RESEARCH REPORT

The Australian Wine Industry and the Impact of Knowledge-flow on Performance

Table of Contents

1. INTRODUCTION.

In endeavouring to look at knowledge management (KM) and its adoption in the wine industry I have chosen to appraise the wine industry funded corporate representative, the Australian Wine and Brandy Corporation (AWBC) and its role in wine industry specific knowledge development (KD).

I have approached this case study in a way to best emphasise the positive impact of knowledge management and the flow of information on industry performance as a whole rather than look at one particular organisation within the wine industry. I have done this because of the financial segmentation that exists within the wine industry which can affect internal resources available to manage knowledge effectively.

The AWBC is basically a knowledge intensive business service (KIBS) specifically wine industry related, and is an organisation that has emerged to help other wine businesses deal with problems for which external sources of knowledge are required.

2. HISTORY.

The collective of the Australian wine industry recognised that it needed to improve its performance in addressing a history of limited export success. The industry wanted to achieve growth in wine sales in both domestic and world markets through the implementation of a wine standards program with a long term marketing strategy. This initiative required management and funding within the industry.

The result was the formation of the Australian Wine and Brandy Corporation (AWBC) in 1981, as a successor to the Australian Wine Board. The AWBC became the Australian Government authority responsible for the promotion and regulation of the Australian wine industry. The corporation’s newly adopted mission statement was “to enhance the operating environment for the benefit of the Australian wine industry by providing the leading role in

- Quality and Integrity
- Knowledge Development
- Market development

Quality and Integrity was to (through the AWBC regulatory activities) preserve Australia's international reputation for quality and integrity. This initiative according to the AWBC has played a significant part in the industry's growth.

Market Development, the AWBC promotional arm, through its offices established in Australia, London, The Hague, Tokyo, Vancouver, New York, and Toronto, runs a series of collaborative wine marketing programs. It provides assistance to Australian wine producers with their export activity produces point of sale material in a number of languages and sponsors visits by international wine writers and buyers to Australian wine regions and events. The corporation also plays a role in addressing international market access issues on behalf of the wine industry.

Knowledge Development: Australian wine companies required accurate, up to date information to be able to make better and effective decisions. Knowledge management (KM) undertaken by the AWBC for the wine industry was seen as a sensible option for the industry as a whole because of the enormous differences in the size of wine businesses and their capacity to collect and manage knowledge effectively.

The AWBC collects and analyses wine industry statistics and hosts a readily accessible information centre. There is also an extensive data base on Australian and international wine export information. Knowledge management and development focuses on the following key areas

- Providing information on the Australian wine sector.
- Providing global wine market intelligence.
- Responding to inquiries on wine sector data and trends.
- Initiating and collaborating on data collection.
- Contributing to relevant publications and seminars on wine related matters

Key stake holders in the AWBC are,

- The levy payers (grape growers and wine and brandy producers) from which the Corporation draws most of its revenue. This revenue is raised through the application of a wine grape levy, research levy and export tax impost applied to all industry participants who grow grapes and/or make wine or brandy and export.
- Primary stake holder is the Commonwealth of Australia.

Other significant stake holders in the AWBC include,

- National, state and regional wine and brandy producer associations.
- Wine grape growers and their national, state and regional associations.

Clients of the AWBC include,

- Wine and brandy exporters where the AWBC supplies promotional material, assistance in overseas markets, export licences, documentation and approvals, information data warehouse.
- Wine and brandy producers – label integrity assistance, domestic promotional material, information data warehouse.
- Grape growers and their regional associations – geographical indication registration, information data warehouse.
- Wine industry suppliers and consultants – information data warehouse.
- Wine research organisations – information data warehouse.
- Academics, students, lawyers, financial institutions, and advisers and the general public – information data warehouse.

At the time of formation, wine imports were greater than wine exports even though wine consumption was strong domestically. The AWBC was committed to changing the overseas perception of Australia as a bulk wine producer to a producer of quality wines at competitive prices. (AWBC, "About Us" www.awbc.com.au)

3. KNOWLEDGE DEVELOPMENT AND THE ROLE OF THE AWBC

The Australian Wine Industry.

Australia's wine industry now has an international reputation for quality and value. Our wines are served in many of the worlds leading restaurants, while the popular semi premium and premium wines are sold in wine shops and supermarkets in 91 countries throughout the world. Australia is now the 5th largest producer of wine worldwide.

The Wine Economy.

In 2004/5 sales of Australian wine totalled approximately 1.091 billion litres, with 431 million litres sold domestically and 660 million litres exported.

Wine production is a significant industry in Australia. (See appendix 1)

- Combined sales revenue for the year 2004/5 was approximately AU$5.069 billion.
- The industry directly employs in excess of 30,000 people (2001 census) with further related employment in retail wholesale and hospitality industries.

Tourism adds another dimension to wine's importance. International and domestic tourism related to the wine industry accounts for an important share of Australia's export earnings, employment and taxation income.

4. MARKET STRUCTURE

The primary distribution channels for each business category differ according to the market sector being supplied; this basically comes down to supply and demand (price-point/quality/quantity).

<u>The export market</u> is significant for all participating wineries and ranges from 11% of total sales for the up to $1m turnover firms, to over 50% for the $10m to $20m turnover firms. If we consider that in the mid 1980's export of Australian wine was virtually zero, this highlights the importance of export in continuing to a play key role in achieving future growth.

