseas operations do never concretise.

4.9.3 Gap Analysis

According to the organization's analysis the main areas that need improvement to achieve the strategic objectives are:

Table 27. Gap Analysis for Satara Co-op Ltd main strategic objectives.

Strategic factor	Current performance	Project to bridge the gap	Desired performance
I) Market Share	15%	Merger & Acquisitions; capture more growers both kiwifruit and avocados, organization structure improvement. EUROGAP, BRC and EAN implementation programmes.	20-25%
II) Return to shareholders	30 cents – rebate to growers, variable return to investor shareholders	Listing investor shares, improve operational efficiency, increase market share, development of Satara export business in Australia, Good relationships with Zespri, SLA agreement, Bin Charge, alternative no frills operation.	40 cents rebate and 14% return to investor shareholders
III) Brand Management	Under performed	WebPage, continuing with community involvement, marketing manager appointment, Brand launch in Australia	High customer brand recognition.
IV) Product portfolio	Single product mainly kiwifruit	Increase in avocado market share, *A. chinnensis* projects, Hayward in Thailand, alignment with avocado exporter. Possible involvement with apples and mandarins.	Kiwifruit operator with wider portfolio.
V) Internationalisation	Export of kiwifruit Class II only	Thailand project, Satara brand in Australia, Avocado export license, Collaborative marketing projects, other offshore early opportunities analysis.	NZ multiple product exporter with global reach
VI) Employee capabilities	Industry average	New positions recruitment and definitions, organizational structure adjustments, student and graduate trainees' acceptance, University projects, and ongoing seminars and course attendance.	Above industry average

4.10 Strategic Choice and Implementation

In September 2002, the company stated having decided its future position in the business. The strategies are summarized in the following five points[22], which fit with the Gap analysis, made in Table 27 (see Roman numbers in Table 27 for relationships):

a) Positioning strategy to strengthen & extend Satara's existing business by ongoing advancements along the added value & cost curves. Growth by achieving market share and more acquisitions (I): Strategic outcomes were to move from a 13% market share to 20% (9 million to 16 million trays) with specific targets of 1 million (Organic), 0.5 (existing shareholders), 1 million (New ventures), 1.5 million (Investors and leasing) and 3 million (Acquisition/merger). The second outcome target was to generate a ROI of around 24% (II).

b) Positioning strategy to reconfigure and re-innovate the existing business and to change the value offering different supply, marketing & services. This strategy would be driven by facility and plant rationalization (II; operational efficiency, Bin Charge, no frills operation).

c) Positioning strategy to stake out an emerging white space: Set up a separate company independent from Satara to compete on basic services (Green) using excess pack/store capacity. Target 1 million trays (II; No frills operation).

d) Positioning strategy to heighten the focus into selected niches where strong strategic advantage can be achieved: Key areas Orchard leasing & management, retaining & locating/securing growers of high volume and develop further Class II kiwifruit (III) with avocados (IV and V), as well as Collaborative marketing (IV and V)& local market (I, III).

e) Positioning strategy to develop & change the capacity platform: Current staff at September 2002 would not lead the company into the future (VI). New appointments starting with Marketing to consolidate the new brand (III).

As can be observed, all main strategic factors identified by the organization are being taken care off in different degrees in their strategic choice and implementation statements. Consequently, and continuing in the strategic themes of building the franchise, increasing customer value and operational excellence, the strategic objectives for the organization in April 2003 were as follows (Table 28):

Table 28. Satara Co-operative Group Ltd Strategic Objectives - April 2003.

Strategic Element	Long Term Objective	Strategic management issues
Packing Volume/Market Share	Packing 15-20 m Class I controlling 25% of Industry volume by 2004	Maintain regional diversity, Merger & acquisition, program, Alliance, maximize retention of profitable fruit supply, control own destiny, remain predominantly a kiwifruit company.
Business Structure	Vertically Integrated from growing to CIF or FOT by financial year 2004	Take over relevant Marketer operations.
Marketer relationship	Achieve full Marketer accountability by 2004 Zespri to be supported as the sole marketer of NZ Kiwifruit	Identify functions that Marketer does that we can perform more efficiently Explore opportunities to combine with other fruit categories.
Strategic Investments	Have developed and executed at least one strategic investment with NPV>15% by financial year 2004	Increase crop volume. Extend the use of our skills and knowledge to create wealth.
Profitability	EBIT of 14% on sales giving a return on capital of 20% by financial year 2004 assuming ($7/tray)	Develop more efficient ways of handling fruit Maximize the ratio of throughput to facility capacity Maximize orchard efficiency and profitability Manage Business risk Become a knowledge-based company Profit allocation policy crucial to achieving other strategic category's.
Entity type	Identify and become the most appropriate entity type that supports the balance of our long term objectives	Review current hybrid structure Create ability to increase capital base Reward system for Transacting shareholders&wealth creators Protect company's capital base from resigning shareholders
Human resources	Have an integrated planning and training process involving all permanent employees in the organization by 2003 Have an integrated succession plan by 2003	Maintain an organizational structure that is appropriate and supports our strategic objectives To attract, retain and adequately remunerate quality staff.

Other mayor strategic objectives for 2003/2004 were listing investor shares, merger and acquisitions without making shareholders pay, rebate maximization (40 cents/tray target) and 14% return to investor shares, setting up a Website, asset rationalisation, a kiwifruit Collaborative Marketing venture, forming an avocado and leasing growers shareholding policy, improving leased orchard performance, increasing crop (kiwifruit and avocados), continuing with inter-company benchmarking and analysis of competitors, exploring further the *A. chinensis* project in Thailand, implementing a bee pollen project, implementing an alternative – no

frills – brand or packhouse, and avoiding diversion from multiple and attractive off-shore opportunities.

Finally, and regarding the Balanced Scorecard as a strategy implementation tool, the framework was not known by the organization as of May 2003. Neither its CEO nor financial controller had had any contact with the strategic tool, and only the new marketing manager employed that month had worked with it.

As stated by Russell (2003), approximately half of the larger organizations in Western Europe and the United States –defined either by revenue or number of employees- are using the Balanced Scorecard in some way. This means that some percentage of the other 50% that are not using it have not heard or being in contact with the tool yet, or simply do not support the framework. However, the author stated that it is very likely that many executives have not been well informed yet about the framework, and hence have not begun to explore and experiment with it. The author acknowledges that a recent study conducted in a well-defined universe of companies within German-speaking countries (Germany, Austria and Switzerland) showed that least one-fourth of the respondents have had no contact with the BSC so far.

This situation seems to be similar in New Zealand mid size companies were the specialized literature available to them is limited or where the instance for discussions about the Balanced Scorecard have not been numerous at a corporate level in the last years. Among the few articles available about the topic are those by Wallace (1998), Jayne (1999), Le Pla (1999), Shaw (1999) and Cameron (2002).

According to Gautier (2001) and Parmenter (2002) only a few New Zealand organizations have implemented the tool due to the perception by local companies that it involves a large amount of work and an extended period for successful implementation, leaving the Balanced Scorecard achievement to large companies only. However, during May and June 2003, the CEO attended strategic seminars where the framework was exposed and explained to him. His comment was "*The framework is simple and logical. After July, I will strongly pursue the Balanced Scorecard model*"[95].

NOTES

[7] Abundance. New Brand Promotional leaflet. Satara Co-operative Group Ltd. June 2002.
[8] Annual report. Satara Co-operative Group Ltd. March 2003.
[9] Kevin Taylor. NZSE trying to attract co-ops. The New Zealand Herald. Friday 6th. December 2002.
[10] Satara Newsletter. Issue Two. Satara Co-operative Group Ltd. October 2002.
[11] Professor Ian Warrington (2003), Professor of Horticultural Science – MhortSc (Hons), DSc, FRSNZ, Massey University. Former CEO of HortResearch period 1996-2002. Personal communication.
[12] Craig Greenless (2003). Chairman Zespri Group Ltd. - BMS (Hons) CA ANZIM. Also Director of Direct Management Services (DMS). Personal Communication.
[13] Ibid. 12
[14] Craig Wallis (2003). CEO. B.Sc. Satara Co-operative Group Ltd. Personal communication.
[15] Ibid 7.
[16] A.E. (Tony) de Farias (2003). Managing Director SEEKA Kiwifruit Industries Limited. Personal Communication.
[17] Ibid. 14.
[18] Ibid. 14.
[19] Ibid. 16.
[20] Ibid. 14.
[21] Stuart McKinstry (2003). Financial Controller Satara Co-op Ltd. Personal Communication.
[22] Strategic Positioning for the Future. Satara Co-operative Group Ltd. September 2002. 29 pages.
[23] Ibid. 21.
[24] Barbara King (2003). B.Hort.Sc., Technical Consultant. Satara Co-op Ltd. Also Tauranga Fruit Federation President. Personal Communication.
[25] Lon Wheeler (2003). Market Service Manager. Satara Co-op Ltd. Personal Communication.
[26] Ibid. 14.
[27] 2003 Updated Orchard Lease contract (1999). Satara Co-operative Group Ltd.
[28] Ibid. 21.
[29] Tony Clarkin (2003). General Manager – Orchards. Satara Co-op Ltd. Personal Communication.
[30] Ibid. 29.
[31] Ibid. 24.
[32] Ibid. 14.
[33] Ibid. 16.
[34] Ibid. 14.
[35] Murray Gough. (2003). B.Sc. General Manager – Operations. Satara Co-op Ltd. Hortnews. 14/07/2003.
[36] Ibid. 16.
[37] Eleos Packhouse & Coolstores (2003). Kiwifruit number crunching. Issue 5.http://www.eleos.co.nz/news.php
[38] Ibid. 14.
[39] Ibid. 25.
[40] Ibid. 14.
[41] Ibid. 14.
[42] Julie Carlson (2003). B. Management. Marketing Manager. Satara Co-op Ltd. Personal Communication.
[43] Ibid. 14.
[44] Ibid. 13.
[45] Ibid. 14.
[46] Ibid. 16.
[47] Ibid. 11.
[48] Ibid. 24.
[49] Ibid. 14.
[50] Daryl Richardson. (2003). Technical Manager. Aerocool. Personal communication.
[51] Ibid. 13.
[52] Ibid. 16.
[53] Andrew Fenton (2003). Vice-President NZ Fruit Growers Federation. Also Chairman of Satara Co-op Ltd. Personal Communication
[54] Ian Greaves (2003). B.Hort.Sc. Te Puke NZKGI representative. Private consultant. Also Former Seeka employee. Personal Communication.
[55] Peter Berry (2003). Industry Liason Officer. Zespri International Limited. Personal Communication.

[56] Rod Calver (2003). B.Agr.Sc.,Dip.Agr.Eng. (Hons), M.N.Z.I.A.S.,M.N.Z.S.H.S. Horticultural Manager. Aongatete Coolstores Ltd. Personal Comunication.
[57] Ibid. 14.
[58] Ibid. 16.
[59] Ibid. 14.
[60] Ibid. 54.
[61] Marie Winikerei (2003). Information System Manager. Satara Co-operative Group Ltd. Personal communication.
[62] Ibid. 13.
[63] Seeka Growers Limited – Grower Contract season 2003.
[64] Industry Analysis – 31 December 2001. Satara Co-op Ltd internal document. 60 pages.
[65] Seeka Kiwifruit Industries Limited - Annual Report 31 march 2003.
[66] DMS Progrowers Ltd – Annual Report March 2003.
[67] Ibid. 64.
[68] Ibid. 14.
[69] Ibid. 21.
[70] Ibid. 14.
[71] Ibid. 64.
[72] Ibid. 16.
[73] Ibid. 29.
[74] Ibid. 54.
[75] Ibid. 14.
[76] Ibid. 53.
[77] Ibid. 16.
[78] Ibid. 14.
[79] Ibid. 54.
[80] Ibid. 29.
[81] Ibid. 21.
[82] Ibid. 55.
[83] Ibid. 16.
[84] Ibid. 14.
[85] Ibid. 13.
[86] Ibid. 7.
[87] Ibid. 16.
[88] Ibid. 13.
[89] Ibid. 14.
[90] Ibid. 56.
[91] Ibid. 53.
[92] Alister Hawkey (2003). General Manager. Trevelyan Pack&Cool Limited. Personal Communication.
[93] Ibid. 50.
[94] Ibid. 14.
[95] Ibid. 14.

5 CHAPTER FIVE: ANALYSIS AND DISCUSSIONS

The focus of this study was on Satara cooperative Group Ltd competitive advantage(s) and whether this/these along with its strategies could be implemented through the Balanced Scorecard framework. Consequently, these two questions, which are independent but related, are analysed and discussed separately in the following sections.

5.1 Competitive advantage at Satara Co-operative Group Limited

5.1.1 Competitive advantage - overall company profitability results

Based on the literature reviewed, the best definition for competitive advantage that was in concordance with all other theories of competitiveness was made by Grant (1998), who defined competitive strategy as the ability of a firm to outperform rivals on the primary performance goal – profitability. Competitive advantage is the ability to perform (or earn) higher than a rival. However, it is important to include Porter's views about competitive advantage about above-average rate of returns (Porter, 1980), sustained over a period of years (Porter, 1985), as outperforming rivals does not mean anything if they are the lowest performers in the industry or the superior performance occurred as a one-off event. Accordingly, the definition of competitive advantage to be used to test the first research hypothesis was:

Definition 1: Competitive advantage: The ability of a firm to outperform rivals on profitability, by above-average rate of returns, sustained over a period of years.

Based on this definition, the analysis on Satara's competitive advantage focused mainly, but not only, on the financial analysis in section 4.8.2.1 of the case study.

As indicated in the case study financial analysis, Satara was not the overall best performer amongst the competitors analysed. The following table summarizes the profitability ratios obtained in the case study:

Table 29. Key profitability indicators for Satara, Seeka and DMS for the period 2000-2002.

Ratio	A (μ)	B (μ)	Satara				Seeka				DMS			
			2002	2001	2000	δ	2002	2001	2000	δ	2002	2001	2000	δ
PM	7.2%	5.5%	5.4%	5.9%	4.8%	*0.6%*	4.6%	8.1%	7.4%	*1.9%*	6.7%	7.1%	3.8%	*1.8%*
ROA	9.4%	6.1%	5.6%	6.3%	5.8%	*0.4%*	4.5%	7.2%	8.0%	*1.8%*	8.4%	8.6%	4.7%	*2.2%*
ROI	21.4%	18.6%	23.5%	23.9%	25.1%	*0.8%*	14.3%	18.0%	20.2%	*3.0%*	23.8%	21.8%	11.5%	*6.6%*
ROE	17.5%	11.6%	9.2%	10.9%	10.1%	*0.8%*	8.9%	13.4%	15.8%	*3.5%*	15.7%	18.4%	10.7%	*3.9%*

Note: Data for the year ended 31st December. This table considers Cooperative rebates as a profit for NOPAT calculation; PM = Profit Margin., A: Table 17 average of the industry for 2000; B = Average for Satara, Seeka and DMS in the period 2000-2002; δ = Standard deviation.

According to Definition 1 about Competitive Advantage, Table 29 does not give enough data to conclude whether Satara is below or above industry average, as this table only considered some of the biggest operators in the industry. Nonetheless, Table 16, Table 17 and Table 18, which are summarized in Table 29, allowed the conclusion that Satara is not the best performer from a profitability point over a period of time of view with the exception of ROI.

As shown in the case study, financial benchmarking is extremely difficult amongst competitors due to different account procedures, as well as different balancing dates. Some companies revalue their assets and others don't, a situation that clearly could be affecting ROA. Therefore, Satara's historic low ROA could be a cause of overvalued assets in the Bay of Plenty region, which has experienced an important increase in real state prices in the last years. In this regard, Satara is conscious that it has a big asset base that is not currently, from a financial point of view, efficient enough. The Financial controller agreed, saying that he would like to sell some inefficient assets: "*I am seriously thinking that one of our packhouse should be sold*"[96]. Also, as shown in the cases study, ROI, which is Satara's top financial ratio, should also be taken with care, as the lease property proportion in the kiwifruit business is important (5 millions for Satara in 2002 against 0.6 millions for Seeka having similar leasing units), and different companies handle this element differently, affecting a reliable ROI Peer-group comparison. This limitation was already mentioned by Dearden (1969) in an early critique of ROI limitations. The author stated, amongst other limitations, that complications arise with different types of fixed assets as leasing as much of the assets bases as possible can maximize ROI.

However, placing Table 29 in the case study context, which revealed that the industry is rationalizing, with many small players suffering and merging to bigger operations even under the current prosperous economic conditions in the New Zealand kiwifruit industry, it is possible to estimate that many of these smaller players are not performing financially well. As a consequence of this, it would be possible to imply that the industry average is lower than what is shown in Table 29, comprised by some of the biggest and fastest growing operators in the industry. As mentioned in the case study, the New Zealand kiwifruit industry has cooperative characteristics. All players that handle kiwifruit, within Zespri's rules, have to participate and export through the statutory monopoly, a situation that should force the participation of below-average performers. Then, if the industry as a whole is consolidating and companies are closing businesses, and on the other hand, Satara is growing and expanding, it should mean that the organization is offering 'something' above average to its shareholders and customers. This assumption also would be in concordance with industry stakeholder's statements about Satara's current competitive advantage. Although they did not mentioned specifically in which area Satara was performing above average, they stated that mainly its cooperative structure, size, location and people were delivering results above the industry average (Table 23).

These conjectures are supported by the company's growing market share, sustained export activity in Australia, sustained rebates since 1996 (Table 19), high ROI and relative low ROE, as an indication that the industry is prosperous (high income), but there are still some efficiencies to be gained ("*my role is to lower the costs and increase the efficiency*"[97], Satara CEO, Craig Wallis).

Then EVA showed that after subtracting operational and others costs, the organization was capable of delivering a return higher than the cost of capital, although the financial ratios calculated from the company's accounts were stating the contrary. Satara confirmed this by obtaining positive EVA values in the last three years (Table 20) as well as having a positive EVA forecast for the next three years (Figure 25 and Figure 26). This showed again that the company is able to return more than what its capital providers require, suggesting an organization's performance at least near the industry average.

Regarding stability in returns, it is possible to conclude from Table 29, that Satara Co-op Ltd had less variability in all four profit ratios (Profit Margin, ROA, ROI and ROE) than its main competitor and well recognized industry-top performer Seeka and the former small operator but now prosperous and growing DMS. Assuming that Satara has an above industry average performance in some of these ratios, Table 29 can be used to confirm the second part of Definition 1, which is to be able to have this particular performance sustained over a period of years.

In conclusion, although it was not possible to determine whether Satara's abilities were delivering returns above average in all areas of profitability, it is possible to conclude that Satara has the best ROI among the big players.

However, ROI or other profitability ratios for the entire organization are not the best or only indicators of superior financial performance in the case study's particular case, as Satara is a cooperative with two different types of shareholders. It is important to remember that a cooperative has mainly two obligations: Maximize member's returns while serving and representing them. Accordingly, and as shown in the case study (section 4.8.2.1.3 about Capital structure), different shareholder's use different financial indicators to determine whether they are being properly rewarded and served. Therefore, it is necessary to analyse the profitability on other measures relevant to both types of shareholders, and contrast them to an industry average to be able to determine whether Satara has a real competitive advantage for its shareholders.

5.1.2 Competitive advantage to Cooperative shareholders – The grower customer

As Definition 1 stated, competitive advantage is all about being financially above average. For investor shareholders, financial rewards are well explained in the literature, with EPS, ROE or EVA as indicators. But for transactor shareholders (the grower), it was not clear what this particular shareholder valued.

The case study showed that although these shareholders are part of a cooperative and should, according to the Rochendale principles (Barton, 1989), demand a service at low cost, they are indeed demanding high rebates, which is just a different form of profit

distribution. Nonetheless, transactor shareholders are still part of the cooperative. As they are making use of a service, which is well developed in the market (packing and cooling fruit), they also demand that the cooperative service is at least better than average, through operational efficiencies indicators. If the cooperative cannot deliver a 'better' service than the industry average over a sustainable period of time, then there is no fundamental reason for the cooperative's existence. Cooperative members would and should change to another operator, unless the cooperative is able to provide returns to them above average. This approach is in accordance with Peterson and Anderson's (1996) view about benefits for cooperative members. The authors stated that there are two main groups of strategies to deliver differential benefits for co-op members: Strategies to increase returns and strategies to reduce the risk inherent in returns (risk-management).

The Case study identified that the indicators that reflect these cooperative member needs are Rebates and Orchard Gate Return (OGR).

5.1.2.1 Rebates

The results of the case study indicated that the Satara Distribution model® was delivering returns to transactor shareholders (between 30 and 39%) well above those of the market, expressed as the risk free premium plus the market risk premium (7.1% + 7.5% = 14.6%) and giving growers an enormous advantage to have access to these returns through low entry costs to the cooperative and undervalued transactor shares. These facts constitute one of the most important findings from a grower's perspective, as the cooperative is able to deliver a service with a return almost impossible to be matched by any corporate company in the industry.

Again, and based in Definition 1, the case study did not support enough evidence to conclude that Satara had an above average performance in rebates. However, and although there was no industry average, it was mentioned that other cooperatives, like Eastpack, are delivering rebates of 40 cents, which means that Satara is not the best performer. It was also mentioned that Eastpack was the best performer in the industry,

financially in traditional terms as well as to transactor shareholders through rebates, which places Satara with 30 cents in rebates at least near the top performer. In light of this data and the industry context, it is possible to estimate that Satara is very likely to have above average performance. Based on demand and supply principles of Satara's customers (and transactor shareholders), it is assumed that Satara has returns to offer that are near or above industry average.

So, although there was no evidence to show above average performance for rebates, it is possible to conclude from the data of profit distribution over time in the organization (Table 19) that the second part of Definition 1, which is to be able to have this particular performance sustained over a period of years, is fulfilled. Satara had for the last 6 years an average rebate per tray packed of 27 cents.

5.1.2.2 OGR

As was stated in the case study report, a main indicator in the New Zealand kiwifruit industry is OGR. Despite its wide spread controversy, the regulated environment lead by Zespri suggests OGR as the best available indicator of efficiency (operational efficiency) and effectiveness (adequate handling and commercializing of grower's products). In a industry that only allows a narrow differentiation of services and strategies (Table 21), the results of the case study indicated that although Satara was not the best performer in OGR for neither of the three product groups (Green, Green organic and Gold kiwifruit) it was above Zespri's forecasted OGR for the industry, which represents indeed the industry average.

Satara had for 2001/2002 above average performance for Green and Gold kiwifruit (Figure 22), with $4.62 and $5.44 against Zespri's $4.5 and $4.96, respectively. On the other hand, Satara had a below average performance for that year in Organics, with $5.32 against Zespri's $5.51. This could be understood as Satara has no competitive advantage in organic fruit. However, and according to definition 1, this data represents a one-year event, making it insufficient to conclude if it is an advantage or not. However, assuming that all suppliers operate under the same conditions and obtain their fruit from

practically the same areas, it could be possible to imply that probably Satara is at least above average in OGR within the New Zealand Kiwifruit industry.

5.1.3 Competitive advantage description

The evidence supported by the case study was not enough to answer the first hypothesis according to definition 1, as it was not possible to determine whether Satara had an above-average performance in either of the three main indicators applicable to Satara's case, ROE (EPS), rebates and OGR. Therefore, a different approach was used to complement the weak evidence towards Satara Co-op Ltd's competitive advantage.

According to Ma (1999), because competitive advantage comes in various shapes and sizes, understanding the anatomy of competitive advantage can help managers improve their firm's chance of gaining and sustaining competitive advantage, hence, improving their chance of winning. According to the author, the elusive nature of competitive advantage can be analysed through six factors: Substance, expression, locale, effect, cause, and time-span.

As the case study suggested through industry stakeholders (Table 23), indicators like ROI, OGR, rebates and Market share, the essence of Satara's competitive advantage is in its cooperative structure. This organizational structure allowed Satara to develop extensive industry know-how in the early beginnings, raise market share consistently through the years and generate returns to growers, the providers of Satara's product to be serviced. The cooperative structure generates a feeling of belonging and an additional return as rebate to growers, which is attracting more growers (fruit volume) to grow the business and the returns to its shareholders further. Also, based on the results of the case study, the strategic context indicated that the second part of Satara's advantage relies on its scale, which is a consequence of the cooperative structure, as well as its main location, Te Puke -' the kiwifruit capital of the world'. Finally, the third part of Satara's advantage is its capability to diversify and prepare itself for future possible scenarios, which other companies can't duplicate in various degrees. Because of the duplicability of the first two advantages, the diversification capability is the characteristic that will drive growth, and, in the end, be the sustainable competitive

advantage of the future for its grower-shareholders. These main components of Satara's competitive advantage are explained in detail as follows:

5.1.3.1 Substance of competitive advantage

5.1.3.1.1 Positional vs. Kinetic

According to Ma (1999), the substance of the competitive advantage refers to its nature or basic type. Positional advantages include superior endowments, like size-based advantages, market power, economies of scale, and economy of experience. Kinetic advantages are defined as certain key capabilities and knowledge competences that are related more to speed and flexibility to adapt to new opportunities.

Satara's management structure, in conjunction with its business environment does not currently heavily rely on entrepreneurial capabilities, like the ability to locate valuable customers and to create or identify new market opportunities, technical capabilities that enhance creativity, efficiency, flexibility, speed, or quality in the firm's business process. Although the organization has some capabilities to mobilize employees, foster organizational learning, and facilitate organizational change, these are not as strong as the positional characteristics in driving superior performance based on the ownership and access based characteristics. Scale (10 million trays of capacity) and location (Te Puke mainly, but spread in other areas of the North Island) are the main drivers of today's business performance. As Tony Clarkin, Satara Co-op Ltd General Manager - Orchards stated: "*The knowledge of what is happening in our district is the key to our success*"[98]. This knowledge, in conjunction with its scale, will drive the cost reduction strategy in the short term to prepare the company for the less benign years to come. Nonetheless, Satara's management knows that this strategy is not sustainable in the long term. This is why it is looking vigorously into ways to diversify and grow the business beyond the historical core business. This diversification could come from any of the following areas: New Brand, Avocados[ttt], Class II Australia, local market, international

[ttt] During late 2002, Satara applied for an Avocado export licence to the AIC. It was withdrawn in early 2003.

projects like Thailand[uuuu] and others ("*The seeds of globalization have been planted today*[99]"), geographic distribution within New Zealand and other independent and exclusive R&D projects. This tendency to diversify is ratified by its CEO vision that "*In 10 years, there is no way that Satara would be stuck here in Te Puke.*"[99]

None of Satara's main competitors, namely Seeka Kiwifruit Industries, Eastpack or DMS have a so diversified range of opportunities and projects in the pipeline. Seeka and Eastpack are not involved in Avocados, Seeka and Eastpack are mainly Te Puke based, with Eastpack spreading a little bit to the Opotiki region. None of the three competitors are direct exporters, and none of them have direct involvement in projects overseas yet.

