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"TYPOLOGY AND FINANCIAL PERFORMANCE OF CHAMPAGNE WINE MAKERS ACCORDING TO DISTRIBUTION CHANNEL”

by [1]Francis Declerck
International Agri-Food Management Institute of ESSEC Business School (ESSEC-IMIA)
B.P. 105 - 95021 Cergy-Pontoise cedex, France
Phone: 33 (0)1 34 43 32 66 Fax: 33 (0)1 34 43 32 60
E-mail: declerck@ essec.fr

ABSTRACT
A typology of strategies related to the channels of distribution decided by Champagne wine makers is set up. Champagne makers’ operating profit depends on their network of distribution, which affects selling prices. Based on a sample of 20 Champagne wine makers, called Maisons de Champagne, economic and financial measures of performance made by Champagne wine makers are analyzed per type of channel of distribution.

KEY WORDS: Champagne wine, channel of distribution, strategy, performance

1. INTRODUCTION

In 1992 during the economic recession in Western Europe and North America, consumers did not accept to pay high price for a bottle of Champagne while grapes used to make it was harvested 3 years earlier and paid at very high price. In 1991 and 1992, only 214 million bottles were sold while 149 million bottles were sold in 1989. So, squeezed by high costs and low prices, Champagne makers have accepted to sell Champagne in supermarkets at lower price. Again, after the sales boom in 1999 with 327 million bottles, economic stagnation has come back. Sales are diminished to 269 million bottles sold in 2001 and 288 million bottles in 2002, as mentioned on tables 1 and 2. But, the paper shows how Champagne makers - called “Maisons de Champagne” - have learnt how to improve value creation over the decade through different channels of distribution.

2. OBJECTIVES

The objectives of the paper are:

1. to identify the types of strategy implemented by Champagne wine makers with regard to channel of distribution,

[1] The author is associate professor in the finance department of ESSEC Business School and researcher at the International Agri-Food Management Institute of the ESSEC Business School (ESSEC-IMIA) at Cergy-Paris, France. The author acknowledges thanks to the ESSEC research center for its financial support.

2. to measure economic and financial performance of Champagne wine makers from 1992 to 2001 per type of distribution,
3. to relate performance measures to strategic decisions with respect to distribution channels.

The structure of the paper is as follows. First, a review of literature is made to give ground to the study. Second, the methodology and data are presented. Third, empirical findings about the Champagne wine industry are provided to shed light on the processor and retailer system. Finally, conclusions are drawn and prospects of future developments are presented.

3. REVIEW OF LITERATURE

Champagne wine is produced in a restricted designated area of origin (AOC, in French language) in the East of Paris, France. But, it is consumed around the world. About 65% of Champagne bottled are drunk in France and 35% are consumed out of France mainly in the UK, the USA, Germany, Italy… (CIVC, 2002).

As every industry, the Champagne wine industry of "Maisons de Champagne" is constrained by consumer demand. But it also satisfies legal limitations in input use both in terms of quantity (limited designated area of origin, maximum authorized yield) and quality (varieties of vines, manual harvest…). However, uncertainty still exists because of weather fluctuations from year to year, explaining the fluctuation of the production of grapes. On the demand side, fluctuations in shipments of bottles from processors to retailers vary from year to year because of swings in economic growth in the developed countries (CIVC, 1992 - 2001).

Gaucher, Hovelaque and Soler (2000) have formulated the optimal procurement and inventory policies and calculated chain profits according to various levels of coordination between two producing firms. Gaucher, Soler and Tanguy (2002) studied quality incentives and supply contracts in the wine chains. Soler and Tanguy (2002) found that attracting equity capital from investors on stock exchanges is the best financial strategy favoring the expansion of Champagne makers. Giraud-Héraud, Mathurin and Soler (2003) have analyzed the legitimacy of mechanisms of supply regulation for products protected by a designation of origin. They argue that such mechanisms reduce uncertainty in order to invest in quality improvement.

Declerck & Pichot (1994) notice that since it takes 3 years to produce Champagne wine from grapes, the adjustments of supply to demand lead to jumps of prices in economic booms and drops in prices in stagnation/recession times that disturb consumers and strongly affect vine growers and wine makers. Declerck (1996) show that large value added to sales and low financial leverage are good indicators to explain operational and financial performance in the Champagne industry. Declerck (2004) reports that vine growers and wine makers have learned and were able to contract in order to limit price swings when negotiating with retailers. A producer – retailer cycle is exhibited with 3 loops over the period 1978-2002.

4. METHODOLOGY, DATA AND MAJOR DIFFICULTIES

Methodology

The Porter's model (1985) is used for strategic purpose. So, a typology Champagne wine makers is set up according to their channel of distribution:

- supermarket operators,
- specialized distributors like wine and liquor services, cafes, hotels, restaurants…
- global network of distribution worldwide.