<u>Cellar Door or retail direct</u> to the customer is of high importance to the small wineries in the up to $1m category. However Deloitte has noted that the ratio has dropped from 36% in 2003 to 19% of turnover in 2004. This may be just a cyclical thing, although over the last three years the domestic market has been flooded with good wine at low prices. For the larger wineries, cellar door sales are small in proportion to total sales revenue and of less importance in the overall scheme of things but is seen as important for brand promotion.

<u>Mail Order</u>

This area of the market only attracts wineries with up to $1m in revenue. The reason for this is due to the highly personalised nature of the business where person to person contact is of high importance.

<u>Website/online</u>

This sales channel has not as yet been developed at all by the larger wine firms. The small wineries have to some extent although not significantly. This may be a reflection of the general Australian consumer sentiment regarding the purchase of goods on line; the market does not seem to be ready for this.

Retail

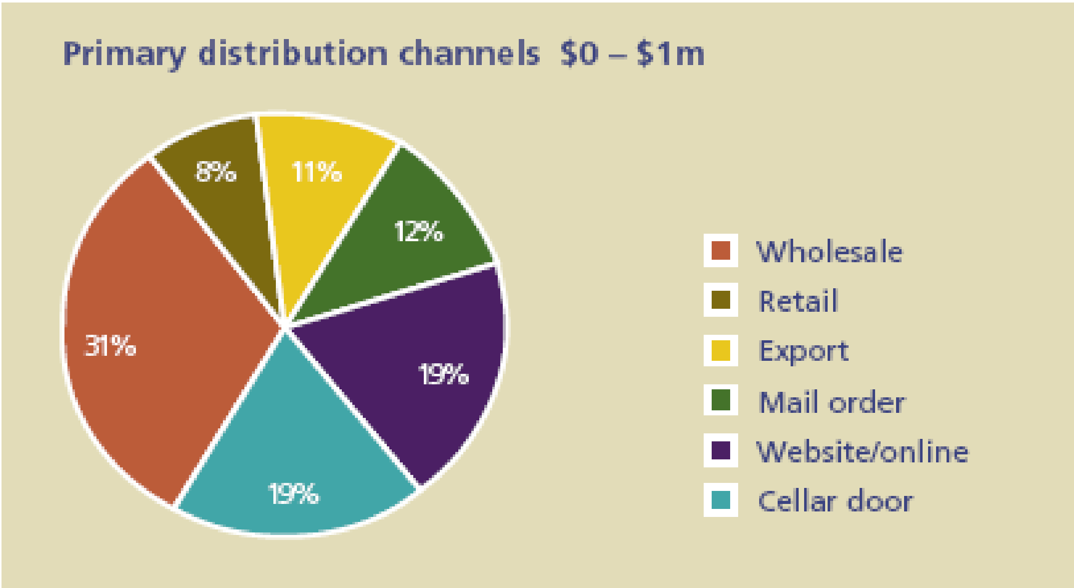
Sales through retail channels are more difficult for the small wineries as they have insufficient supply or the margins received are too low. Deloitte's opinion is that, given the recent consolidation of the retail sector and their propensity to sell only well known brands and with the power to dictate their landed unit cost, only larger wineries with revenue in excess of $20m will be in a position to use the retail channels as a major source of revenue.

Wholesale Distribution.

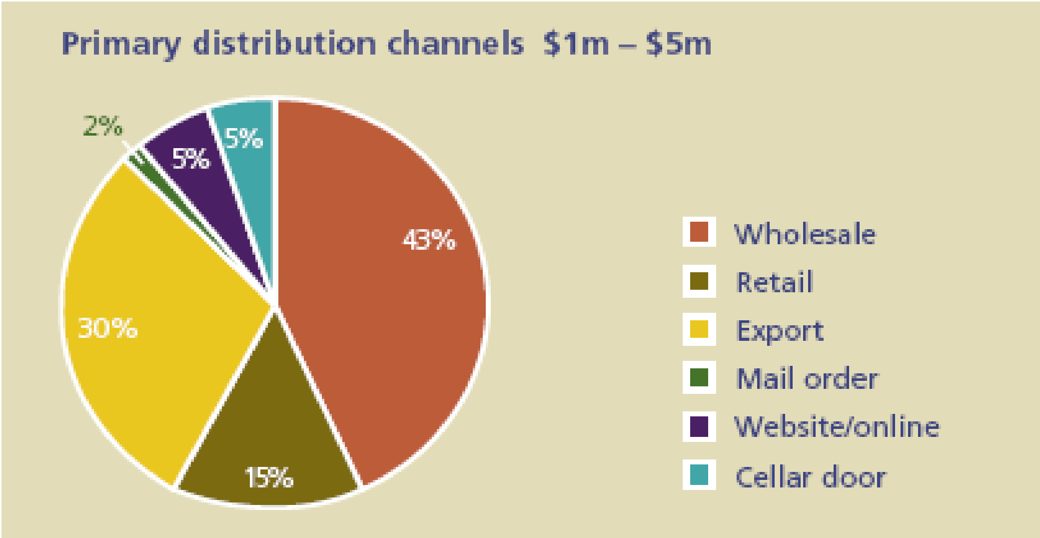
This area continues to be a significant sales channel for all wineries. However in general, access to the wholesale wine market is highly competitive.

The following slides showing the distribution channels of the six wine business categories in terms of sales turnover were taken from the Deloitte's Wine Industry Group, Annual Financial Benchmarking Survey – Vintage 2004.

