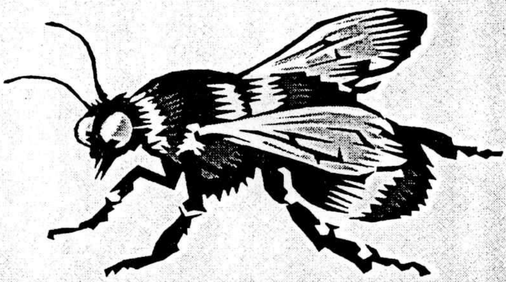
To Bee or not to Bee : a prospective study of the NZ Beekeeping Industry



S Hodgkinson

eMBA

Module Two

Strategic Management

Assignment 1

Individual Industry Analysis

September 1995

Executive Summary

This report reviews the current situation of the NZ Beekeeping Industry and examines prospects for development of the industry through to the turn of the century.

The industry is seen as fragmented, lacking cohesion and with a predominant commodity focus to its marketing. On the other hand considerable potential is identified for differentiated, value added products positioned for specific niche segments. The potential results from the biodiversity of NZ nectars, meets identified needs for natural alternative foods, medicines and cosmetics and develops on NZ's clean/green image.

It is recommended that a strategic business unit be established to address industry wide issues related to business development. Strategic repositioning of NZ honey should begin with the development of 'branding' for the industries products. The industry has considerable investment potential and with the development of strategic management and marketing plans will attract the necessary support to grow into next century.

Industry Definition

This study identifies and examines the major strategic issues facing the industry in New Zealand. The industry is defined as those activities relating to the commercial exploitation of the honey bee and its products and focuses on the medium term future. 1995 - 2000.

Industry characteristics/current situation

Commercial beekeeping in this country dates from the 1850's. Today there are some 6000 beekeepers with 300,000 hives distributed in around 2500 apiaries. The industry is highly fragmented with only about 550 beekeepers owning more than 50 hives, considered the minimal 'commercially viable' unit, and 160 full-time businesses in this country. These tend to have 500 - 2000 hives and employ 2 - 4 labour units.

Table 1

Income produced by the NZ Beekeeping Industry (1993)

Product/Service	**Income**
Domestic honey sales	\$27.8M
Pollination services	\$8.8M
Honey exports	\$7.5M
Live bee exports	\$2.3M
Beeswax	\$1.1M
Health products	\$0.7M
	\$48.2M

Returns to the industry are summarised in Table 1. Clearly the greatest revenue stream is from domestic honey sales. Despite high potential for differentiation and segmentation of existing honey products, honey is largely sold as undifferentiated creamed and liquid spreads (predominantly clover honey) through supermarkets and other retail feed outlets (Appendix 1). New Zealanders are enthusiastic honey users by world standards consuming on average 1.5kg per person per year. There is also a growing use of honey in the food manufacturing sector.

Only about one third of New Zealand's annual production is exported (\$7.5M). Statistics are available for four categories of honey only - comb honey, bulk honey, packaged honey and natural honey which show Japan, Germany, Saudi Arabia and Germany to be our major clients respectively. Information on NZ's share of the global honey market is scarce. Some evidence suggests the value of the market to be ~\$1.0B in which case NZ's share is less than 1%.

Increasingly the horticultural sector has recognised the need for high quality pollination for efficient production of crops. Pollination services involving the controlled use of bees today generates some \$8.8M for the industry particularly from kiwifruit growers but also from fertilisation of apple, berryfruit and seedcrops.

The untapped value of bee based pollination to the New Zealand agricultural system is however far greater than these figures would suggest. Pollination of pastoral crops such as clover is estimated to be worth $1.8B to the economy, forty times the total value of the beekeeping industry.

Significant markets also exist for speciality bee products (bees wax $1.1M), bee based health products (royal jelly, honey dew $0.7M) and export of live bees (particularly queens, $2.3M). The beekeeping industry appears very individualistic in nature lacking co-ordination, vertical integration and strategic direction. Historically honey marketing was managed in a 'producer - board' fashion by government controlled organisations including, most recently, the Honey Marketing Authority. This was disestablished in the mid 80's and today there is no integrated, strategic management or marketing planning for the industry. Instead marketing is undertaken on an individual company basis or to some extent by the bulk purchaser/honey packer/wholesaler groups. The industry structure is summarised in Figures 1 and 2.

Finally, political advocacy for the industry is undertaken by the National Beekeepers Association. Roles of this include government liaison, public relations, education and research funding. The organisation is also committed to the eradication of American Foulbrood Disease which has necessitated strict hive management practices and regulatory control. A surveillance system administrated by MAF Qual is funded via the Hive Levy Acts and earlier Apiaries Acts. Other legislation affecting the industry includes the Food Hygiene and Biosecurity Acts.

