Farm resources, transaction costs and forward integration in agriculture: Evidence from French wine producers

Jean-Baptiste Traversac\textsuperscript{a}, Sylvain Rousset\textsuperscript{b,*}, Philippe Perrier-Cornet\textsuperscript{c}

\textsuperscript{a}INRA, UMR SADAPT AgroParisTech, 16 Rue Claude Bernard, F-75236 Paris Cedex 5, France
\textsuperscript{b}Cemagref, UR ADBX, 50 Avenue de Verdun, F-33612 Cestas Cedex, France
\textsuperscript{c}INRA, UMR MOISA, 2 Place Pierre Viala, F-34060 Montpellier Cedex 1, France

A R T I C L E   I N F O

Article history:
Received 1 December 2009
Received in revised form 11 July 2011
Accepted 12 July 2011
Available online 6 September 2011

Keywords:
Vertical integration
French wine producers
Farm diversification
Resource-Based Perspective
Transaction Costs Economics

A B S T R A C T

This research aims to understand why French wine producers venture into direct sale to customers instead of selling bulk wine to wine companies. The empirical tests on the French Farm Census confirm the value of both Resource-Based Perspective and Transaction Cost Economics in understanding organizational choices in agriculture and food markets. Because asset specificity in wine trade is low on average, large wine producers have an advantage over smaller ones and so are more likely to venture into direct sale of generic wines. By contrast smaller wine producers are more likely to rely on the bulk wine market, which is less risky for them. In addition our model helps us to understand the effect of the State-sponsored certification of grape and wine quality, the Protected Designation of Origin system. All other things being equal, producers with vineyards of high reputation (PDO) are also more likely to bottle and sell their wines; we guess this is because they wish to capture the value of the PDO reputation, the collective brand name capital owned by the farmers. Finally, saving on transaction cost is only one side of the coin: the most educated wine producers can profitably reinvest their knowledge and capabilities into new activities. These choices have important consequence on the French Wine Supply Chain governance.

0306-9192/$ – see front matter © 2011 Elsevier Ltd. All rights reserved.
doi:10.1016/j.foodpol.2011.07.007

Introduction

The economic literature on vertical integration in food chains mostly concerns processing firms (Ménard and Klein, 2004; Reimer, 2006; Raynolds, 2004). Research on this topic in the agricultural sector has been very limited to date (Battershill and Gilg, 1998; Kirwan, 2006; Summer and Wolf, 2002). In contrast, the broader topic of farm household pluri-activity – i.e. the generation of income additional to that from primary agriculture by any member of the household – a horizontal extension, has been widely studied by rural scholars in OECD and developing countries (See special issues in Fuller, 1990; Barrett et al., 2001; Otsuka and Yamano, 2006).

The characteristics of agricultural holdings – micro-businesses with largely immobile capital and labor – and the attention given to off-farm diversification have kept the topic of forward integration at some remove from scientific debate on the re-organization of firms and the global food chain. To our knowledge, little work in economics has been done from this perspective on farmers’ ventures into food processing and trade (Alsos and Carter, 2006; Ventura and Milone, 2000; Brester, 1999).

The renewal of organizational economics – especially Resource-Based Perspective and Transaction Cost Economics – provides a suitable framework for analyzing vertical integration in agriculture. We use both theories to explain an important feature of the French wine supply chain organization. The difficulties of the French wine industry in the early 21st century raise questions about the vertical organization and the governance of transactions on the wine markets. Moreover the relationship between supply chain organization and performance is important for European policy makers, especially in the context of ongoing Common Market Organization reform.

This study was designed to investigate the relation between farm resources and transaction costs on alternative farmer marketing strategies. Its combines the analyses of several determinants of the organization of the firm and supports its claims with an econometric analysis of an exhaustive database of the 38,000 French wine producers.

The first two sections of the paper present the French wine supply chain and the theoretical framework. This framework serves as the basis for specific empirical predictions and the logistic regression model presented in the third section. The main results, discussion and policy implications are presented in the last section.
The French wine supply chain

The core activity in grapegrowing consists in crop-production tasks such as vine training, pruning, thinning, water management, and harvest. Forward activities—grape crushing, fermentation, clarification of wines, aging, bottling and marketing—are generally carried out by other categories of firms. Scale economies and commercial constraints explain the transfer of these functions outside the farm.