5.1.3.1.2 Homogeneous vs. Heterogeneous

Because Satara competes in the statutory NZ kiwifruit environment, the organization has to battle with its rivals in basically the same way, using homogeneous strengths and skills. As shown in Figure 27 to Figure 31, Satara cannot even differentiate its strategies towards its two main customer groups. The organization's strength must come from doing the same thing better, and therefore Satara has a homogeneous advantage over its rivals. According to Porter (1996) ("what is strategy"), operational efficiency will only be a determinant of competitive advantage if all firms have to play the same game, without any opportunity to 'be different'. However, such advantage is intrinsically not strategic, because strategy is about doing something different, not just doing the same thing better.

Because there is currently little space for differentiation, the firm cannot deploy strong heterogeneous advantages (differentiation advantages), like playing the game differently or playing a totally different game, i.e. like better serving the customers through different skills, resource combinations, or products from those rivals. Nonetheless, the differences among suppliers (packhouse/coolstore) are based on the only main possible differentiator: the grower-customer return (Figure 37). Resource combinations that

[uuuu] The company is working with two major parties to plant and grow green kiwifruit in Thailand and explore *A. chinensis* alternatives. Satara also trained horticultural students and graduates in New Zealand orchards.

deliver different OGR are not of primary importance to growers, as overall returns through rebates or dividends overcome deficiencies in OGR: "*growers will judge their packhouse and coolstore group by performance...although service is important it tends to lag behind payment in growers eyes*"[100] Peter Berry, Zespri.

Clearly, NZ kiwifruit suppliers cannot yet generate a clear competitive advantage based on factors related to the resource-based view of the firm by combining resources differently to generate value to customers. According to Barney (1986), these factors are uniqueness, difficult-to-imitate structures, and firm-specific resources to generate competitive advantage. This is why the diversification strategy under both most important scenarios in the industry (status-quo or deregulation) becomes so important to Satara, constituting the advantage that will deliver the competitive edge for the future.

5.1.3.2 Expression of competitive advantage

5.1.3.2.1 Tangible vs. intangible

According to Ma (1999), a tangible competitive advantage is an advantage that can be readily observed in a certain visible physical form or data. On the contrary, an intangible advantage is one that is not easily observable.

As was shown in the previous sections, there is no tangible data to conclude consistently about Satara's competitive advantage. In the year ended in December 2002, Satara Co-op had a very tangible advantage in its geographic distribution[101] (Risk diversification), market share, direct exporter share in Australia and its cooperative supply structure (rapport and returns to growers). Secondarily, there were certain financial indicators (i.e. ROI and rebates) which constituted weak evidence, but no significant and consistent advantage.

Nonetheless, and based on the uncertainty of the industry environment, the case study identified strong intangible advantages in the organization. These advantages refer to advantages that are not easily observable in any physical form, like some secret projects (yellow), its new brand name, its reputation and employee know-how. Perhaps the

strongest intangible competitive advantage for Satara is its capability to plan and adapt, better than its rivals, to any possible scenario for the industry *"(Satara's strategies) are in place, and will be applicable under both scenarios, deregulated or status-quo"*[102].

Seeka, in this respect, thinks: *"What is fear about deregulation is that is comes with short notice and disorderly"*[103] and *"Seeka would be very unhappy (with deregulation)"*[104]. Eastpack, on the other hand, regarded as the best financial performer [102,104], was in talks with Satara Co-op prior to September 2002 for a possible merger, which suggest long-term uncertainty or fear for some particular future scenario.

5.1.3.2.2 Discrete vs. compound

According to Ma (1999), competitive advantage can function either alone in a discrete fashion or in a compounded way as a sum of individual advantages that work together as an integrative whole.

A discrete advantage could be a superior real estate location (mainly Te Puke), unique physical assets (which Satara doesn't have), patents (Satara doesn't have yet) or other intellectual property (i.e. Kiwitracker software), exclusive contracts (Zespri and Coles supermarket in Australia are not exclusive), import or export license (a Collaborative contract), or cash reserves. However, Satara is not alone in having these advantages, as any of them constitutes not and advantage by itself. Many competitors have similar characteristic, Seeka, as an example, being the most important one. As Zespri Chairman stated: *"(Satara) they send fruit to Australia, so do many others, they lease orchards, so do many others, they manage orchards, so do many others"*[105] and *"Well, is sort of staying equal"*[105].

As already mentioned, Satara's advantage takes more of a compounded form, which is the result of its experience, geographic distribution, assets base, markets share and internal competencies. Nonetheless, and as mentioned in the SWOT analysis (Table 25) and scenario analysis (Figure 38), among its diversification strategies there are options that are discrete, or that only perhaps one or two other players could imitate. This is why

it is possible to state that Satara's current compounded advantage will deliver the discrete and yet intangible advantages for future superior performance.

5.1.3.3 Locale of competitive advantage

According to Ma (1999), this category refers to whether the competitive advantage resides actually within the firm or not.

5.1.3.3.1 Individual-bound

Ma (1999) defines an individual-bound advantage as one that is derived from a particular individual or certain mobile asset. The case study acknowledged that Satara as an organization does not depend on individual assets or would not collapse if certain individuals (employees) would switch to other companies.

5.1.3.3.2 Firm-bound advantages

A firm-bound advantage is one based on attributes that are stored in and shared by, collectively, many people or the entire firm (Ma, 1999). One example is a superior corporate culture. Satara Co-op could have an advantage in its culture and corporate policy, based on the cooperative structure that drives the business. Nonetheless, this factor can also be seen as a disadvantage.

Another firm-bound advantage could be an intangible asset like knowledge-based in all its cooperative members. Every transactor shareholder is a grower-owner, with several years of experience and involvement in the industry. The power of their contribution towards the company is certainly considerable. Also, many of the Board members and employees had or still have an active participation in industry issues.

5.1.3.3.3 Virtual-bound advantages

A firm's competitive advantage could also be virtual-bound, which means that the advantage lies outside the firm's boundary and resides in certain networks,

relationships, and other entities that the firm has access to (Ma, 1999). This kind of competitive advantage is the one that Zespri has (statutory monopoly), and will try continuously to strengthen (Zespri, 2001) and maintain.

As such, unless a firm has control of the virtual source of competitive advantage, which Zespri has in partial degree, it is less likely to either benefit in full from it or sustain such competitive advantage in the long run. Satara has no control over this situation, or other main virtual-bound advantages or scenarios (Table 26).

As a result of the over mentioned sections, it is possible to state that Satara's competitive advantage is set mainly inside the firm (cooperative structure and diversification capabilities).

5.1.3.4 Effect of competitive advantage

This category refers to the effects for the competitive advantage and how it contributes to provide better customer value. The effect could be observed as being either absolute or relative, and the functioning as direct or indirect (Ma, 1999).

5.1.3.4.1 Absolute vs. relative

When the advantage over a rival is overwhelming in magnitude, then it is said that the advantage is absolute (Ma, 1999). This is not the case for Satara, as was shown in the financial analysis, OGR analysis or Market share data. If market share is taken as the parameter, Satara has 16% of the market, but it is not alone. SEEKA has 18%, Eastpack 11.6%, and Apatacentrepac %8.3. Anyone could (in theory) reach or even over take Satara's market share in the medium term. Also, when analysing the financial indicators or OGR, the differences were not vast, and, as a matter of fact, many indicators are simply not better for Satara over its competitors. This is why Satara really has a relative differential against its main competitors.

5.1.3.4.2 Direct vs. indirect

A direct advantage is one that contributes to a firm's value creating and capturing in a direct manner. An indirect advantage is one that indirectly contributes to such a practice, supporting, amplifying or raising a direct advantage (Ma, 1999).

This is why a direct advantage is something tangible, like market share or a clear operational efficiency (OGR or ROE). On the other hand, a firm often derives its indirect advantage from its supporting activities (Figure 31 and Figure 32) in the value chain (Porter, 1985) or from its strengths (Table 25). Such a broad advantage must be translated into something specific, e.g. cost advantage or differentiation advantage (Porter, 1985). As shown in the case study, currently, Satara does not have any clear advantage against its competitors on the basis of a direct effect of its competitive advantage on its performance (Figure 28, Figure 29 and Figure 30). Also, market share and operational efficiency are important, but possible to replicate and even to be over-taken by other competitors.

5.1.3.5 Cause of Competitive advantage

5.1.3.5.1 Spontaneous vs. Strategic

Generally speaking, the cause of a competitive advantage can be categorized as spontaneous vs. strategic. Spontaneous causes include shifts in environment as well as pure luck (Barney, 1986). Strategic causes refer to competition (D'Aveni, 1994), cooperation (Contractor and Lorange, 1988) or a combination of both (Brandenburger and Nalebuff, 1996), through deliberate strategy formulation and implementation (Ma, 1999).

Up till today, no major spontaneous factor has contributed to Satara's success. As a matter of fact, all improvements and growth in the company have been the result of planning, extensive earlier research, and today, strategic mergers and incremental strategic process (Figure 19) and planning for the future.

Nonetheless, and as shown in the Scenario analysis (Table 26) of the case study, the medium to long-term future will see the rise of spontaneous effects that will have a strong impact on the different kiwifruit suppliers groups. Some factors could be:

- A major environmental event, like hail or a tornado in a certain geographical area in New Zealand that would affect the national kiwifruit production for that year. Satara could benefit from this through its geographic distribution. Further more, if the company follows its international diversification or expansion plans, it would certainly be more covered against this and other uncertainties.
- A major new pest problem (fruit fly scare) that would paralyze the industry, and many small players would disappear.
- Zespri deregulation, or another political-market related change could make a big difference in the current industry structure and company's performance.

5.1.3.5.2 Competitive advantage vs. Cooperative advantage

The basis of competitive or cooperative advantages is that a company can gain advantage from competition, cooperation, or both, through strategizing (Ma, 1999).

Because of the industry characteristics in which Satara is placed, competing for positions and the creation of temporal advantages does not work, as it would happen in the hyper competitive software or Internet industries. Instead, Satara's better chance is to gain an advantage through cooperative strategies. The possibility to participate in arrangements is clear (i.e. with Zespri or other suppliers like SEEKA), and advantages could be gains over those who choose to go alone. Satara CEO stated: "*Although Seeka is our main competitor, we talk. We are good competitors. We can not work in isolation*"[106].

It is well known that rivals can enhance and amplify their advantage though cooperative arrangements; cooperative advantage can rise when arch-rivals choose to cooperate (Hamel, *et al.*, 1989, Brandenburger and Nalebuff, 1996).

"*In the future we could go with other main players, like Seeka, and send fruit to Italy, and pack it there*"[106]. Satara Co-op Ltd, CEO.

"*...we would not choose to necessarily establish our own marketing organization, but we might well choose to develop joint-venture operations with Satara, Eastpack, or other major entities...*"[107], Seeka, Managing Director.

5.1.3.6 Time-span of competitive advantage

5.1.3.6.1 Potential vs. Actual

An actual competitive advantage is a competitive advantage that is currently in effect. On the other hand, a potential advantage could be one that is in reserve, yet untapped, under-utilised, or misplaced (Ma, 1999).

Part of Satara's current competitive advantage is mainly it's 30 years of cooperative structure based in the Te Puke Region with a main market share in the kiwifruit business.

The potential advantages come from it's overseas plans, confidential projects, and relationships with other customers than Zespri. These potential advantages are the cause of Satara being know in the industry as the '*sleeping giant*'[108] Julie Carlson, Satara Co-op Ltd, Marketing Manager.

5.1.3.6.2 Temporal or sustained

Clearly, the above-mentioned advantage is not short term, neither transient nor un-sustained. The cooperative structure has had a long lasting effect that is not easily matched or surpassed by rivals. Nonetheless, a sustainable advantage, on the other hand, withstands the test of imitation and other threats of dissipation, which is not the case for cooperatives. Although the cooperative structure has been successful for decades, many of them changed to the hybrid structure to match the pace of change, or even decided to

transform to IOF firms, like Calavo[vvv], in an effort to better benefit shareholders in the future.

Therefore, although Satara's competitive advantage, in the form of a cooperative structure, has sustained itself for many years (33 in fact) it could be eroded at some time in the long term. This could happen through further competitive imitation (more cooperatives), substitution (switching to profitable corporates), firm's own mis-application or negligence (cooperative conflicts), or unexpected environmental change (deregulation), etc. That is why, because all advantages will eventually erode through time, instead of desperately sustaining and holding on to one advantage, it might be better to develop reserves of potential advantages and prepare for long-term superior performance.

In conclusion, and based on the over mentioned analysis, stakeholders perceptions about Satara's competitive advantage (Table 23), Satara's own staff answers (Table 24), on-site visits, the previous sections in this report, and the researchers holistic view of the case study, the competitive advantage for Satara can be disaggregated using the SELECT framework (Ma, 1999), as follows:

Table 30. Satara Co-op Ltd competitive advantage description according to the SELECT framework.

Competitive advantage	Substance	Expression	Locale	Effect	Cause	Time-span
Hybrid Cooperative structure	Positional Homogeneous	Tangible Compound	Firm-bound	Relative Direct	Strategic Cooperative	Actual, fairly sustainable
Scale and Location	Positional Homogeneous	Tangible Compound	Firm-bound	Relative Direct	Spontaneous Cooperative	Actual, fairly sustainable
Diversification capability	Kinetic Heterogeneous	Intangible Discrete	Firm and Virtual-bound	Relative Indirect	Strategic Competitive	Potential Highly sustainable

Satara Cooperative Group's competitive advantage is its Hybrid-Cooperative structure, its scale and geographic distribution and its diversification capabilities for the future in the New Zealand Kiwifruit Industry context.

[vvv] Calavo is the biggest avocado handler in the world. It was a Cooperative founded in 1924 with 1600 members, operations in U.S. and Mexico, fruit supplied from U.S., Mexico, Chile and New Zealand to be sold around the world with sales in excess of $US 225 millions. During 2000 Calavo members voted to convert the cooperative to an IOF to be able to capitalize on future opportunities. Calavo Annual Report, 2000.

5.2 The Balanced Scorecard at Satara Co-operative Group Limited.

This section analyses the second research hypothesis: Satara™ Cooperative Group competitive strategies can be implemented through the Balanced Scorecard.

According to Kaplan and Norton (1996a) and BSCol (2003), a Balanced Scorecard has to had the following components:

- Perspectives: There are typically four perspectives: Financial, customer, internal and learning and growth. Others may be added based on specific needs. A perspective often represents a stakeholder category or point of view.
- Objectives: An objective states how a strategy will be made operational. They usually form the building blocks for the overall strategy of the organization.
- Measures: It must be quantifiable. They communicate the specific behaviour to achieve the objective and become the actionable statement of how the strategic objective will be accomplished. Leading measures are predictors of future performance (drivers), while lagging measures are outcomes.
- Strategic initiatives: These activities (discretionary investments or projects) will focus on the attainment of strategic results. All initiatives in an organization should be aligned with the strategy in the Balanced Scorecard.
- Cause and effect linkages: It is similar to "if- then" statements. These cause and effect linkages should be explicit.

The results of the case study indicated that Satara has all these elements within its current management and strategic plans with different prominence, clarity and complexity, based on the current strategic momentum. The proposed four perspectives of the BSC can be initially identified at Satara as the foundation blocks of the business. For example, the Financial perspective emerges through the finance unit and the financial controller; the customer perspective which represents Satara's customers is spread among the Orchard, Operations and Market Services units; the Internal perspective, which refers to the processes at which Satara has to excel, is also spread amongst these same units; and, the Learning and Growth perspective, although not formally defined in any specific unit yet, happens within the organization at different

levels. For example, through continual organizational structure changes, employees training, new employee positions definitions (Section 4.10, (e)), application of new technologies and leadership and climate for action is provided by the CEO or i.e. "*The organization structure to deliver the strategy is going to change*"[109].

The four perspectives can also be directly identified in the organisation's strategic objectives for 2003 (Table 28), which were drawn from the strategic choice and implementation statements of September 2002 (Section 4.10). These objectives clearly target four important stakeholder groups: Investors, Customers, the organization (internal processes) and human resources. Accordingly, the four basic perspectives of the BSC are present in Table 28, in 'Profitability' (EBIT, ROA), 'Packing Volume/Market Share' (25%) and 'Business structure' (take over to increase revenue) representing a financial perspective; 'Market relationship' (support Zespri) with some aspects of 'Packing Volume/Market Share' (Maintain regional diversity, maximize retention of profitable fruit supply (growers)) showing a focus on customers, which in this case are two: Zespri and growers; 'Strategic investments' (Yellow, avocados), 'Business structure' (integrate the business vertically) and parts of 'Profitability' (develop more efficient ways of handling fruit, orchard efficiency, facility capacity) are parts of an internal processes perspective; and 'Entity type' (review structure..., create ability.., reward system...) and 'Human resources' (Attract, retain and adequately remunerate quality staff) representing perhaps a less obvious, but present, learning and growth perspective. It is important to notice that no objectives or interests were mentioned to the other two important key stakeholders identified in the case study: packaging suppliers and labour contractors. As no objectives or clear strategic initiatives were expressed, neither by the company nor the strategic analysis towards these stakeholders, it can be concluded that they do not require a different perspective, at least not for a higher lever corporate scorecard.

Objectives, Measures and Strategic initiatives were also identified in the case study, in both the formal business plan 2003 (Section 4.10 and Satara's future position in the business, page. 185 and Table 28, page. 187.), as well as in preliminary exploration of new business alternatives (Thailand, Yellow kiwifruit, etc).

Regarding measures, it was clear from the case study that Satara has several measures to communicate to both its shareholders and the organization its achievements and direction. These measures are embodied primarily in the Critical Success Factors (CSF) and the financial key performance indicators (KPI) used in the periodical industry benchmark carried out by the financial controller. Although these measures are not organized according the BSC perspectives, or by lag or leading measures as the BSC suggests, it is patent that the building blocks for a BSC are already present and being used by management. This already suggests that implementing a BSC would not need an important search for objectives and measures, as many are already in place. Creelman (1998) agrees with this idea as he suggested building a BSC on previously successful performance management and measurement initiatives. This point is important as the measures must have been successfully used and must have achieved what they were meant for. On the other hand, if a strategic program doesn't exist at a higher level, and the links to strategy have not been clearly thought through, KPI scorecards can give a dangerous illusion (Kaplan and Norton, 2000b).

The case study indicated that there are both formal and informal strategic initiatives to achieve the organization's stated objectives. For example, for the objective of growth "*controlling 25% of the industry volume by 2004*", there are specific strategic initiatives through Satara's Merger & Acquisition program. Indeed, the study showed that the organization has initiatives for all four BSC perspectives: Financially, increasing EBIT through asset rationalization and efficiency gains, with possible liquidation of inefficient sites ("*to efficiently utilise the Tandara Packhouse and Coolstore*"[110]); On the customer perspective the new position appointments like a Sales liaison, a communication manager, and a whole organizational structure change; from the internal perspective, the New Zealand groundbreaking Bin Charge; and, at the Learning and Growth perspective, the appointment of a Product Development positions as well as the future implementation of the BSC through input of this research.

In respect to cause and effect linkages, the results indicate that there is certainly a lack of clear connections or relationships amongst strategic initiatives and objectives to a higher plan, as well as a clear strategy to be able to establish the linkages that will deliver the final high-level desired outcomes. According to Kaplan and Norton (2000b), strategy implies the movement of an organization from its present position to a desirable but uncertain future position. Because the organization has never been to this future position, its intended pathway involves a series of linked hypotheses. Although not clearly exposed in the case study, these hypotheses represented by the cause and effect links were manifest in some of the management structures and objectives. For example, there are clear linkages in the organizational structure: orchard unit (the fruit)→ operation unit (process the fruit)→ Market service unit (sell the fruit)→ Return to Shareholders. From a objective point of view, another example could be: "*Attract and retain quality staff*" → "*Have...training process*" → "*Develop more efficient ways of handling fruit*" → "*Decrease costs*" → "*EBIT of 14%*" → "*40 cents rebate to shareholders*"[110].

Like the over mentioned organizational (among business units) and objectives links, other objectives and measures can be identified through the CSF per units as well as in the business plan (Table 28) and gap analysis (Table 27). These just have to be organized and linked according the BSC framework to be consistent with the cooperative high-objectives. According to Kaplan and Norton (2000b) the process of linking causes and effects starts at the Top, defining the strategy from the perspective of the shareholder and customer. The process starts with questions: What are the financial objectives for growth and productivity? What are the major sources of growth? Again, although Satara does not follow the BSC structure, the case study showed that in principle Satara follows a very analogous logic.

Once the financial objectives have been specified the framework states that the process continues by asking 'who are the targeted customers that will generate revenue growth and a more profitable mix of products and services?' (Kaplan and Norton, 1996a). Then, 'What are their objectives, and how is success measured with them?' This section should include also the customer value proposition, which defines how the company differentiates itself to attract, retain and deepen relationships with targeted customers (Kaplan and Norton, 2000b).

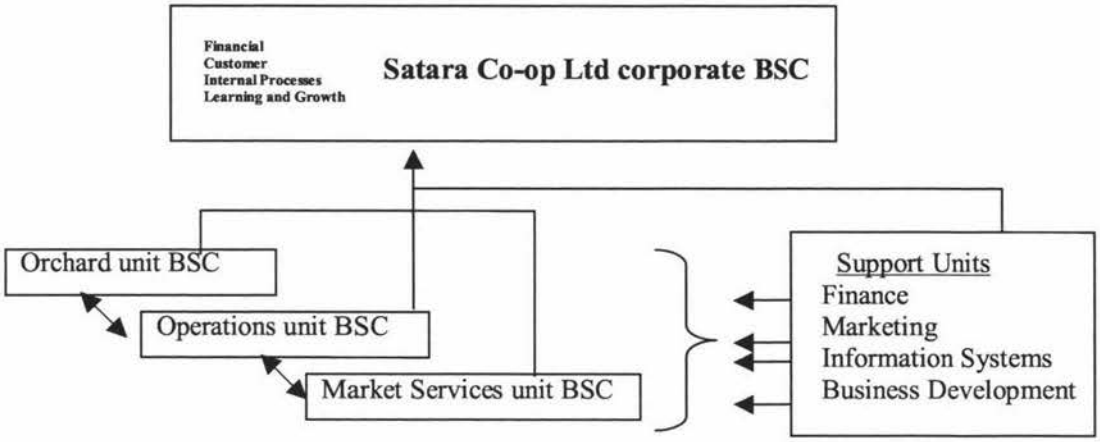
As has been shown in the case study, Satara has two main groups of customers: 1) Zespri and other wholesalers and exporters, and 2) The grower, to whom the packing & coolstore service (amongst others) is provided. This apparently seems a variance to the framework, as Satara effectively deliver a double service to two different stakeholder-customers: 1) Transporting, delivering, selling or exporting the fruit to different wholesalers or marketers and 2) Leasing and/or, packing and cool storing fruit to the grower. These two different services require different customer value propositions, different internal processes to excel at, and even different learning and growth objectives. As a matter of fact, it could be argued perhaps that one scorecard is not enough to achieve the organization's goals. This business structure indeed matches the BSC proposal of a main corporate-level strategy BSC and business units using their own BSC. Kaplan and Norton (2000b) suggest that for maximum effectiveness the strategies and the scorecards of all such units, including the shared services like Marketing, financial control (support units), should be aligned and linked with one another.

Although Satara does not have independent strategic business units (SBU), it has different divisional working units that have different strategies, customers and processes that can be aligned together with the rest of the organization. This situation would allow to cascade (Niven, 2002) or to develop Balanced Scorecards at each and every level of the organization, starting from the corporate, following with the business units, and finishing with sub units or employees scorecards.

Because developing a Corporate[www] (or Board) BSC (Epstein and Roy, 2003), or cascading the BSC and its measures (Nirmul, 2003) to all Satara Co-op Ltd levels were beyond the focus of this study, only a corporate Balanced Score Card was developed to test the second research hypothesis. The general structure of this scorecard can be described in Figure 39 as follows:

[www] The terminology acknowledges the difference between "corporate" (with a lower-case "c"), the enterprise, and "Corporate" (capital "c"), the senior management organization, whose scorecard may be different than the general enterprise-level BSC (Nirmul, 2003).

Figure 39. Satara Co-op Ltd corporate and unit scorecard and support functions.



Some authors already discussed the apparent weakness of the BSC by having only four perspectives. For example (Gifford, 2000) showed that an additional fifth 'core values' perspective could be successfully established, or Russell (2003) who showed that in some European countries an fifth perspective could be used, like a supplier perspective in automobile companies, or Maltz (2003) who suggested a BSC modified model with 5 dimensions, namely, finance, market, process, people and future. Accordingly, Creelman (1998) empathises that organizations should not blindly adopt the normal four balanced scorecard perspectives, but rather choose the number of perspectives that reflect their own strategic needs.

As a result, and based on Satara's business structure it could be argued that Satara's Scorecard proposed in Figure 39 does not take account for other important industry stakeholders, like packaging suppliers or picking and pruning contractors. But, as shown in the industry competitiveness analysis (section 4.8.1.2) these stakeholders are not yet critical for Satara operations or profitability, and hence, according to the researcher, do not need a specific perspective in the scorecard, at least not for an initial implementation. This statement can be ratified from the case study results, which did not show any CSF or measures in the 2003 business plan towards these stakeholders. Hence, although they are important, there are not strategic or of primary importance for the organization's strategy, and do not require an own perspective in the scorecard.

In this regard, it could also be argued that cooperative grower-shareholders are more important than other customers, and should deserve an own perspective in the BSC. As a matter of fact, Plummer (2002), who was in charge of the first BSC research on an agricultural cooperative in Australia, stated that co-operatives have difficulty in reporting performance to members, as performance is frequently not based on co-operative profit, but on the services that are provided to members. Also, Lefkowith (2001) acknowledged the importance of customer satisfaction in any cooperative BSC as this is at the heart of the mission of any co-op. However, Satara is indeed a hybrid-cooperative with two types of shareholders, transactors and investors. From the BSC framework it is possible to estimate that a BSC can be implemented at least for the investor fraction of the business. As will be discussed later (Financial perspective), transactor shareholders in the New Zealand Kiwifruit industry are not much different from an investor shareholder, allowing the emulation of principles according the BSC framework to them.