Situation Audit

Internal Environment

- Strengths:

  Diversity of nectar producing plants in New Zealand; NZ's 'clean/green image'; relative disease free status of NZ bees; established local and export markets; effective disease management systems; honey attributes.

- Weaknesses:

  Lack of strategic industry and marketing planning; unattractiveness of industry to new players; distance to overseas markets; industry seasonality; impact of weather; lack of R and D/new product development; industry fragmentation; commodity focus.

- **External Environment**
- Opportunities:

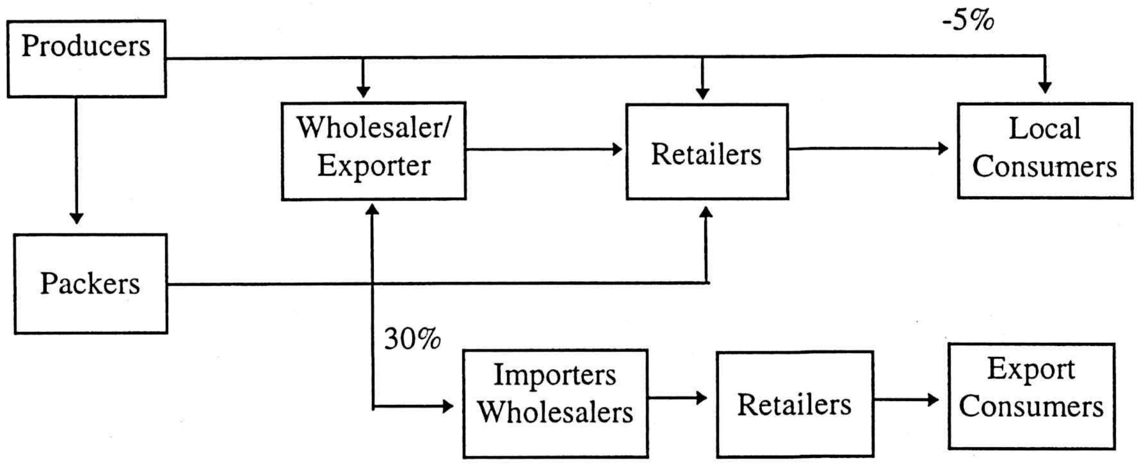
  Diversification of honey products; pollination services; other bee products; export markets (GATT); hobby beekeeping; promotion.
- Threats:

  New Entrants - Competition from non - NZ honey; competition from other foods (spreads, jams); wide spread use of insecticides; spread or importation of bee diseases; lack of industry co-ordination/co-operation; lack of honey awareness; buying power of packers, wholesalers and retailers; downturn in kiwifruit industry; Waitangi Tribunal Claims.

Analysis of Bee Industry using Porter's Five Forces

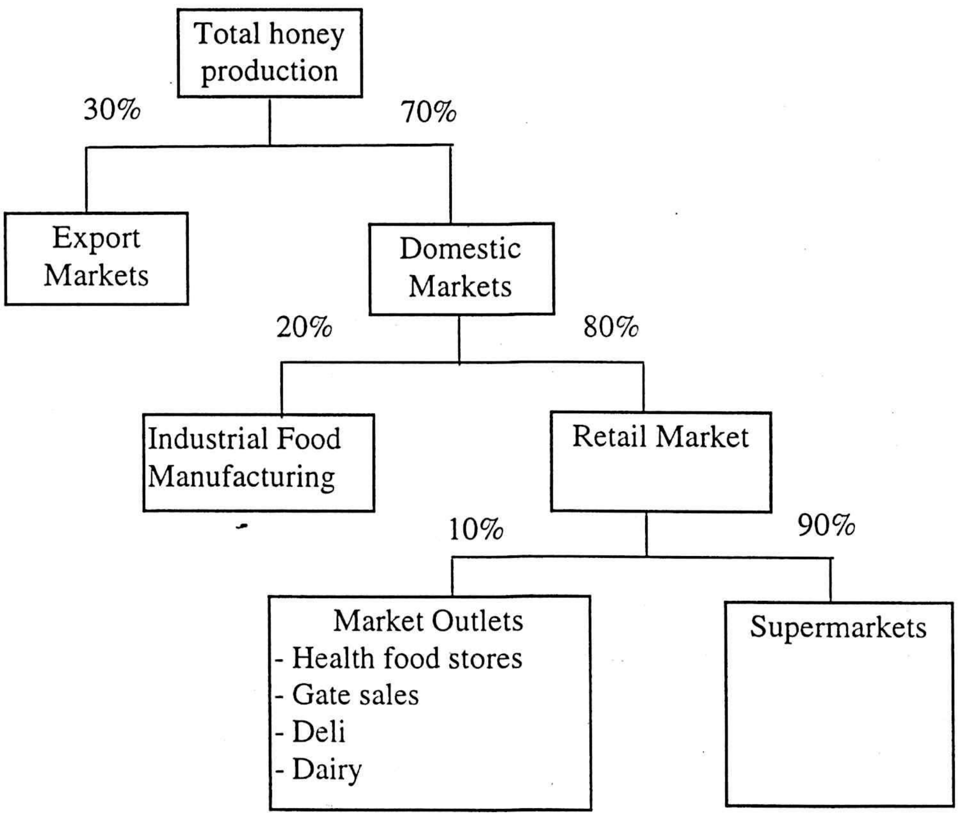
Force	**Comment**
1. Internal Rivalry	Industry lacking co-ordination/not hostile
2. Power of Suppliers	Few commercial pressures here. Climate an issue
3. Power of Buyers	Without vertical integration strong commercial pressures are at work at each level of the value chain. ie Packers, wholesalers, retailers
4. Power of Substitutes	Moderate risk of substitutes for commodity products. Low for differentiated products
5. Power of new entrants	Few barriers to entry for new entrants. One example low cost Asian honey
6. Overall - In or Out? Is this a good industry to be in?	Yes - Good investment potential