In France these processes affect the wine sector less than other parts of agricultural economics. However, they leave their mark on the industry in the new wine exporting countries (USA, Australia, Argentina, Chile, South Africa), and also in major European countries like Spain or Portugal (Cesaretti et al., 2006; Gatti et al., 2003). France typically, though, has a high proportion of integration of downstream activities by grape-harvesters.

The French Farm Census (individual data collected by the French Ministry of Agriculture and Fisheries) provides detailed statistics on the composition of labor, land, material, and on the different crops produced. A supplementary section on grapegrowing activities provides information on what grape harvests and wine products become (processing and trade channels, by legal category of wine). The French Farm Census offers the advantage of collecting information on an exhaustive population, thereby precluding selection bias. The last two censuses (1988 and 2000) are used here. The population of growers surveyed (166,282 individuals in 1988 and 109,869 in 2000) is large enough to allow segmentation into sub-populations within narrower bounds. We distinguish different crops produced. A supplementary section on grapegrowing activities provides information on what grape harvests and wine products become (processing and trade channels, by legal category of wine). The French Farm Census offers the advantage of collecting information on an exhaustive population, thereby precluding selection bias. The last two censuses (1988 and 2000) are used here. The population of growers surveyed (166,282 individuals in 1988 and 109,869 in 2000) is large enough to allow segmentation into sub-populations within narrower bounds. We distinguish three categories of vine growing farms. First, grapegrowers (in French viticulteur) are producers confining themselves to farming (see Table 1). They are frequently but not exclusively farms with relatively small areas of vines, with a subgroup of grapegrowers not being vine specialists. They supply their harvest to two categories of firms: winemaking cooperatives whose capital is held by member operators, or wine trading firms with private capital (négociants). Half of the French harvest is processed by both these categories of large firms.

The other half of the grape harvest is processed by wine producers (in French cave particulière), who own a crushing facility to process fruit. Unlike the US, Australian or South African wineries which crush grapes either bought in or produced by the firm indirectly, French wine producers produce wine exclusively from grapes grown on their own plots. This is an administrative restriction. This farm production is sold in bulk to wine trading companies or, less often, through the channel of marketing producer groups. The wine could also be sold in bottles or in small containers to a direct marketing base of consumers, retailers or caterers. Within wine producers, wine producers-traders (in French château or domaine commercialisant) adopt a strategy of full vertical integration, extending from grapegrowing through to marketing and including the bottling and packaging of wines with their own brand (see Fig. 1). Our paper focuses on the skills-support strategies of wine producers in terms of marketing and selling wine. More precisely, our aim is to understand why 13,386 out of a total of 37,875 wine producers chose to integrate a commercial activity. The econometric study is based on the subset of wine producers within the 1988 and 2000 Farm Census.

One transaction is central to our analysis: the sale of bulk wine to middlemen, the alternative choice being direct sales of bottled wines to customers. The marketing of processed food by farmers is original in agriculture, and, in the wine industry, exclusively significant in France and some Italian regions.

Table 1

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Vineyard area (≥ 1000 ha)</th>
<th>Grape harvest (≥ 1000 hl)</th>
<th>Bulk wine production (≥ 1000 hl)</th>
<th>Volumes marketed (≥ 1000 hl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grapegrowers</td>
<td>71,994</td>
<td>398.4</td>
<td>25,530</td>
<td>0</td>
<td>395</td>
</tr>
<tr>
<td></td>
<td>(65.5%)</td>
<td>(46.1%)</td>
<td>(45.8%)</td>
<td>(0%)</td>
<td>(4.6%)</td>
</tr>
<tr>
<td>Bulk wine</td>
<td>24,489</td>
<td>205.7</td>
<td>16,245</td>
<td>11,938</td>
<td>180</td>
</tr>
<tr>
<td>producers (22.3%)</td>
<td></td>
<td>(23.8%)</td>
<td>(28.1%)</td>
<td>(49.5%)</td>
<td>(2.1%)</td>
</tr>
<tr>
<td>Wine</td>
<td>13,386</td>
<td>259.7</td>
<td>15,139</td>
<td>14,208</td>
<td>8006</td>
</tr>
<tr>
<td>producers (12.2%)</td>
<td>(30.1%)</td>
<td>(26.1%)</td>
<td>(50.5%)</td>
<td>(93.3%)</td>
<td></td>
</tr>
<tr>
<td>Total above</td>
<td>109,869</td>
<td>863.9</td>
<td>57,915</td>
<td>28,147</td>
<td>8581</td>
</tr>
<tr>
<td>Total above (100%)</td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
</tr>
</tbody>
</table>
دریافت فوری متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات