LOCATION-SPECIFIC ADVANTAGES IN THE WINE INDUSTRY – FROM TERROIRS TO TERRITORIES

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Introduction

The purpose of this paper is to explore why location still matters in the wine industry despite its increasingly global nature and analyse the various approaches for categorising it. The wine industry has been experiencing dramatic changes during the last 25 years, with the emergence of new markets, as well as new competitors and new production places. The industry has increasingly become global and concentrated. Large multinational companies adopt global strategies, sourcing grapes and wine from various locations worldwide. The development of varietal wines enables such a move, as the origin of the wine consequently loses its importance.

We would therefore assume a diminution of the "sense of place" in the wine industry and the end of wine territories. For Veseth (2011), "somewhereness" is to be replaced by "nowhereness". Yet, evidence shows that the place of production remains important and has even gained momentum in new producing countries. The academic literature has tried to analyse the factors behind this sense of place. Two different frameworks have emerged: while academics from traditional producing countries mostly refer to terroir, new those from producing countries tend more frequently to focus on clusters. Yet, this division is increasingly criticised, in particular for being artificial (Bélis-Bergouignan, 2011).

Rather than finding differences and similarities between the terroir and cluster models in wine, our first purpose in this paper is therefore to analyse their complementarities. Indeed, we want to show that these frameworks simply view similar structures with different lenses. Our second objective is to bring back together existing frameworks in order to conceive a comprehensive one.

Terroir: factor endowments and comparative advantages

A first explanation of the importance of location in the wine industry builds on the traditional "terroir" concept. The definition of terroir given by the French INAO[1] focuses on the physical specificities (soil, climate) of a particular vineyard (Marchesnay, 2002). This definition has gradually evolved to take into account human action as well, whether by the choice of grape varieties, the selection of parcels or the growing methods. In the OIV resolution VITI 333/2010, the OIV defines terroir as "a concept which refers to an area in which collective knowledge of the interactions between the identifiable physical and biological environment and applied wine-making practices providing distinctive characteristics for the products originating from this area".

"Terroir" hence refers to the combination of climatic, soil and other site-related natural conditions, such as topography, landscape characteristics and biodiversity features. Although human influence is integrated in this definition, it remains limited to making the best out of natural conditions, i.e. finding and using the most adequate grape varieties or winemaking techniques.

This framework builds on the factor-proportion theory that emphasises the importance of local factor endowments (land, labour capital, natural resources) in international trade and specialisation (Hira and Swartz, 2014)[2]. The model suggests that several production factors, primarily labour and capital, but also land and natural resources, are used in the production of final goods. Countries and regions have different quantities, or endowments, of production factors available for use in production. Each country or region will consequently specialise according to its comparative advantage that is to say in products making use of the most abundant – hence cheapest – production factors.

For an agricultural product such as wine, soil and climate, (i.e. the "terroir" (Hira and Swartz, 2014)) are key production factors. It is commonplace to say, within the world of wine, that the most reputed regions gain their reputation because of the quality of their natural environment. The quality of a wine is thus determined by its particular location, the best wines being produced in regions endowed with the best land and climatic conditions. Furthermore, appellations aim to protect local producers from outsiders and free riders, whose objective is to take an unjustified advantage of a terroir's reputation. Appellation is hence in part the legal crystallisation of the non-legal concept of terroir as a place and tradition influencing a producer.

Yet, this explanation is being questioned on different grounds. First, although factor endowments may explain why some regions are better equipped than others as far as wine production is concerned, they do not precisely differentiate among similar wine regions or explain what makes a specific wine region successful. They also overlook the recent success of wines originating from new producing countries that put less emphasis on terroir, as supply and production are often spread across various locations. It is thus argued that, with the evolution of technology, natural conditions have lost their importance (Hira and Swartz, 2014).

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[1] National Institute for Control of Origin. This is the organisation in charge of regulating the French appellation system.

[2] It was originally developed by two Swedish economists, Eli Heckscher and his student Bertil Ohlin in the 1920s and extended by Paul Samuelson in the 1930s.

Clusters: agglomeration economies and transaction costs

The emergence of new producing countries is often associated with the competitiveness of local clusters, defined as "geographical grouping[s] of enterprises which operate within a specific industry" (Porter, 1998), such as wine. The cluster framework builds on the theories of Alfred Marshall (1890): in his book, *Principles of Economics*, he showed that economic activities tended to concentrate geographically in a defined space to benefit from specific competitive advantages linked to geographical proximity. Michael Porter (1998) initiated the idea of clusters using as one example among others, the Californian wine cluster.