The characteristics of each channel of distribution are studied, particularly barriers to entry - that may be very heavy - and access to consumers.

According to their distribution channels, Champagne wine makers have different characteristics that can be observed through:

1/ measures of financial structure:

- equity capital to total assets
- equity capital to log term capital
- financial leverage as the financial debt capital to equity to shareholders' funds

2/ economic measures of performance:

- growth of sales in 2001 with respect to 2000
- value added as the wealth created by labor and capital, measured by the difference between production and consumption of raw materials and external services
- labor costs
- earnings before interest (EBIT)
- operating margin

3/ financial measures of performance:

- net income
- return on equity (ROE)

Data

Secondary data used to measure the economic and financial criteria of Champagne wine makers come from financial data banks over a ten-year-period (1992 –2001). They are used to compute financial ratios in order to grasp the financial situation of corporations.

Data come from the Champagne wine interprofession - Comité Interprofessionnel du Vin de Champagne (CIVC) –, Nielsen and Banque de France, the web sites of the Union of Champagne wine processors (l'Union des Maisons de Champagne) and the annual reports released by some « Maisons ».

The paper is also based on the analysis of financial data available in the «DIANE » data bank from Bureau van Dijk Electronic Publishing for 20 Maisons de Champagne over the 1992-2001 period. The 20 Champagne wine makers of the sample are Besserat de Bellefon, Bollinger, Canard-Duchêne, De Castellane, De Cazanove, Duval-Leroy, Krug, Lanson, Laurent-Perrier, Marne et Champagne, Mercier, Moët & Chandon, G.H. Mumm, Piper Heidsieck, Pommery, Louis-Roederer, Ruinart, Taittinger, Veuve Clicquot Ponsardin and Vranken. Data after 2001 were not available for the 20 companies. So, in order to compare the Maisons de Champagne on the same basis, 2001 is the last year analyzed.

Major difficulties

The major difficulties for the financial analysis are:

the presentation of accounting documents whose accounting words may be too vague in order to grasp their precise meaning, for instance when « other assets » amounted to 30% of total assets;
the accounting years of different length;
non available data for some year;
exceptional events like divestitures, mergers or acquisitions that may affect the interpretation of figures.

Such analysis requires some checking from the source of documents in order to avoid misinterpretation.

5. EMPIRICAL FINDINGS

Structure of Champagne brands on the French market: branded products and private labels

The French market absorbs about two thirds of Champagne sales. In 2002 in French super and hypermarkets, 14 brands of Champagne held 19% of the market. The concentration ratio is low with respect to the 40% threshold for a top-4-firm concentration ratio as a limit for perfect competition in food industries found by most authors (Declerck & Scherrick, 1993). So, the Champagne market is very atomized and competition is very strong.

In French modern retail in 2002, according to AC Nielsen data (Laboissière, 2003) about one out of four bottles of Champagne is sold through private label. Tables 3 and 4 show that the market share of private labels in France has increased at 23.6% in volume and 19% in value in 2002. Such a penetration is increasing slowly. The market share of private labels for other sparkling wines, rum, white alcohol and aperitifs based on wine are lower, but their growth is stronger than the one for Champagne private labels. The penetration of private labels is more important for red AOC Bordeaux and red AOC Côtes du Rhône wines.

Over the last 25 years from 1978 to 2003, vine growers and wine makers were able to expand and double sales from about 150 million to 300 million bottles.

Commpetitive environment of Champagne makers per type of channel of distribution

The characteristics of market involve particularly barriers to entry, technology and inventory constraints and access to consumers - in order to induce producers and retailers' anticipations of risks and price.

In the Champagne wine industry, there exist specific technology and inventory constraints. Time requirement for making wine is a crucial constraint: it takes about 3 years between the vintage of grapes and the sale of Champagne wine. Consequently important inventories of bottles aging in cellars must be financed.

Legal constraints at the production level are those of a designated area of origin:

- size limit of the area encompassing 35,155 hectares in the east of Paris,
- yield limit of grapes,
- compliance to strictly controlled guideline (type and quantity of inputs, environmental conditions, processing…).

Most of the designated area of origin is planted. Only a few hundred hectares can be added. So, the vineyards of Champagne, which can produce about 300 to 320 million bottles currently, could lead to 320 to 340 million bottles.

On the sales side, legal constraints differ among countries: Many countries limit communication and advertising on wine. France limits the opening up of supermarkets and hypermarkets larger than 300 m^2. Most countries outside Europe limit or forbid the sales of wines and spirits in food stores. Most alcoholic beverages are sold at liquor stores and services.

