

# HOW OCCASIONAL ARE OCCASIONAL WINE BUYERS?

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## **Abstract**

*Purpose:* Many empirical studies show that small brands experience a lower penetration rate and lower frequency of purchase. This phenomenon is known as the double jeopardy law where most brand buyers are (very) occasional buyers. The objective of our investigation is to estimate the meaning of the term “occasional” for the wine category.

*Methodology:* Our analysis is conducted on actual wine purchases recorded in a database provided by one of the largest French retail chains. The dataset included over 250,000 customers, who purchased over six million bottles of wine, across eight hypermarket/supermarkets in France in 2010.

*Findings:* The results show that the smaller the brand the higher is the proportion of buyers purchasing a specific brand or appellation only for one time.

*Implications:* These findings have clear implications for the marketing strategies of small and medium sized producers who have to work with broader than expected distribution channels to reach a minimum number of buyers in order to meet their sales objective.

## **1. Introduction and Literature Review**

Goodhardt, Ehrenberg and Chatfield have firstly documented the Dirichlet model of repeat purchase in 1984. The Dirichlet model is based on the existence of the Double Jeopardy Law and on many other law-like patterns in repeat buying and brand choice (Sharp et al., 2012). Based on observed data, the model predicts brand performance based on buyers’ behavior (Ehrenberg, Uncles, 1997). The Dirichlet framework has been generalised under a large range of conditions for many packaged goods product categories. The scope has been extended to several countries and to online shopping (Ehrenberg, Uncles, 1997).

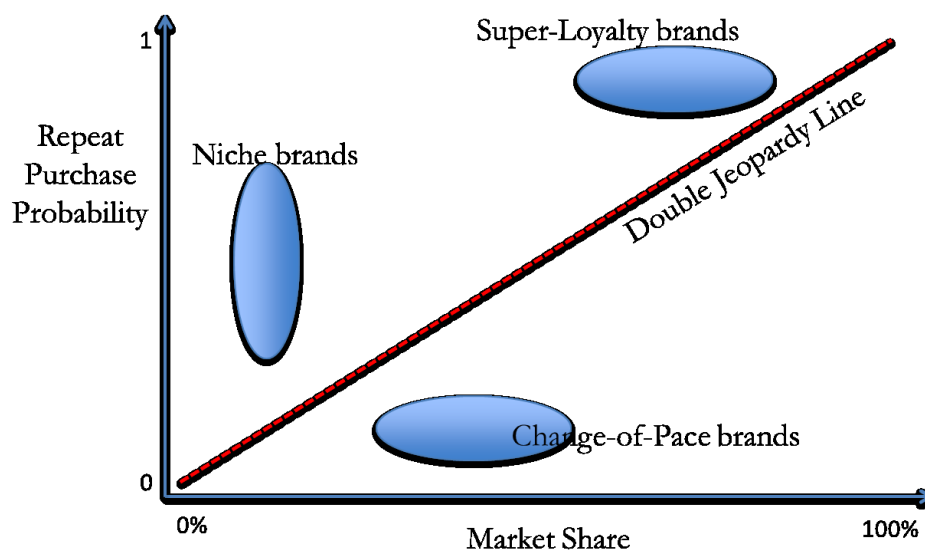
Very little is known about the ‘real’ behavior of wine buyers, i.e. investigating their behavior using revealed or real purchase data. In that perspective, we assume that wine buyers’ behavior would not differ considerably compared to the behavior of buyers of other product categories: a greater number of people will buy big brands and will repeat purchasing these brands slightly more often, while smaller brands will be purchased by fewer people slightly less often (Sharp, 2010). Such occasional buying behavior is even stronger in the wine category, with so many opportunities for buyers to easily switch from one brand (country, variety, etc.) to another. Wine buyers may stick to a region or to a specific attribute, but for many possible reasons (including physical availability) may select a different brand.

Revisiting Jarvis (2006) data, Cohen et al. (2012) analyzed the Australian wine market using real purchase data of a sample of 4,768 wine buyers. They investigated the market on a grape varieties basis, trying to demonstrate the presence vs. absence of partition in the market. They confirmed the double jeopardy law in a wine category context. To sum up, wine buyers in Australia are occasional buyers of grape varieties (seen as brands). More customers buy big grape varieties (Chardonnay for example) and buy them more often. People buying Chardonnay also buy other grape varieties, more or less in line with the penetration rate of these varieties.