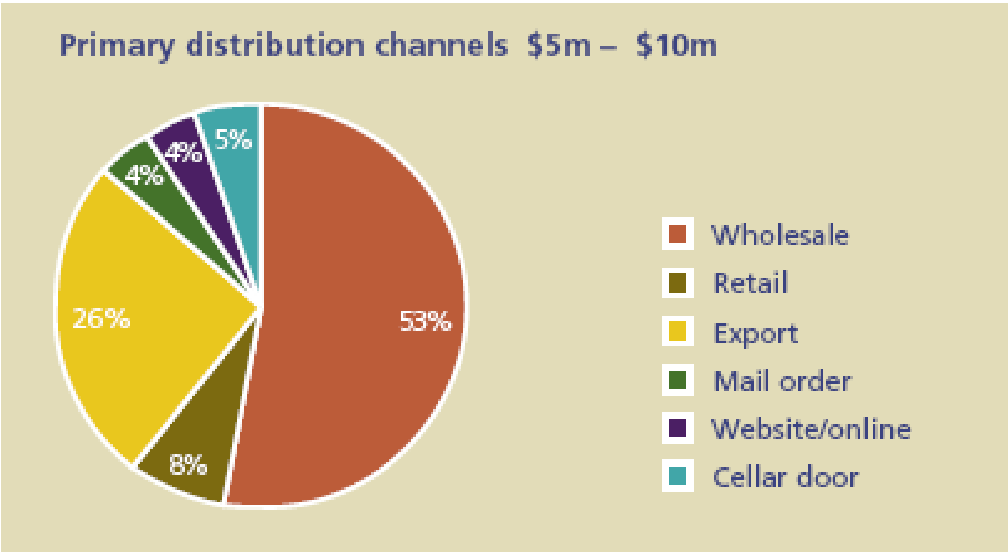
Slide 1



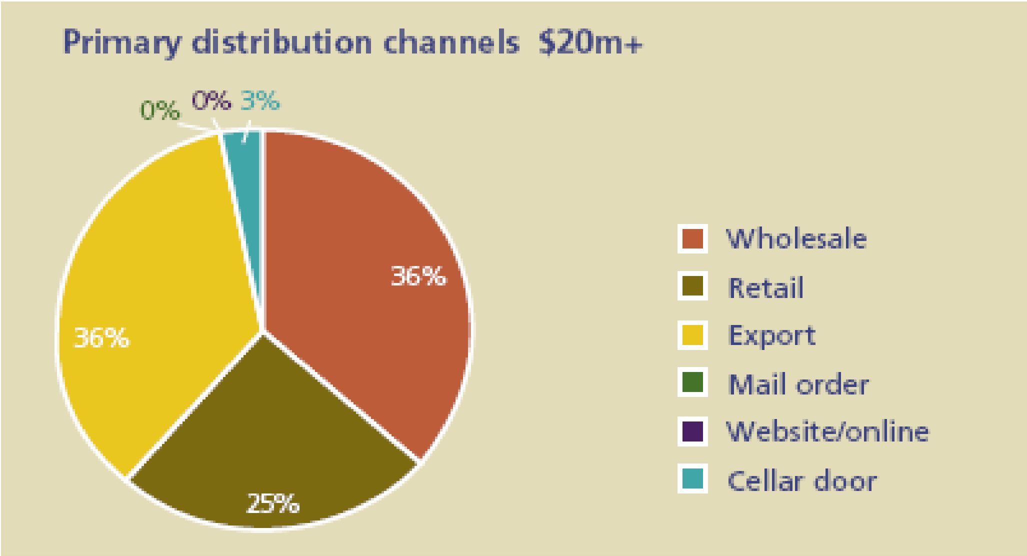
Slide 2



Slide 3



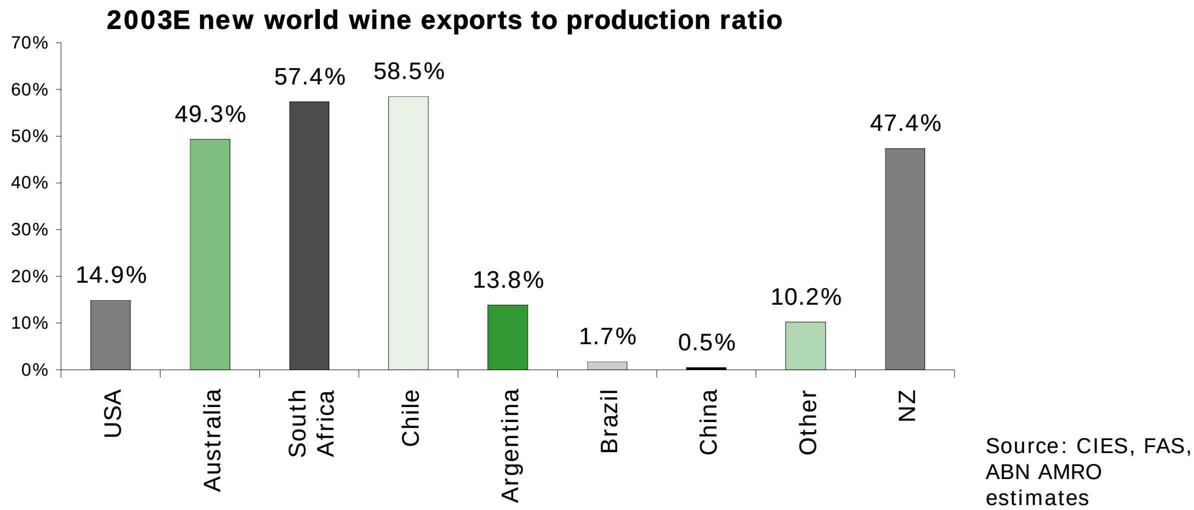
Slide 4



5. MARKET SHARE.

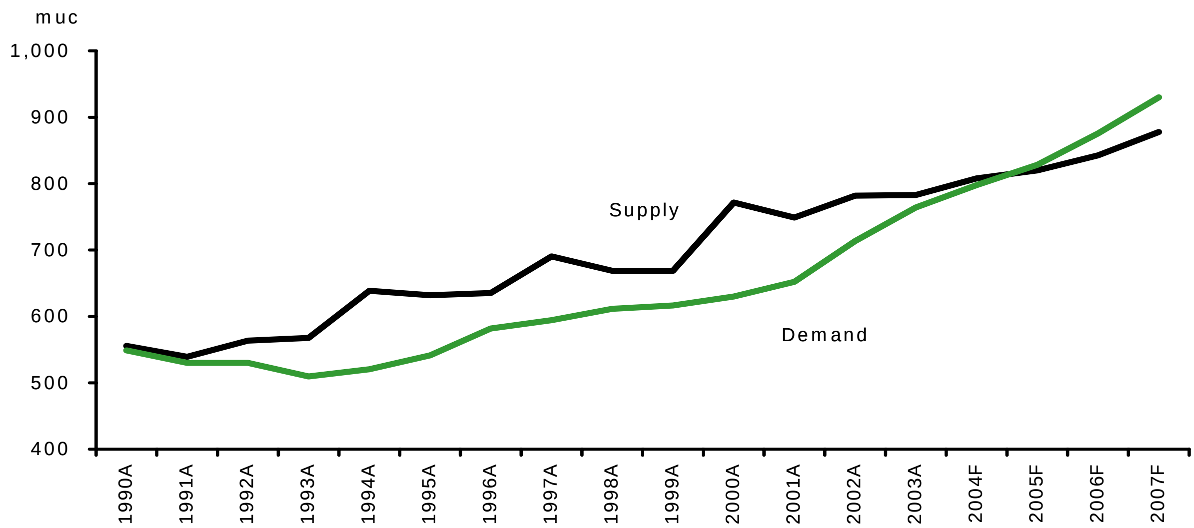
The global market share for wine is dominated by old world wines supplied by countries like France, Germany Spain, Italy, and South America etc. The New World wines from countries such