Taxation of alcoholic beverages is also particular from country to country.

Figure 1 shows the competitive forces that determine the Champagne industry profitability. Champagne wine makers are under both:

- the pressure of their suppliers who are vine growers and co-ops of vine growers;
- the pressure of their major clients: On the French market which accounts for 2/3 of sales, 6 purchasing centers (of supermarket and hypermarket operators) buy and distribute 46 million bottles out of 93 millions bottles, that is about 50% of bottles, sold by "Maisons de Champagne" in France.

The characteristics of bargaining power depending on the type of channel of distribution:

- There exist specific barriers to entry on the French modern retailers:
    - high barrier to entry due to high volumes demanded by six hyper and supermarket operators: Auchan, Carrefour, Casino, Cora, Intermarché, Lucie (Leclerc–Système U),
    - high barrier to entry due to the supply of grapes of particular "crus" to be blended in order to guarantee constant quality for large volumes.

- Barriers to entry may be similar to international chains of hotels and restaurants. But on trade most cafes, hotels, restaurants, liquor services and nightclubs are independent and have low bargaining power. So, Champagne makers may be stronger in selling through the on-trade channel of distribution, which is not very concentrated. However to reach those individual clients in niche markets requires an important network of commercial agents and a logistical network at low cost.

- In many countries outside Western Europe, wine cannot be sold in supermarkets. So, Champagne makers, having worldwide sales, mainly sell through the on–trade channel of distribution.

Performance

Price per type of channel of distribution

The Maisons de Champagne sell bottles under their own brand of the same name. Some Champagne makers sell mainly to modern retailers in France or Europe, while other sell mainly to the on-trade channel of distribution. Some of them have a global distribution worldwide.

A typology of 20 Champagne wine makers is set up according to the network of distribution in France is presented on table 5. The breakdown of the sample is as follows:

- seven Champagne makers selling mainly to French modern retailers (Canard-Duchêne, De Castellane, De Cazanove, Duval-Leroy, Marne & Champagne, Mercier and Vranken),
- six Champagne makers with mainly on-trade distribution to liquor services, cafes, hotels, restaurants and night-clubs (Besserat de Bellefon, Bollinger, Krug, Laurent-Perrier, Louis-Roederer and Ruinart),

- seven Champagne makers with global network of distribution (Lanson, Moët & Chandon, Mumm, Piper Heidsieck, Pommery, Taittinger and Veuve Clicquot Ponsardin).

Observations show that:
- The lowest prices of branded products are observed for brands mainly sold in super and hypermarkets. Prices go from 15 € to 25 € without VAT in France. For information, those Maisons also sell bottle to modern retailers as private labels of Champagne whose price are cheaper, between 10 and 15 € a bottle in general.
- Intermediate prices are found for Champagne markers selling mainly to liquor services, cafes, hotels, restaurants and nightclubs.
- Higher prices are obtained by the Maisons, which have a global international network.

Figure 2 shows that prices obtained outside France are higher than prices in France, where competition is tougher due:
- to competition from co-operatives of vine growers which process Champagne wine for their members or for themselves and mainly serve the French market,
- to strong sales in the hand of the six purchasing centers of French modern retailers.

6. RESULTS

Table 6 relates the financial performance of Champagne makers to the type of channel of distribution where they mainly operated in 2001.

Tables 7, 8 and 9 detail financial results for every Champagne maker in the sample. Table 7 presents financial results of Champagne makers selling mainly to modern retailers. Table 8 documents financial performance of Champagne makers selling mainly to wine specialists, cafes, hotels, and restaurants. Table 9 exhibits the financial comparison of Champagne makers with global distribution, i.e. selling both on-trade and off-trade worldwide.

The financial performance of Champagne makers is analyzed on three complementary aspects:
- the equilibrium of the financial structure,
- the economic and operating profitability,
- the financial profitability.

Mean and median values are provided.

In terms of corporate size, the total sales of Champagne maker with global distribution were the largest ones with 94.3 million € as median value in the sample in 2001. Sales of Champagne maker distributing mainly to French modern retailers follow with 55.7 million €. Sales of Champagne maker with mainly on-trade distribution are smaller with 38.9 million €.

The financial structure of Champagne makers selling mainly to French modern retailers is very weak. Their financial debt level is very important. It is worth about 201 to 270% the equity shareholders' funds. Champagne makers with mainly on-trade distribution and Champagne makers with global distribution have good financial structure with figures about 65% and 42 to 74% respectively. The other ratios of financial structure confirm those results.
Further in median value, Champagne makers selling mainly to French modern retailers have the lowest vineyard ownership (18 ha) as collateral than other Champagne makers (45 ha for Champagne makers with mainly on-trade distribution and 270 ha for Champagne makers with global distribution).