Following the BSC framework from the customer perspective, Kaplan and Norton (1996a) state then that the financial and customer objectives are desired outcomes, but they don't explicate how to achieve them. The internal business processes – such as product design, brand and market development, sales, service, and operation and logistics – define the activities needed to create the desired customer value proposition and differentiation, and the desired financial outcomes. The fourth perspective, recognizes that the ability to execute the internal business processes in the new and differentiated ways will be based in the organization's infrastructure; the skills, capabilities, and knowledge of employees; the technology that they use; and the climate in which they work. These are the learning and growth factors (Kaplan and Norton, 2000b), which, again, have been identified either by Satara itself or the industry, i.e.: "*I think (this business) is basically about management...you will need a certain skills to go forward, to have the good people and the spread of skills*"[111] Craig Greenless, Chairman, Zespri.

As mentioned, the BSC architecture has a Top-down logic starting with financial and customer outcomes and then moving to the value proposition, business processes, and infrastructure that are the drivers of change. The relationship between the drivers and the desired outcomes constitutes the hypotheses that define the strategy (Kaplan and

Norton, 2000b). This top down process can generally be observed from the case study results or even seen specifically in the new marketing and sales team which mentioned that the focus is in the short term on the grower, then working back on the service chain.

But, to be able to link objectives and measures, and ultimately implement the BSC framework to Satara, the strategy itself has to be clear.

According to Kaplan and Norton (2000b), strategy is a step in a continuum; strategy is not only or does not stand alone as a management process. The strategy, as a continuum process, starts with the mission of the organization. The mission must be translated so that the actions of individuals are aligned and supportive of the mission. Strategy is one step in a logical continuum that moves an organization from a high-level mission statement to the work performed by frontline and back-office employees. The mission provides the starting point; it defines 'why the organization exists' or how a business unit fits within a broader corporate architecture. The mission and 'core values' that accompany it remain fairly stable over time. The organization's vision paints a picture of the future that clarifies the direction of the organization and helps individuals to understand why and how they should support the organization. In addition, it launches the movement from the stability of the mission and core values to the dynamic of the strategy, the next step in the continuum.

In this regard, although the mission is somehow clear at Satara Co-op Ltd: "*To maximize the return to shareholders by being the most efficient horticultural operations and services operation in New Zealand*[112]" or "*To grade, pack, store and transport fruit, and supply associated services to the company's shareholders and contract growers*"[113], it is noticeable that the strategy itself is not 100% clear and is not well communicated to the organization. Although many short to medium-term strategic objectives were communicated to the organization (to grow the business, to be operationally superb), the marketing manager stated: "*The vision is not defined*"[114].

Based on the above mentioned missions statements, as well as Satara's strategic intent statement according to Lake's (2002) framework, which includes the vision and mission, the service provided, main beneficiaries, excellence and uniqueness, and, including the devised competitive advantage discussed earlier within the strategic

momentum in the industry, the strategic fundamentals for a BSC at Satara were identified as follows:

- Mission (Why Satara exists): To provide all the necessary services to growers to get their fruit from the vine/tree to the market place, in the most efficient way and with the highest level of quality.
- Core Values (What Satara believes in): Cooperation (cooperative work), transparency, honesty, integrity (ethical and trustworthy service).
- Vision (What Satara wants to be): To be the biggest horticultural cooperative organization within New Zealand that works globally alongside Zespri in growing, packing and cool storing fruit, and by this provide its employees a challenging and rewarding working environment.
- Strategy (Satara's game plan): Grow the business, be operationally efficient and cautiously surpass New Zealand boundaries.
- Strategic initiatives: Mergers, Avocados, Class II, Strategic Analysis (BSC).
- Competitive advantage: Be the main cooperative kiwifruit business within NZ, based in Te Puke, with a diversity that capitalizes on a wide range of opportunities and adapts for multiple future scenarios

Also, based on the case study results, the strategic themes suggested by Kaplan and Norton (2000b) for Satara Co-operative Group are:

- Build the Franchise: Expand the business beyond Kiwifruit Bay of Plenty. Capitalize on the Avocado growth. Explore further alternatives.
- Increase Customer value: Grow the national business to a 20-25% market share with increased profitability (rebates and shares).
- Operational Excellence: Reduce costs, to prepare for a future with a less profitable New Zealand kiwifruit environment.
- Good Corporate Citizen: Increase involvement in the community beyond Te Puke.

With this background data clear, it is possible to analyse each perspective in depth with the aim of developing a Balanced Scorecard that is feasible to be implemented. The following examples represent the findings from the corporate BSC shown in Figure 39.

5.2.1 The Financial Perspective

According to Kaplan and Norton (1996a), to be able to achieve the Vision, the organization has amongst other things to achieve the Group's main financial objective. For Investor orientated firms (IOF) this is equity maximization (Ross, *et al.*, 2001), which is measured by different indicators, like EPS, ROE, or lately EVA.

For a cooperative, on the other hand, the main financial objective, according to the Rochendale principle, is to give a service at a cost and provide a needed service (McBride, 1986). Cooperative members must maximize value at a cooperative/firm level and at a member level (Lynch, 1998). This means that cooperative members have to receive a service that is not available in the market at cost, or if it is already present, receive it at least at a cheaper price than the market. Then, after these requirements are met, maximize value at a cooperative level and at a member level.

According to the case study, these two requirements of cooperative members at Satara are fulfilled by two financial indicators: OGR and rebates. As was already discussed in the competitive advantage section, OGR in today's Zespri's environment represents a measure of efficiency, costs and profitability to growers. In an environment were differentiation is difficult, high OGR should represent lower costs, higher efficiency and/or better value maximization. This OGR value, if above industry average, will also maximize value at a member level by increasing the orchard revenue and profitability.

The other financial indicator, which accomplishes the cooperative objectives in Satara's case, is rebates. Because the service of packing and cooling fruit is widely available in the New Zealand Industry, the only reason for growers (and co-op members) to stay with the cooperative is to maximize the value at a cooperative level through receiving lower charges or higher rebates. High rebates represent then the value maximization and service to growers that is otherwise not available in the market. As shown in the Satara Distribution model section of the case study, the cooperative offers unmatchable value maximization opportunities in the industry.

However, as was shown in the case study, OGR is still not widely accepted in the industry, and is certainly not used by Satara to measure the organization's performance

(as Satara does not use OGR in any analysis nor strategic themes, plans or objectives). This happens because what the grower-member measures is total return. Although OGR is important, slightly lower than industry values are well compensated by rebates that are considerably above (return >30%) other returns offered in the industry (like Seeka's 18% return). In reality, the co-op member uses OGR plus rebates (OGR+30 cents/tray) to compare against other corporate OGRs. Hence, the main financial objective for the hybrid cooperative is rebates.

According to Kaplan and Norton (1996a), after group financial objectives were identified, it is important to distinguish if different divisions or business units have differences in their financial objective. This is likely to happen as different SBU's may follow different strategies, have different objectives and measures, particularly if these different divisions are in a different stage of business life (i.e. Growth, Sustain or Harvest).

According to the case study, all these units at Satara are in the same business life cycle, which is 'Growth'. The Orchard division has to grow the number of hectares/growers, the Operation division has to grow the volume packed, and the Market Services unit has to increase the sales of Class II, the return for Class II fruit to growers as well as develop the new avocado segment. Nonetheless, there was agreement from the participants, that there are sub-segments that are in different business life cycle stages. For example, Satara's CEO stated: "*Gold: Sustain. We can't liquidate it. That fruit comes from our shareholders;, Avocados: Grow. The potential of growth is huge; Organics: Harvest; Class II: Grow, avocados and kiwifruit; Management and Leasing: Grow as hard as we can, to grow crop for packing. We are breakeven and that is O.K.*"[115].

Table 31. Measurement for different Strategic Financial Themes at Satara Co-op Ltd.

		Strategic Themes		
		Revenue Growth and Mix	**Cost Reduction/ Productivity Improvement**	**Asset Utilization**
Business Strategy	Growth	Sales growth rate by segment (Class I & II kiwifruit, growers) Percentage revenue firm new product (Avocados), services and customers, relationship with Zespri Innovation.	Revenue/Employee (New Business Development and Marketing units) New Pricing strategy (Bin Charge)	Investment (percentage of sales) (Avocado packhouses & Coolstores) R&D - percentage of sales (Thailand, yellow, BSC implementation)
	Sustain	Share of targeted customers and accounts (Shareholders, Lease&Management) Cross-selling Percentage revenues from new applications (Gold) Customer and product line profitability (Green, Gold, Organic, Avocados)	Cost versus competitors (OGR, EBIT, ROE, EVA) Cost reduction rates Indirect expenses (percentage of sales)	Working capital ratios (cash-to-cash cycle) ROCE by key asset categories Asset utilization rates (profit contribution per tray packed)
	Harvest	Customer and product line profitability (Organics)	Unit costs (per unit of output, per transaction for Organics)	Payback Throughput (inefficient sites, i.e. reduce Gold sheds from 4 to 3)

Based on the measurements for different strategic financial themes (proposed by Kaplan and Norton (1996a)) found at Satara Co-op Ltd (Table 31) and according to the strategic themes identified in the case study, the main financial objectives for a BSC at Satara are:

- Main financial target: Rebates, then dividends. ROI. EVA as a driver for distribution (although it is a financial outcome).
- Revenue Growth strategy:
  - Build the Franchise: Beyond Australia, National Market, Avocados
  - Increase Customer value: Market share of 20-25% with increases profitability (rebates and shares)
- Productivity strategy (operational excellence): OGR
  - Cost: Reduce operational costs
  - Efficiency: Improve asset utilization

As can be seen, Satara matches the two basic levers for their financial strategy suggested by Kaplan and Norton (2000b): Revenue growth and productivity. Creating

shareholder value (maximize equity) is the outcome that every business and strategy seeks to accomplish. Historically, versions of the DuPont return in investment (ROI) or ROCE measure have been used as the overarching financial objective. More recently, companies have adopted various shareholder and value-based management metrics such as EVA, cash-flow ROI, and variations of the discounted cash flow. EVA addresses the defect in the ROI calculation of discouraging business from investing in projects that return above their cost of capital but below the (apparent) average cost of capital calculated by dividing net income by assets employed (Kaplan and Norton, 2000b). Whether Satara uses ROI, ROCE, EVA or another, they have two basic strategies for driving their financial performance: Growth and Productivity. For Satara, EVA is suggested as the corporate main financial objective, as only neutral or positive EVAs (financial driver for distribution) will allow to distribute to transactor and investor shareholders their required rate of return (through rebates and dividends, the financial outcome to hybrid co-op members).

As can be observed from the case study, Satara follows exactly the same revenue growth strategy suggested by the BSC framework. It focuses on developing new sources of revenue and profitability by building the franchise (Avocados, Yellow) and increasing customer value (increase market share). The productivity strategy is focused on the efficient execution of operational activities in support of existing customers. As the CEO stated: "*If nothing changes, we would become 1 of the 2 biggest in the kiwifruit industry, and 20% of Avocados. Very efficient, highly productive and returning above average rewards to our shareholders.*"[115] Also, Satara focused in cost reduction and efficiency. Like the revenue growth strategy, the productivity strategy generally has two components: (1) Improve cost structure by lowering the direct costs of products and services, reduce indirect costs, and share common resources with other business units (New Marketing and business development units). The CEO stated: "*my role is to lower the costs and increase the efficiency* ". The other component is to (2) Improve assets utilization by reducing the working and fixed capital needed to support a given level of business by greater utilization, more careful acquisition or disposal of parts of the current and fixed asset base, i.e. "*increase capacity utilization as close as possible to a 100%*" or "*I am seriously thinking that one of our packhouse should be sold*"[116] Stuart McKinstry, Satara Financial Controller.

As stated by Kaplan and Norton (2000b), the productivity strategy generally yields results sooner than the growth strategy. This balance (Revenue growth and productivity) helps to ensure that cost reduction and assets reductions do not compromise a company's growth opportunities. This balance is particularly important as Early-stage companies emphasize growth, Mature or end-of-cycle emphasize Cost reduction (because the expansion possibilities are limited) and most companies like Satara Co-op Ltd are in the 'middle' of their life cycle, therefore employing a balance between the two profit contributors.

Satara has recognized this balance of short and long-term objectives, which is illustrated by the marketing manager statements: " *(Satara's internationalization) at the moment I find that distracting.*"[117], but the CEO also mentioned, "*In 10 years, there is no way that Satara would be stuck here in Te Puke.*"[118]

5.2.2 The Customer Perspective

According to Kaplan and Norton (2000b), the core of any business strategy is connecting a company's internal processes to improved outcomes with customers. This is what the framework calls the 'value proposition' delivered to the customer. The customer value proposition describes the unique mix of product and service attributes, customer relations, and corporate image that a company offers, and defines how the organization will differentiate itself from competitors to attract, retain, and deepen relationships with targeted customers.

The value proposition provides the target on which the strategic themes of critical internal process and infrastructure are focused. It provides the connection between the internal processes and the improved outcomes with its customers. By identifying the customer value proposition, a company knows which classes and types of customers to target (Kaplan and Norton, 2000b).

As was observed in the case study, Satara has clearly identified its targeted customers, who are indeed two main groups of customers: the wholesaler/exporter and the grower. Within each main group there are also segments. For the Wholesaler and exporter

group, there is Zespri, local market, local exporters and Australian wholesalers. For the grower group there are grower shareholders (54%), leasing and management growers (42%) and free agents (4%). Then, within these categories, there are different products, namely Green, Organics, Gold, Avocados, and then other sub-segments in kiwifruit like Kiwistart, Taste Zespri and Pest free fruit.

Once the customer has been identified, Kaplan and Norton (2000b) sustain that there are three value propositions to follow: Product leadership, customer intimacy and operational excellence. The authors state that successful companies excel at one of these three dimensions of value while maintaining 'threshold standards' on the other two. As was observed in Table 14, the industry suppliers have arranged themselves already according this proposition framework to target the grower-customer, which in the current industry structure (regulated market) is the most important. Considering the main players in the industry, Eleos and Aongatete are the innovators, Trevelyans, DMS and Apatacentrepac are those that have a deliberate strategy of intimacy with growers, Aerocool, the 'Green-only' packhouse and Coolstore, and Eastpack is the one with the best operational excellence. Satara co-op Ltd and Seeka Kiwifruit industries are on the other hand trying to follow an intimate strategy although there are too big in scale to be intimate with the grower. But they achieve economies of scale and efficiencies that allow them to be operational efficient, which generates a conflict from a customer value proposition perspective. As was already stated in the case study, one of Satara's main objectives is to "*be operationally superb*"[118], but Satara's advertising in the media is "*Come grow with us*"[119] which implies customer intimacy, a strategy that is in concordance with the cooperative principles. This point was reinforced by the marketing manager who stated that the value proposition should be: "*...at the moment customer intimacy and operational excellence*"[120]. The CEO also agreed with this concept, noting that customer intimacy is part of growing the business and that it goes along with operational efficiency. However, if a unique and exclusive choice would have to be taken the CEO pointed out to operational efficiency.

Some customers value different proposals more than others. Strategy is about choice, is about what to do, and what not to do (Porter, 1996). The results of the study indicated that the industry (packhouse & cool stores) are competing strongly for every customer, every grower and the limited number of hectares available to increase the throughout

put through their facilities, and by that increasing the asset utilization which in the New Zealand Kiwifruit Industry is particularly inefficient. Also, the cooperative like structure of the whole industry, controlled by the only marketer and statutory monopoly, Zespri, generates the need of high customer intimacy. This reality forces a strong 'threshold standards' of customer intimacy among competitors. As Tony Clarkin, Satara Co-op Ltd Orchard unit Manager stated: "*It is very much a people's business*"[121]. However, to be consistent with the organization's competitive advantage and strategic context, the company will have to excel at an operational level.

Accordingly, and based on the case study results, the customer value proposition identified for the different customer segments is as follows:

- Growers: a) Shareholders: Operational excellence b) Investors/Management: Operational excellence.
- Exporter/wholesaler: c) Zespri: Customer Intimacy d) Australia: Customer Intimacy e) Avocado customers: Customer intimacy

Satara has to be able to excel at competitive pricing (lower costs), product quality (low reject rates, recover ratio Class II, re pack ratios) and selection, speedy order fulfillment (or timely customer service), and on-time delivery (on services like harvesting, transports, financial reporting)

Due to its size and capabilities, Satara should focus the wholesales/export customer value proposition on customer intimacy. Satara can tailor the customer requirement to its customers. With Zespri, the strategic context suggests that customer intimacy (along, of course, with industry standards in leadership and operational excellence) could deliver positive outcomes for shareholders depending on case study identified future different scenarios (Industry deregulation, Satara's internationalization, Bio-security crisis (Med Fly) or kiwifruit loses shelf space and premiums in the market).

Although 'operational excellence' and 'customer intimacy' are the two best customer value propositions that match with Satara's customer needs and strategic context, there is another proposition, a fourth generic strategy (in addition to the initial three suggested) that has been used by Satara and other cooperatives. This is the 'lock-in' strategy. According to the latest findings by Kaplan and Norton (2003b), although the

concept of 'lock-in' customers by creating high barriers to switching to a competitor is not new, it has gained new ground in the last decade, to the point of being a source of competitive advantage.

At Satara, this 'lock-in' value proposition happens with shareholder-growers. To be able to supply to Satara they have to buy transactor shares which provide them with rebates. As Satara does not have the highest OGR in the industry, grower-shareholders have to pack through (although they can choose not to) to receive a compensation for this inefficiency through rebates. Also, once growers pack their fruit with Satara, they usually won't choose another coolstore (although they could), and also would not choose another exporter to sell their Class II fruit. Furthermore, once growers pack with Satara, it is very likely that they will use their technical services, management systems or, lately in the business life cycle, the leasing options. These results of the service are called a 'lock-in system' (Kaplan and Norton, 2003b), as customers can't switch some services, as they have invested capital and effort (and trust) in the company.

This issue arises as a new business-focus opportunity to Satara Co-op Ltd, to develop more complementors – those providers that offer compatible and valuable products or services to the organizations customers. Some examples of complementors could be an exclusive technical service, a complementary software package, orchard management services, an exclusive and premium paid market for Class II, an avocado export units, an avocado oil unit (assuming it is profitable), etc. The central idea is to be the exclusive provider of follow-up products or services, like Seeka kiwifruit industries with the 'Envirogrow' fruit or the overseas packing trial with Gold.

However, it is the researcher's view, based on the case study analysis and forecast of the industry's future, operational and customer intimacy should be the organization's targeted customer value propositions. The proposed fourth strategy should only complement these two, but should be useful for further thoughts and developments of new products and services that will help to deliver the organization's vision.

After the customer's proposition has been defined, Kaplan and Norton (2000b) identify the BSC must have lagging indicators that will illustrate if a customer proposition is successful or not. These indicators are called 'generic customer measures'. These are

satisfaction, acquisition, retention, account share, market share, and profitability. These measures are also part of what is called Customer Management, which, when strategically integrated, maximizes the value of the customer and therefore the value creation in general (Kaplan and Norton, 2003a). The authors state that a company that pursues a product leadership strategy must concentrate on the functionality, features, and overall performance of its products and services, or that a company that pursues customer intimacy must stress the quality of its relationships with customers, including exceptional service and the completeness of the solutions it offers to achieve high customer satisfaction, acquisition, retention, market share and profitability.

Regarding these measures, the case study identified that Satara does not have all the necessary information yet. Although it has sufficient information for the wholesaler/export customer, it is lagging in grower-customer measures, particularly for the 'core measurement group' or lagging measures (customer retention, acquisition, satisfaction and profitability (Kaplan and Norton, 1996a).

For the first group of customers, Satara has reliable information on Zespri and other wholesaler/exporters. Satara knows about their customer's retention (if they continue doing business), acquisition (new clients), satisfaction (which is almost immediately communicated through quality rejections) and profitability (from their annual reports). Also, it is developing leading measures for the core measures product/service attributes of functionality (a required product when needed), quality (Zespri's standards), price (according to the season development), image and reputation (new brand) and relationship (good relationships with Zespri and Coles). However, this same information is not clear for the grower-customer. As the new marketing manager stated, although much of the information about customer retention and acquisition should be available, not much is know about the important points of satisfaction and profitability. Regarding Satisfaction, and even though there was a customer survey performed in 2002 that identified a high degree of loyalty, the work did not consider the different customer-segments (Shareholders, leasing/management and free agents). This constitutes a problem for the marketing units as "*they need a different communication strategy.*"[122] Also, there is some information about service functionally (fair and reasonably price and capacity to pack when the grower wants, communication, packing and Coolstore performance), quality (like ton/ha, size, rejects rates, fruit loss, etc.), time (Grower's

harvesting times in last seasons, complains of grower not being take care of), image and reputation (trustworthy company) and relationships.

In conclusion, the results of the study indicated that in general Satara's current strategies and competitive advantages can be adapted to develop the Customer Perspective section of the BSC framework. Although there is a current lack of information in certain areas of the framework, they should not be a major constraint for its implementation, particularly after the new positions in grower communications and grower liaison have been created. The new positions will support the Customer Management theme and obtain the needed information from the organization's information system database, as well as from the customers themselves. Also, further discussion regarding the BSC amongst the executive team should generate the measures that could be missing to complete a strategy map.

5.2.3 The Internal-Business-Process Perspective

According to Kaplan and Norton (1996a), in the internal-business-process perspective managers identify the critical processes at which they must excel if they are to meet the objectives of shareholders and of targeted customer segments. The authors state that three main processes must be considered for a BSC development: innovation processes, operation processes and post service processes. Also, Kaplan and Norton (2000b) identified that these activities that are embodied in the internal businesses processes comprise its value chain and can be segmentated into four sets of business processes, corresponding to the four strategic themes explain in section 2.4.2.3. The authors' stress that all these processes are important to every organization and should be soundly performed, but that they have to excel at the one process that has the maximum impact on its customer value proposition.

As was shown from the case study, Satara has internal processes in all these categories. It has an innovation process to match the industry progress, with projects like the EAN implementation, Bin Charge, etc. It is also identifying emerging or latent markets and needs for customers like Avocados, leasing and Management, web page services, or even a possible separate company to offer a 'no frills' service to growers. From an

operational point of view the organization's history and background has demonstrated that they were the pace setters for the industry, and that it has the know-how and capabilities to continue with this role. There is an extensive management of measures in quality, process time and costs that deliver the services to targeted customers. Finally, the organization also has some information about post service, although it is just starting to strengthen in this area through the new appointed positions.

Many processes at Satara follow a continuous improvement strategy (like operations, leasing & management, customer relations) that emulates a total quality management strategy (TQM). According to Kaplan and Norton (2000b) initiatives to improve quality, responsiveness and efficiency of internal processes can be reflected in the operations portion of the scorecard's internal perspective, and that innovation and customer relationship improvement will be reflected in several other building blocks in the internal business process perspective. This is why TQM measures have ample opportunity to be sustained through the Balanced Scorecard framework.

According to the strategic themes suggested by Kaplan and Norton (2000b), Satara Co-op Ltd's internal processes by customer group can be grouped as follows:

a) The Grower-customer:

•Build the Franchise: Management and leasing business, avocado services, 'white space'.

•Increase Customer value: New Customer Management positions, Marketing focus on attract more growers.

•Operational Excellence: Ongoing improvement of operational process. i.e Bin Charge.

•Good Corporate Citizen: Social Events, end of year dinners, Volleyball support, other activities.

b) The Wholesaler/exporter:

•Build the Franchise: Thailand, yellow, others. Merger & Acquisitions program, Collaborative Marketing.

•Increase Customer value: Increase share in Australia, Increase local share, both in kiwifruit and avocados.

•Operational Excellence and Good Corporate Citizen: Implementing EAN, BRC, EUROGAP, ISO, HACCP, RMA.

5.2.4 The Learning and Growth Perspective

According to Kaplan and Norton (1996a, 2000b) there are three main categories for the foundation of all strategies in the learning and growth perspective:

- Strategic competencies: The strategic skills and knowledge required by the workforce to support the strategy.
- Strategic technologies: The information systems, databases, tools, and network required to support the strategy
- Climate for action: The cultural shifts needed to motivate, empower, and align the workforce behind the strategy. The learning and growth strategies are the true starting point for any long-term, sustainable change.

The authors state that the learning and growth strategy defines the intangible assets needed to enable organizational activities and customer relationships to be performed at ever-higher levels.

Satara's CEO recognized this proposition throughout the case by repetitively insisting on the importance of people and organizational structures for the future. For example as stated in the 2002 Strategic positioning report "*Our culture (people), skills & competencies, structure & systems that we have today got us to this position, but will not take us into the future*"[123]
Also, there was acknowledgement from stakeholders in the industry about the same topics.

Kaplan and Norton (1996a) state that results in the learning and growth perspective can be measures through employee retention and employee productivity, which is driven by employee satisfaction. On the other had, to be able to reach high employee satisfaction, it is important to have the right drivers, namely, employee capabilities, information systems infrastructure and the right climate for action.

The case study suggested that Satara has had a very stable staff turnover ratio. Nonetheless, lately, employee retention has decreased with some resignations in the operational area, and lately the resign of the Customer Manager. This should be taken as a warning of possible problems with employee satisfaction. However, Craig Wallis stated that after these resignations, the company could access employees with higher competencies and job coverage ratio, which is the percentage of job requirements met. This is in concordance with the skills/talent analysis made by Lake (2002), who acknowledges the importance of present and future skills for the organization's success. Although the matrix was not answered by Satara (Appendix 5), the CEO stated: "*This is a extremely sensitive issue*"[124], which acknowledges again the awareness of staff competencies for future strategy implementation and achievement.

Regarding Information systems capabilities, Satara has been installing a new network system to link all its regional offices with the Head quarters in Washer road, Te Puke.

In the motivation, empowerment and alignment drivers, the case study suggested that although there is a strong CEO commitment for change and adjustment, there is a lack of alignment and empowerment down the chain of command. Although executive sponsorship is a critical element of any change program as well as for a Balanced Scorecard program (Niven, 2002), this in itself it not enough for strategy achievement. There is no full agreement in the goals to be achieved, and, as already discussed, the final destination, the vision, has not been defined yet, not by executive management nor by the Board. Also, there was evidence that communication through the organization is not at its best. This suggests that there are still major improvements to be made; particularly in measuring performance, delivering timely results to whom ever requires the data, and further analysis of these results. As Tony Clarkin stated "*Accurate and timely information is of high importance. After certain dates, crucial information is useless*"[125].