as Australia, North America, South Africa, New Zealand etc are challenging the Old World wine countries for market share in a situation where there is oversupply.

The annual imbalance is reducing with increased demand for new world

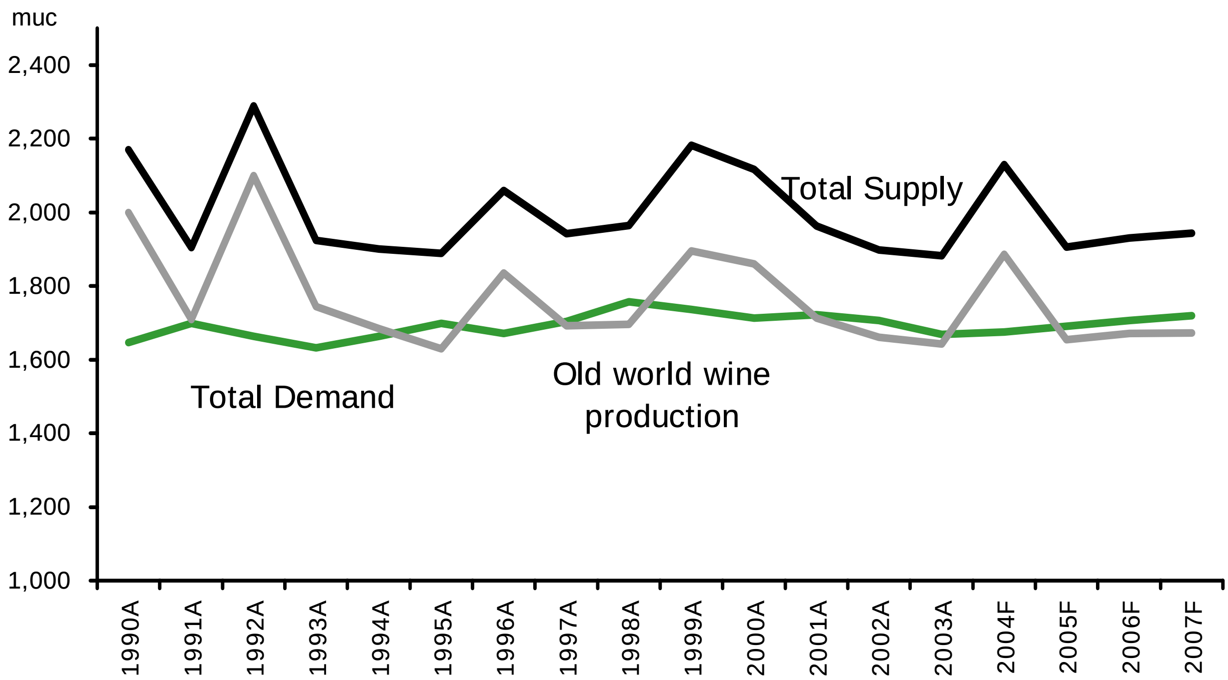


Australia, America and South Africa remain the most influential new world wine countries but China is quietly becoming more visible.