The double jeopardy law can be schematised as follow (Figure 1):

- **Big brands** (super-loyal brands) experience substantial market share and a repeat purchase probability (or frequency of purchase) in line with the size of the brands. In many wine markets, Bordeaux is a good example of such super loyal brands.
- **Change-of-pace brands** also experience a substantial market share, but the repeat purchase probability is lower than what we could expect based on the double jeopardy law. A good example of a product is Champagne: many people buy a bottle of Champagne at least once a year (therefore contribute to the penetration rate) but for most of them only once (it's not Christmas every week...).
- **Niche brands**: small brands (based on their market share) experiencing higher than expected repeat purchase probability. A good example here includes foreign brands in the French domestic market: Not that many people buy Portuguese wines in France, but those buying it are somewhat loyal to them.

**Figure 1: Brand positioning options**



This theoretical and conceptual framework indicates that the smaller the brand, the lower the repeat purchase probability or frequency of purchase.

## 2. Research Objectives

The double jeopardy law indicates that small brands are small mostly because of their very low penetration rate, and consequently, because of their very low repeat purchase probability. In that perspective, what does mean being an occasional buyer in the wine category? Formulated differently, what is behind an average frequency of purchase of 5, 10 or 15 units (bottles) per year for a specific brand? To make it even shorter, the penetration rate gives us an indication of the total number of buyers who bought a brand at least once, but we don't know the proportion of these buyers who bought only one bottle, two bottles, etc. during a twelve months period. Based on the analysis of real purchase behavior of buyers of wine brands, we provide preliminary results on the proportion of buyers purchasing one or more wine bottles.

## 3. Research Method

### 3.1 The database

We base our investigation on real purchase data gained from one major retailer of wine and spirits in France in 2010. The data are relative to loyalty cardholders, allowing us to assess repeat purchase behavior of wine buyers. The dataset comprises 403,382 customers, who purchased a total of 6, 360, 706 bottles of wine, across 8 hypermarkets/supermarkets in 2010.

### 3.2 Calculation and key brands characteristics of the database

Our focus is on commercial brands and wine regions. We calculated the proportion of buyers who bought the brand one time, two times, three times, etc. We have then compared these figures with the overall size of the brand (its market share).

**Table 1: Wine regions key metrics**

Regions	Market Share (%)	Penetration rate (%)	Mean (# bottles)	Sum (# bottles)
Bordeaux	23.1	59.7	9.6	1464092
Côtes du Rhône	12.8	44.5	7.2	812710
Other regions	11.3	51.7	5.4	714720
Languedoc	9.8	38.8	6.3	625158
Champagne	8.2	43.8	4.7	519749
Côtes de Provence	7.9	37.6	5.3	504434
Anjou	7.1	33.6	5.3	451298
Sud Ouest	6.3	37.0	4.2	400022
Alsace	4.8	25.9	4.6	301879
Bourgogne	3.4	22.2	3.8	217412
Foreign	2.5	15.2	4.2	161455
Beaujolais	1.3	11.3	2.8	79982
Corse	0.8	6.8	2.8	48693
Savoie	0.3	4.0	2.1	21599
Côtes du Roussillon	0.3	2.6	2.8	19005
Jura - Arbois	0.1	0.8	2.3	4695
Bugey	0.0	0.2	2.6	1600
Total	100		4.5	6348503

In relation to wine regions, Bordeaux shows the biggest market share, with 23.1% of the wines being sold coming from that region, followed by Côtes du Rhône (12.8%), other regions, etc. A brief overview of the data indicates that the bigger the region in terms of market share, the greater the penetration rate and the greater the average number of bottles bought. Although we can observe a couple of ‘irregularities’ (for example Champagne), the dataset illustrates the double jeopardy law.

On the wine brands perspective, Pierre Chanau shows the biggest market share, with 16.9% of the wines being sold coming from that brand, followed by Roche Mazet (1.5%) and all other

brands. The bigger the brand, the greater the penetration rate and the greater the average number of bottles bought. We can also observe some ‘irregularities’: for example Pol Remy, a Champagne brand, which has a much higher purchase frequency given its size.