The study confirms that Satara has in place already many activities, initiatives, measurements, etc. that match with the Balanced Scorecard framework. However, further development of certain gaps, particularly in employee satisfaction measures and alignment should be planned. Nevertheless, this lack of information does not represent a

constraint to the application of the Balanced Scorecard model, and indeed, the framework it self could be a solution to fulfil those areas without enough attention and development. Accordingly, the main themes for the three learning and growth driver identified at Satara are:

- Strategic competencies: Attract and retain the best people.
- Strategic Technologies: Organizational and information technologies
- Climate for action: The Balanced Scorecard

5.2.5 The Strategy Map at Satara Cooperative Group Ltd.

As mentioned by Kaplan and Norton (2002), the complete Strategy Map integrates the preceding development into a generic template for creating a strategy map. The growth theme in the financial perspective is realized through growth from fundamentally new sources ("build the franchise") and growth from expanded relations with existing customers ("increase customer value"). The productivity theme is achieved through expense and asset management. The customer perspective, the heart of the strategy, defines how growth will be achieved. The clear value proposition defines the specific strategy to compete for new customers or increase share of existing customer businesses. The internal perspective defines the business processes and the specific activities that the organization must master to support this customer value proposition and the learning and growth perspective defines the competencies, know-how, technology, and climate needed to support these high-priority processes and activities. The authors state that when properly constructed the strategy map portrays an integrated and logical description of how the strategy will be accomplished. According to Kaplan and Norton's (2002) framework, Satara Co-op Ltd's case, and the researchers integration and judgment, a generic Strategic Map for the organization can be presented as seen in in Figure 40. A detailed corporate strategic map is shown in Figure 41.

Figure 40. Conceptual strategic map for Satara Co-op Ltd.

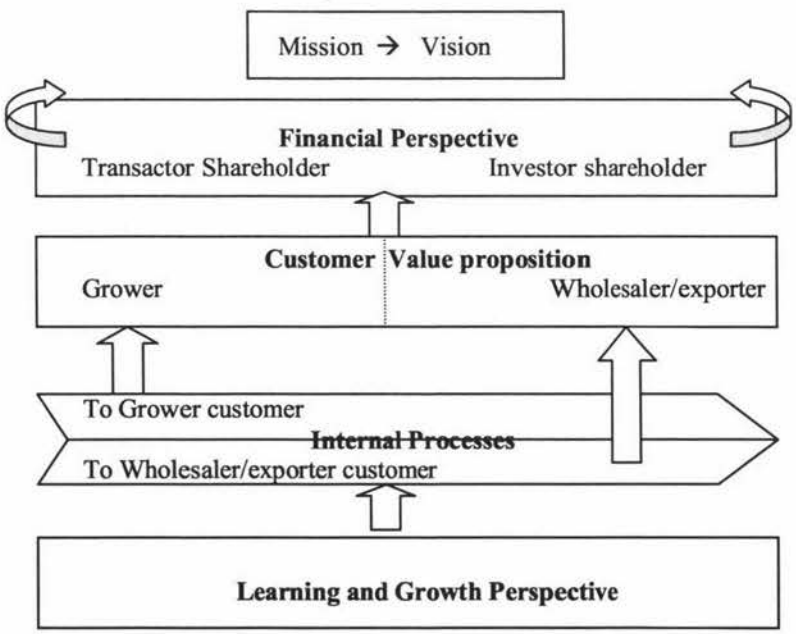
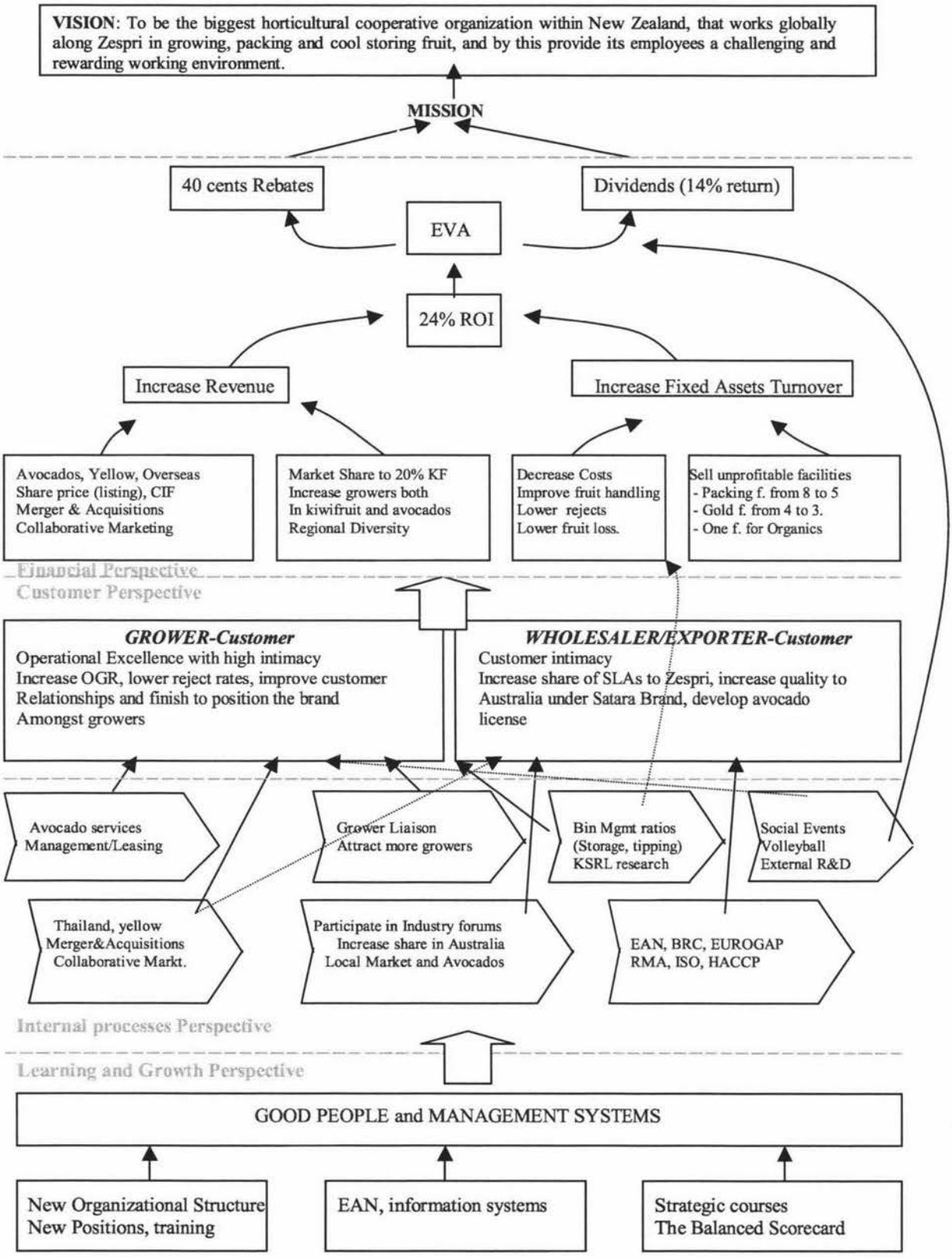


Figure 41. Satara Co-op Ltd Corporate General Strategy Map



Based on Figure 41, the Balanced Scorecard for Satara Co-op Ltd is as follows:

Table 32. Corporate Balanced Scorecard at Satara Co-op Ltd.

Strategy	Objective	Measures	Target	Initiatives
FINANCIAL **Mission → VISION** Return to shareholders Grow the business Reduce Costs	Maximize shareholder value Steady rebate Cash Flow dividends Increase Orchard unit profit Lower direct costs	EVA; ROI Rebate Market Share Return-investors Profit add/unit Total Direct Cost/tray	>0; 24% 40 cents 20% 14% $0.03/tray $1.8/tray	 Merger & Acquisitions Listing in AX Board Asset rationalisation
CUSTOMER Customer Operational Excellence (Increase Market Share) Customer Intimacy (Extend value chain)	Increase grower satisfaction More Kiwifruit grower More avocado grower More Management&Leasing Increase Australia share Keep close to Zespri New Business Relationships	OGR Trays packed Trays packed Total Hectares Trays Class II SLA Agreements New customers	Above Zespri 12 mill/TE 300.000/TE 700 ha >2/3 Coles 800,000/TE 2	Grower Liaison and communication position New Marketing efforts Australia Brand launch Participate in forums Collaborative Marketing Webpage
INTERNAL Develop and improve systems Improve costs structure Improve Assets utilization	Lower Operational costs Increase Assets Utilization Increase Capacity Increase Orchard profitability Good Community member New Business Opportunities	Rejects (15%) Direct labour costs Profit contribution Kiwistart/avocado TE Additional Facilities Ton/ha + size profile Events sponsored Yellow development	<12%;20%Gold 30 cents/tray $0.43/TE (c) $0.18/TE (p) 1,200,000/? TE 1 by 2004 7300/ha@34.7 1 conference NPV>15%	Bin Charge Rationalization Improve fruit handling Dry matter measuring Merger&Acquisitions Technical info growers Marketing unit Business Development
LEARNING AND GROWTH Capable Organizational structure And systems Attract and keep the best people	New organizational structure Adequate climate for action Skill Retention/acquisition Knowledge sharing Staff strategic Involvement Compensation programme	Revenue/employee Employee attendance Employee turnover Division Scorecard External Research Employee Scorecard Profit/employee Rewards/employee	Working 2003 100% <1 BSC per unit N. of projects BSC Manager Working 2004	New positions Balanced Scorecard Marketing campaign BSC seminars Massey U. projects. One-on-one training Recognition of need

Note: TE=Tray equivalent; (c) Coolstoring; (p) Packing.

As can be seen from Figure 41 and Table 32, by organizing the organization's objectives, measures, targets and projects obtained from the case study in the four perspectives along with a few generic measures, a BSC is generated with practically no other additional information requirements. Then, by linking the cause and effect relationships, the framework takes the shape of a strategic map, showing a way to achieve the organization's mission and vision.

The BSC in Table 32 and the Strategy Map in Figure 41 reinforce the BSC principles of 'cause-and-effect relationships' and 'outcomes and performance drivers' or 'lag and lead indicators'. According to Kaplan and Norton (1996), a good BSC should have an appropriate mix of outcomes (lagging indicators) and performance drivers (leading indicators) that have been customized to the business unit's strategy. At Satara, and from a higher hierarchy level viewpoint, the lag and lead indicators initially take the shape of the perspectives. Financial and Customer perspectives are outcomes, lag indicators for the organization' strategy (i.e. Return to shareholders, growth the business, reduce costs, customer operational excellence and intimacy), which are driven

by the lead indicator of Internal and Learning and growth processes (develop and improve systems, improve costs structures, improve asset utilization, capable organization structure and, attract and keep the best people).

Within the perspectives, lag and lead indicators also form part of the BSC presented in Table 32. For example, and starting from the learning and growth perspective measures: rewards per employee, employee scorecards and divisional scorecards (measures targeting the objectives of compensation programme and staff strategic involvement) are the drivers for employee turnover, employee attendance and revenue/employee (knowledge sharing, skill retention/acquisition and climate for action). This strategy of having a capable organization structure by keeping and attracting the best people is the driver for the internal processes successful completion. In this perspective, new project development, events sponsored and Kiwistart and avocado trays contracted (to target the objectives of new business opportunities, good community member, increase capacity utilisation and lower operational costs) are the performance drivers for lowering rejects, lowering direct labour costs, increasing profit contribution and increasing ton/ha and size profile of the fruit processed. Then, only by achieving positive results in these measures a successful customer management could be expected, and obtain more kiwifruit and avocado growers, more management facilities, increase the share in the Australia business, continue close to Zespri and generate new business relationships. This customer perspective has also lead indicators with new customers (contracts) and SLA agreements towards the lag indicators of trays packed, total hectares managed and class II fruit handled. Then the sequence finishes with a decrease in direct costs/tray and profit addition per unit to ROI, EVA, market share and return to Satara's shareholders.

As stated by Lefkowith (2001) a BSC and its performance measures help to clear the vision throughout a cooperative by providing a easy to understand "performance scorecard" by enabling the organization to successfully translate the ambitions as outlined in a strategic plan into real world accomplishments. The steps to follow and the measures to use in a cooperative are not much different from any other business with a customer focus. Because what gets measured gets done in either a corporate or a cooperative, the author stated: "*My strong recommendation is that every co-op – no matter the size – should create a Balanced Scorecard*" (Lefkowith, 2001, p. 24).

5.2.6 The Strategy-Focused Organization at Satara Co-op Ltd.

According to Kaplan and Norton (2000b), putting a Balanced Scorecard and a Strategy Map together is just the first step in achieving strategic focus and, ultimately, the organization's vision. Building a Balanced Scorecard enables an organization to focus and align their executive's teams, business units, human resources, information technology, and financial resources to their organization's strategy. This first step is what the authors refer to as 'Translating the Strategy into Operational Terms'. Once the Strategy is clear, a Strategy map and next a Balanced Scorecard can be constructed.

"*The new framework, which we call a 'strategy map', is a logical and comprehensive architecture for describing strategy. It provides the foundation for designing a Balanced Scorecard that is the cornerstone of a new 'strategic management system'* " (Kaplan and Norton, 2000b, p.10).

As was observed in the previous section, Satara's competitive advantage (Table 30) and strategies (Section 4.10 and Table 28) can be implemented into a strategic map and a Balanced Scorecard. It is possible to translate these strategies into a logical architecture, creating a common and understandable point of reference for all their units and employees.

However, further work will be needed at a unit level, to 'Align the Organization to the Strategy' (Kaplan and Norton, 2000b). Because Satara is organized around financial specialties like finance, operations, marketing, orchard management & leasing, each function has its own knowledge, specific objectives and culture. This is why it will become important that the three main business units (Orchards, Operations and Market Services) and the shared services (Finance control, marketing, information systems and business development) link their strategies through the common strategic themes and objectives to the corporate scorecard. Only after each unit would have developed its own scorecard, a successful implementation and execution of the strategy could be expected. These scorecards would then probably include those strategic issues and objectives identified in the case study that are not in the corporate scorecard or strategic map. Only then could a complete strategic alignment in the organization be expected.

By developing a BSC in every unit, Satara would be in the way of 'Making the Strategy Everyone's Every Job". Unit Scorecards will allow Satara's employees to understand the strategy and conduct their day-to-day business in a way that contributes to the success of that strategy (Kaplan and Norton, 2000b). Although Satara's CEO already started this process with the 6th of May, 2003 meeting with the organization, further communication and education will be needed.

However, having units and employees BSCs and measures will not guarantee that employees will be interested in them. This is why Kaplan and Norton (2000b) stated that linking compensation to the BSC is of primary importance. But, as seen in the case study, Satara has no employee reward system, and indeed, its employees do not support a change in this regard. This could represent a limitation to a successful implantation of the framework. The authors state that the BSC-compensation linkage plays two important roles. It focuses employee's attention on the measures that are most critical for the strategy, and it provides extrinsic motivation by rewarding employees when they and the organization succeed in reaching their targets. In regard to which reward system to follow, the authors have noticed that no one approach has emerged as preferred or dominant, and that each company will have to find the best fit for its particular needs and business environment. However, the only generalizable fact linking compensation and reward to the BSC is that all BSC companies do it in some way. According to Kaplan and Norton (1996a), the issue is not whether, but when and how the connection should be made.

As was acknowledged by the case study, there are still strategic issues that do not have a consensus in the organization, and that need definition to be communicated down the hierarchy. Although communicating strategies to all employees could be seen as a risky practice, Brian Baker, from Mobil stated:

"*Knowing our strategy will do them little good unless they can execute it. On the other hand, we have no chance of executing our strategy unless our people know it. It's a chance we'll have to take*" (Kaplan and Norton, 2000b, p.12).

Satara's CEO has indeed been following this philosophy, as can be seen for example in the fact that the Strategic positioning document was released among several managerial

staff in its early stages, knowing that its divertion to the competition could be damaging to the organization. In the same way, he accepted to participate in this project and share information, in the understanding that when this report will be released, competition will not be able to execute all Satara's strategies, as capabilities, infrastructure, mission and vision's amongst suppliers in the New Zealand Kiwifruit are different.

According to Kaplan and Norton (2000b), the other important point in a successful strategy implementation is to 'Make Strategy a Continual Process', and not make strategic analysis a one-off event. Although Satara did not know or use the BSC as a strategy implementation tool, it was applying many of its principles as well as the theories of the Strategy-Focused Organization. As was discussed in section 4.7, the organization has been applying strategy primarily through incremental processes, and secondarily through planning. This means that the organization has been adapting and executing strategy continuously because the rapidly changing environment did not allow a static management attitude.

In another area, the CEO also implemented the 'Strategic Meeting", with the objective to talk and have feedback on strategy, and make fine-tunes necessary during the season underway. There is no doubt that by effectively implementing the BSC framework, this process of continuously working on strategy will be enormously facilitated.

Finally, the creators of the framework state that the above mentioned four principles focus on the Balanced Scorecard tool, the framework and supporting processes. But that more than a tool and processes are need to create change, as a lack of top leadership will not create change, strategy will not be correctly implement, and the opportunities for breakthrough findings and performance will be missed.

According to the case study results, this should not be a problem for Satara. The CEO already has expressed both in written documents as well as orally, his view why the organization has to change, establishing a sense of urgency, creating a guiding coalition and developing a vision and strategy. Then he started to establish a governance process to guide the transition. The organization's structure has change, the management system is planned to change (through the BSC, "*The framework is simple and logic. After July I*

will strongly pursue the Balanced Scorecard model"[126]), and changes needed are continually reinforced.

As a result, the case study showed that the organization is, in general, unconsciously following the five principles that make a Strategy-Focused Organization. A competitive advantage was identified, the elements for a Balanced Scorecard implementation are present and recognition of weaknesses and further improvement is present. Satara has only to take further action. As Parmenter (2002) recommended to New Zealand companies to 'just do it' and not extent the process unnecessarily, the case study showed that Satara does not need to wait until all the elements stated by the theory have been identified. The organization has enough information to implement a Balanced Scorecard.

NOTES

[96] Stuart McKinstry. (2003). Financial Controller. Satara Co-op Ltd. Personal communication.
[97] Craig Wallis. (2003). CEO. Satara Co-op Ltd. Personal communication
[98] Tony Clarkin. (2003). General Manager Orchards. Satara Co-op Ltd. Personal communication.
[99] Ibid. 97.
[100] Peter Berry. (2003). Industry Liaison. Zespri International. Personal communication.
[101] Tony (A.E.) de Farias. (2003). CEO Seeka Kiwifruit Industries Limited sees the geographic distribution as a disadvantage because of the lower performance and higher weather exposure of other regions than Te Puke.
[102] Ibid. 97.
[103] Ian Greaves. (2003). KNZGI Te Puke Representative.
[104] Ibid. 101.
[105] Craig Greenless. (2003). Chairman Zespri International. Personal communication.
[106] Ibid. 97.
[107] Ibid. 101.
[108] Julie Carlson. (2003). Marketing Manager. Satara Co-op Ltd. Personal Communication.
[109] Ibid. 97.
[110] Satara Co-op Ltd 2003 Business plan.
[111] Ibid. 105.
[112] Abundance. New Brand promotional leaflet. Satara Co-operative Group Ltd. June 2002.
[113] Satara Co-op Ltd constitution (Baypak 2001).
[114] Ibid. 108.
[115] Ibid. 97.
[116] Ibid. 96.
[117] Ibid. 108.
[118] Ibid. 97.
[119] New Zealand Kiwifruit Journal. May/June 2003.
[120] Ibid. 108.
[121] Ibid. 98.
[122] Ibid. 108.
[123] Strategic Positioning for the Future. Satara Co-operative Group Ltd. September 2002. 29 pages.
[124] Ibid. 97.
[125] Ibid. 98.
[126] Ibid. 97.

6 CHAPTER SIX: CONCLUSIONS

The objective of this project was to perform a strategic analysis of Satara® Cooperative Group Limited in the New Zealand Kiwifruit industry context, identify current or possible competitive advantages, and identify how these competitive advantages with other aspects of the business strategy will deliver to shareholder's vision by using the Balanced Scorecard. Using the case study methodology, based primarily on interviews with both, companies staff and relevant industry stakeholders, it was possible to gather enough data to answer the research hypotheses. Also, the research allowed a first exploration of the Balanced Scorecard in an agricultural cooperative in New Zealand.

Based on the research hypotheses of a) The organization has a competitive advantage in the New Zealand Kiwifruit industry, and b) Satara Cooperative Group Ltd competitive strategies can be implemented through the Balanced Scorecard, and, the analysis and discussion section in Chapter V, it is possible to conclude that:

- It was possible to develop a strategic analysis to assess whether Satara Co-op Ltd had a competitive advantage.
- Being a competitive advantage, the ability to perform in profitability above average for a sustained period of time in an industry, there was not enough evidence to conclude from tangible data that Satara had an above average profitability. However, it was found that Satara had a sustained performance in time.
- Based on tangible data, such as market share and growth in different products and services, continuity and presence in the industry, sustained profitability measured by ROI, ROA, ROE, and, past and future positive values of EVA, it was possible to imply that Satara had an above average profitability, represented by ROE through rebates and dividends.
- Based in this tangible data, stakeholders and staff opinions, as well as the use of the SELECT framework, it was possible to assert that the current ability to achieve a sustained above-average profitability over time is based in its Cooperative structure and its scale and geographic distribution. Accordingly, it was possible to describe Satara Co-op Ltd's competitive advantage.

- By putting the company's competitive advantage in context with the case study analysis, it is possible to conclude that its future ability to perform above average will be based in its diversification capability and its adaptability to different industry scenarios. Hence, Satara Cooperative Group Ltd's competitive advantage is its hybrid-cooperative structure, scale and geographic distribution and diversification capabilities.
- From the case study, it was possible to draw the conclusion that, in general, differentiation, and hence generating a competitive advantage in the current New Zealand Kiwifruit industry is still difficult due to statutory and Zespri regulations that tend to limit companies' choices and strategies. The New Zealand kiwifruit industry is not in an internal equilibrium and is therefore very likely to change in the future.
- Although Satara Co-operative Group Ltd did not know the BSC before this research the organization's competitive strategies match the Balanced Scorecard framework as well as the Strategy map proposition. The strategic map proposition proposed by Kaplan and Norton (2000a,b) matches the strategies of cooperative kiwifruit packhouses and cool store operators in New Zealand.
- Making the distinction between Satara's two customers and shareholders, the organization's strategies can be decomposed into financial, customer, internal and learning perspectives; objectives; lag and lead measures; targets and initiatives. These can also be linked in a cause and effect relationship. The Organization can therefore implement its strategies through the Balanced Scorecard.
- The BSC tool also fits into Satara's incremental strategic development culture, allowing a formalization and control of making strategy a continual process.
- According to Satara case study findings, it is possible to conclude that the Balanced Scorecard for a hybrid-cooperative in the New Zealand kiwifruit industry does not need any considerable modification to match Kaplan and Norton (1996a, 2000b, 2002) frameworks.

7 RECOMMENDATIONS

7.1 To Satara Co-operative Group Limited.

According to the case study report, analysis and discussions, and the conclusions drawn from the research, the following recommendations for Satara Cooperative Group Limited are:

- Effectively implement a Balanced Scorecard strategy management system as it would better organize and deliver than the present reporting structure. Although this report gives enough information to feasibly implement the tool, further executive meetings will be needed to agree on certain measures and objectives.
- Cascade or develop Balanced Scorecards at each and every level of the organization, starting from the corporate (BSC provided in this report), following with business units BSC, and finishing with sub units or employees (personal scorecards). Also develop a BSC for the Board of directors as described by Lorsch (2002) and Epstein (2003) to specify what the board has to do to be successful and what it needs to know to assure that the company's strategy is working.
- Develop a reward system to the organization's employees and link it to the BSC, as this element is critical to drive change under any new proposed management system. However, proceed with caution, and preferably defer the linkage to the BSC for six to twelve months (Kaplan and Norton, 2000b) due to two problems: 1) Satara has no reward system in place, a situation that will need systems adaptation and tests, and, 2) Satara's initial BSC represents a tentative strategy description, which will need further adjustments, particularly to measures and how the compensation is linked to their target achievements.
- As well as nearly 50% of Balanced Scorecard implementators (Downing, 2000) use an available Balanced Scorecard software application to report results.

7.2 For further research

- Study the follow up of the results of a BSC implementation, as there are no cases registered on cooperatives in existing literature. A positive result could allow presenting Satara's case to the Hall of Fame of the BSC.
- Study the internationalisation process followed by New Zealand Kiwifruit suppliers under a regulated environment. In the event of kiwifruit deregulation, follow up supplier's actions and evaluate against similar events in history, both globally and locally.
- Interesting research opportunities arise in the logistic field due to the possibility and increased necessity to send New Zealand kiwifruit to Italy to be graded and packed. Also, alliances and joint ventures to achieve this would be unique in the New Zealand kiwifruit industry, and would justify further research.
- Study the interactions in various business fields between New Zealand and Chile as competitors but complementors in horticultural products in the Pacific Rim.

8 REFERENCES

AGA. (2000) *Growers Manual.* Tauranga:AgriQuality New Zealand. pp.

AGA, A. (2003) *Annual Report 2003.* A. G. A. A. I. C. Ltd. Tauranga:27 pp.

Agarwal, N. (1998) Reward Systems: Emerging Trends and Issues. *Canadian Psychology.* 39 (1-2): 60-70.

AIC. (2000). Export Marketing Strategy for Avocados 2000/2001 Season. *AIC.* Available: http://www.nzavocado.co.nz/in_nzaic.html. [Retrieved September 18 2001]

Ambrosini, V. (1998) *Exploring techniques of analysis and evaluation in strategic management.* London, New York:Prentice Hall Europe. 284 pp.

Andrew, K. R. (1971) *The Concept of Corporate Strategy.* Homewood, Ill.:Dow Jones-Irwin. 245 pp.

Appelbaum, S. H., St-Pierre, N. and Glavas, W. (1998) Strategic organizational change: the role of leadership, learning, motivation and productivity. *Management Decision.* 35 (6): 289-301.

Argenti, J. (1974) *Systematic Corporate Planning.* London:Nelson. 316 pp.

Austin, A. (2003). Kiwifruit cartel faces WTO action. *Arena Home.* Available: http://www.arena.org.nz. [Retrieved 31 July 2003]

Baetz, M. C. and Bart, C. K. (1996) Developing mission statements which work. *Long Range Planning.* 29 (4): 526-533.

Barney, J. B. (1986) Strategic factor markets:expectations, luck and business strategy. *Management Science.* 32: 1231-1241.

Bart, C. K. (1996) High tech firms: Does mission matter? *The Journal of High technology Management Research.* 7 (2): 209-225.

Barton, D. (1989). *What is a cooperative?* IN:Cooperatives in Agriculture. D. W. Cobia. Prentice Hall. Englewoods Cliff, NY. 1-20

Baypak. (2001). Bay of Plenty Fruitpackers Ltd Constitution. *New Zealand Companies Office.* Available: http://www.companies.govt.nz/pls/web/dbssiten.main. [Retrieved 22th September 2003]

Belrose, I. (1998) *World Kiwifruit Review 1998 Edition.* Belrose Inc. pp.