The new world wine supply/demand equilibrium estimated by ABN AMRO



Annual imbalance on increased demand for new world wine while old world wine is forecast to remain in oversupply.



Old world wine production is supported by EU subsidies of A$1.08/case

6. PRICE BASED COMPETITION

There are six revenue based groupings of wine industry firms. Some compete against one another for market share and some operate in the promotional wake of the larger companies supplying the market gaps that the big companies are not interested in.

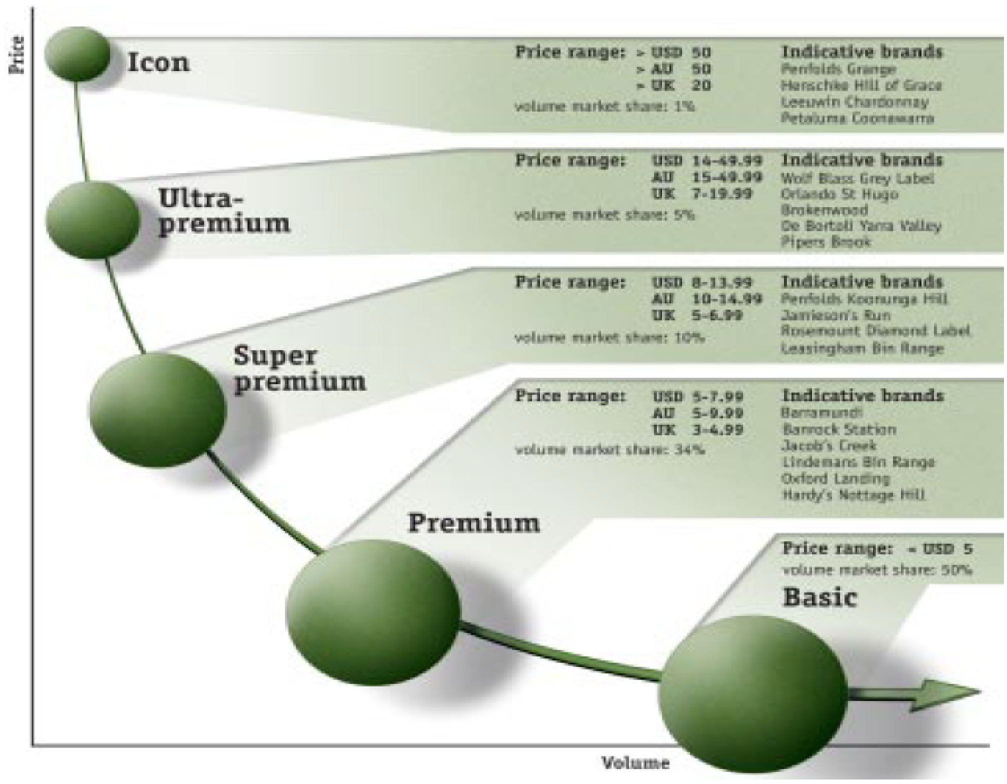
The market model the wine industry operates in, could be best described as being an imperfect Monopolistic Competitive one, where you have for the most part, a group of firms who are price makers, selling products (wine) that in most areas of the market have a point of difference. There are few if any barriers to entry except money and in the long term, businesses operate where marginal revenue is equal to or below marginal cost.

Because of the short term profits that were being made in the wine industry (over the last 10 years) where marginal revenue well exceeded marginal cost, the wine industry attracted many players. The predicted effect of this was that eventually supply would exceed demand to the extent that price based competition would force prices down. This has happened over the last three years causing much hardship for the players involved.

There are five basic market categories for wine all based on brand perception, wine quality and price.

- Icon **-** 1% of market and is brand driven; history and reputation is of high importance where price is of little importance; volumes are limited.
- Ultra Premium – 5% of market**;** brand driven but price sensitive; quality and packaging is important.
- Super Premium – 10% of market; brand not so important but very price sensitive; made to a recipe; consistent quality; packaging and advertising is important.
- Premium – 34% of market; advertising and brand awareness important; wine made to a recipe and in large volumes. Brands in this category tend to be concept brands that have a life of (say) two to five years in most cases.
- Basic – 50% of market; made up almost entirely of wine in cask or bag in box; has the perception of being of lower quality although standards have improved enormously in recent years. The basic wine category in economic terms could be classified as an inferior good as people often start at this level and move up.

Quality Segments in the Wine Industry



Source: RaboBank. Note graph is amended to reflect in-market price points. Indicative Australian brands added for context.

7. INDUSTRY SEGMENTATION AND PERFORMANCE OVER TIME

A recent wine industry financial benchmark survey (a joint project undertaken by Deloitte and the Winemakers Federation of Australia) revealed that there are basically six revenue based groupings amongst Australian wine industry firms.

1) $0 - $1m category
This category is comprised of small wineries that are generating almost break even results for 2004. This shows a downward trend from 2003 where profitability was 6.3%. 33% of wineries in this category returned a loss for the 2004 financial year.

2) $1 - $5m category
This category showed a marked turnaround in profitability for 2004 with EBT of 8% of revenue after returning average losses of 7.9% in 2003.

3) $5 - $10m category
This group of wineries has performed poorly with an average loss before tax of 4.2% of revenue. While gross margins were up by 5% on 2003, wineries in this group more than doubled their selling costs. General and administrative costs were also significantly higher. This is indicative of this market segment becoming increasingly more competitive.