This reference was subsequently used to describe varyingly sized production areas in Chile, Brazil, New Zealand, South Africa or Texas: Australia has thus sometimes been considered as a "meta" or "mega" continent-wide cluster (Aylward, 2004a; Muller & Sumner, 2006; Visser & De Langen, 2006). The concept has been less frequently used as an analytical framework for vineyards located in traditional wine producing countries, such as the Douro wine region in Portugal (Rebelo & Caldas, 2011) or Bordeaux (Bélis-Bergouignan, 2011).

In this framework, local factor endowments/comparative advantages matter less than the components of the cluster's business environment, as detailed in the "competitiveness diamond" model. This model aims to explain the competitive advantage of territory in a given industry by combining industry- and location-specific factors. The diamond includes four sides:

- Input conditions: infrastructures, qualified labour force, technological practices and know how, and the presence of training and research organizations.
- Demand conditions: the size and the requirements of the market, which encourage local firms to improve their produce in terms of quantity, price and quality.
- Strategy, structure and competition among local companies: the location of a high number of competitors in a given territory enables them to distinguish themselves from each other by the quality and price of their products, as well as by a continuous innovation process.
- Related and supporting industries: the presence locally of a large number of specialized and complementary firms (cooperage, glassware, labels, machines and inputs) enables firms in a given sector to obtain the best goods and services at the best price.

The dynamics of a cluster is based on the productivity gains generated by geographic proximity and access to specific local inputs. The geographic concentration of complementary participants facilitates the regularity of interactions by reducing transaction costs between partners. The presence of specialised suppliers, service providers and support organizations (training and promotion bodies, local authorities) provides local firms with easy access to diversified private and public services and resources (training, expertise, infrastructures).

Innovation within the cluster is also driven by the intensity of complementary relationships between local firms, each one adapting to demanding clients' needs and putting pressure on its suppliers or providers (Aylward, 2004b). Competition between companies within the cluster is a catalyst for productivity gains and innovation as well, as each company is encouraged to distinguish itself from its neighbours, both partners and competitors, whereas complementarities enable insiders to achieve economies of scale, whether in terms of trade, logistics or marketing.

A clustering process emerges when the simultaneous presence of a significant number of factors generates a threshold effect. Subsequently, clusters tend to reinforce themselves, insofar as the presence of favourable conditions attracts existing firms – outsiders wanting to become insiders – and invigorates the entrepreneurial process. Eventually, relationships between complementary clusters (wine, tourism, gastronomy, and culture) will contribute to enhancing the overall coherence and global competitiveness of the cluster.

This model enables one to understand the individual strategies of companies in an economy that is largely regulated by market relationships. In a "Smithian" logic of "invisible hand", the pursuit by each player of its self-interest creates the right conditions for competitiveness at a collective level and on a regional scale. Although the role of national and local governments (the fifth side of the diamond) in encouraging competition and hence competitiveness – through their support to training and research, the creation of infrastructures and the introduction of laws promoting competition and consumer protection – is acknowledged, it remains limited to the creation of an appropriate framework in which companies will compete.

Furthermore, the model mostly relies on market-based mechanisms generating traditional agglomeration economies – positive external effects induced by geographic proximity – and reducing transaction costs. It somehow tends to neglect non-market relationships such as inter-personal relationships and trust, emphasised by such authors as Gordon and McCann (2000). Porter (1998) does stress the importance of collaboration among companies, with the support of so-called "institutions for collaboration" in developing "public goods" that will contribute to competitiveness on a collective level. This is in line with the "territorial branding" concept, i.e. the idea that a wine territory is offering a product that cannot be replicated elsewhere both for environmental and socio-cultural reasons (Charters and Michaux, 2014; Charters and Spielmann, 2014). Yet, the reasons and ways cooperation and these institutions develop is not formally explained (Ditter and Brouard, 2014; Hira and Swartz, 2014).

The model is moreover often questioned for lacking solid scientific bases (Martin and Sunley, 2003). First, the boundaries of clusters are contingent and rarely follow the traditional categories used to classify industrial and economic statistics. The term "cluster" can therefore be used to name very different objects, such as the Australian wine industry on one hand and much smaller vineyard areas like the Napa Valley on the other hand. Local concentration of wine producers is very often synonymous with cluster activity, although insiders may not cooperate with one another. Second, the nature of the clustering process is itself not clearly explained: the framework may be useful to understand how actual clusters operate, but has limited prescriptive implications and does not provide much support to policy-making.

Finally, the competitiveness framework helps understand the development of new producing countries that favour light regulations, open competition and innovation-driven strategies. It is less relevant as far as traditional producing countries are concerned, where non-market mechanisms, traditions and government regulations play a bigger role. As Smit (2010 p.124) explains, "Porter's Diamond Framework is not a new theory that explains the competitiveness of countries but rather a framework that enhances our understanding of the international competitiveness of firms. […] It should be taught as a tool for analysing country sources of competitive advantage in order to enhance the ability of managers to make informed decisions on how to configure the value chain, and where to do what in the world".