Belrose, I. (2002) *World Kiwifruit Review 2002 Edition.* WA:Belrose INC. 88 pp.

Belrose, I. (2003) *World Kiwifruit Review 2003 Edition.* WA:Belrose Inc. 94 pp.

Bock, T. and Styles, C. (2002) Growing segmentation trees for strategic advantage. *Business Horizons.* 45 (2): 17-22.

Bonn, I. and Christodoulou, C. (1996) From Strategic Planning to Strategic Management. *Long Range Planning.* 29 (4): 543-551.

Bood, R. and Postma, T. (1997) Strategic Learning with Scenarios. *European Management Journal.* 15 (6): 633-647.

Book, S. A. (1992). Co-operative values in a changing world. *ICA, UWCC.* Available: http://www.wisc.edu/uwcc/icic/orgs/ica/pubs/studies/Co-operative-Values-in-a-Changing-World-1/index.html. [Retrieved 9th April 2003]

Bosch, J. (2002) Orchard Gate Return Comparisons. *NZ Kiwifruit Journal.* (1): 26-29.

Botten, N. and McManus, J. (1999) *Competitive Strategies for Service Organizations.* Houndmills, Basingstoke:Macmillan. 327 pp.

Bramwell, L. (2002) Smart strategy for Japan. *Avoscene.* 18-19.

Bramwell, L. (2003) Japanese Visitors. *Avoscene.* (9): 16.

Brandenburger, A. M. and Nalebuff, B. J. (1996) *Coopetition.* New York:Currency/Doubleday. pp.

Brandenburger, A. M. and Nalebuff, B. J. (1997) *Co-operation.* London:HarperCollinsBusiness. 290 pp.

Brown, T., Bush, P. and Norberg, L. (2001) Building Executive Alignment, Buy-In, and Focus with the Balanced Scorecard SWOT. *Balanced Scorecard Report.* (3): 3-5.

BSCol. (2003). BSCol Functional Standards. *Balanced Scorecard Collaborative Inc.* Available: http://www.bscol.com/bsc_online/technology/standards/. [Retrieved March 27th 2003]

Butler, A., Letza, S. R. and Neale, B. (1997) Linking the balanced scorecard to strategy. *Long Range Planning.* 30 (2): 242-253.

Buzzell, R. D. (2002) The PIMS program of strategy research: A retrospective appraisal. *Journal of Business Research.* In Press, Uncorrected Proof:

Cameron, P. (2002) The Balancing act. *New Zealand Management.* 49 (1): 4.

Campbell, A. and Yeung, S. (1991) Creating a sense of mission. *Long Range Planning.* 24 (4): 10-20.

Campbell, D. (2002) Putting Strategy Hypotheses to the Test with Cause-and-Effect Analysis. *Balanced Scorecard Report.* 4 (5): 15-16.

Campbell-Hunt, C. (2000) What have we learnd about generic competitive strategy? A meta-analysis. *Strategic Management Journal.* 21: 127-154.

Casson, M. (1996) The nature of the firm reconsidered: Information synthesis and entrepeneural organisation. *Management International Review.* (1): 55-94.

Chandler Jr, A. D. (1962) *Strategy and Structure: Chapters in the History of the American Enterprise.* Cambride, M.A.:M.I.T. Press. 463 pp.

Charan, R. C., G. (1999) Why CEO's Fail. *Fortune.* 139 (12): 68-76.

Chetty, S. (1996) The case study method for research in small and medium sized firms. *International Small Business Journal.* 15: 73-85.

Clairs, R. (1995). Challenges in food retailing: the Woolworths perspective. *Woolworth Ltd.* Available: http://www.agribusiness.asn.au/Review/1995V3No2/95clairs.htm. [Retrieved 20th August 2003]

Clements, M. (2001). Well Trained people, a Must for Fruit Industry. *New Zealand Fruitgrowers Federation.* March 2001. Available: http://www.fruitgrowers.org.nz/issues/media/20010308.htm. [Retrieved 8th August 2003]

Cockburn, I. M., Henderson, R. M. and Stern, S. (2000) Untangling the origins of competitive advantage. *Strategic Management Journal.* 21: 1123-1145.

Connor, T. (2002) The resource-based view of strategy and its value to practicing managers. *Strategic Change.* 11: 307-316.

Contractor, F. J. and Lorange, P. (1988) *Cooperative Strategies in International Business*. Lexington, MA:Lexington Books. pp.

Cook, M. (1997). *Organisational structure and globalisation: The case of user-oriented firms.* IN:Strategies and structures in the agrofood industries. J. Nilsson, Van Dijk, G. Va Gorcum. Assen, The Netherlands. 77-93

Cooper, D. R. and Schindler, P. S. (1998) *Business Research Methods*. Boston:McGraw-Hill. 703 pp.

Creelman, J. (1998) *Building and implementing a Balanced Scorecard - International Best Practice in Strategy Implementation*. London:Business Intelligence Ltd. 361 pp.

Cutting, J. (2003). *CEO's report.* IN:Annual Report 2003. AGA&AIC. Tauranga. 14-17

Dahmen, E. (1984) Schumpeterian dynamics: Some methodological notes. *Journal of Economic Behavior & Organization.* 5 (1): 25-34.

Datta, Y. (1996) Market Segmentation: an Integrated Framework. *Long Range Planning.* 29 (6): 797-811.

D'Aveni, R. (1994) *Hypercompetition: Managing the Dynamics of Strategic Maneuvering*. New York:The Free Press. 421 pp.

David, F. R. (1997) *Strategic Management*. New York:Prentice Hall. 659 pp.

Dearden, J. (1969) The case against ROI control. *Harvard Business Review.* 47 (3): 124-136.

DMS. (2003) *Annual Report 2003*. Tauranga:DMS Progrowers Ltd. 18 pp.

Donoso, I. (2003). *The Challenge of Agricultural Co-operatives Internationalization: Case Studies of Fonterra and Zespri.* Thesis. Master of Business Studies in Agribusiness, Massey University, Palmerston North.

Downing, L. (2000) Progress Report on the Balanced Scorecard: A Global Users Survey. *Balanced Scorecard Report.* (6): 7-9.

Downing, L. (2003) It's the Army Now: The U.S. Army's Scorecard-Based Transformation. *Balanced Scorecard Report.* 5 (5): 6-8.

Drago, A. and Clements, C. (1999) Leadership Characteristics and Strategic Planning. *Management Research News.* 22 (1): 11-18.

Drucker, P. F. (1958) Business Objectives and Survival Needs: notes on a discipline of business enterprise. *The Journal of Business.* 31 (2): 81-90.

Drucker, P. F. (1974) *Management: Tasks, Responsabilities, and practices*. New York:Harper & Row. 839 pp.

Durand, R. (2002) Competitive advantage exist: A critique of Powell. *Strategic Management Journal.* 23: 867-872.

EAN. (2003). EAN International News. *EAN.* Available: http://www.ean-int.org/agro_food_news.html. [Retrieved March 28th 2003]

Earp, R. (1988) *The Kiwifruit Adventure*. Palmerston North:Dunmore Press. 248 pp.

Eastpack. (2001). Annual Report 2001. *New Zealand Companies Office.* Available: http://www.companies.govt.nz/pls/web/dbssiten.main. [Retrieved September 16th 2003]

Eastpack. (2003). Maximmising grower returns. *EastPack Ltd.* Available: http://www.eastpack.co.nz/returns.aspx. [Retrieved 13th January 2003]

Ehrbar, A. (1998) *EVA: The real key to creating wealth.* New York:Wiley. pp.

Epstein, M. and Manzoni, J.-F. (1998) Implementing Corporate Strategy: From Tableaux de Bord to Balanced Scorecards. *European Management Journal.* 16 (2): 190-203.

Epstein, M. and Roy, M. J. (2003) Measuring and Improving the Performance of Corporate Boards using the Balanced Scorecard. *Balanced Scorecard Report.* 5 (2): 12-15.

FAO. (2002). Agricultural and Food Trade. FAOSTADATA. *FAO.* Available: http://apps.fao.org/lim500/agri_db.pl. [Retrieved April 5 2002]

Farber, B. (2001) An impression from New Zealand. *Avoresearch.* 1 (2): 6.

Farjoun, M. (2002) Towards an organic perspective on strategy. *Strategic Management Journal.* 23: 561-594.

FAS. (2002). Situation and Outlook for Avocados. *Foreign Agricultural Services. Horticultural and Tropical Division.* Available: : http://ffas.usda.gov/htp/circular/2002/02-02/avocado.htm. [Retrieved April 8 2002]

FAS. (2003a). Kiwifruit situation and Outlook. *USDA Foreign Agriculture Service.* Available: http://www.fas.usda.gov/htp/circular/2003/4-11-03%20Web%20Art.%20Update/Kiwi%20Article.pdf. [Retrieved 30 July 2003]

FAS. (2003b). World Avocado Situation and Outlook. *Foreign Agricultural Services. Horticultural and Tropical Division.* Available: http://www.fas.usda.gov/htp/horticulture/avocado.html. [Retrieved July 31th 2003]

Findlay, E. (1985). *N.Z. Avocados:What is the future?* Thesis. Horticultural Science, Massey University, Palmerston North.

Fintrac, I. (2001). World Market for Avocado. Market Information Bulletin No 10. USAID funded Asia Regional Agribusiness (RAP) project. Available: http://www.marketag.com/ma/bulletins/market/avocado.st. [Retrieved April 14 2002]

Flint, G. F. (2000) What is the meaning of competitive advantage? *Advances in Competitiveness Research.* 8 (1): 121-129.

Frampton, A. (2002). Independent cooperatives in a deregulated New Zealand dairy industry. *54th Conference of dairy farmers.* Palmerston North, New Zealand. I. M. Brookes.

Frangos, C. (2002) Aligning Human Capital with Business Strategy:Perspectives from Thought Leaders. *Balanced Scorecard Report.* 4 (3): 11-13.

Frigo, M. L. (2002) Strategic Finance. (November): 6-9.

G6. (2003). Objectives. *G6 Kiwi.* Available: http://www.g6kiwi.co.nz/objectives.htm. [Retrieved 4th August 2003]

GAMA. (1998). La industria de la Palta en Chile. *Seminario Internacional de Paltos.* Vina del Mar, Chile. G. y. M. Ltda. 4-6 Noviembre 1998. 1-15

Gautier, A. (2001) Hot or not? *New Zealand Marketing Magazine.* 20 (5): 14-22.

Gering, M. and Rosmarin, K. (2000) Central Beating. *Management Accounting.* 78 (6): 32-33.

Ghoshal, S. and Westney, D. E. (1991) Organizing Competitor Analysis System. *Strategic Management Journal.* 12 (1): 17-31.

Gifford, J. D. (2000) Small Orange Juice Processor Gets Big Results with the Balanced Scorecard. *Balanced Scorecard Report.* 2 (5): 8-10.

Goff, P. (2001). Chile and New Zealand: Partners in the World. *New Zealand Ministry of Foreign Affairs and Trade.* Available: http://www.mft.govt.nz/foreign/regions/latinamer/chilepartner.html. [Retrieved 24th April 2003]

Goleman, D. (1998) What makes a leader? *Harvard Business Review.* 76 (6): 93-102.

Graetz, F. (2000) Strategic change leadership. *Management Decision.* 38 (8): 550-562.

Graetz, F. (2002) Strategic thinking versus strategic planning: towards understanding the complementarities. *Management Decision.* 40 (5): 456-462.

Grant, R. M. (1998) *Contemporary Strategy Analysis.* Boston:Blackwell Publishers. 461 pp.

Gray, A. (2002) The success factor. *New Zealand Business.* (2): 3.

Gray, F. (2001) On Balance. *CFO.* 17 (2): 72-77.

Grunig, R. and Kuhn, R. (2002) *Process-based Strategic Planning.* Berlin; New York:Springer. 314 pp.

Haeckel, S. H. (1999) *Adaptative enterprise: creating and leading sense-and-respond organization.* Boston:Harvard Business School Press. pp.

Hamel, G., Doz, Y. and Prahalad, C. K. (1989) Collaborate with your competitors and win. *Harvard Business Review.* 67: 133-9.

Hamel, J. (1993) *Case Study Methods.* S. Publications. Newbury Park, California:77 pp.

Harding, R. (2000). Sunblotch. *Quest for Quality - New Zealand Avocado Growers Association COnference 2000.* Rotorua. N. Z. A. G. Association. 3-7

Harte, L. (1997). *Creeping privatisation of Irish co-operatives: a transaction cost explanation.* IN:Strategies and structures in the agrofood industries. J. Nilsson, Van Dijk, G. Van Gorcum. Assen, The Netherlands. 31-53

Hax, A. and Wilde, D. (2001) The Delta Model - Discovering New Sources of Profitability in a Networked Economy. *European Management Journal.* 19 (4): 379-391.

Hepworth, P. (1998) Weighting up - a literature review for the Balanced Scorecard. *Journal of Management Development.* 17 (8): 559-563.

Heracleous, L. (1998) Strategic thinking or strategic planning? *Long Range Planning.* 31 (3): 481-7.

Hill, C. W. (1988) Differentiation versus low cost or differentiation and low cost: A contingency framework. *Academy of Management Review.* 13 (3): 401-413.

Hill, T. and Westbrook, R. (1997) SWOT Analysis: It's Time for a Product Recall. *Long Range Planning.* 30 (1): 4-5.

Hofshi, R. (2002). Peru - Avocado Industry in the desert. *California Avocado Commision.* Available: http://www.avocadosource.com. [Retrieved July 31th 2003]

Hofshi, R. (2003). Avocadosource. *Hofshi Foundation.* Available: http://www.avocadosource.com/. [Retrieved 5th August 2003]

Hoggett, J., L, E. and J., M. (2002) *Financial Accounting in Australia.* Brisbane:John Wiley & Sons Australia. 882 pp.

Homsky, S. (2000). The avocado industry in Israel - an overview. *Colpox*. Available: http://www.colpos.mx/ifit/aguacate2/ingles2/israel.htm. [Retrieved 5th August 2003]

HortResearch. (2002) *Annual Report 2002*. Auckland:HortResearch. 40 pp.

Hunt, S. D. and Duhan, D. F. (2002) Competition in the third millennium - Efficiency or effectiveness? *Journal of Business Research*. 55 (2): 97-102.

Huss, W. R. and Honton, E. J. (1987) Scenario planning--What style should you use? *Long Range Planning*. 20 (4): 21-29.

ICA. (2001). The co-operative advantage in the third millennium: Message from the International Co-operative Alliance. *International Co-operative Association*. Available: [Retrieved February 2 2001]

iDt. (2003). Satara Co-operative Client Reference. *iDt*. Available: http://www.idt.co.nz/references.shtml. [Retrieved August 30th 2003]

Inc, B. S. C. (2000). Balanced Scorecard Functional Standards V1.0a. *Balanced Scorecard Collaborative Inc*. Available: http://www.bscol.com/invoke.cfm?id=A41797F2-B4FE-11D4-A8C200508BDC96C1. [Retrieved 03/04/03 2003]

Irwin, D. (2002) Strategy mapping in the public sector. *Long Range Planning*. 35 (6): 637-647.

Jayne, V. (1999) The Balancing act. *New Zealand Business*. 13 (4): 34-37.

Johnson, G. and Scholes, K. (1997) *Exploring Corporate Strategy*. London; New York:Prentice Hall. 507 pp.

Johnson, G. and Scholes, K. (2002) *Exploring corporate strategy:text and cases*. Harlow:Financial Times Prentice Hall. 1082 pp.

Jose, P. D. (1996) Corporate Strategy and the Environment: a Portfolio Approach. *Long Range Planning*. 29 (4): 462-472.

Kanji, G. K. and Sa, P. M. (2002) Kanji's Business Scorecard. *Total Quality Management*. 13 (1): 13-27.

Kaplan, S. R. (2002) Lead and Manage Your Organization with the Balanced Scorecard. *Balanced Scorecard Report*. 4 (4): 1-4.

Kaplan, S. R. and Norton, D. P. (1992) The Balanced Scorecard: Measures that drive performance. *Harvard Business Review*. 70 (1): 71-79.

Kaplan, S. R. and Norton, D. P. (1993) Putting the Balanced Scorecard to Work. *Harvard Business Review*. 70 (5): 134-142.

Kaplan, S. R. and Norton, D. P. (1996a) *Translating Strategy into action: The Balanced Scorecard*. Boston, Mass:Harvard Business School Press. 322 pp.

Kaplan, S. R. and Norton, D. P. (1996b) Using the Balanced Scorecard as a Strategic Management System. *Harvard Business Review*. 74 (1): 75-86.

Kaplan, S. R. and Norton, D. P. (2000a) Having Trouble with Your Strategy? Then Map it. *Harvard Business Review*. 78 (5): 167-177.

Kaplan, S. R. and Norton, D. P. (2000b) *The strategy-focused organization: how balanced scorecard companies thrive in the new business environment*. Boston:Harvard Business School Press. pp.

Kaplan, S. R. and Norton, D. P. (2002). *Having Trouble with your Strategy? Then Map it.* IN:Harvard Business Review on Advances in Strategy. H. B. S. Press. Harvard Business School Press. Boston, Massachusetts. 71-94

Kaplan, S. R. and Norton, D. P. (2003a) Customer Management. *Balanced Scorecard Report.* 5 (3): 1-5.

Kaplan, S. R. and Norton, D. P. (2003b) Lock-in Strategies: A New Value Proposition. *Balanced Scorecard Report.* 5 (5): 1-5.

Katz, J. P. and Boland, M. A. (2002) One for All and All for One? A New Generation of Co-operatives Emerges. *Long Range Planning.* 35: 73-89.

Keats, D. (2000) *Interviewing - a practical guide for students and professionals.* Sydney:UNSW Press. 162 pp.

Kenny, G. (2003) Balanced Scorecard Why it isn't working. *New Zealand Management.* 50 (2): 32-35.

King, D. (2002) A major player in New Zealand kiwifruit emerges. *The Orchardist.* 75 (1): 38-39.

Kippenberger, T. (1996) The Balanced Scorecard: A performance chamaleon? *The Antidote.* 1: 8-9.

Kippenberger, T. (1997a) The value chain The original breakthrough. *The Antidote.* 2 (8): 7.

Kippenberger, T. (1997b) The value chain's legacy. *The Antidote.* 2 (8): 6.

Kippenberger, T. (1999a) Putting scenarios at the heart of strategy. *The Antidote.* 4 (4): 29-31.

Kippenberger, T. (1999b) Talking about scenarios. *The Antidote.* 4 (4): 7-8.

Klein, J. (2002) Beyond competitive advantage. *Strategic Change.* 11: 317-327.

Klemm, M., Sanderson, S. and Luffman, G. (1991) Mission statements: Selling corporate values to employees. *Long Range Planning.* 24 (3): 73-78.

Koppelman, U. (1998) *Procurement marketing: a strategic concept.* Berlin, New York:Springer. 183 pp.

Lake, N. (2002) *The strategic planning workbook.* K. Page. London:244 pp.

Landrum, N. E. (1999) Leadership for strategic change. *Leadership & Organizational Development Journal.* 21 (3): 150-156.

Lang, M. G. (1995) The future of agricultural cooperatives in Canada and the United States:discussion. *American Journal of Agricultural economics.* 77 (5): 1162-1165.

Laurenson, W. (2001) Good base for further growth. *The Orchardist.* 40-43.

Laurenson, W. (2002) Avocados: Focus on teh future. *The Orchardist.*

Le Pla, R. (1999) Balancing out the scores. *New Zealand Marketing Magazine.* 18 (6): 37-42.

Lee, S. F. and Saw On Ko, A. (2000) Building balanced scorecard with SWOT analysis, and implementing 'Sun Tzu's The Art of Business Management Strategies' on QFD methodology. *Managerial Auditing Journal.* 15 (1): 68-76.

Leedy, P. D. and Ormrod, J. E. (2001) *Practical research: planning and designing.* New York:Macmillan Publising Company. 318 pp.

Lefkowith, D. (2001) What gets measured gets done. Turning Strategic Planns in to real world results. *Management Quaterly.* 42 (2): 20-25.

Letza, S. (1996) The desing and implementation of the balanced scorecard: an analysis of three companies in practice. *Business Process Reengineering management Journal.* (2): 59-76.

Levicki, C. (1996) *The Strategy Workout.* London:Pitman Pub. 263 pp.

Lipton, M. (1996) Opinion: demystifying the development of an organization vision. *Sloan Management.* 37 (4): 83.

Lissack, M. and Roos, J. (2001) Be Coherent, Not Visionary. *Long Range Planning.* 34 (1): 53-70.

Lorsch, J. W. (2002) Smelling Smoke: Why Boards of Directors Need the Balanced Scorecard. *Balanced Scorecard Report.* 4 (5): 9-11.

Lynch, G. A. (1998). The relative advantage and disadvantage of co-operative and non-cooperative business organizations. *Dairy Farminng Annual, Proceedings of the 50th meeting of dairy farmers.* Massey University. G. F. Wilson.

Ma, H. (1999) Anatomy of competitive advantage: A SELECT framework. *Management Decision.* 37 (9): 709-718.

Ma, H. (2000) Of competitive advantage: Kinetic and Positional. *Business Horizons.* 1: 54-64.

Madhok, A. (2002). Reassesing the fundamentals and beyond: Ronald coase, the transaction cost and resoruce-based theories of the firm and the institutional structure of production. *Strategic Management Journal.* 23:535-550.

MAF. (2003). Horticulture Monitoring Report. *Ministry of Agriculture and Forestry New Zealand.* Available: http://www.maf.govt.nz/mafnet/rural-nz/statistics-and-forecasts/farm-monitoring/2003/horticulture/httoc.htm#TopOfPage. [Retrieved 4th August 2003]

Magan, J. (1987). An Exporters view. *New Zealand Avocado Promotion Association INC Seminar.* Tauranga. 6th November. 48-50

Malcom, B. C. (1983) Pitfalls in portfolio planning. *Long Range Planning.* 16 (3): 47-56.

Maltz, A. C., Shenhar, A. J. and Reilly, R. R. (2003) Beyond the Balanced Scorecard:: Refining the Search for Organizational Success Measures. *Long Range Planning.* In Press, Corrected Proof:

Maslow, A. (1943) A theory of Human Motivation. *Psychological Review.* 50: 370:396.

McAdam, R. and O'Neill, E. (1999) Taking a critical perspective to the European business excellence model using a balanced scorecard approach: a case study in the service sector. *Managing Service Quality.* 9 (3):

McBride, G. (1986) *Agricultural cooperatives: Their why and their how.* Westport, CT:Avi Publishing Company. 352 pp.

McClintock, C. J. (2000). *Performance indicators in Lisburn Borough Council.* Thesis. Faculty of Business and Management, University of Ulster,

McCullock, B. (2002). Estimating the Market Equity risk Premium. *The Tresury.* Available: http://www.treasury.govt.nz/release/super/market-risk.pdf. [Retrieved 15th August 2003]

McKinstry, S. (2003). *Satara Co-operative Group Limited Investor Share - AX Listing.* Satara Co-op Ltd (Unpublished). Te Puke. 16pp.

McLaughlin, S. (1996) *The First Twenty-five Years of Baypak.* Baypak New Zealand. 55 pp.

McNally, G. M. (2001) *Balanced Scorecard: making management reporting relevant to the 21st century.* Wellington, N.Z.:Institute of Chartered Accountants of New Zealand. 28 pp.

McNamara, G., Deephouse, D. L. and Luce, R. A. (2003) Competitive positioning within and across a strategic group structure: The Performance of Core, secondary, and solitary firms. *Strategic Management Journal.* 24: 161-181.

McName, P. (1990) *Developing strategies for competitive advantage.* Oxford, New York:Pergamon Press. 132 pp.

McTavish, R. (1995) One More Time: What Business Are You In? *Long Range Planning.* 28 (2): 49-60.

MFA. (2003). Latin America - Chile, New Zealand and Singapore Closer Economic Partnership. *New Zealand Ministry of Foreign Affairs.* Available: http://www.mft.govt.nz/foreign/regions/latinamer/chilenzsingcep.html. [Retrieved 24th April 2003]

Mintzberg, H. (1987) Crafting Strategy. *Harvard Business Review.* 65 (4): 66-76.

Mintzberg, H. (1994) *The Rise and Fall of Strategic Planning.* New York:Prentice Hall. pp.

Miyake, D. (2002) Beyond the numbers. *Intelligent Enterprise.* 5 (12): 24-30.

Mooraj, S., Oyon, D. and Hostettler, D. (1999) The balanced scorecard: A necessary good or an unnecessary evil? *European Management Journal.* 17 (5): 481-491.

Morey, D. and Frangioso, T. (1998) Aligning an Organization for Learning: The Six Principles of Effective Learning. *Journal of Knowledge Management.* 1 (4): 308-314.

Morris, S. (1983) *A report on avocados (Persea americana): a crop with a future.* M. S. Auckland:53 pp.

Murry, A. I. (1988) A contingency view of Porter's generic strategies. *Academy of Management Review.* 13 (3): 390-401.

Nankervis, A. R., Compton, R. L. and McCarthy, T. E. (1999) *Strategic Human Resource Management.* Cincinnati, Ohio:Nelson ITP. 738 pp.

Nartea, G. V. and Pellegrino, J. (1997). Risk-return Characteristics of Farmland and their Implication for Land Valuation. *NZ Society of Farm Management Conference.* Palmerston North. 19-21 November. 165-172

NBZ. (2003). Quarterly economic forecast. *The National Bank of New Zealand.* Issue 54. Available: http://www.nationalbank.co.nz/economics/forecasts/pdf/QEF_August_03.pdf. [Retrieved 15th August 2003]

Nelson, B. (1994) *1001 ways to reward employees.* New York:Workman Publishing Co. Inc. 276 pp.

Nilsson, J. (1998) The emergence of new organizational models for agricultural cooperatives. *Swedish Journal of agricultural research.* 28 (1): 39-47.

Nirmul, A. (2003) Considerations on Cascading BSC Measures. *Balanced Scorecard Report.* 5 (5): 14-16.

Niven, P. (2002) *Balanced Scorecard Step-by Step: Maximizing Performance and Maintaining Results.* New York:Wiley. 334 pp.

Norreklit, H. (2000) The balance on the balanced scorecard a critical analysis of some of its assumptions. *Management Accounting Research.* 11 (1): 65-88.

Norton, D. P. (2001) Building Strategy Maps:Testing the Hypothesis. *Balanced Scorecard Report.* 3 (1): 1-4.

Norton, D. P. (2002) Managing Strategy is Managing Change. *Balanced Scorecard Report.* 4 (1): 1-5.