4) $10m - $20m category
Wineries in this revenue range are also struggling with average losses of 8.7% of revenue. The gross margin in this category is the lowest of all the categories at 24.4% as these wineries compete directly with the larger categories in most markets but do not have similar scale efficiencies in terms of production costs. Winery overhead costs are as high as $1.50/litre compared to 25c to 30c/l for Australia's largest wineries.

5) $20M Plus category
Wineries with sales in excess of $20m have generated EBT of 10.3%, well behind that of 2003 (15.3%). This was driven by a 10% fall in gross margin.

Deloitte (2004) have concluded that wineries in this category face downward margin pressure in both the domestic and export markets.

6) Listed Category

The listed wineries returned to normalised profit levels and have performed the strongest with EBT of %14.3% of revenue. While gross margin has fallen 3% on 2003 results, there has been a 10% reduction in general administrative cost with staff and winery rationalisation programs undertaken by the large listed wine companies to deliver stronger earnings. Despite the tightening of operational activities, margins continue to fall in the present climate. (Annual Financial Wine Industry Benchmark Survey 2004 (appendix 2).

8. WINE SECTOR ORGANISATIONS. (see appendix 5)

These organisations are very important to wine businesses in making available usable knowledge.

The Australian Wine and Brandy Corporation, (AWBC) the wine industry funded body promotes controls and regulates the Australian wine industry in the production of wine for sale for both the domestic and export markets.

The Australian Wine Export Council (AWEC) is a committee of the AWBC whose primary function is to promote Wine Brand Australia Internationally.

The Grape and Wine Research and Development Corporation (GWRDC) is the body responsible for investing in grape and wine research and development, on behalf of the Australian Wine Industry and the Australian Community. Key R&D sources include the Australian Wine Research Institute, the Commonwealth Scientific and Industrial Research Organisation, the Co-operative Research Centre for Viticulture. A number of Australian universities and other tertiary education institutions offer courses in viticulture and oenology.

The Winemakers Federation of Australia represents the interests of Australian winemakers and develops policies and programs to increase net returns to Australian wine makers.

The National Wine Foundation is an industry sponsored organisation promoting moderate wine consumption and research into wine and health.

9. AUSTRALIAN WINE INDUSTRY EXPORT INITIATIVES & TRENDS

(see appendix 4)

In 2000 the Australian wine Industry developed a 10 year marketing strategy.

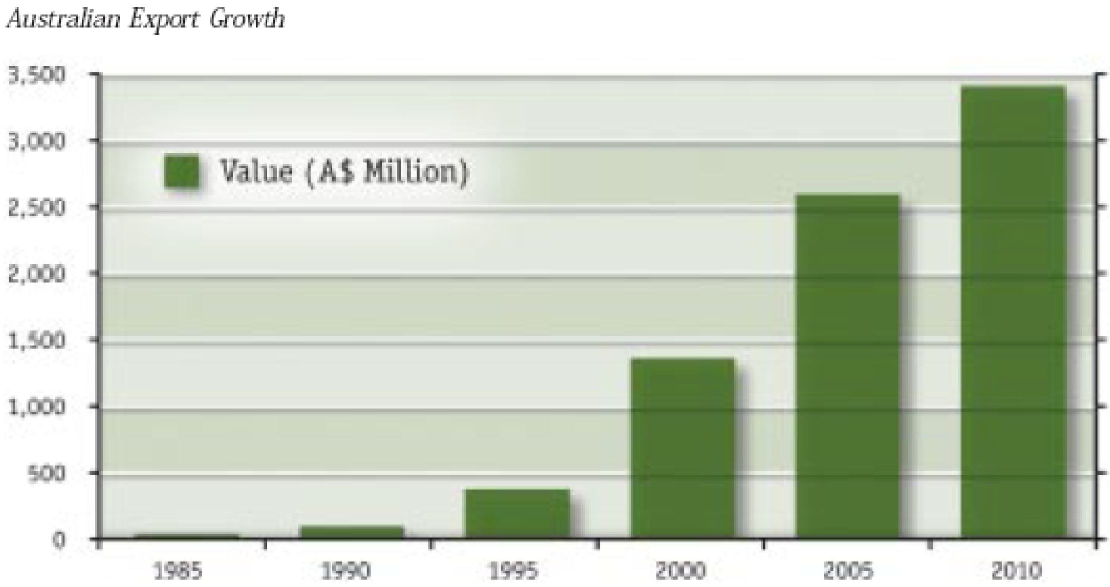
The vision for Australia was to grow the consumer franchise for Australian wine to achieve by 2010 annual international sales of $5 billion, at a higher average margin and with enhanced brand values.

In 2004/5 the Australian wine industry reached $2.7 billion in annual export sales with unfortunately reduced average margins and excess unsold bulk stock holdings. There are however a number of structural trends which will drive the increased demand for premium wine irrespective of economic conditions.

Increasing affluence on a global basis has been a consistent trend through the cyclical fluctuations of economic activity with average household incomes continuing to rise over the long term. The higher the wine consumer's income, the more likely they are to increase the proportion spent of their income on wine.