EBITDA is a measure of wealth created by the operational activity of the company. It is independent from the financing, depreciation, amortization and tax policy of the company. The economic profitability, measured by EBITDA to sales, is worth about 27% to 28% for Champagne makers with mainly on-trade distribution, which exhibit the best performance. Champagne makers with global distribution follow with about 17% to 19%, which is still a good result. But with about 9.6%, Champagne makers selling mainly to French modern retailers show very low performance.

Results are similar in terms of value added to sales ratio. Value added is the wealth created by human and financial capital. It is the difference between total sales and external operating charges. Since labor costs are internal charges, they are not included in those external operating charges. Further, financial expenses as a percentage of value added are relatively higher for Champagne makers selling mainly to French modern retailers. Such a result is consistent with the fact that their debt level is the highest one. But labor costs are the most important for Champagne makers with global distribution, may be because international big firms have to pay more business executives. On another side, Champagne makers with off-trade or on-trade distribution face similar labor costs.

The operational profitability, expressed as EBIT to total sales ratio, is worth about 19.6% on average and 23% as median value for Champagne makers with mainly on-trade distribution. Champagne makers with global distribution have the same mean value but lower median value, which is 12.7%. Those results are excellent compared to financial results in the food and agribusiness sector. However, Champagne makers selling mainly to French modern retailers exhibit a ratio lower to 10%.

The financial profitability ratios show that Champagne makers with mainly on-trade distribution and Champagne makers with global distribution are quite similar:

- their profit margin on sales is worth about 15% to 17%,
- their return on equity capital is about 10% to 13%.

Those results are very good: Two thirds of yearly Champagne sales are usually made during the last four months of the year. So, most sales were made in economic stagnation/depression after the attacks in New York on September 11, 2001.
But, Champagne makers selling mainly to French modern retailers exhibit very low ratios:

- their profit margin on sales is worth about 2%,
- their return on equity capital is inferior to 5%.

Clearly, the economic, operating and financial profits depend on the network of distribution and sales price. Champagne makers selling wine to supermarket and hypermarket chains showed very low profitability. Champagne makers selling through the on-trade channel of distribution and worldwide were very profitable in 2001. Similar patterns are observed in analyzing financial reports from different year.

Further from 1997 to 2001, Champagne makers selling mainly to supermarkets had negative growth rates of sales, EBIT and net income. They were not able to keep momentum from the boom of sales in 1999.

On the other side, Champagne makers with mainly on-trade distribution enjoyed very positive growth rates of activity and profitability. And Champagne makers with global distribution grew even faster. They were able to take advantage of the new millenium and to keep in the following years.

Financial details provided on tables 7, 8 and 9 show that the family and traditional Champagne makers Bollinger and Louis-Roederer, which only sell through the international on-trade channels of distribution, get the best results. They just precede Champagne makers with global distribution like Veuve Clicquot Ponsardin (LVMH group), Moët & Chandon (LVMH group) and Taittinger, which also show excellent results.

7. CONCLUSIONS

Champagne makers with mainly on-trade distribution and Champagne makers with global distribution worldwide have learnt how to improve value creation over the decade, in taking advantage of the new millenium. And they obtained excellent financial results. However, Champagne makers selling mainly to supermarkets got poor financial results.

The results explain why most Champagne makers try to increase sales outside supermarkets in order to get better price and profitability. But such a strategy requires financial means to develop brand notoriety and an international channel of distribution.

On the other hand, most Champagne makers selling mainly to supermaket operators face high financial debt and cannot afford such an investment. They only can access the international marketing through partnership with other wine and spirits distributors, as Piper Heidsieck did when its parent wine and spirit company, Remy-Cointreau (France), decided to share its distribution network with Jeam Beam Brands Worldwide (USA), Highland Distillers Ltd (UK) and later Vins & Sprit A.B. (Sweden).

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Table 1 - Sales of Champagne wine in volume from 1997 to 2002

Sales in million bottles of 75cl	1997	1998	1999	2000	2001	2002
- in France	165 (61%)	179 (61%)	190 (58%)	149 (59%)	165 (63%)	175 (61%)
- outside France	103 (39%)	113 (39%)	137 (42%)	104 (41%)	98 (37%)	113 (39%)
- yearly total sales	**269**	**292**	**327**	**253**	**263**	**288**
Growth rate of sales in volumes	**+ 5,2%**	**+ 8,5%**	**+ 12,0%**	**- 22,6%**	**+ 3,9%**	**+ 9,5%**