Norton, D. P. (2003). Strategy-Focused Organization Introduction. *Balanced Scorecard Collaborative Inc.* Available: http://www.bscol.com/bsc_online/learning/sfo/. [Retrieved May 8th 2003]

O'Connor, J. and Thompson, G. (2001) International trends in the structure of agricultural cooperatives. *Agribusiness Review.* 9 (9):

Orman, T. (2002) Avocado Industry comes up trumps. *The Orchardist.*

Papademetriou, M. (2000). Avocado Production in Australia. *FAO.* Available: http://www.fao.org/DOCREP/003/X6902E/x6902e00.htm#Contents. [Retrieved 5th August 2003]

Parmenter, D. (2002) The Balanced Scorecard - up and running in 16 weeks. *New Zealand Management.* 49 (4): 56-58.

Pemberton, J. D., Stonehouse, G. H. and Yarrow, D. J. (2001) Benchmarking and the Role of Organizational Learning in Developing Competitive Advantage. *Knowledge and Process Management.* 8 (2): 123-135.

Penrose, E. T. (1959) *The Theory of the Growth of the Firm.* Oxford:B. Blackwell. 272 pp.

Penrose, E. T. (1995) *The Theory of the Growth of the Firm.* Oxford; New York:Oxford University Press. 272 pp.

Peterson, C. H. and Anderson, B. L. (1996) Cooperative strategy: Theory and practice. *Agribusiness.* 12 (4): 371-383.

Pfeffer, J. (1994) *Competitive advantage through people: unleashing the power of the work force.* Boston, Mass:Harvard Business School Press. 281 pp.

Pfeffer, J. (1998) Six dangerous myths about pay. *Harvard Business Review.* 76 (3): 109-19.

Plummer, K. and Rolfe, D. (2002). *A Balanced Scorecard for Agricultural Co-operatives: An Introduction.* Working Paper No 7/02. Charles Sturt University. Bathurst. 28

Porter, M. E. (1980) *Competitive Strategy: Techniques for Analysis Industries and Competitors.* F. Press. New York:396 pp.

Porter, M. E. (1985) *Competitive Advantage: Creating and Sustaining Superior Performance.* New York:Free Press. pp.

Porter, M. E. (1996) What is Strategy? *Harvard Business Review.* 74 (6): 61-78.

Porter, M. E. (2002) The Importance of Being Strategic. *Balanced Scorecard Report.* 4 (2): 9-11.

Powell, T. (2001) Competitive advantage: logical and philosophical considerations. *Strategic Management Journal.* 22 (9): 875-888.

Proctor, T. (1997) Establishing a strategic direction: A review. *Management Decision.* 35 (2): 143-154.

Punter, R. A. (2003). *Grower Premiums Harvest 2003.* Zespri International Limited. Mount Maunganui. 12

PWC. (2003a). The Cost of Capital Report. *PriceWaterHouseCoopers New Zealand.* Available: http://www.pwcglobal.com/Extweb/pwcpublications.nsf/docid/748F5814D61CC2618525693A007EC870. [Retrieved 11th August 2003]

PWC. (2003b). New Zealand Market Risk Premium. *PriceWaterHouseCoopers - New Zealand.* Available:

http://www.pwcglobal.com/extweb/onlineforms.nsf/weblookup/NZENGNoServNewZealandMarketRiskPremium?opendocument. [Retrieved 11th August 2003]

Quigley, J. V. (1994) Vision: How leaders develop it, share it, and sustain it. *Business Horizons.* 37 (5): 37-41.

Rawlings, K. M. (1999). *Key performance indicators for goal attainment in dairy farming : essential elements for monitoring farm business performance.* Thesis: Master of Applied Science in Agricultural Systems management, Massey University, Palmerston North.

Raynor, M. E. (1998) That vision thing: Do we need it? *Long Range Planning.* 31 (3): 368-376.

Reger, R. K. and Huff, A. S. (1993) Strategic Groups: Cognitive Perspective. *Strategic Management Journal.* 14: 103-124.

Requejo-Tapia, C. (1999). *International trends in fresh avocado and avocado oil production and seasonal variation of fatty acids in New Zealand-grown cv. Hass.* Thesis. Master in Applied Science in Agribusiness, Massey University, Palmerston North.

Ricks, D. (2000). Chain management and marketing performance in fruit industry. *Proceedings of the XIVth International Symposium on Horticultural Economics.* Guernsey. U.K. J. P. Ogier. 686

Rindova, V. P. and Fombrum, C. J. (1999) Constructive competitive advantage: The role of firm-constituent interactions. *Strategic Management Journal.* 20: 691-710.

Robbins, S., Bergman, R. and Stagg, I. (1997) *Management.* Sydney [N.S.W.]:Prentice Hall. 856 pp.

Ross, Thompson, Christensen, Westerfield and Jordan. (2001) *Fundamentals of Corporate Finance.* Sydney:Irwin/McGraw-Hill. 856 pp.

Rugman, A. and D'Cruz, J. (1997) The Theory of the Flagship Firm. *European Management Journal.* 15 (4): 403-412.

Rugman, A. and Verbeke, A. (2002) Edith Penrose's contribution to the resource-based view of strategic management. *Strategic Management Journal.* 23: 769-780.

Russell, R. (2003) The International Perspective: Balanced Scorecard Usage in Europe. *Balanced Scorecard Report.* 5 (3): 13-14.

Sale, P. (2001) Is there a future for greenskin avocados. *The Orchardist.*

Samuelson, P. and Nordhaus, W. (1998) *Economics.* Boston, Mass.:Irwin-McGraw-Hill. 781 pp.

Schaffner, D. J., Schroder, W. R. and Earle, M. D. (1998) *Food marketing. An International Perspective.* Boston:WCB McGraw Hill. 487 pp.

Schermerhorn, J. R. (1993) *Management for Productivity.* New York:John Wiley & Sons, Inc. 758 pp.

Schroeder, R. G. (1993) *Operations Management - Decision Making in the Operations Function.* Singapore:McGraw-Hill, Inc. 848 pp.

Schwartz, P. (1991) *The Art of Long View.* New York:Doubleday. pp.

Seeka. (2003) *Seeka - Annual Report 2003.* Tauranga:Seeka Kiwifruit Industries Limited. 40 pp.

Seyoum, B. (2000) *A brief history of international trade. Export-import theory,practice, and procedures.* I. B. Press. New York:pp.

Shaw, G. (1999) Brand New Attack. *New Zealand Marketing Magazine.* 18 (6): 50-51.

Shipley, K. G. and Wood McNulty, J. (1996) *The elements of interviewing*. San Diego:Singular Pub. Group. pp.

Sibbet, D. (1997) 75 years of Management ideas and practives 1992-1997. *Harvard Business Review.* 75 (5): 2-13.

Silva-Castellanos, L. (2002). Avocado - Spain. *USDA-FAS*. Available: http://www.fas.usda.gov/gainfiles/200211/145784707.pdf. [Retrieved 5th August 2003]

Smith, K. G., Grim, C. M. and Wally, S. (1997) Strategic groups and rivalrous firm behavior: Towards a reconciliation. *Strategic Management Journal.* 18 (2): 149-157.

Smith, R. (2003) Kiwifruit - the spark which became an industry. *The Orchardist.* 76 (3): 40-46.

Solano, J., De Ovalles, M. P., Rojas, T., Griman, A. and Mendoza, L. (2003) Integration of systemic quality and the balanced scorecard. *Information Systems Management.* 20 (1): 64-79.

Song, M., Calantone, R. J. and Di Benedetto, A. (2002) Competitive forces and strategic choice decisions: An experimental investigation in the United States and Japan. *Strategic Management Journal.* 23: 969-978.

Steiner, G. A. (1997) *Strategic Planning: What every manager must know.* USA:Free Press Paparbacks. pp.

Stern, J. M. (2001) *The EVA challenge; implementing value-added change in an organization.* New York:Wiley. 250 pp.

Szulanski, G. and Amin, K. (2001) Learning to Make Strategy: Balancing Discipline and Imagination. *Long Range Planning.* 34 (5): 537-556.

Thompson, J. K. (1997) *Strategic Management - Awareness and Change.* London, Boston:International Thompson Business Press. 839 pp.

Tully, S. and Hadjian, A. (1993) The real key to creating wealth. *Fortune.* 128 (6): 38-45.

UNECE. (2002). Kiwifruit UN/ECE Standard FFV-56 concerning the marketing and commercial quality control of Kiwifruit. *UNECE*. Available: http://www.unece.org/trade/agr/meetings/ge.01/document/2002_inf/2002_i17.doc. [Retrieved 4th August 2003]

Van Veen-Dirks, P. and Wijn, M. (2002) Strategic Control: Meshing Critical Success Factors with the Balanced Scorecard. *Long Range Planning.* 35 (4): 407-427.

Van Zyl, A. and Perkins, J. (1994) *Economic value added: the key to wealth creation.* Wellington, N.Z.:New Zealand Society of Accountants. 37 pp.

Von Neumann, J. and Morgenstern, O. (1944) *Theory of game and economic behavior.* Princeton:Princeton University Press. pp.

Walker, K. (1996) Corporate performance reporting revisited - The Balanced Scorecard and dynamic management repoerting. *Industrial Management and Data Systems.* (26): 24-30.

Wallace, B. (1998) Studing the Balanced Scorecard. *New Zealand Management.* 45 (7): 44-46.

Wallis, C. (2002). *Strategic Positioning for the Future.* Satara Cooperative Group Ltd. Te Puke. 29

Walters, D., Halliday, M. and Glaser, S. (2002) Added value, enterprise value and competitive advantage. *Management Decision.* 40 (9): 823-833.

Warrington, I. J. and G.C., W. (1990) *Kiwifruit Science and Management*. Auckland:R. Richards in association with the New Zealand Society for Horticultural Science. 576 pp.

Webby, J. (2003) From the Desk of Grant Eynon. *New Zealand Kiwifruit Journal*. (157): 23-25.

Weihrich, H. (1982) The TOWS matrix - a tool for situation analysis. *Long Range Planning*. 15 (2):

Whiteley, R. and Hessan, D. (1996) *Customer centered growth: five proven strategies for building competitive advantage*. Readin, Mass:Addison-Wesley Pub. 320 pp.

Wilhelmy, C. (1998). Evaluacion Economica del Cultivo del Palto. *Seminario Internacional de Paltos*. Vina del Mar, Chile. GAMA. 119-143

Wilson, W. (1999) Co-operation, some thoughts for the future - A personal view. *JOurnal of the Royal Agricultural Society of England*. 160: 99-105.

Wright, P. (2001) Seeing is believing - The power of strategy maps. *Knowledge Management Review*. 3 (6): 3.

Yaf. (1998). *A review of the deregulation debate: Analysing industry-community viability and risks for the kiwifruit industry*. Private report prepared for United Kiwi. YAF Consultants. Palmeston North. 48

Yerex, D. and Westbrook, H. (1983) *The Kiwifruit Story*. Masterton:Agricultural Publishing Associates. 96 pp.

Yin, R. K. (2002) *Case Study research: design and methods*. Thousand Oaks, CA:SAGE Publications. 181 pp.

Yousef, R. (2003) Avocados - A Living or a LIfestyle? *Avoscene*. (9): 20-21.

Zeithaml, V. A., Parasuraman, A. and Berry, L. L. (1990) *Delivering quality service*. New York:Free Press. 226 pp.

Zespri. (2001) *Workbook - Securing the future through an integrated Zespri System*. Zespri Group. 227 pp.

Zespri. (2003a) *Annual Report 2003*. Auckland:Zespri Group. 78 pp.

Zespri, I. L. (2003b) Industry Advisory Council endorsed through the Roadshows. *Kiwiflier*. (211): 1.

Zikmund, W. G. (1997) *Business research methods*. Fort Worth:Dryden. 829 pp.

Appendix 1. Information Sheet. Competitive advantage, strategic management and the Balanced Scorecard in the New Zealand kiwifruit industry: A Co-operative group case study

INFORMATION SHEET

Dear Sir:

My name is Gustavo Cardemil and I am currently studying for my masters in Agribusiness at Massey University. As part of my research requirement, I am conducting a case study in strategic management in the New Zealand kiwifruit industry, focused on a new-formed cooperative: Satara™ Co-op Ltd.

In June 2002, Satara™ Co-operative Group Limited was formed. With the mission of maximize the return to shareholders by being the most efficient horticultural service operation in New Zealand, Satara™ Co-op Ltd has begun a new journey as one of the largest kiwifruit suppliers and the biggest post harvest company in the country. In the current challenging and unique kiwifruit environment lead by Zespri™, contemporary actions and strategies implemented by Satara™ Co-Op are of extreme interest both, for academic and related enterprises interests.

The research hypotheses that the project tries to answer are:
- *The organization has a competitive advantage in the New Zealand Kiwifruit industry.*
- *Satara™ Cooperative Group competitive strategies can be implemented through the Balanced Scorecard.*

The research objective is:
Perform a strategic analysis of the firm; identify current or possible competitive advantages, and identify how this competitive advantages with other aspects of the business will deliver to shareholders vision by using the Balanced Scorecard.

This semi-structured interview is aimed at trying to answer the question conducting to the mentioned objective, and is intended to last approximately ____ minutes. The main areas to be covered include:
EXPLAINATION DEPENDING ON THE SPECIFIC TOPIC

The interview will be tape recorded with your approval. Your responses will be held at Massey University in the strictness of confidence at all times, and only myself and the project supervisors Prof. W.C. Bailey and Ms. Nicola Shadbolt will have access to information gathered through the interview. Individual responses will remain confidential. The information collected from the interview will be used to develop the case study only, and any other output from this research will be in a summarized form with individual responses unidentifiable.

As a voluntary participant you have the right to decline to participate in the interview, to refuse to answer any particular question and to withdraw from the interview at any time, to ask any questions about the study at any time during participation, to provide information on the understanding that your name will not be used unless you give permission to the researcher, and to be given access to a summary of the findings of the study when it is concluded.

If you have any further queries I would be pleased to answer them, and don't hesitate in contacting me at Massey University, 06 3505799, extension 2354, email g.cardemil@massey.ac.nz or at home, 06 3540058, or alternatively my supervisors at Massey University, William C. Bailey at 06 350 4166 or Nicola Shadbolt, 06 350 7828.

Yours faithfully,

Gustavo Cardemil, Agribusiness Masterate student

Appendix 2. Consent form.

Competitive advantage, strategic management and the Balanced Scorecard in the New Zealand kiwifruit industry: A Co-operative group case study

Study conducting to Mr. Gustavo Cardemil's degree of Master of Applied Science in Agribusiness

CONSENT FORM

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree to participate and I understand I have the right to withdraw from the study at any time and to decline to answer any particular questions.

I agree to provide information to the researchers on the understanding that my name will not be used without my permission. (The information will be used only for this research and publications arising from this research project).

I agree/do not agree to the interview being audio taped (please circle one).

I understand that I have the right to ask for the audio/video tape to be turned off at any time during the interview.

(FOR SATARA Co-op Ltd ONLY). *I also understand that I have the right to embargo the thesis for a stated period if I consider that the information given is commercially sensitive with potential disadvantage to the company in the future.*

I agree to participate in this study under the conditions set out in the Information Sheet.

Signed: .....

Name: .....

Date: .....

Researcher's name:.....

Signature:.....

Appendix 3. Strategy Development questionnaire

Source: (Ambrosini, 1998)

This questionnaire considers the process by which strategy is developed within organizations. It is designed to discover **your perceptions** of how strategic decision are made in your organization. Strategic decision are those which are characterised by a large commitment of resources and deal with issues of substantial importance to the organization usually with longer rather than just short-term impact or significance; they usually involve more than one function and involve significant change.

The following pages comprise a number of statements. When considering these statements please:

- Assume each applies to **SATARA™ CO-OPERATIVE GROUP**, and respond to the statements as such.
- Think of your organization as it **exists at present**, not as it has existed in the past or how would like it to exist in the future.
- Evaluate each statement in term of the extent to which you **agree** or **disagree** with it in relation to your organization.

Thank you for your cooperation

How to complete the questionnaire
Please answer all the statements (it will take approximately 5-15 minutes to complete)

- Give the answer that first occurs to you. Do not give an answer because you feel its is the right thing to say or you fell it is how things should be
- Respond to each of the statements by circling the appropriate number on a scale of 1(you **strongly disagree** with the statement in relation to your organization) to 7 (**you strongly agree** with the statement in relation to your organization).

Your Position:_____

What is Satara Co-Operative Group business? _____
What is your organization good at?

Questionnaire

		Strongly disagree						Strongly agree
1	We have definite and precise strategic objectives	1	2	3	4	5	6	7
2	To keep in line with our business environment we make continual small-scale changes to strategy	1	2	3	4	5	6	7
3	Our Strategy is based on past experience	1	2	3	4	5	6	7
4	The influence a group or individual can exert over the strategy we follow is enhanced by their control of resources critical to the organization's activities	1	2	3	4	5	6	7
5	The strategy we follow is directed by a vision of the future associated with the chief executive (or another senior figure)	1	2	3	4	5	6	7
6	Our strategy is based on past experience	1	2	3	4	5	6	7
7	We evaluate potential strategic options against explicit strategic objectives	1	2	3	4	5	6	7
8	We keep early commintment to a strategy tentative and subject to review	1	2	3	4	5	6	7
9	Our organization's history directs our search for solutions to strategic issues	1	2	3	4	5	6	7
10	The information on which our strategy is developed often reflects the interests of certain groups	1	2	3	4	5	6	7
11	Our strategy is closely associated with a particular individual	1	2	3	4	5	6	7
12	Our freedom of strategic choice is severely restricted by our business environment	1	2	3	4	5	6	7
13	We have precise procedures for achieving strategic objectives	1	2	3	4	5	6	7
14	Our strategies emerge gradually as we respond to the need to change	1	2	3	4	5	6	7
15	There are beliefs and assumptions about the way to do things which are specific to this organization	1	2	3	4	5	6	7
16	Our Strategy develops through a process of bargaining and negotiation between groups or individuals	1	2	3	4	5	6	7
17	The chief executive determines our strategic direction	1	2	3	4	5	6	7
18	We are not able to influence our business environment; we can only buffer ourselves from it	1	2	3	4	5	6	7
19	We have well-defined procedures to search for solutions to strategic problems	1	2	3	4	5	6	7

Questionnaire Page 2 of 2.

		Strongly disagree						Strongly agree
20	We tend to develop startegy by experimenting and trying new approaches in the marketplace	1	2	3	4	5	6	7
21	The strategy we follow is dictated by our culture	1	2	3	4	5	6	7
22	Our strategy is a compromise which accommodates the conflicting interests of powerful groups and individuals	1	2	3	4	5	6	7
23	Our strategy direction is determined by powerful individuals or groups	1	2	3	4	5	6	7
24	Barriers exist in our business environment which significantly restrict the strategies we can follow	1	2	3	4	5	6	7
25	Our strategy is made explicit in the form of precise plans	1	2	3	4	5	6	7
26	Our Strategy develops through a process of ongoing adjustment	1	2	3	4	5	6	7
27	The strategies we follow develop from 'the way we do things around here'	1	2	3	4	5	6	7
28	The decision to adopt a strategy is influenced by the power of the group sponsoring it	1	2	3	4	5	6	7
29	Our chief executive tends to impose strategic decisions (rather than consulting the top management team)	1	2	3	4	5	6	7
30	Many of the strategic changes which have taken place have been forced on us by those outside this organization	1	2	3	4	5	6	7
31	We make strategic decisions based on a systematic analysis of our business environment	1	2	3	4	5	6	7
32	Our strategy is continually adjusted as changes occur in the marketplace	1	2	3	4	5	6	7
33	There is resistance to any strategic change which does not sit well with our culture	1	2	3	4	5	6	7
34	Our strategies often have to be changed because certain groups block their implementation	1	2	3	4	5	6	7
35	A senior figure's vision is our strategy	1	2	3	4	5	6	7
36	Forces outside this organization determine our strategic direction	1	2	3	4	5	6	7

Thank you

Appendix 4. General Strategic Management response sheet

Based on (Levicki, 1996), (Ambrosini, 1998) and (Lake, 2002).

Mision audit

Values - Culture audit

History

M3.1 What are the three most important events in the organization's history, which have left a long-lasting effect?

Event 1:_____

Effect:_____

Event 2:_____

Effect:_____

Event 3:_____

Effect:_____

M3.2Are they Myths, legend, story or anecdotes in the organization?

M3.3What are the best know stories in your organization?

1:_____

2:_____

M3.4Leadership issues

M3.5Name of the most memorable past leader

M3.6What behaviour is still attributable to him/her?

M3.7Present leaders

M3.8Name the most prominent present leader

M3.9What three words characterize his/her style?

M3.10What does the organization's leader want the organization to be?

Vision

V1 If you could change something (anything) in your organization (like with a Magic wand), what would it be?

a:_____

b:_____

c:_____

d:_____

e:_____

f:_____

g:_____

V2 What does the "ideal world" for the organization look like?

M3.11Mission

M3.12What business are you in?

M3.13What business are you NOT in?

M3.14What decisions has your company taken that exclude it from pursuing opportunities?

M3.15What could the organization be doing with the available resources that are within the skills of the existing people if some of those decisions were reversed?

M3.16Are there real opportunities for the organization if those restrictions were lifted?

M3.17Why is your company not taken advantage of these opportunities?

M3.18Is it possible that if some of the boundaries were lifted then you would be able to develop your organization with little extra investment in resources?

M3.19What business should you be in?

By considering the current situation (Zespri stays as statutory monopoly), the organization has a trajectory into the future:

M3.20If your company changes nothing, what kind of business will it become?

M3.21Is this where there are the best opportunities to the organization?

M3.22If this is not the kind of your company want to be, what is a better alternative?

M3.22Does your company have the resources to become this alternative?.

M3.21What is the organization good at?
M3.22What is your uniqueness?
M3.22.1 As part of a competitors and competitiveness analysis, complete the 'Hallmark of success' to collect information of the distinguishing features that really make a difference.

Feature	Rank	Current performance	Improvement opportunity
- - - - - -			

How to complete:
Select 5 people in the organization who have the clearest understanding about the industry.
Ask them to think about four characteristics that make the difference between successful and unsuccessful organizations that are in the same business than your company.
Ask them to rank order the list.
Then ask them to score each item on the list to show the extent to which your organization possesses that feature. (a score of 1 means that the organization has this more than any other organization, and 5 means that this feature is not strongly in evidence. Score of 2 or 4 are to provide shading).
The fourth column records suggestions about what needs to be improved to reach a score of 1.
Consolidate the results. Put all the answers together with the most frequently nominated feature at the top of the list, and an average of the scores.

M3.22.2 Uniqueness
Also, trying to explain the uniqueness of the organization to the customer, and based on:
Features are the characteristics of the product/service
Advantages are those aspects of the product/service that are in some way useful/different from the competitors.
Benefits are the value that the customer gains from using the product/service (and are often about money and time)

How would you complete the sentence?:
Your company's name (Features)_____,
_____which means that (advantages)
_____ which means that (Benefits to customers)_____, _____.

M3.22.3 Statement of strategic intent:
We provide (key product/services):_____
To (main beneficiaries):_____
We are best at (special features):_____
Our uniqueness is:_____

External environment audit
PEST(LE) Analysis
PEST1 What are the most important **political** factors likely to affect the organization?
PEST2 What are the most important **economic** factors in the organization's domestic market?
PEST3 What are the most important **economic** factors in markets abroad?
PEST4 Which current **demographic (social)** trends may affect the organization's workforce?
PEST5 What are the most important **technological** factors likely to affect the organization?
PEST6 Which **legal** factors affect or could affect the organization?
PEST7 What are the most important **environmental** factors likely to affect the organization?
PEST8 If not mentioned already, what changes will negatively impact the organization if ignored? How great could be the impact?

INDUSTRY analysis – Porter's five forces
Rivalry amongst existing firms – Intra Industry Analysis
IND1 Who do you regard as the best performer in your industry? Why?
IND1 Who are the next most important competitors?
IND3 Which single person do you fear (or consider more important) the most in each of the competing organizations mentioned above?
IND4 Who is the most important regional competitor? Why?
IND5 Are there any large customers who could bypass you by buying direct from your suppliers, instead of buying from your firm? (Could Zespri do that in the future in any way, others, ...)
IND6 Do you have any supplier that might start supplying Zespri directly? (New cooperatives)
IND7 Do you have a 'competitors intelligence' program/function in your organization?

Competitor segmentation

Key Segmentation Variable	Weight	Your Company	Most important competitor	The Industry
i.e. Size	i.e. 15	i.e. 10	i.e. 10	i.e. 5
Location				
Customer Service				
Reputation				
Payment clarity				
Cooperative				
Orchard Leasing				
Own orchards				
Avocados				
TOTAL	100			

SEG1 How would you segment the customer; which variables would you use?
SEG2 Is it possible to apply a discrete categorization to these variables, which is relevant to your organization?
SEG3 Is it possible to apply the Pareto principle (20%-80%) in your organization? What are the characteristics of the Top 20 growers?
SEG4 How would you segment the service; which variables would you use?

Individual competitor audit

COMP1 What is your most important competitor's company name?
COMP2 What is its annual revenue, annual profit, debt, etc...?
COMP3 Who is the competitor's leader?
COMP4 What is its preferred method of competing?
COMP5 Is your competitor satisfied with its position in the industry?
If YES, what could change that position?
If NO, what does your competitor want to achieve?
COMP6 What strategic action from your organization would provoke the fiercest reaction?
COMP7 What are the competitor's important strengths?
COMP8 What are the competitor's important weaknesses?
COMP9 How does your organization treat its employees (Difference with competitor)?
COMP10 How does your organization treat its customers (Difference with competitor)?
COMP11 Strategic Groups. Are they groups with similar strategies and capabilities in the industry?
Threats of new entrants
IND 8Are there any organizations, which might enter the industry?
Threats of substitutes
IND 9Are they substitutes for your company's services?
Bargaining power of suppliers
IND 10 Substitutability
IND 11 Switching cost
Bargaining power of buyers
IND 12 Zespri – Australian Market
IND 13 Satara™'s importance to Zespri
IND 14 Vertical integration of Zespri – Supplies outside New Zealand

Beyond Porter's Five forces
IND 15 Zespri is the "flagship", the network leader. What could happened beyond Zespri
IND 16 Cooperation: Zespri, Satara™, your company, principal competitor, etc…

Auditing streghts and weaknesses
Tick each of the following categories in terms of it being a strength, neutral or a weakness.