This increased wealth in both Western and Asian cultures will encourage existing wine consumers to trade up to premium categories, reducing the demand for low priced/low quality wines by 17%. Australian exports of wine have increased five times during the period 1997 to2005. (see appendix 3)

Australian Export Growth, ("The Marketing Decade" Setting the Australian Wine Marketing agenda 2000 >>2010, Wine Makers Federation of Australia. Nov, 2000)



10. SUMMARY.

The wine industry has been able to leverage its collective knowledge to generate new opportunities and has been facilitated through the establishment of the Australian Wine and Brandy Corporation (AWBC) to enhance the operating environment of the Australian wine industry. This has been a very successful initiative in providing leadership in market development, knowledge development, wine quality and integrity. The AWBC is also the platform for the collection and interpretation of data, information and knowledge management on behalf of the Industry as a whole. This has helped to link people and businesses looking for knowledge and has focussed on capturing information, held both as a document, a data base and tacitly (knowledge and experience in the minds of employees and associates).

The Australian Wine industry has achieved spectacular success in the international market in the last 10 years. Key elements of this success are due to its ability to be able to accurately draw on its knowledge base.

Having access to external knowledge regarding international markets, trends, legal requirements and a host of other relevant information has facilitated the wine industry's export success.

The following wine industry business forecast was made possible through the ability to access accurate external sources of knowledge.

- Australia to date has focussed (wisely) on European and North American markets rather than Asia.

- This focus will need to widen to include Asia in the next 10 years as there are enormous changes taking place in Asian economies particularly China.
- Australian wine exports are now predominately bottled and branded table wine. This initiative has built value into wine brand *Australia* over time. It is very important that the brand building focus continues.
- Consumption of Australian wine has grown strongly in the mid price or premium sector (from US$5/bottle). There will be constant pressure from Asian markets to force this price point down and for the Australian wine industry to supply own label product. This is happening already and is a potential threat to the long term value of wine brand *Australia*.
- Australia's strong export performance has occurred in a wide range of exchange rate values. For example UK and US currency exchange rates over the last five years have varied by 50% (UK £0.33 – 0.50, US$0.51 – 0.80),
- Marketing strategies and promotional tactics that are effective in any given international market will vary according to the level of development that Australian wine has achieved in that market. It is therefore valuable to differentiate export markets according to their stage of development for Australian wine.
- The Australian wine industry has a 200 year history of cyclical booms and busts. It has experienced situations of demand exceeding supply and supply exceeding demand, along with the vagaries of seasonal variation since the first vines were planted. Despite the recent success, there is no reason to suggest that this historical pattern will cease. The wine industry boom has attracted investment from all sectors, many of which have lost sight of wine's status as an agriculturally based commodity.

Many have assumed that somehow the wine industry is now safeguarded from the same failure or success which affect other farm products. Some investors believed that the Australian wine industry's rapid growth had insulated it against any oversupply. Unfortunately, the easiest growth has already been achieved and competitor pressure is intensifying. Successfully developing new markets for the next phase of growth is challenging and subject to significant lead times.

- It has been predicted that by the year 2025, a global borderless economy will exist. Baby boomers will be underpinning an unprecedented surge in consumer spending with ethics and consumer morality being drivers of consumer behaviour.

- There is an unprecedented consumer focus on food integrity and a rapidly growing concern about ecological responsibility.
- The most dramatic change is occurring in electronic communication. Internet and email use is multiplying at an exponential rate and is revolutionising the way business is managed and how wine is sold. In the future, producers will be able to interact more directly with consumers and this will have major implications for existing distribution and retail channels.

11. REFERENCES:

Information for this case study was drawn from the following sources.

1. The Australian Wine and Brandy Corporation Date Warehouse.

2. The Annual Financial Benchmarking Survey for the Wine Industry jointly prepared by Deloitte and the Winemakers Federation of Australia.

4. Reuters .com files wine industry benchmarks

5. The Australian Financial Review.

6. Snapshots International – “Australian Wine 2004” published September 2004. http;//www.snapdata.com

7. Wine Industry Statistics – http://www.winebiz.com.au/statistics/

8. “The Australian Wine Industry” The Australian Government Department of Foreign Affairs and Trade web-site http://www.dfat.gov.au/facts/wine.html

9. Management First, www.managementfirst.com

10. “Improving The Deal through Knowledge Management”, www.kmworld.com

11. “Sector Futures”, The Knowledge Intensive Business Services sector (KIBS) www.europa.eu.int/comm

12. APPENDICES.

1. Australian Wine Industry Statistics

	2001	2002	2003	2004
Winery Numbers	1,465	1,625	1,798	1,899
Vineyard Area 2 (ha)	148,275	158,594	157,492	164,181

Tonnes Crushed	1,391,082	1,649,574	1,329595	1,860,352
Beverage Wine Production (ML)	1,034.8	1,174.1	1,037.6	1,401.1
Domestic Sales (ML)	395.7	4414.5	402.5	417.4
Export Sales (ML)	375.1	471.4	525.0	643.2
Total Case Sales	1,757	2,288.8	2,382.0	2,744.9
A$ Value/litre	4.69	4.86	4.55	4.27

Source: company information, Snapdata Research

2. International Performance Comparison

	Industry	S&P 500
EBITD Margin - 1yr	9.9%	22.4%
Return on Assets - 1yr	4.0%	7.6%
Return on Equity - 1yr	18.4%	21.6%
Revenue per Employee - 1yr	$270,876.9	$775,164.6
Net Income per Employee – 1yr	$11,955.3	$96,977.9

Quick Ratio – qtr	1.0	1.4
Current Ratio – qtr	1.4	1.7
Total Debt to Equity – Qtr	2.6	1.5
Interest coverage - 1yr	5.05	65.0