Table 2 - Sales of Champagne wine in value from 1997 to 2002

Sales in billion euros	1997	1998	1999	2000	2001	2002
- in France	1,51 (59%)	1,64 (55%)	1,91 (52%)	1,52 (51%)	1,64 (55%)	1,75 (53%)
- outside France	1,04 (41%)	1,31 (45%)	1,76 (48%)	1,45 (49%)	1,33 (45%)	1,54 (47%)
- yearly total sales	**2,55**	**2,95**	**3,67**	**2,97**	**2,97**	**3,29**
Growth rate of sales in value	**+ 7,0%**	**+ 15,7%**	**+ 24,4%**	**- 19,1%**	**0 %**	**+ 10,8%**

Table 3 - Volume market share of branded products and private labels of some alcoholic beverages at French modern retailers

Alcoholic beverages	Market share of branded products	Market share of private labels
Champagne [*]	76,6 % (+ 5 %)	23,6 % (+ 6,4 %)
Rhum [**]	80% (+ 1,3 %)	20 % (+ 8,2 %)
Vodka [**]	87 % (+ 5%)	11 % (+ 10 %)
Gin [**]	84 % (- 3,1%)	16 % (+ 9,7 %)
Tequila [**]	86 % (- 7,7%)	14 % (+ 50,7 %)

([*] Source: (Laboissière, 2003) ([**] Source: (Laboissière, 2004)

Table 4 - Value market share of private labels of some alcoholic beverages at French modern retailers

	Market share of private labels in 2002
Champagne	19 %
Other sparkling wines	13 %
Whisky	9 %
Aperitifs based on wine	9 %
Red Bordeaux (claret) AOC wine	37 %
Red Côtes du Rhône AOC wine	23 %

([**] Source: (Laboissière, 2004)

Figure 1 - Competitive forces that determine the Champagne industry profitability

Threat of potential entrants

Potential Entrants

. High barrier to entry due to high volumes demanded by hyper and supermarkets
. High barrier to entry due to the supply of grapes of particular crus to be blended in order to guarantee quality for large volumes
. High barrier to entry due to the cost of an international commercial & logistical network

Bargaining power of suppliers

Suppliers = vine growers

. Strong bargaining power (suppliers may make wine with a co-op and there is :
. No substitute to "AOC Champagne" grapes
. Limited area of "Champagne" vineyard
. Limited grape yied

Threat of Substitute Products or Services

Substitutes

. Other sparkling wines
. Other wines
. Spirits : whisky, rhum, Cognac, vodka, gin…

Industry competitors = Maisons de Champagne

Characteristics:
. Strong competition among merchants and co-ops
. Atomicity of operators among merchants and co-ops of vine-wine makers
. Lack of brand homogeneity among countries

Factors of performance
. Brand notoriety
. Volumes of wine from the same blend of crus in order to get constant taste

Legal protections and constraints

Legislation

. Legislation on designated areas of origin (AOC) to protect the "Champagne" name, limiting surfaces and yields
. Laws (like Evin law in France) limiting communication and advertisements on alcoholic beverages
. Laws (like Raffarin law in France) limiting the opening up of supermarkets and hypemrarkets larger than 300 m^2

Bargaining power of buyers

Buyers = supermarkets, cafes, restaurants, liquor services

Super & hypermarket operators and hotel-restaurant chains:
- have strong bargaining power in France and Western Europe where they are highly concentrated.
- have the power of reject large volumes of wine out of store sheves, so Champagne makers may be in financial danger.

Independent liquor services and cafes world-wide:
Low bargaining power because they are not very concentrated
Important sales force is required to reach a lot of individual clients

Bargaining power of final buyers

Final clients = consumers

Households and business men / women do not have any bargaining power. They just can refuse to buy.

Table 5 - Typology of 20 Champagne brands per price and network of distribution in France

Consumer Price of a bottle of 75 cl	Prevailing distribution: super-hyper markets	Prevailing distribution: Liquor services, cafes, hotels, restaurants, night-clubs	Prevailing Distribution: Global network
> 25 €		Krug Bollinger Louis-Roederer Ruinart	Veuve Clicquot Ponsardin Moët & Chandon Taittinger
20 - 25 €		Laurent Perrier	Pommery Piper-Hiedsieck Lanson Mumm
15 - 20 €	Canard-Duchêne Mercier	Besserat de Bellefon	
< 15 €	De Castellane De Cazanove Duval-Leroy Vranken Marne & Champagne		

Figure 2 - Price of a bottle of Champagne from 1978 to 2003, in constant euros of 2001