Organization function	**Strength**	**Neutral**	**Weakness**
Access to finance	☐	☐	☐
Business strategy	☐	☐	☐
Corporate strategy	☐	☐	☐
Cost structure of business	☐	☐	☐
Distribution network	☐	☐	☐
Divisional strategy	☐	☐	☐
Entry barriers	☐	☐	☐
Exit barriers	☐	☐	☐
Financial accounting skills	☐	☐	☐
Information technology	☐	☐	☐
Innovation (making research)	☐	☐	☐
Lateral communication	☐	☐	☐
Leader's ability	☐	☐	☐
Leadership skills in general	☐	☐	☐
Loyalty of workforce	☐	☐	☐
Management accounting skills	☐	☐	☐
Operational skills	☐	☐	☐
Marketing skills	☐	☐	☐
Organization structure	☐	☐	☐
Products	☐	☐	☐
Quality of brand	☐	☐	☐
Quality of staff	☐	☐	☐
Reputation in market	☐	☐	☐
Relationship with government	☐	☐	☐
Relationship with ZESPRI	☐	☐	☐
Relationship with NZKGI	☐	☐	☐
Relationship with suppliers	☐	☐	☐
Research and development	☐	☐	☐
Services	☐	☐	☐
Selling skills	☐	☐	☐
Technical engineering skills	☐	☐	☐
Personnel administration	☐	☐	☐
Vertical communication	☐	☐	☐

Additional categories

_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐

(To evaluate the top three strengths and weakness for the analysis, and discuss about how to use, neutralize or improve the effects of each on the success of the organization's mission).

Review of Fundamental questions

RV1 What are you markets? What are the needs (existing or developed) of the markets and customers that your firm wants to satisfy?
RV2 What should be your 'generic' competitive advantage?
RV3 Are you going to be a technology leader of follower?
RV4 What is your attitude to risk? What risks, and to what extent are you willing to take? (Min-average-max IRR)
RV5 What are you long range quantitative targets?

Review of tactical questions

RV6 How do you create value for your customers and for your selves?
RV7 Where are the areas of greatest opportunity?
RV7.1 Which processes generate the most value in your organization right now?
RV7.2 Which products/services generate most profit?
RV7.3 Which customers give you the greatest return?
RV7.4 Where is there greater capacity to do more work with high return customers?
RV7.5 Where are there more of the kinds of customers that you would like?
RV8How much money do you want to make?
RV9What do you have to do to sustain optimal levels of performance?

Long term strategy

LTS1 In the light of all foregoing analysis, what are the organization's main objectives over the following time scales?

10 years:_____
5 years:_____
3 to 2 years:_____

LTS2 Should the organization grow, remain stable or diminish size?
LTS3 Which part of the business should: Focus?, Differentiate? Be an industry cost leader?
LTS4 What are the three main priorities over the next year?

The Research question

RQ1 What is Satara Co-operative Group competitive advantage?

Appendix 5. Competitive advantage questionnaire

Source: (Lake, 2002)

SK1 Skills matrix/talent analysis

Because organizations only have a limited basket of knowledge and skills, it is important to asses and identify who has the capacity to progress and by when.

Only Senior and middle management is considered, because this group is usually the hardest to recruit, and they are often the most specialized, and therefore the most inflexible.

Fill the figures in the organization chart answering the following tow questions:

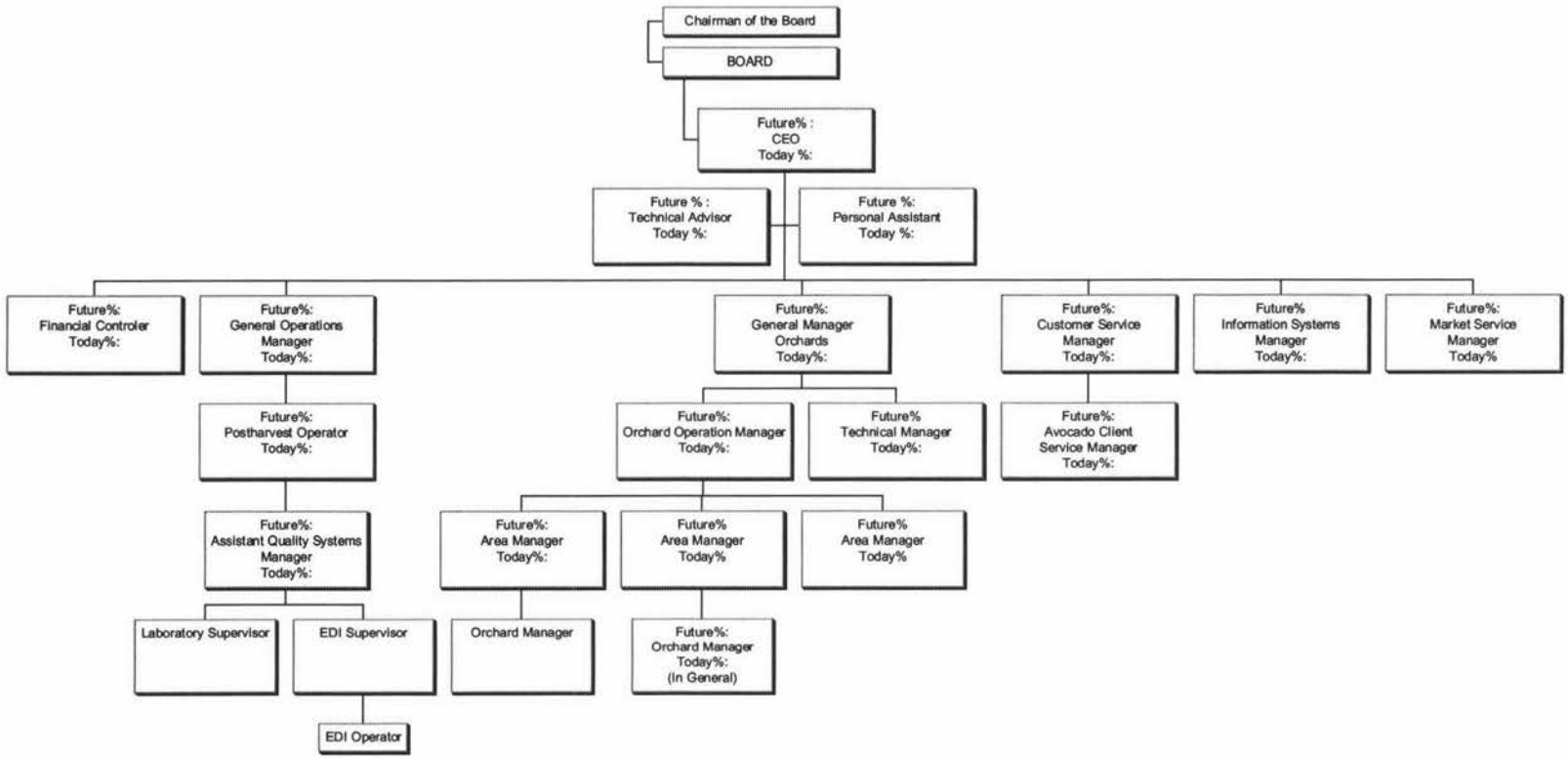
What percentage of the knowledge and skills that this person needs does he or she actually posses today, and what percentage of the knowledge and skills that the person is likely to need in the future does he or she posses today?

Answer in next page. Circle any percentage that is below 80%.
Then answer the following questions:

How many levels above his or her current level is this person capable of achieving in the next five to seven years?

- Indicate beside the box the expected level or expected position of this person in 5 – 7 years time.

Satara Co-operative Group Ltd organizational chart as of January 2003.



OP1 Optimisation analysis (Sub-optimisation version of the GAP analysis).

Select the five more important processes in your organization

_____.
_____.
_____.
_____.
_____.

Based on a optimized state of that process that represents a state where all components of the process work as well as they could (and should?), with everyone performing close to the levels exhibited by Satara's best workers, were all processes are as sleek and free of defects as the best process in the company, and where all customers are as profitable and trouble free as your best customers, etc.. What is the gap between current activities and outputs, and possible performance? Or how close is Satara to the optimized state en those key processes?

OPT1.1 *Process 1*)

Key measures	Current Difference (with optimal)	Projects to bridge the gap	Optimal Key measures
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

OPT1.2 *Process 2*)

Key measures	Current Difference (with optimal)	Projects to bridge the gap	Optimal Key measures
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

OPT1.3 *Process 3*)

Key measures	Current Difference (with optimal)	Projects to bridge the gap	Optimal Key measures
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

OPT1.4 *Process 4*)

Key measures	Current Difference (with optimal)	Projects to bridge the gap	Optimal Key measures
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

OPT1.5 *Process 5*)

Key measures	Current Difference (with optimal)	Projects to bridge the gap	Optimal Key measures
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Risk analysis

Complete the following table:

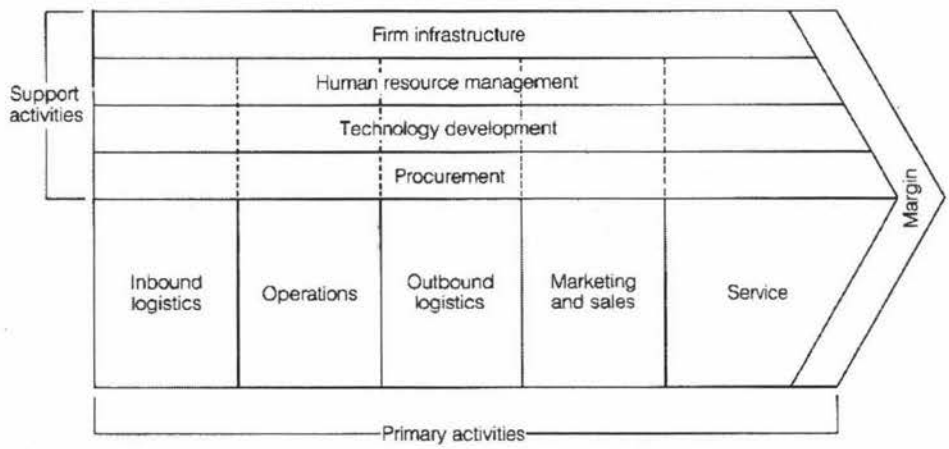
The risk	Impact	Consequences in NZ$ dollars	Likelihood (0-100%)
- Zespri deregulation - -			

(Risk that are reasonably possible to occur in the next 1 – 3 years, and with sufficient magnitude that they noticeably affect the organization)

COMPADV1 Competitive advantage and the Value Chain Analysis
Based on (Porter, 1985) and (Thompson, 1997).

Considering that:

Inbound logistics are activities relating to receiving, storing and distributing internally the inputs to the product or service.
Operations are activities relating to the transformation of inputs into finished products and services.
Marketing and sales is the marketing mix that includes activities as advertising and promotion, pricing, and sales force activity.
Service relates to the provision of any necessary service with a product or service.
Procurement refers to the function or process of purchasing any inputs used in the value chain.
Technology development is defined in its broadest sense, including know-how, research and development, product design, process improvements, etc..
Human resource management involves all activities relating to recruiting, training, developing, and rewarding people throughout the organization
Firm infrastructure includes the structure of the organization, planning, financial controls and quality management designed to support the whole of the value chain (Figure 27).



Value Chain According to Porter (1985).

Answer, yes (true) or no (false), or strength or weakness. Consider as the customer any buyer of Satara's products/services (Zespri, Coles supermarkets, or any others).

Value creating activities at Satara Co-operative Group Limited (see Porter Value Chain figure)	True, yes or strength	False, no or weakness
Inbound logistics:		
Highly Efficient Systems to Link Suppliers' Products with the Firm's Production Processes		
Superior handling of incoming raw materials to minimize damage and improve the quality of the final product		
Located in Close Proximity with Suppliers		
Quality of components and materials		
OPERATIONS:		
Efficient Plant Scale to Minimize Manufacturing Costs		
Consistent manufacturing of attractive products		
Timing of Asset Purchases		
Rapid responses to customers unique manufacturing specifications		
Policy Choice of Plant Technology		
Organizational Learning		
Outbound logistics		
Delivery Schedule that Reduces Costs		
Accurate and responsive order processing procedures		
Selection of Low Cost Transport Carriers		
Efficient Order Sizes		
Rapid and timely product deliveries to customers		
Interrelationships with Sister Units		
MARKETING AND SALES		
Small, Highly Trained Sales Force		
Strong Coordination among functions in R&D, Marketing and Product Development		
Products Priced to Generate Sales Volume		
Extensive personal relationships with buyers		
National Scale Advertising		
Building brand reputation		
Premium Pricing		
SERVICE		
Effective Product Installations to Reduce Recalls		
Complete field stocking of replacement parts		
Customer technical support		
PROCUREMENT		
Systems and procedures used to find the highest quality raw materials		
Systems and Procedures to Find the Lowest Cost Products to Purchase Raw Materials		
Frequent Evaluation Processes to Monitor Suppliers' Performances		
Purchase of highest quality replacement parts		
Located in close Proximity with Suppliers		
TECHNOLOGY AND DEVELOPMENT		
Easy-to-Use Manufacturing Technologies		
Coordination among R&D, marketing and product development		
Investments in technologies to produce highly differentiated products		
Investments in Technology in order to Reduce Costs Associated with Manufacturing Processes		
Strong capability in basic research		
HUMAN RESOURCE MANAGEMENT		
Extensive use of subjective performance measures		
Superior personnel training		
Consistent Policies to Reduce Turnover Costs		
Compensation programs which encourage worker creativity and productivity		
Effective Training Programs to Improve Worker Efficiency and Effectiveness		
FIRM INFRASTRUCTURE		
Highly developed Infor.Systems to better understand customers' purchasing preferences		
Cost Effective MIS Systems		
A company wide emphasis on producing high quality products		
Simplified Planning Practices to Reduce Planning Costs		
Relatively Few Management Layers to Reduce Overhead		

NOW ANSWER, WERE POSSIBLE, THE SAME QUESTIONS BUT TAKING INTO ACCOUNT THE GROWER OR FRUIT SUPPLIER AS THE CUSTOMER.

Value creating activities at Satara Co-operative Group Limited	True, yes or strength	False, no or weakness
Inbound logistics:		
Highly Efficient Systems to Link Suppliers' Products with the Firm's Production Processes		
Superior handling of incoming raw materials to minimize damage and improve the quality of the final product		
Located in Close Proximity with Suppliers		
Quality of components and materials		
OPERATIONS:		
Efficient Plant Scale to Minimize Manufacturing Costs		
Consistent manufacturing of attractive products		
Timing of Asset Purchases		
Rapid responses to customers unique manufacturing specifications		
Policy Choice of Plant Technology		
Organizational Learning		
Outbound logistics		
Delivery Schedule that Reduces Costs		
Accurate and responsive order processing procedures		
Selection of Low Cost Transport Carriers		
Efficient Order Sizes		
Rapid and timely product deliveries to customers		
Interrelationships with Sister Units		
MARKETING AND SALES		
Small, Highly Trained Sales Force		
Strong Coordination among functions in R&D, Marketing and Product Development		
Products Priced to Generate Sales Volume		
Extensive personal relationships with buyers		
National Scale Advertising		
Building brand reputation		
Premium Pricing		
SERVICE		
Effective Product Installations to Reduce Recalls		
Complete field stocking of replacement parts		
Customer technical support		
PROCUREMENT		
Systems and procedures used to find the highest quality raw materials		
Systems and Procedures to Find the Lowest Cost Products to Purchase Raw Materials		
Frequent Evaluation Processes to Monitor Suppliers' Performances		
Purchase of highest quality replacement parts		
Located in close Proximity with Suppliers		
TECHNOLOGY AND DEVELOPMENT		
Easy-to-Use Manufacturing Technologies		
Coordination among R&D, marketing and product development		
Investments in technologies to produce highly differentiated products		
Investments in Technology in order to Reduce Costs Associated with Manufacturing Processes		
Strong capability in basic research		
HUMAN RESOURCE MANAGEMENT		
Extensive use of subjective performance measures		
Superior personnel training		
Consistent Policies to Reduce Turnover Costs		
Compensation programs which encourage worker creativity and productivity		
Effective Training Programs to Improve Worker Efficiency and Effectiveness		
FIRM INFRASTRUCTURE		
Highly developed Infor.Systems to better understand customers' purchasing preferences		
Cost Effective MIS Systems		
A company wide emphasis on producing high quality products		
Simplified Planning Practices to Reduce Planning Costs		
Relatively Few Management Layers to Reduce Overhead		

Appendix 6. Cooperative issues response sheet.

1) Rochandale principles (in the NGC context):

- Are hybrid co-operative defined by law in NZ?
- Open membership: Criteria for membership under NGC?
- Democratic control: Control based on member's shares?
- Service at cost: OGR?
- Limited return on capital: Some limits?
- Duty to educate: How?, when?
- Cooperation among cooperative: How? Eastpack?

2) Problems :

- Free rider: Delivery contract, responsibilities, switching costs, can they supply only for one season.
- Horizon problem: Transactor and investment shares price? Commitment in long term return (or grower supplier short term investment to deliver fruit)
- Portfolio problem: Approval of more NPV>0 projects? (Risky behaviours should be reflected in share price), integrate vertically (Satara brand), how much?
- Control Problem: Owners-Managers. Patronage-based voting helps. Outside directors?
- Influence cost problem: Is grower lobbying important?

3) How do you raise more capital? Debentures? Additional capital contribution from members? Stock exchange?

4) Why not move to IOF? Public stock (diverse stakeholders to integrate community)? Takeovers?

Appendix 7. BSC Financial Perspective questions and response sheet.

BSCF1 What is the Group main Financial objective?
BSCF2 Are there differences with the divisions or business units (Satara Kiwifruit Suppliers or Kiwifruit, Avocados, other cool storing, etc...)? (Because different SBU's may follow different strategies. They may have different objectives and measures).
BSCF3 Are these different divisions and/or SBU in a different stage of its business life cycle? (i.e. Growth, Sustain or Harvest) Growth stage objectives: % growth in revenue, sales, targeted markets, customers groups, and or regions. Sustain stage objectives: Profitability objectives (ROE, ROCE, ROI), NPV>0. EVA. Harvest stage objectives: Short payback periods, cash flow, working capital.
BSCF4 Different risk tolerance (objectives) for the different units?
BSCF5 According to Kaplan and Norton (1996) for each of the three strategies of growth, sustain and harvest, there are three financial themes that drive the business strategy:
BSCF5.1 Revenue growth and mix: (New products, New Applications, New customers and markets, new relationships, New product and Services Mix, new pricing strategies)
BSCF5.2 Cost reduction/ productivity improvement (Increase revenue productivity, reduce unit costs, improve channel mix, reduce operating expenses)
BSCF5.3 Asset utilization/investment strategy (cash-to-cash cycle, improve asset utilization.
BSCF6 EVA (Economic Value Added).

Appendix 8. BSC Customer Perspective response sheet.

The Balanced Scorecard Customer Perspective for the ORCHARD division (as SBU) and Market (export) division. Interviews done separately.
Stage I. Identify and segment the customer
BSCC1 Who are your customers?
BSCC2 How would you segment your customer (BSCSEG)?
BSCSEG1 Do customer differ in their profitability to Satara Co-op Ltd.?
SEG2 Among those that have a low profit contribution. Why keep them? (Potential or future contribution, or is there a strategic reason). If not, why no give them away?
BSCSEG3 Do customer differ in their bargaining power?
BSCSEG4 Do customers choose the product that best meets their needs?
BSCSEG5 Are customers influenced by attitudes and behaviour of others?
BSCSEG6 Do customers differ in their needs?
BSCC3 Is it possible to apply the Pareto principle (20%-80%) at Satara? What are the characteristics of the Top 20 customers (growers)?
BSCC4 How would you segment the service?
BSCC5 How does Satara treat its customers (difference with main competitor)?
BSCC6 Do you have yearly information regarding: (FOR SHAREHOLDERS and LEASING/MGMT).
(Known as core measures group. These are lagging measures).
BSCC6.1 Customer retention: (For every season?) (grower of the year contest?)
BSCC6.2 Customer Acquisition: (Per segment, i.e. Leasing, management)
BSCC6.3 Customer Satisfaction: (How well is Satara doing? Mail, email, web page (Julie?)
BSCC6.4 Customer Profitability: Per segment
Stage II. Describe the Service according:
BSCC7 The value creating service:
BSCC7.1 Product/service attributes
BSCC7.1.1 Functionality:
BSCC7.1.2 Quality:
BSCC7.1.3 Price:
BSCC7.1.4 Time:
BSCC7.2 Image and reputation:
BSCC7.3 Relationship:
Stage III. What to do to achieve customer acquisition, satisfaction, retention and profitability. The value proposition (what should be different).
BSCC8 The value proposition (should be specific to different customer segments)

BSCC8.1 Product/service attributes
BSCC8.1.1 Functionality:
BSCC8.1.2 Quality:
BSCC8.1.3 Price:
BSCC8.1.4 Time:
BSCC8.2 Image and reputation:
BSCC8.3 Relationship:
BSCC9 What would you measure to know that you are on track (different from customer retention, satisfaction, etc..). These are the drivers, the leading measures to the core measures.
BSCC9.1 Product/service attributes
BSCC9.1.1 Functionality:
BSCC9.1.2 Quality: (Ton/ha, size, Dry matter)
BSCC9.1.3 Price: (Low price vs. low cost)
BSCC9.1.4 Time: (response time to calls, pest problems, contract enquiry, reliability)
BSCC9.2 Image and reputation:
BSCC9.3 Relationship:

Appendix 9. BSC Internal Processes Perspective response sheet.

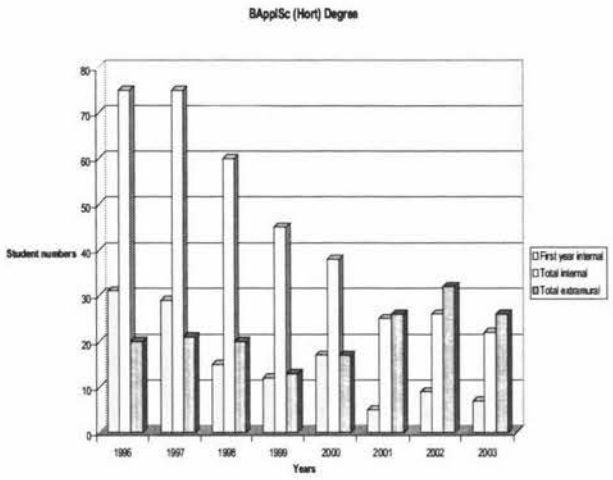
BSCI1 Innovation Process (Build the franchise and customer value)
BSCI1.1 Identify the Market: emerging or latent needs for customers, white spaces? What range of benefits will customers value in tomorrow's service?
BSCI1.2 Create the product/service offering: Lease/Management..., EAN, Bin charge, what else?
BSCI2 Operation Process (Operational excellence)
BSCI2.1 Build the products/services: Which are the critical internal processes to achieve customer and financial objectives (OPT1.1-1.5)?
BSCI2.2 Deliver the products/services:
BSCI2.2.1 Measures (MES) in *quality*, *process time* and *costs* that deliver the services to targeted customers?
BSCI2.2.2 Quality (reject rates, Class I trays/Bin, re-pack or re-sort, overweighing of fruit sizes, recovery rate of Class II from sorting tables, %Class I fruit in Class II trays, coolstore fruit quality or loses, Etc...)
BSCI2.2.3 Flexibility, responsiveness, capability measures?
BSCI2.2.4 Which defects/failures generate customer dissatisfaction?
MES Measurement check list
MES1 Choosing measures
MES1.1 They have to link to strategic objectives
MES1.2 Measures have to be generated within the organization
MES1.3 Start with a few, and then work on them with staff.
MES2 Critical Success Factors
MES 2.1The measures must support critical success factors
MES3 Leading and Lagging:
MES 3.1 Adequate balance between outcomes and drivers, to have early warning and indications to know if an objective will be achieved.
MES4 Weighting:
MES 4.1 Define priorities among measures in one perspective
MES5 Measurement checklist:
MES 5.1 Do we have a balanced mix of financial and non-financial measures?
MES 5.2 Do our measures help us predict what is about to happen to our business, as well as enable us to understand what has happened?
MES 5.3 Do our measures encourage people to do things we want them to do?
MES 5.4 Do we have a systematic process for reviewing our measures and ensuring they stimulate purposeful action?
BSCI3 (For Financial Controller): Is it possible to implement Activity Based Costing (ABC) somewhere in the operations to obtain costs per whole processes (i.e. Harvest and packing of a 30,000 trays orchards as a unit).
BSCI4 Post service process (Build the franchise and increase customer value)
BESCI 4.1 Service the customer: Which ones are critical to achieve customer and financial objectives?

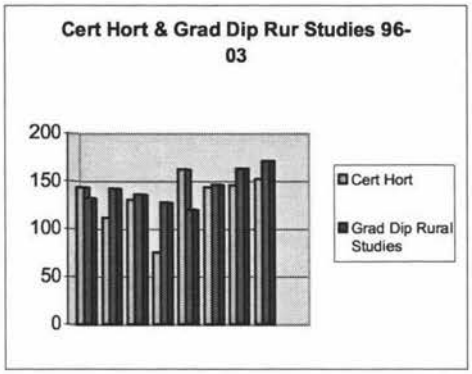
Appendix 10. BSC Learning and growth Perspective response sheet.

BSCL1 EMPLOYEE CAPABILITIES
BSCL1.1 Core Employee measurement group (objectives)
BSCL1.1.1 Satisfaction: (driver): Morale and overall job satisfaction. Usual problem, the lowest paid and lowest skilled employee interacts directly with the customer.
BSCL1.1.2
It could be useful to have an internal self-assessed survey (ranked from 1 to 5) including the following points:
- Involvement with decisions
- Recognition for doing a good job
- Access to sufficient information to do the job well.
- Active encouragement to be creative and use initiatives
- Support level from staff functions
- Overall satisfaction with company

BSCL1.1.3 Retention: Measure Key staff turnover, others?
BSCL1.1.4 Productivity: Revenue per employee, value-added per employee, output produced to employee compensation, others?
BSCL1.1.5 Re-skilling: Job Coverage ratio (Lake, 2002 framework about present and future jobs).
BSCL2 INFORMATION SYSTEMS CAPABILITIES: What is Satara doing? Measures: ITS coverage ratio, what else?
BSCL3MOTIVATION, EMPOWERMENT AND ALIGNMENT
BSCL3.1 Suggestions: Measure suggestion made and implemented. Link reward system to suggestions.
BSCL3.2 Improvement: The length of time required for process performance to improve by 50% (the half-life metric) or (rate of improvements actually occurring in critical processes).
BSCL3.3 Individual and organizational alignment:
BSCL3.4 Team Performance: Measures. Example: Project with more than one unit/employee involved, other

Appendix 11. Massey University enrolments in Horticultural Science in the last 10 years.





Notes:

1. Numbers undertaking the BApplSc (Hort) degree have progressively declined by about 50% over the past 8 years from a total of around 95 in 1996 to 48 currently. However, the downward trend of those taking full-time internal study has been more dramatic than this overall change indicates – in 1996 there were 31 first year internal students whereas there have been less than 10 for each of the last 3 years. Graduate numbers in three to four year's time, therefore, will be very low indeed.