**Table 2: Wine brands key metrics**

<b>Regions</b>	<b>Market Share (%)</b>	<b>Penetration rate (%)</b>	<b>Mean (# bottles)</b>	<b>Sum (# bottles)</b>
Pierre Chanau	16.9	73.6	5.7	1071976
Roche Mazet	1.5	7.9	4.7	93769
Veuve Emille	1.2	11.6	2.6	76615
La Villageoise	1.2	10.1	2.9	73733
Pol Remy	1.0	3.4	7.1	61919
Listel	0.9	7.5	3.1	58664
Villaray	0.8	4.4	4.7	52511
Cellier des Dauphins	0.8	4.8	4.2	51289
Vieux Papes	0.8	3.4	5.6	48052
Wolfberger	0.6	4.1	3.7	38353
Beloison	0.6	2.5	5.8	36261
Les Nobles Gens	0.6	3.0	4.7	35775
Kriter	0.5	3.0	4.0	30453
Brikettes	0.4	5.7	1.7	24052
Promenade du Sud	0.3	1.9	4.5	21574
...				
Total ALL brands	100		4.1	6348503

#### **4. Findings**

Starting with the regions, and using Figure 2 to illustrate our point, the smaller the region the greater the proportion of buyers purchasing one single bottle of the region. More precisely:

- Bordeaux experiences about 23% of market share with 31.3% of its buyers having purchased only one bottle during the twelve month period, 17% of its buyers having purchased 2 bottles, 8.7% having purchased 3 bottles, etc. and only 1.2% having purchased 10 bottles (see Appendix for all data). We can also observe some obvious few ‘peaks’ at 6 bottles and 12 bottles.
- If we look at Côtes du Rhône, experiencing 12.8% of market share, we observe 33.5% of its buyers having purchased only one bottle during a twelve month period, 18.5% of its buyers having purchased 2 bottles, 9.1% having purchased 3 bottles, etc. ..., and only 1.2% having purchased 10 bottles. As with Bordeaux, we can also observe some obvious few ‘peaks’ at 6 bottles and 12 bottles.

- Looking at smaller regions, for example Beaujolais (1.3% of market share), we observe 52.2% of its buyers having purchased only one single bottle during a twelve month period, 22.9% of its buyers having purchased 2 bottles, 8.6% having purchased 3 bottles, etc., and only 0.5% having purchased 10 bottles. Even for these regions, usual peaks seen at 6 bottles and 12 bottles.

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Overall, there is a clear trend in the data illustrating the double jeopardy law where smaller regions tend to have more occasional buyers.

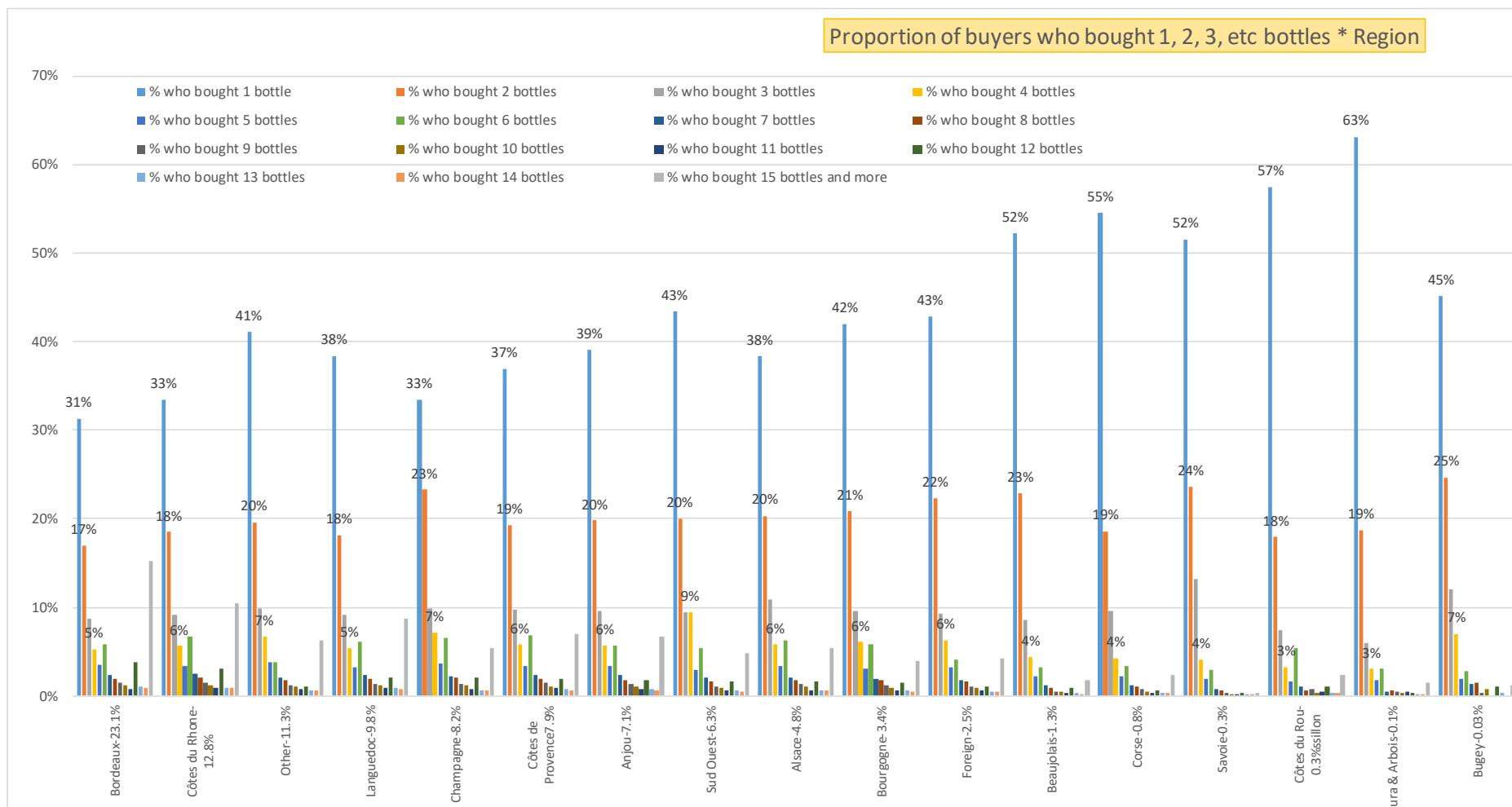
The trends illustrated above are not so evident for brands mostly because all top 2 to 15 brands have very similar market shares (from 1.5 to 0.3%). When comparing the biggest brand, Pierre Chanau, with the top 2-15 brands, we observe some major differences:

- Pierre Chanau: 35% of its buyers purchased the brand only once, 19% bought 2 bottles, 11% bought 3 bottles, etc. with only 1% bought of buyers purchasing 10 bottles in the given twelve months (see Appendix for all data)
- The second biggest brand, Roche Mazet (more than 10 times smaller than Pierre Chanau) has 50% its buyers buying the brand only once, 17% buying 2 bottles, 6% buying 3 bottles, etc., again with only 1% bought of buyers purchasing 10 bottles in the given twelve months
- Smaller brands (e.g. Promenade du Sud) have 54% of their buyers purchasing the brand only once, 15% bought 2 bottles, 7% bought 3 bottles, etc., and, once again only 1% bought of buyers purchasing 10 bottles in the given twelve months

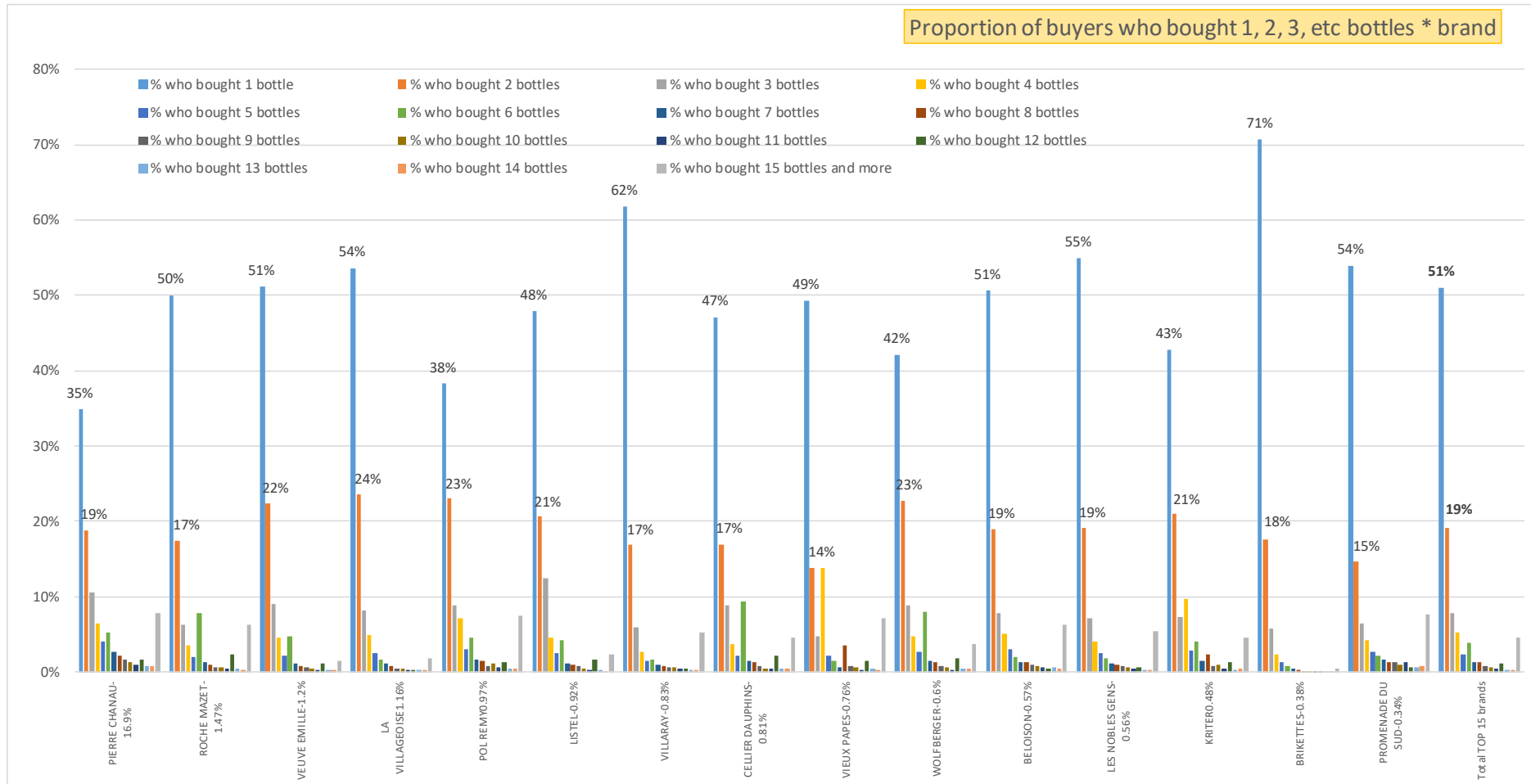
Smaller brand generates a greater proportion of occasional buyers. However, it should be noted that this analysis doesn't provide a true representation of repeat purchase buying patterns. Some people might buy 2 bottles in one purchase, while others might buy the same bottle in two different purchases. Therefore, to shed further light into this behavior, we cross table the number of bottles bought with the number of time people made a purchase.

For the biggest brand Pierre Chanau, we observe that 60% of buyers made only one transaction, whatever the number of bottles bought, 17% made two transactions (again whatever the number of bottles bought at each of these transactions), 7.4% made three transactions, 4.1% made four transactions, and about 10% made five transactions or more. In the case of a smaller brand, such as Veuve Emille, the difference is much bigger: 83% made only made one transaction, 11% made two transactions, 3% made three transactions, and only about 3% of buyers made four transactions or more. This shows that the smaller the brand, the smaller the proportion of buyers repeating a purchase.

**Figure 2: Buying behavior of the wine regions in France (in the selected distributor)**



**Figure 3: Buying behavior of the top 15 wine brands in France (in the selected distributor)**



## **5. Implications**

In the French market that we analysed, and for the wine brands we focused on, the proportion of buyers purchasing only once is around 60 to 70% and the proportion of buyers buying twice drops to 10% to 20%. And in almost cases, about 70 to 80% of these buyers buy one bottle only. Our data and analyses confirm the critical importance of penetration vs. loyalty towards a specific brand.

It means that to sell 1 million bottles of the product (taken as an index), each of these brands has to recruit at least 600,000 buyers, which obviously is difficult to find within one single retailer (even with a chain like Auchan owning about 150 stores in France in 2017). Based on these figures, assuming that many producers would focus on hypermarkets and supermarkets to sell their wine, we could calculate the minimum number of stores they should be in to reach their sales objectives.

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