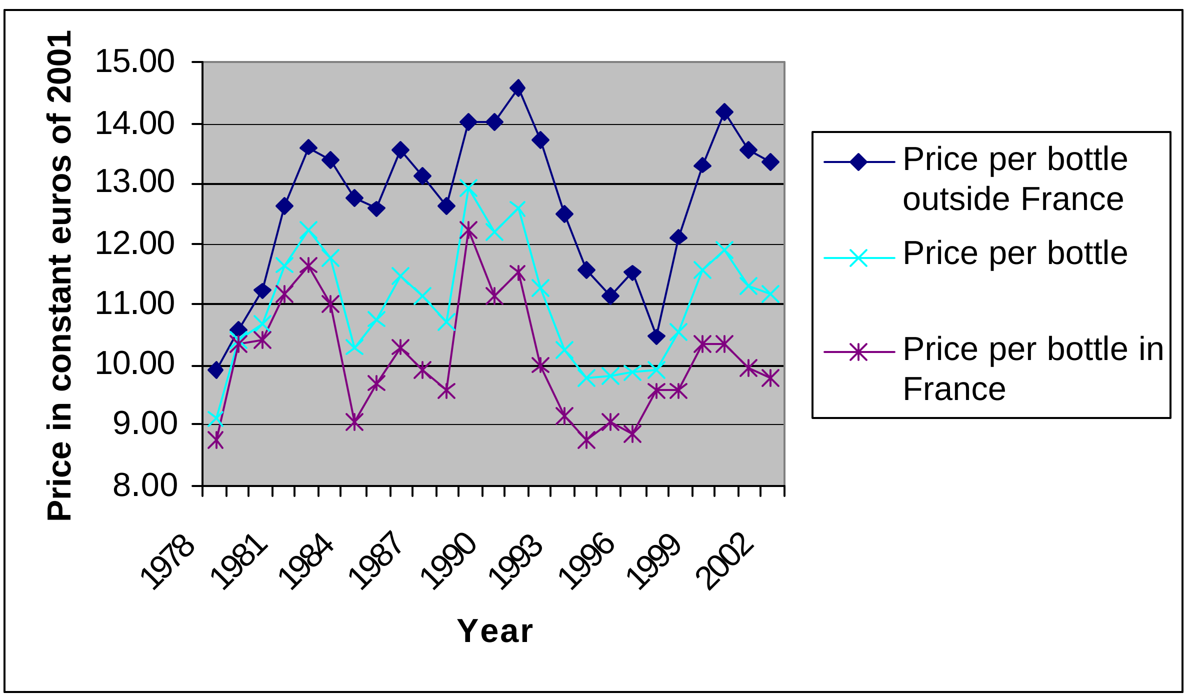

Table 6 – Financial comparison of Champagne makers per type of channel of distribution in 2001

	MEAN VALUES			MEDIAN VALUES		
Major channel of distribution	**French modern retailers**	**On-trade distribution**	**Global international distribution**	**French modern retailers**	**On-trade distribution**	**Global international distribution**
Vineyard ownership in hectare	82	75	137	18	45	270
Key Results						
Total Sales in k€	67 056	48 180	179 478	55 690	38 896	94 300
Operating Income in k€	6 435	12 334	41 423	5 178	9 917	10 372
Net Income in k€	1 393	8 367	30 108	1 151	5 270	14 892
Financial Structure						
Equity Capital / Total Assets	29%	55%	50%	27%	50%	54%
Equity Capital / Long Term Capital	37%	62%	55%	28%	59%	64%
Financial Debt / Equity Shareholder's Funds	272%	62%	74%	218%	65%	42%
Economic Performance						
Sales Growth in 2001 w.r.t. 2000	17.4%	-1.3%	-7.9%	24.0%	2.2%	-9.0%
Value Added to Sales	16.3%	41.7%	37.3%	17.9%	44.8%	34.7%
Labor Costs to Value Added	31.8%	31.9%	41.9%	31.4%	33.2%	45.0%
Financial Expenses to Value Added	37.5%	23.9%	20.9%	38.3%	20.0%	20.0%
EBITDA to Total Assets	6.1%	10.9%	8.7%	4.6%	12.9%	6.5%
EBITDA to Sales	9.4%	27.3%	19.7%	9.4%	28.2%	16.8%
Operating margin = EBIT to Sales	9.6%	23.0%	23.1%	9.6%	19.6%	12.7%
Financial Profitability						
Profit margin on Sales	2.1%	17.7%	16.8%	2.1%	15.3%	17.8%
Return on equity (ROE)	1.7%	11.6%	11.0%	4.6%	13.2%	9.6%
Growth rate over the period 1997-2001						
Growth rate of sales	-2%	13%	9%	-2%	15%	19%
Growth rate of EBIT	-9%	82%	775%	-25%	61%	66%
Growth rate of Net Income	-76%	716%	246%	-78%	77%	90%