The resource-based view: connecting organisations to their environment

A more recent perspective on location-specific advantages in the wine industry builds on the resource-based view of the firm (Penrose, 1959; Wernerfelt, 1984; Peteraf, 1993). The latter was initially designed to understand the bases of firms' competitive advantages: it suggests that the competitive advantage of a firm stems from the resources (assets) that it owns, or is able to get access to. Those resources are "tangible or intangible assets that firms use to conceive and implement their strategies" (Barney, 1991), including land, buildings, equipment, but also brand reputation, trademarks or intellectual property.

Resources are both heterogeneous – they differ from one firm to the other – and immobile, so they cannot easily be transferred from one firm or place to the other. They are either found within the firm or can be acquired from its environment. The existence of location-specific, or territorial, resources may therefore give insiders a sustainable competitive advantage over outsiders (Hervás-Oliver & Albors-Garrigós, 2007). Territorial resources can be natural (soil, climate)[3] or constructed (historical, cultural and social). They are considered as distinctive if they are difficult to transfer or imitate. Distinctive resources can in turn be divided into two categories: "systemic" and "restricted access" (Wilk & Fensterseifer, 2003; Fensterseifer and Rastoin, 2013).

Systemic resources are external effects, such as agglomeration economies, that are accessible to all insiders. It is the case for example of a positive reputation enjoyed by a vineyard, due to adequate geophysical conditions (terroir), or the presence of a dynamic inter-professional association. Restricted access resources are local practices, scientific or technological knowledge generated by local research institutions, whose value depends on the absorptive capacity of each producer (Cohen and Levinthal, 1990). The capacity of an individual producer to exploit territorial resources will in fact depend on its objectives and positioning, as well as its own internal resources and competences. These resources are consequently difficult to use, even by insiders themselves, and are a source of differentiation within the vineyard area (Fensterseifer and Rastoin, 2013).

For instance, the success of the Franciacorta appellation, located between Milan and Brescia, is in part due to the use of drills, which enabled some producers to dig large temperature controlled storage cellars intended for sparkling wines. In Bordeaux, the investments made by the great Chateaux – state of the art wine cellars, regular renewal of barrels, optical sorting equipment – ensure high standards well beyond the reach of small local producers.

Fensterseifer and Rastoin (2013) identify five main types of resources (or capital) offered by wine clusters:

- Natural capital: soil and climate, water resources and landscapes, which are the primary resources of a vineyard.
- Technical capital: specialized labour force, equipment and inputs, advisory services, marketing and distribution, financial services (risk capital, investment funds), the capability to disseminate internal knowledge and know-how.
- Institutional capital: professional organizations, unions, specialized private or public organizations, teaching and training organizations, research and technology centres, technical assistance centres.

[3] Landscapes, although of natural origin, should nonetheless be considered as a constructed resource.

- Social capital: horizontal or vertical cooperation, informal networks dedicated to problem solving, entrepreneurial spirit.
- Reputational capital: the wine region’s reputation for quality, the reputation of local appellations, the attractiveness of wine tourism (wine routes, wine related cultural and artistic events).

This framework combines both terroir- and cluster-based perspectives: on one hand, a terroir is a consistent set of resources making up a vineyard's natural capital, while contributing to building up its reputational capital. It contributes to territorial branding. Yet, it is not the only type of resource available to insiders. On the other hand, cluster effects are mostly encapsulated in the vineyard's technical capital, while cooperation and other forms of non-market coordination mechanisms are incorporated in institutional and social capitals.

The model is interesting as it raises the issue of dialectics between individual strategies and performance on one side and collective performance on the other side: specific resources may be considered as strategic by some insiders while neglected by – or not accessible to – others, due to differences in absorptive capacities. It also emphasises the role of cooperation among insiders and of local governance mechanisms as competitiveness drivers. The production and exploitation of territorial resources requires locally embedded forms of organization, i.e. particular means of interaction among insiders (local producers and other economic, social and political players).

Nevertheless, one key problem remains partly unanswered, relating to the resource formation process: in the resource-based view, strategic resources are the product of a set of complex social relationships where culture and history play an important part. They are also subject to causal ambiguity, as the causes and consequences of specific resources are hard to distinguish. Because of these idiosyncratic characteristics, the resource-based view can hardly be subject to generalisation and thus serve as a basis for policy design and implementation.

Suggestions for an integrative framework

The previous models can be combined into a general framework explaining the role of location in the wine industry. To do so, we build on an extended economic characterisation of terroir, considered as a territory. From an economic point of view, a territory is "physical space, not limited by a court or institutions but rather by natural elements of cultural and/or ideological order. It has an identity of its own, determined by nature, culture, history, human and social capital (knowledge, know-how ...), making-up a collective identity. It is a place of relationships between heterogeneous actors with different objectives, leading to the implementation of collective dynamics characterized by a common purpose" (Pecqueur, 2000, p.15). It is thus a social and historical construction, where interactions among economic agents are at the origin of locally embedded resources.