2. The number of students studying for the degree extramurally has remained fairly constant at around 20 - 25 per annum over the past 8 years. However, it should be noted that these students can take six or more years to complete the full degree programme.

3. Numbers going on to Post Graduate study have remained at only one or two per annum over the past 5 years as the number completing their BApplSc degrees each year has declined.

4. The number of jobs available last year was at least four-times higher than the number of graduates. Clearly, those wishing to employ horticulture graduates over the next few years will notice an acute shortage of applicants for their vacancies – a trend that will continue for many years unless there is some immediate and significant promotion of and support for these programmes. The shortage is also resulting in very significant upward pressure on salaries.

5. NOTE: the viability of programmes at Massey University is not dependent solely on the number of students undertaking papers in the BApplSc (Horticulture) degree – numbers in the Cert Hort, Grad Dip Rural Studies, Personal Programme and BApplSc (Landscape Management) options mean that the numbers overall are very healthy.

Source: Prof. Ian J. Warrington. Professor of Horticultural Science. Massey University.

Appendix 12. OGR comparison for the NZ Kiwifruit Industry. Season 2001/2002

2001/02 Season	Zespri Industry average OGR			Seeka average OGR			2 2 2 average OGR			3 3 3 average OGR			4 4 4 average OGR			6 6 6 average OGR		
	Green	GO	Gold	Green	GO	Gold	Green	GO	Gold	Green	GO	Gold	Green	GO	Gold	Green	GO	Gold
Average Fruit Size	35.0	35.30	31.1	35.05	36.09	32.42	35.4	35.6	31.3	35.59		32.80	33.86		29.99	35.2	33.4	31.4
Fruit Value	6.08	7.39	7.77	6.0279	7.0709	7.4923	5.97	7.25	7.72	5.953		7.385	6.3084		7.6776	6.023	7.32	7.70
adjsutment for fruit size				0.0521	0.3191	0.2777	0.11	0.14	0.05	0.127		0.385	-0.2284		0.0924	0.057		0.07
adjusted Fruit Value				6.08	7.39	7.77	6.08	7.39	7.77	6.08		7.77	6.08		7.77	6.08	7.32	7.77
Service Payment	1.07	0.81	1.61	0.8365	0.9081	1.4026	1.06	0.64	1.40	1.16		1.073	1.1362		1.4225	-0.02	0.10	-0.12
Fruit Loss %	2.90%	4.00%	7.01%	4.10%	1.90%	5.10%	3.55%	7.75%	5.22%				2.24%		3.06%			
FOBS Return	7.15	8.2	9.38	6.9165	8.2981	9.1726	7.14	8.03	9.17	7.24		8.843	7.2162		9.1925	6.06	7.42	7.65
Fruit loss $	0.21	0.33	0.66	0.2364	0.1366	0.3712	0.23	0.61	0.48	0.038		0.023	0.1742		0.2804			
Supplier return per tray packed	6.94	7.87	8.72	6.6801	8.1615	8.8014	6.91	7.42	8.69	7.202	0	8.82	7.042	0	8.9121	6.06	7.42	7.65
Less coolstorage & time related costs	-1.26	-1.20	-1.13	-0.5677	-0.5815	-0.5609	-0.67	-0.72	-0.75	-0.924		-0.645	-0.8857		-0.8953	-0.52	-0.52	-0.87
Less packing & packaging	-1.64	-1.51	-2.76	-1.5943	-1.519	-2.4277	-1.62	-1.43	-2.37	-1.524		-2.541	-1.6095		-2.5924	-1.47	-1.47	-1.47
Less port & transport & admin	-0.14	-0.13	-0.13	-0.0999	-0.1403	-0.0995	-0.13	-0.13	-0.13				-0.1865		-0.185			
Plus class II	0.19	0.21	0.08	0.2161	0.3962	0.0498	0.13	0.18	0.00	0.157		0.00	0.146		0.0415	0.1511	0.2145	0.1485
Plus other grower income	0.41	0.27	0.18	0.1153						0.034		0.033	0		0	0.2875	0.4336	0.1765
OGR per tray	**4.50**	**5.51**	**4.96**	**4.75**	**6.32**	**5.76**	**4.62**	**5.32**	**5.44**	**4.95**	**##**	**5.67**	**4.51**	**0**	**5.28**	**4.51**	**6.08**	**5.64**
average yeild per ha	6,602	4,690	5,531	8,043	4,780	6,481	7,045	4,635	5,129	7,542		5,186	8,648		9,292	7,313	4,652	7,269
OGR per ha	29,748	25,842	27,415	38,200	30,192	37,350	32,548	24,658	27,902	37,295		29,389	38,970		49,070	32,972	28,275	40,961
average size per tray	35.0	35.3	31.1	35.05	36.09	32.42	35.40	35.60	31.30		0			0		35.2	33.4	31.4
Kiwistart Payments (included in the above)	0.14	0.09		0.09	0.00	0.00	0.11			0.22		0	0.19		0	0.072	0.24	0

G: Green; GO Green Organic; Gold: Hort16 A. Supplier 5 did not participate in the comparison. Only one cooperative is included in the table.

Source: Ian Greaves (2003). Personal communication.

Note: To be able to make the compassion on behalf of SEEKA Kiwifruit Industries Limited, Ian Greaves gathered the information under a confidentially agreement which protects the identity of the supplier disclosing the information. This is why SEEKA is the only supplier identifiable. All information was received in good faith.

Appendix 13. Capital Employed Analysis for Rebate calculation

Capital Employed Analysis						
Year	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Total Assets			24,701,325	26,514,633	33,788,345	41,428,231
Less						
Trade Liabilities			4,650,444	3,161,903	4,937,610	6,111,728
Leased Orchards			3,030,664	3,735,547	3,725,081	3,743,119
Trade Debtors			1,311,260	2,330,114	2,999,975	2,441,146
Investments			390,291	478,787	428,237	144,483
Refunds Due to Resigned Shareholders						
Net Assets Employed			15,318,666	16,808,282	21,697,442	28,987,755
Capital Employed to Pack a tray of kiwifruit						
Tray capacity of facilities			7,500,000	7,500,000	10,500,000	10,500,000
Gross Assets per tray			$3.29	$3.54	$3.22	$3.95
Net Assets per tray			$2.04	$2.24	$2.07	$2.76
Capital Employed to Pack a tray of kiwifruit adjusted						
Tray capacity of facilities			7,500,000	7,500,000	10,500,000	10,500,000
Adjusted Net Assets			21,280,370	22,300,299	29,635,027	37,540,629
Gross Assets per tray			$3.29	$3.54	$3.22	$3.95
Net Assets per tray			$2.84	$2.97	$2.82	$3.58

Appendix 14. Rebate Calculation at Satara Co-op Ltd. Period 1997-2002.

Rebate Analysis	Pre-Hybrid Structure					
Year	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Background						
Shareholder Trays	2,868,097	2,566,947	2,902,163	3,365,295	3,630,137	5,166,930
Investor Shares	7,931,992	7,931,992	7,931,992	7,931,992	7,931,992	16,378,513
Paid up Transactor Capital	3,822,400	2,903,234	2,910,614	2,901,015	2,901,021	5,276,593
Capital Base	$3.5	$3.5	$3.5	$3.5	$3.5	$3.5
Interest Rate for Capital Charge	11.0%	11.0%	11.0%	10.5%	11.5%	11.0%
Minimum Rebate (Ring Fenced Amount)	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1
Operating Profit	1,014,161	469,426	2,071,670	2,008,433	2,707,814	2,862,799
Gross Rebate Pool	917,791	675,942	1,238,195	1,627,074	2,132,828	2,597,237
Rebate Calculation						
Step 1 Calculate Rebateable Profit Pool	917,791	675,942	1,238,195	1,627,074	2,132,828	2,597,237
Step 2 Minimum Rebate (Ring Fenced)	286,810	256,695	290,216	336,530	363,014	516,693
Step 3 Capital Charge						
Shareholder Trays	2,868,097	2,566,947	2,902,163	3,365,295	3,630,137	5,166,930
Capital Base	$3.5	$3.5	$3.5	$3.5	$3.5	$3.5
Capital Base used by shareholders	10,038,340	8,984,315	10,157,571	11,778,533	12,705,480	18,084,255
Capital Provided by Transactor Shares	3,822,400	2,903,234	2,910,614	2,901,015	2,901,021	5,276,593
Funds Provided by Non Transactor Shareholders	6,215,940	6,081,081	7,246,957	8,877,518	9,804,459	12,807,662
Interest Rate	11.0%	11.0%	11.0%	10.5%	11.5%	11.0%
Capital Charge	683,753	668,919	797,165	932,139	1,127,513	1,408,843
Step 4 Rebate available after Capital Charge						
Gross Rebate Pool	917,791	675,942	1,238,195	1,627,074	2,132,828	2,597,237
Less						
Ring Fenced Portion - 10 cents per tray	286,810	256,695	290,216	336,530	363,014	516,693
Capital Charge	683,753	668,919	797,165	932,139	1,127,513	1,408,843
Subtotal	-52,772	-249,672	150,813	358,405	642,302	671,701
Step 5 Final Rebate Calculation						
Minimum Rebate	286,810	256,695	290,216	336,530	363,014	516,693
Balance Available	0	0	150,814	358,405	642,302	671,701
Total Rebate	286,810	256,695	441,030	694,935	1,005,315	1,188,394
Rebate per tray	$0.10	$0.10	$0.15	$0.21	$0.28	$0.23

Appendix 15. Satara Co-op Ltd Statement of Financial Performance 2000-2002.

Satara Co-operative Group Ltd **STATEMENT OF FINANCIAL PERFORMANCE**			
For the year ended 31 December (Group)	**2000**	**2001**	**2002**
OPERATING REVENUE			
Operating Income	31,925,797	35,950,963	42,905,766
Interest	73,956	107,081	142,994
Dividens	28,525	13,846	42,462
Total revenue	32,028,278	36,071,890	43,091,222
Operating expenses	24,002,529	26,544,285	31,386,555
OPERATING SURPLUS BEFORE OTHER EXPENSES	8,025,749	9,527,605	11,704,667
Less other expenses			
Audit Fees	18,000	23,715	24,579
Other Services Provided by the Auditor	8,578	36,092	14,942
Depreciation	1,265,171	1,310,312	1,747,260
Loss on Sale	1,728	9,722	45,105
Profit on Sale	-11,352	-15,696	-16,847
Directors's Fees	76,250	75,208	140,026
Expenses Paid to Directors	11,051	15,463	7,092
Interest	874,604	804,417	895,717
Operating Lease Expenses	3,773,286	4,560,558	5,983,994
OPERATING SURPLUS BEFORE TAXATION & REBATE	2,008,433	2,707,814	2,862,799
Less rebate Paid to Shareholders in Respect of Current Financial Year	740,365	1,089,050	1,188,394
Under/(Over) Provision of Prior Year Rebate	29,821	2,120	3,368
OPERATING SURPLUS BEFORE TAXATION	1,238,247	1,616,644	1,671,037
Less Tax Expense/(Credit)	475,470	569,608	551,381
NET SURPLUS AFTER TAXATION	762,777	1,047,036	1,119,656

Appendix 16. Satara Co-op Ltd Statement of Financial Position. 2000-2002

Satara Co-operative Group Ltd STATEMENT OF FINANCIAL POSITION As at 31 December	2000	2001	2002
EQUITY			
Paid up Capital	2,901,015	6,868,352	6,397,237
Capital Reserves	7,428,127	7,428,127	12,114,135
Revenue Reserves	4,897,487	5,418,299	6,537,955
TOTAL EQUITY	15,226,629	19,714,778	25,049,327
CURRENT ASSETS			
Bank	0	820,894	4,248,165
Leased Orchards	3,735,547	3,725,081	3,743,119
Stocks	200,326	677,213	770,220
Trade Debtors	2,330,114	2,999,975	2,441,146
Tax Credits	24,000	35,410	35,465
Provision for Taxation	0	0	61,904
Total Current Assets	6,289,987	8,258,573	11,300,019
NON-CURRENT ASSETS			
Fixed Assets	19,745,859	25,101,435	29,983,729
Investments	478,787	428,237	144,483
Advances to Subsidiaries	0	0	0
Total Non-Current Assets	20,224,646	25,529,672	30,128,212
TOTAL ASSETS	26,514,633	33,788,245	41,428,231
CURRENT LIABLITIES			
Bank	229,458	0	0
Current Portion of Term Liabilities	500,860	1,347,373	1,055,278
Provision for Taxation	0	425,982	0
Provision for Dividend	317,280	526,224	0
Trade Creditors	2,353,302	3,694,381	5,753,371
Employee Entitlements	261,863	291,023	358,357
Total Current Liabilities	3,662,763	6,284,983	7,167,006
NON-CURRENT LIABILITIES			
Bank - Term Loan	6,150,000	6,068,140	7,506,280
Subordinated Capital notes	0	120,000	0
Deferred Taxation	1,066,826	1,210,452	1,403,160
Refunds Due to Resigned Shareholders	408,415	389,892	302,458
Total Non-Current Liabilities	7,625,241	7,788,484	9,211,898
TOTAL LIABILITIES	11,288,004	14,073,467	16,378,904
SURPLUS OF Assets OVER Liabilities	15,226,629	19,714,778	25,049,327

Appendix 17. Financial ratios used in the case study.

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = \qquad \text{Quick ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities} - \text{Bank Overdraft}} =$$

$$\text{Net debt/equity} = \frac{\text{Term Bank loans} + \text{Bank overdraft} + \text{Bank loans (1 year)} - \text{Cash on hand}}{\text{Ordinary shareholders' equity - Intangibles}} =$$

$$\text{Debt ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}} =$$

$$\text{Net interest cover} = \frac{\text{Operating surplus before TAX} + \text{Interest external} + \text{Leasing Charges}}{\text{Interest external} + \text{Leasing Charges}} =$$

$$\text{Debt to gross cash flow} = \frac{\text{Term Bank Loans} + \text{Bank overdraft} + \text{Bank Loans (within one year)}}{\text{Net surplus to shareholders} + \text{Depreciation} + \text{Amortisation}} =$$

$$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Inventory}} = \qquad \text{Day's sales in inventory} = \frac{365 \text{ days}}{\text{Inventory turnover}} =$$

$$\text{Receivables turnover} = \frac{\text{Sales}}{\text{Accounts receivable (Trade debtors)}} = \qquad \text{Day's sales in receivables} = \frac{365 \text{ days}}{\text{Receivables turnover}} =$$

$$\text{Fixed asset turnover} = \frac{\text{Sales}}{\text{Net non-current assets}} = \qquad \text{Total asset turnover} = \frac{\text{Sales}}{\text{Total assets}} =$$

$$\text{Profit margin} = \frac{\text{Net Profit}}{\text{Sales}} = \qquad \text{Return on assets} = \frac{\text{Net Profit}}{\text{Total Assets}} =$$

$$\text{Return on investment} = \frac{\text{Operating surplus before TAX} + \text{Interest external} + \text{Leasing Charges}}{\text{Total Assets}} =$$

$$\text{Return on equity} = \frac{\text{Net Profit}}{\text{Total Equity}} =$$

Source: (Ross *et.al.*, 2001).

Appendix 18. Seeka Kiwifruit Industries summary of Statement of financial performance and position.

SEEKA
Financial Performance

Equivalent year ended December 31th	2002	2001	2000	1999
Year Ended 31 March	2003	2002	2001	2000
Sales	42,858,000	33,733,000	26,280,000	27,061,558
Less Expenses				
Amortised Goodwill	79,000	91,000	78,000	68,698
Depreciation	1,777,000	1,385,000	931,000	879,157
Directors Fees	112,000	107,000	78,000	67,000
Lease expenses	637,000	518,000	489,000	
Interest	762,000	659,000	430,000	254,541
Other	36,469,000	26,752,000	21,264,000	22,501,538
Adjustment for Acctg Differences		0	0	0
Total Expenses	39,836,000	29,512,000	23,270,000	23,770,934
Net Profit Before Tax	3,022,000	4,221,000	3,010,000	3,290,624
NOPAT	1,991,000	2,736,000	1,947,000	2,187,297
Less				
Taxation	1,031,000	1,485,000	1,063,000	1,103,327
Rebates	0	0	0	0
Dividens	1,156,000	1,124,000	929,000	928,488
EBLITA	6,277,000	6,874,000	4,938,000	4,493,020

SEEKA
Financial Position

Year ended 31 December	2002	2001	2000	1999
Year Ended 31 March	2003	2002	2001	2000
Shareholders Funds				
Paid Up Capital & Retained Earnings		17,790,000	10,794,000	9,916,500
Treasury Stock		0	0	-329,131
Asset Revaluation Reserves		2,632,000	1,500,000	1,499,691
Total Shareholders Funds	22,284,000	20,422,000	12,294,000	11,087,060
Represented by		0	0	0
Assets				
Current Assets	13,571,000	11,184,000	6,428,000	5,634,853
Leased Property Dev. Costs.	7,328,000	5,732,000	3,935,000	844,222
Total Term & Fixed Assets	30,361,000	27,073,000	14,085,000	12,873,669
Total Assets	43,932,000	38,257,000	24,448,000	19,352,744
Liabilities				
Current Liabilities	4,489,000	5,024,000	2,889,000	3,287,994
Term Loans/Debt	17,159,000	12,811,000	9,265,000	4,977,680
Total Liabilities	21,648,000	17,835,000	12,154,000	8,265,674
Net Assets	22,284,000	20,422,000	12,294,000	11,087,070
Gearing (Liabilities/Assets)	49.28%	46.62%	49.71%	42.71%

Appendix 19. DMS summary of Statement of financial performance and position.

DMS
Financial Performance

Equivalent to Year Ended 31 December	2002	2001	2000	1999
Year ended March 31st	2003	2002	2001	2000
Sales	9,956,295	9,327,690	5,924,101	5,757,343
Less Expenses				
Amortised Goodwill				
Depreciation	334,362	301,786	152,424	76,416
Directors Fees	25,000	25,478	10,500	
Lease Expenses	346,849	213,270		
Interest	172,100	176,392	63,020	6,160
Other	8,036,609	7,642,281	5,358,649	5,442,054
Total Expenses	8,914,920	8,359,207	5,584,593	5,524,630
Net Profit Before Tax	1,041,375	968,483	339,508	232,713
NOPAT	670,969	658,121	224,687	153,705
Less				
Taxation	370,406	310,362	114,821	79,008
Rebates	0	0	0	0
Dividens	0	0	337,929	247,983
EBLITA	1,894,686	1,659,931	554,952	315,289

DMS
Financial Position

Year Ended 31 December	2002	2001	2000	1999
Year ended 31 March	2003	2002	2001	2000
Shareholders Funds				
Paid Up Capital & Retained Earnings			2,107,667	1,668,587
Treasury Stock			0	0
Asset Revaluation Reserves			0	0
Total Shareholders Funds	4,269,548	3,574,529	2,107,667	1,668,587
Represented by	0	0	0	0
Assets				
Current Assets	1,322,111	1,466,689	1,271,734	1,226,696
Leased Property Dev. Costs.			0	0
Total Term & Fixed Assets	6,633,633	6,151,581	3,535,690	2,406,262
Total Assets	7,955,744	7,618,270	4,807,424	3,632,958
Liabilities				
Current Liabilities	1,882,794	2,092,389	1,447,274	1,114,371
Term Loans/Debt	1,803,402	1,951,352	1,252,483	850,000
Total Liabilities	3,686,196	4,043,741	2,699,757	1,964,371
Net Assets	4,269,548	3,574,529	2,107,667	1,668,587
Gearing (Liabilities/Assets)	46.33%	53.08%	56.16%	54.07%

Appendix 20. Packhouse and Cool storage capacity for Satara Co-op Ltd and Seeka Kiwifruit Industries Ltd according season 2002.

Supplier	Location	Capacity (trays)	No Units	Plant	Comment	Coolstore Static Capacity	CA Capacity
Satara Co-op Ltd	Whangarei	500,000	1	4 Lane Compaq Grader	Compaq Upgrade	20,000	-
	Golden Mile	300,000	1	4 Lane Treeways Grader	AWA Upgrade	-	-
	Riverhead	750,000	1	4 Lane Compaq Grader	Langdon Upgrade	310,000	-
			1	2 Lane Treeways Grader	Class II Grader		-
	Katipak	1,300,000	1	6 Lane Compaq Grader	Roller Grader	800,000	-
			1	1 Lane Compaq Grader	Class II Roller Grader		-
	Katipak CA	160,000		Not applicable		160,000	160,000
	Katicool	700,000	1	6 Lane Compaq Grader	Compaq Upgrade	900,000	-
	Katicool CA	95,000		Not Applicable		95,000	95,000
	Ashdelle Grove	900,000	1	4 Lane Compaq Grader	Roller Grader	750,000	-
	Tandarra	700,000	1	6 Lane Treeways Grader	AWA Upgrade	320,000	-
	Cool & Pack	1,400,000	1	8 Lane McDonald Grader	Langdon Upgrade	450,000	-
			1	1 Lane Compaq Grader	Class II Roller Grader		-
	Washer Road	3,050,000	3	8 Lane Compaq Grader	All Compaq Upgrades	2,360,000	-
	Washer Road CA	620,000		Not Applicable		620,000	620,000
	TOTAL(*):	*10,475,000*					
	Mt Cool					1,200,000	
	TOTAL:					*7,985,000*	*875,000*
Seeka Kiwifruit Industries Limited	Kiwi Kool Pak (KKP)	1,500,000	1	10 lane Lynx Grader		1,100,000	
	Waimapu	700,000	1	4 Lane Compaq Grader		500,000	
	Waimapu CA	1,400,000				1,400,000	1,400,000
	Kiwicoast (KCG)	700,000	1	4 Lane Compaq Grader		300,000	
	Kiwicoast (KCG) CA	700,000				700,000	700,000
	Transpack	700,000	1	6 Lane Compaq Grader		-	
	Transpack – Gold	(729,000)**				-	
	Macloughlin	1,300,000	1	8 Lane Compaq Grader		-	
	Macloughlin – Gold	224,000				-	
	Berry	500,000	1	4 Lane Lynx Grader		200,000	
	Bayliss	500,000	1	4 Lane Compaq grader		100,000	
	Bin Storage Capacity	800,000				-	
	TOTAL:	*8,800,000*				-	
	Pioner					900,000	
	Transcool					800,000	
	Robertson					400,000	
	Te Puke Orchards					300,000	
	Moss					300,000	
	Moran					100,000	
	TOTAL:					*7,100,000*	*2,100,000*

(*)=Based on all sheds working two shifts (**)=Packed in 2002 season

Appendix 21. Variables and correlations used for Average EVA 2003-2006 calculation and distribution functions.

Variable	Distribution function	Min (μ)*	Most likely (δ)*	Max	Correlation applied
NZ average Kiwifruit acreage	Triangular (Δ-)	10,000	10,200	10,500	-
NZ average Kiwifruit crop (yield/ha)	Normal	6,300	500		-
Zespri total return to supplier NZ$/tray	Triangular	7.2	8.1	8.5	Yes
Satara Co-op Ltd Market Share	Triangular (Δ+)	15%	20%	22%	-
10 year governmental bond rate	Triangular (**)	5.5%	5.8%	6.5%	-
Inflation	Triangular (**)	1.4%	1.7%	2.0%	Yes
Orchard division revenue/leased tray	Triangular	2.8	3.3	3.7	Yes
Orchard division costs/leased tray	Triangular	2.8	3.3	4.0	Yes
Packhouse revenue/tray	Triangular	1.8	1.98	2.1	Yes
Packhouse costs/tray	Triangular	1.82	1.86	1.9	Yes
Coolstore & Coldstorage/tray	Triangular	0.9	0.98	1.05	Yes
Coolstore & Coldstorage/tray	Triangular	0.45	0.52	0.55	Yes
Logistics revenue/tray	Triangular	0.123	0.13	0.15	Yes
Logistics costs/tray	Triangular	0.09	0.11	0.14	Yes
Pool Administration revenue/tray	Triangular	0.025	0.03	0.035	Yes
Pool Administration costs/tray	Triangular	0.015	0.019	0.025	Yes
IT revenue/tray	Triangular	0.009	0.01	0.012	Yes
IT costs/tray	Triangular	0.02	0.042	0.055	Yes
Administration costs	Triangular	0.1	0.11	0.21	Yes
Business Development costs	Triangular	0.04	0.07	0.09	Yes
Corporate Services costs	Triangular	0.07	0.08	0.1	Yes

Note: Revenues and costs represents total per segment. (*): Applies for Normal distribution. (**): Changes every year according National Bank forecast (2003). The distribution displayed represents the 2003 distribution.

Distribution:
To represent the natural uncertainty about prices in the markets, a proper distribution was applied. A triangle distribution, with three inputs: Minimum, Maximum and most expected value. The values were determined based in historical prices of the last three year. For Satara Co-op Ltd, the values were taken from internal profit&loss accounts.
The only Normal distribution was applied to national yield average, as it represent a random event in nature. Following the principle that the probability that some value ends up with one standard deviation of the average is a 66%, vales of 6,300 tray/ha (μ) and a standard deviation for 500 tray/ha (δ) were selected based in the last 5 years historical values.

Correlations:
Inflation was positively correlated to all costs. Nonetheless, because there are other determinants to costs (like efficiency, technology, accounting method, etc.), weak correlations were applied. A Person coefficient (r) of +0.16 to all direct activities like packing, cool storing, and a 0.08 to activities like IT administration.
Zespri FOB return to suppliers was positively correlated to all returns. The higher the return to growers, the higher the packhouse/coolstore can in theory charge for its services above the real cost value. If returns drop for growers, they will less able to pay premiums for services, forcing supplier groups to lower costs. Nonetheless, the relationship between growers income and packhouse charges is not direct (r=1), due a number of factors, one-off events, market variability, operational efficiencies, or even geographic location of a particular packhouse). The Pearson coefficient (r) applied was a week +0.33 to all revenues.

Other relationships or factors for the 2003-2006 period:
Were no enough data was available to apply a distribution or a correlations, the following relationships were applied: Cost of Debt = 10yearBondrate + 0.004 bank premium; Transactor shares = actual transactor trays packed/0.6 (Transactor share to real trays ratio); Transactor shareholder contribution to equity decreasing from 30% to 28%; Assets value = ($3.5/tray x actual trays packed)/0.85 (asset ratio to packed trays); Satara Leased trays = 25%; Satara transactor trays = 50%; Satara Class I trays = 92%; Other costs = 6% of operational costs; Tax paid = 6% of Net Sales (to consider all costs and rebate distribution to shareholders); Debt ratio, business betas and market risk premium stay the same for 2003-2006 period.