Table 7 – Financial comparison of Champagne makers selling mainly to modern retailers in 2001

Champagne Makers = "Maisons de Champagne"	Canard Duchêne	De Castellane	De Cazanove	Duval Leroy	Marne & Champagne	Mercier	Vranken	Sub-sample average	Sub-sample median value
Vineyard ownership in hectare	18	0	0	150	0	231	175	**82**	**18**
Key Results									
Total Sales in k€	53 989	24 903	42 408	55 755	129 880	55 690	106 769	**67 056**	**55690**
Operating Income in k€	5 178	1 530	1 698	3 129	13 321	6 247	13 940	**6 435**	**5178**
Net Income in k€	3 295	-3 011	223	1 151	-829	5 868	3 054	**1 393**	**1151**
Financial Structure									
Equity Capital / Total Assets	30.1%	26.7%	27.9%	21.5%	10.7%	72.1%	11.7%	**28.7%**	**26.7%**
Equity Capital / Long Term Capital	55.0%	27.9%	34.4%	25.6%	10.9%	85.0%	17.2%	**36.6%**	**27.9%**
Financial Debt / Equity Shareholder's Funds	45.7%	217.9%	168.5%	263.2%	660.3%	1.6%	548.0%	**272.2%**	**217.9%**
Economic Performance									
Sales Growth in 2001 w.r.t. 2000	35%	-33%	58%	29%	24%	6%	3%	**17.4%**	**24.0%**
Value Added to Sales	12.4%	19.3%	10.1%	17.9%	20.0%	14.1%	20.2%	**16.3%**	**17.9%**
Labor Costs to Value Added	16%	56%	41%	48%	31%	9%	21%	**31.8%**	**31.4%**
Financial Expenses to Value Added	40%	31%	38%	33%	62%	8%	50%	**37.5%**	**38.3%**
EBITDA to Total Assets	12.3%	3.3%	4.6%	4.5%	4.0%	7.2%	6.9%	**6.1%**	**4.6%**
EBITDA to Sales	9.4%	6.3%	4.9%	7.8%	11.5%	11.9%	13.9%	**9.4%**	**9.4%**
Operating margin = EBIT to Sales	9.6%	6.1%	4.0%	6.2%	10.3%	11.2%	13.1%	**9.6%**	**9.6%**
Profitability									
Profit margin on Sales	6.1%	-12.1%	0.5%	2.1%	-0.6%	10.5%	2.9%	**2.1%**	**2.1%**
Return on equity (ROE)	14.6%	-22.5%	1.5%	4.6%	-2.0%	7.6%	8.3%	**1.7%**	**4.6%**
Growth rate over the period 1997-2001									
Growth rate of sales	12%	-45%	72%	-2%	-18%	-33%	3%	**-2%**	**-2%**
Growth rate of EBIT	-25%	-39%	86%	-51%	-14%	-44%	26%	**-9%**	**-25%**
Growth rate of Net Income	-40%	-221%	-85%	-78%	-126%	16%	5%	**-76%**	**-78%**

For Marne & Champagne, the accounting year 1997 lasts 14 months. So, its growth rate over the period 1997-2001 cannot be analysed.

Table 8 – Financial comparison of Champagne makers selling mainly to wine specialists, cafes, hotels, restaurants… in 2001

Champagne Makers = "Maisons de Champagne"	**Besserat de Bellefon**	**Bollinger**	**Krug**	**Laurent-Perrier**	**Louis - Roederer**	**Ruinart**	**Sub-sample average**	**Sub-sample median value**
Vineyard ownership in hectare	10	153	19	70	200	0	**75**	**44.5**
Key Results								
Total Sales in k€	14 844	38 138	15 892	112 965	67 586	39 654	**48 180**	**38 896**
Operating Income in k€	1 261	12 457	3 151	21 953	27 803	7 377	**12 334**	**9 917**
Net Income in k€	3 413	6 924	1 987	11 739	22 525	3 616	**8 367**	**5 270**
Financial Structure								
Equity Capital / Total Assets	40.6%	59.3%	68.1%	39.2%	88.0%	36.0%	**55.2%**	**49.9%**
Equity Capital / Long Term Capital	49.2%	67.3%	72.8%	43.2%	88.9%	50.0%	**61.9%**	**58.7%**
Financial Debt / Equity Shareholder's Funds	102.6%	41.8%	25.7%	108.8%	4.1%	88.0%	**61.8%**	**64.9%**
Economic Performance								
Sales Growth in 2001 w.r.t. 2000	8%	17%	-29%	-8%	5%	-1%	**-1.3%**	**2.2%**
Value Added to Sales	16.5%	55.4%	55.0%	34.6%	55.1%	33.7%	**41.7%**	**44.8%**
Labor Costs to Value Added	34%	32%	39%	25%	23%	38%	**31.9%**	**33.2%**
Financial Expenses to Value Added	55%	8%	36%	14%	5%	26%	**23.9%**	**20.0%**
EBITDA to Total Assets	2.8%	17.7%	5.9%	13.5%	12.7%	13.1%	**10.9%**	**12.9%**
EBITDA to Sales	8.8%	36.1%	31.6%	24.7%	42.4%	20.3%	**27.3%**	**28.2%**
Operating margin = EBIT to Sales	8.5%	32.7%	19.8%	19.4%	41.1%	16.6%	**23.0%**	**19.6%**
Profitability								
Profit margin on Sales	23.0%	18.2%	12.5%	10.4%	33.3%	9.1%	**17.7%**	**15.3%**
Return on equity (ROE)	15.1%	13.2%	3.2%	13.1%	11.2%	13.8%	**11.6%**	**13.2%**
Growth rate over the period 1997-2001								
Growth rate of sales	-22%	50%	-3%	15%	23%	16%	**13%**	**15%**
Growth rate of EBIT	94%	99%	10%	245%	28%	18%	**82%**	**61%**
Growth rate of Net Income	3997%	92%	82%	72%	58%	-3%	**716%**	**77%**