3. Export Market Opportunities

Export Market Opportunities

Regional Export Markets

		2000	2005	2010
Europe	'000 L	188,014	349,068	438,282
	$M	804	1531	2021
North America/ Oceania	'000 L	84,654	142,312	165,198
	$M	464	804	959
Asia	'000 L	12,959	40,277	64,056
	$M	77	233	411
Other	'000 L	1,940	5,371	8,959
	$M	7	27	32
Total	'000 L	287,567	537,028	676,493
	$M	1,352	2,595	3,423

An analysis of data from the Food and Agricultural Organisation of the United Nations (FAO), the Australian Wine and Brandy Corporation's Export Approvals, the OIV per capita consumption statistics and World Drinks per capita consumption was undertaken to evaluate market opportunities in the top 20 markets.

Firstly the likely growth in per capita wine consumption for each individual market was estimated. Next, the compositional shift in the premium and above segments share of this total wine market was assumed. Finally, an estimate of the market share which is feasible for Australia to achieve was estimated. This latter step took into account the stage of development for Australian wine especially distribution infrastructure and brand strength.

4. Australian Wine Industry Sector Score Card

	Sector dimension	Description	Indicator		Current value/s	History							
			Value	Implication[1]		Item	Unit	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
1	Supply-demand balance	Financial year stock holdings relative to sales (ratio)	2.02	(-) ► (0)	Stocks: 1.842 MLs Sales: 0.911 MLs	Red	ratio	2.07	2.41	2.27	2.76	3.18	2.73
						White	ratio	1.34	1.55	1.40	1.31	1.31	1.18
						Overall	ratio	1.69	1.93	1.82	2.01	2.23	2.02
		Record high wine stocks are unwinding.											
2	Product value mix	Value of wine in the top quartile of exported wine (by volume) relative to the bottom quartile	5.1	(+)	Top quartile: $A1 080 mill Bottom quartile: $A214 mill	Change in top quartile	percent	35%	21%	35%	23%	26%	21%
						Change in bottom quartile	percent	34%	30%	44%	7%	22%	11%
						Top quartile:bottom quartile	ratio	4.5	4.2	3.9	4.5	4.7	5.1
		Continued shift to a higher product value mix in the Australian wine offer.											
3	International competitiveness	Australia's growth rate for the value of wine exports relative to the world rate (3-year moving compounding annual growth rate)	17.6	(+)	Value of exports in USD billion: Australia - 1998, 0.56; 2002, 1.23: World - 1998, 14.1; 2002e, 14.6.	World *	per cent	9.0%	6.6%	0.5%	-0.2%	0.2%	na
						Australia*	per cent	22.7%	21.1%	19.1%	17.5%	17.8%	na
						Difference	percent points	13.7	14.5	18.6	17.7	17.6	na
		The Australian wine sector maintains its international competitiveness.											
4	Market presence	Number of the world's major wine importing markets in which Australia holds a top-3 ranking.	3	(+)	United Kingdom, United States of America and Ireland	Ranking in UK*	position	2	2	2	2	2	1
						Ranking in US*	position	2	2	2	2	2	2
						Ranking in Ireland*	position	3	3	3	3	3	na
						Total in top 3 rankings*	number	3	3	3	3	3	3
		The Australian wine sector is strategically well placed in terms of having an influential presence in key overseas markets.											
5	Business performance	Return on winery assets	4.2%	(-)	1999-00: EBT, $425.4 mill; Total revenue, $3.4 billion; Total assets, $7.29 billion	EBT/total assets	percent	7.6%	6.0%	5.8%	4.2%	na	na
		Winery margins	11.5%			EBT/total revenue	percent	13.6%	11.6%	12.2%	11.5%	na	na
		Return on bearing vineyards	4.8%		2000-01: Profit per bearing hectare, $1 930; Vine income per hectare, $12 250; Market value of bearing hectares, $39 870	Winegrape profits/value of bearing vineyards	percent	14.7%	14.9%	2.9%	4.8%	na	na
		Vineyard margins	15.8%			Profit/vine income	percent	31.8%	36.0%	9.8%	15.8%	na	na
		Declining returns in the Australian wine sector a concern.											
6	Community contribution	Compound annual growth rate in grapegrowing and wine manufacturing employment	13.9%	(+)	1996, 15 743; 2001, 30 109	Grape growing*	number	na	na	na	15 629	na	na
						Wine manufacturing*	number	na	na	na	14 480	na	na
						Total*	number	na	na	na	30 109	na	na
		Wine's ranking in Australia's farm exports	4		$A 2.4 billion	Value of exports	$A mill FOB	812	991	1 347	1 614	2 007	2 386
						Rank among farm exports	Number	7	7	6	6	5	4
		The Australian wine sector makes a growing and significant contribution to the community - particularly in regional Australia. Greater quantification of these benefits warranted.											
7	Environmental sustainability	Litres of supplementary water used per hectare	na	na	na	megalitres per hectare	ML/ha	na	na	na	na	na	na
		The Australian wine sector is taking steps to create more coherent and communicable record of its environmental performance.											
Overall:	After a period of spectacular growth into the world wine market, the Australian wine sector is healthy although dealing with growing pains that threaten to impede its future growth potential.												

na: not available * Measures based on calendar year represented by the latter of the two years indicated in the financial year headings 1. Key: (+), Positive implications for the sector; (0), No net effect on the sector; (-), Negative implications for the sector

5.