Industry Structure (i): Distribution Channels/Value Chain for Honey



Industry Structure (ii)

Existing Markets for NZ honey



Critical success factors to date

- Culture of industry participants.

  Beekeepers are generally independent ' do it yourselfers'.
- Nectar availability

  NZ benefits from abundant nectar in season.
- Weather/Climate

  Appropriate for honeybees with seasonality of flowering but without harsh climatic extremes.
- NZ Beekeepers Association which has provided some cohesion, political advocacy and regulatory control for the industry.
- Product image - healthy.

Driving forces for change

1. Low profitability and growth of the industry despite high market potential.
2. GATT and internationalisation of trade.
3. Increasing consumer interest in 'natural' alternatives in food, medicines and cosmetics.
4. NZ's 'clean/green image'.

Major Strategic issues facing the industry

- **Industry Structure**

The beekeeping industry in NZ is fragmented and individualistic. An urgent need is identified for an organisation to provide a strategic overview and commercial focus for the development of the industry into next century. This situation may have resulted from the disbanding of the Honey Marketing Authority in the 80's and has resulted in a loss of co-ordination between industry players, lack of vertical integration and loss of opportunity and financial returns to the industry. The goal of such an organisation would be to stimulate growth and profitability of the industry by providing strategic direction. By default the NZ Beekeepers Association has gone some way to filling this central role in recent years and it may be that a business unit within that organisation could fill this function.

- **Marketing/product development**

To date NZ honey has had a predominant commodity/cost leadership focus to its marketing. This needs to change. Enormous potential is identified for differentiated, value added honey based products positioned for specific niche segments. Strategic refocussing in this direction is urgently required. The potential results from NZ's floral biodiversity, meets identified needs for 'natural' foods, medicines, cosmetic products and develops on NZ's international 'clean/green image'.

Moreover the strategic repositioning of NZ's honey products should begin with development of 'branding' for the industry. Strategic marketing plans are also required for the development of other bee derived products and services.

Recommendation

It is recommended that a case be developed for the establishment of a strategic planning unit within the NZ Beekeepers Association. For establishment this would require investment finance, either directly from government, or other sources, but it is intended that over the 5 year planning period it should develop onto a financially viable unit generating revenue from the projects it adds value to. The primary function of the unit would be to stimulate growth and profitability of the industry by developing a strategic plan to attract investment finance for development of key new projects.

Analysis

1. Industry wide issues

It is considered that a strategic planning unit will provide a basis for increased integration and co-ordination within the industry. To get industry players to 'buy in' an initiative is required to increase awareness and positive perceptions of the industry thereby improving its overall competitive position. One way this could be achieved would be by 'branding' NZ honey to give it an identity both nationally and internationally. Developing a brand name could follow earlier models such as the successful 'enza' design mark for apples which develops on NZ's clean/green image, adding value by increasing identity and perceptions such as healthiness, technology and quality.

Other key industry wide issues to be addressed should include :-

- Co-ordination and integration across the value chain with a view to improving the industries competitive position. One example, managing for quality.
- Strategic Research and Development. **a.** Antibacterial components within Manuka honey have therapeutic qualities against the bacteria that cause stomach uclers. Further support for this research is urgently required. There are over 40 nectar producing plant varieties in NZ. What (if any) therapeutic qualities does honey produced from these have. **b.** Bees are relatively averse to kiwifruit flowers compared to clover. What management practices could be employed to improve the efficiency of bee pollination services? Are their superior strains of bees for this purpose? **c.** Improved honey supply and manufacturing/processing technologies.
- The disease free status of NZ Bees and products may be an important determinant of future market acceptance. Eradication of Foulbrood should be a priority. Practices to avoid importation of other bee diseases should be identified and implemented .
- Education
- Political advocacy

2. Strategic marketing planning

- Honey

  Historically NZ honey has pursued a commodity product/cost leadership marketing strategy. That is, prices were kept down to remain competitive with other spreads and profitability maintained by reducing costs to maintain margins. In newly identified diversified honey products, however, NZ honey will have a much broader better balanced product portfolio and product/market mix greatly increasing the overall industry attractiveness.