For Besserat de Bellefon, the accounting year 1997 lasts 14 months. So, its growth rate over the period 1997-2001 cannot be analysed.

Table 9 – Financial comparison of Champagne makers selling both on-trade and off-trade worldwide in 2001

Champagne Makers = "Maisons de Champagne"	Lanson	Moët & Chandon	Mumm	Piper Heidsieck	Pommery	Taittinger	Veuve Clicquot Ponsardin	Sub-sample average	Sub-sample median value
Vineyard ownership in hectare	0	> 760	275	50	470 (*)	270	363	**137**	**270**
Key Results									
Total Sales in k€	81 465	551 526	86 905	127 739	94 300	77 997	236 412	**179 478**	**94 300**
Operating Income in k€	10 372	161 788	9 753	9 119	7 550	13 562	77 819	**41 423**	**10 372**
Net Income in k€	973	98 062	30 182	3 471	4 147	14 892	59 029	**30 108**	**14 892**
Financial Structure									
Equity Capital / Total Assets	26.0%	52.0%	54.0%	31.0%	66.0%	66.0%	55.0%	**50.0%**	**54.0%**
Equity Capital / Long Term Capital	33.0%	57.0%	66.0%	35.0%	64.0%	67.0%	64.0%	**55.1%**	**64.0%**
Financial Debt / Equity Shareholder's Funds	193.0%	46.0%	21.0%	161.0%	30.0%	26.0%	42.0%	**74.1%**	**42.0%**
Economic Performance									
Sales Growth in 2001 w.r.t. 2000	13%	-13%	-22%	-18%	-7%	1%	-9%	**-7.9%**	**-9.0%**
Value Added to Sales	31.3%	46.5%	30.5%	23.7%	34.7%	46.2%	48.5%	**37.3%**	**34.7%**
Labor Costs to Value Added	36%	28%	47%	45%	64%	49%	24%	**41.9%**	**45.0%**
Financial Expenses to Value Added	36%	23%	12%	20%	17%	6%	32%	**20.9%**	**20.0%**
EBITDA to Total Assets	6.3%	15.5%	6.5%	5.7%	3.1%	6.9%	16.8%	**8.7%**	**6.5%**
EBITDA to Sales	16.8%	31.4%	13.0%	11.3%	9.5%	20.6%	35.3%	**19.7%**	**16.8%**
Operating margin = EBIT to Sales	12.7%	29.3%	11.2%	7.1%	8.0%	17.4%	32.9%	**23.1%**	**12.7%**
Financial Profitability									
Profit margin on Sales	1.2%	17.8%	34.7%	2.7%	4.4%	19.1%	25.0%	**16.8%**	**17.8%**
Return on equity (ROE)	1.4%	15.5%	25.9%	3.9%	2.2%	9.6%	18.5%	**11.0%**	**9.6%**
Growth rate over the period 1997-2001									
Growth rate of sales	-35%	21%	-24%	45%	1%	19%	36%	**9%**	**19%**
Growth rate of EBIT	31%	26%	176%	2028%	3061%	37%	66%	**775%**	**66%**
Growth rate of Net Income	90%	7%	1316%	197%	-24%	103%	33%	**246%**	**90%**

(*) When Pommery was sold to Vranken group in April 2002, 450 ha out of 470 ha were kept by LVMH for Moët & Chandon mainly

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