Similarly, Rastoin and Vissac-Charles (1999, p.173) define terroir as "a homogeneous territory endowed with a very strong identity, characterized by a set of natural (soil, climate) and cultural, historical and social resources". It is a collective structure whose geographic components matter less than the resources developed by these same players and their interactions, such as individual and collective skills, building on enduring collective trust and facilitating an exchange. In particular, local producers are embedded in a dense network of wide ranging social relations (family, professional, friendly, political or economic) that have developed over time and promote the accumulation and dissemination of this knowledge and know-how (Rastoin & Vissac-Charles, 1999).

Interactions among producers (market and non-market, competition and cooperation – known as coopetition) contribute to the formation of previously mentioned territorial resources.

- Competition drives quality improvement and innovation.
- Cooperation supports the development of specific skills and know-how
- Both contribute to the reputation of the vineyard area.

The wines of Bordeaux are for instance considered as good because of their mild maritime climate and the gravel or clay/limestone soils on which the vines are planted. However, whilst there may well be some truth in this, it is an environmentally reductionist argument. Historically, Bordeaux wines competed for market share with other wines from south-west France, such as Cahors (once famous for a wine so densely coloured it was called "black wine"). A simplistic explanation for the greater reputation Bordeaux now has compared with Cahors could be the cooler winter climate of the later (or perhaps the soil (Wilson, 1998)). However, it is also the case that the merchants of Bordeaux (the main place of export for the region) effectively 'strangled' exports from the interior in favour of their own production. Bélis-Bergouignan (2011) also emphasises the intensity of interactions among local players that characterises the vineyard today.

However, territorial organisations require adequate regulation mechanisms due to existing tensions between individual strategies and the collective territorial one. Traditional and new producing countries have adopted different regulation mechanisms (Charters and Spielmann, 2014).

For instance, in most French vineyards, terroir is the cornerstone of a strategic model based on close identification between territory, producer and product: "terroir products" are linked to a geographic area but also and above all to, history, a culture and local collective know-how that give it its true value and make it unique, consequently inimitable outside the territory. This identification between terroir, firm and product constitutes an almost insurmountable barrier to the entry of outsiders, which puts insiders in a situation of monopolistic competition in the niche thus created, generating unearned revenues referred to as a "territorial rent", enabling them to charge high sales prices (Calvet, 2005; Torre, 2002). At its best, it acts as a territorial brand, i.e. a form of location-related brand, where the product sold is inextricably linked to its origin (Charters and Spielmann, 2014).

Outsiders can still capture part of the territorial revenues linked to the terroir by exploiting confusion on the denomination or origin of the product, as highlighted by the disputes over the use of "Champagne" and "Chablis" appellations in the USA (Spielmann and Charters, 2013), while insiders themselves can be tempted to behave as "free riders". "Terroir-based" strategies are thus generally backed-up by appellations: the early moves to create PDOs in France (in this case appellations) were indeed essentially designed to protect the economic power of the growers in a single area by limiting the boundaries of that area. This was, for example, the case in Champagne before the ultimate delimitation of what became the area of the appellation in 1927 (Guy, 2003; Barrère, 2007). There is therefore a clear link between PDOs and territory. To this extent, a PDO can be seen as the legal outworking of a territorial brand, so that even in non-European countries it is no longer possible to claim a territorial designation for a wine if the producer does not source the raw material for that designation.

However, in Europe the PDO goes further; it also prescribes production criteria (e.g. authorised grape varieties, pruning methods, maximum yields, and minimum ageing periods). These constraints are designed to guarantee a minimum quality level for the wine made within the territory in order to give the consumer some expectation of *typicité* (typicality) in all wines from the area. To this extent the PDO takes on further responsibilities that are typically expected of a brand manager for a proprietary brand; it does not just protect the name, but it also works to ensure product quality and consumer satisfaction. Appellations are regulated by often sophisticated territorial rules and mechanisms, whose purpose is to promote cooperation between various parties and ensure abidance by the common rules (Charters and Spielmann, 2014).

Yet, other types of territorial strategies and governance mechanisms exist, in France, other European countries, or new producing countries.

Conclusion

This exploration has attempted to reconcile competing academic and practitioner views about the significance of "territory" in the world of wine production. (European) Terroir does not have to be postulated in contradistinction to (New World) wine clusters. Rather, by adopting a resource-based view and focusing on how organisations relate to their physical and institutional environments we have shown that both perspectives can be employed to bring clarity to the notion of the wine territory. Terroir is a form of industry organisation that operates inside cultural constraints and social organisation, while clusters do not exist independently of the reputation offered by the physical and constructed resources of a vineyard area. Both are, in any event, contingent, having evolved over many centuries.

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