Markets for NZ honey can be segmented as follows:-

- Commodity -

  Existing honey products including clover comb and bulk honey.
- Therapeutic/nutraceutical honeys - following the 'Manuka Model'.

- Trim honey - Newly identified segment targeting the fitness/lifestyle sector as do trim milk and yoghurt.
- Flavoured varieties.
- Bulk/manufacturing honey.

Market potential of these segments is briefly examined in Tables 2 and 3.

Table 2

Barneys Resource Model Analysis of the NZ honey industry

	Factor	Value	Rare	Unduplicatable	Without Substitute	Competitive Implications
Current Situation	Climate	yes	yes	no	no	TCA
	Nectar	yes	yes	no	no	TCA
	Industry structure	yes	no	no	no	CDA
	Commodity product	yes	no	no	no	CDA
	Existing markets	yes	no	no	no	CDA
	Existing image	yes	no	no	no	TCA
Future Situatio	'Flavour' varieties	yes	yes	no	no	TCA
	'Therapeutic' products	yes	yes	yes	yes	SCA
	'Trim' products	yes	yes	no	no	TCA
	'Manufacturing sector honey'	yes	yes	no	no	TCA
	Clean/green image	yes	yes	yes	yes	SCA

TCA - Temporary competitive advantage

CDA - Competitive disadvantages

SCA - Sustained competitive advantage

Table 3

Honey Market Analysis

Market

Segment

Analysis	1	2	3	4	5
Type	Commodity	Therapeutic	Trim	Flavoured	Manuf.
Porters Generic Market strategies	Broad/cost Leadership	Narrow Differentiation	Broad Differentiation	Broad Differentiation	Broad Differentiation
Life cycle	Maturity/Decline	Introduct	Introduct	Growth	Introduct
BCG	Cash Cow	Star	Problem Child	Star	Cash Cao
Barney's Resource Model	CDA	SCA	TCA	TCA	TCA
Market Share - National	Medium	-	-	-	-
- Internat.	Low	-	-	-	-

CDA Competitive Disadvantage

SCA Sustained Competitive Advantage

TCA Temporary Competitive Advantage

BCG Boston Consultancy Group

Although not complete (financial analysis, for example, is not included) the value of a differentiation strategy to the NZ honey industry is apparent from the attached tables. Whereas the existing commodity product appears at a competitive disadvantage, potential new products such as Manuka honey based nutraceuticals or therapeutics have the potential to create a sustainable competitive advantage for the industry. Others such as flavoured varieties, manufacturing honey and the 'trim' honey also have competitive advantage potential. They have the potential to broaden the product portfolio being at the pre product, or introduction stage, of product life cycle and to complement the commodity product ' cash cow' status of existing products with potential 'star' products (refer table).

As opposed to the broad cost leadership marketing strategy outlined above for the commodity product, differentiation strategies should be pursued for the new product/market area outlined. In such strategies costs and margins are of lesser importance and profitability is usually achieved by a premium pricing structure.

Marketing research will be required to precisely define niches for the new product types; product, pricing and promotion strategies requiring careful evaluation. Market share is known to relate directly to profitability. Although competing successfully on a local basis for share in the spread market, NZ honey should be working to develop market share in the international market place. It is recommended that NZ honey vigorously purse an investment, R & D marketing strategy to bring these new product concepts to fruition .

Other products

Although of lesser importance than total honey production strategic marketing planning will be also required for the other product areas, particularly pollination services.

Implications for Maori

Maori have placed claims with the Waitangi Tribunal relating to ownership of NZ's indigenous biodiversity and products thereof. More-over claims, have been lodged relating to ownership of its airspace. These represent significant threats to the existing industry structure which need to be clarified and planned for.

Bibliography

Wallingford N. (1995) Discussions

New Zealand Beekeeping - An industry profile (1995) National Beekeepers Association of New Zealand

Matheson A (1985) Practical Beekeeping in New Zealand (revised edition)

Goodwin Mark (1995) HortResearch, Private Bag 3123, Hamilton. Discussions

Appendix 1

Average yearly sales of Honey Types

Type	% Total
Clover	44.0
Manuka	7.2
Honeydew	2.5
Nodding Thistle	2.5
Comb	27.4
Others	19.0