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Wine Economics

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4

Types of Companies

The best fertilizer for the vineyard is the owner's shadow.
—Proverb

As in every sector of the economy, very different types of companies coexist in the wine-producing sector in terms of both objectives and legal forms. The goals of a firm affect its organization and the average quality of its products, so the first section of this chapter will discuss the motivations that drive people and institutions in their work and, consequently, identify the objectives of a company depending on its type. In the second section there is a description of the main business types, this time classified by the degree of vertical integration¹ and their organizational and qualitative differences. In the third section, the cooperative model is dealt with in greater detail, showing its strengths and weaknesses. Finally, the last section tackles the question of industrial districts and their contribution to local economies.

4.1 Types of Worker Motivation and Company Objectives

Labor economists have long analyzed the motivations that drive people in their work. There are two types: extrinsic and intrinsic motivation. The first consists in economic aspects, such as salary, productivity bonuses, and benefits (car, computer, mobile phone, rent paid by the company, salary supplement for expats, etc.). Traditional economic theory holds that the supply curve of labor is upward sloping since more people are willing to work as wages increase. The second type can be egoistic (self-regarding) or altruistic (other-regarding) (Ben-Ner and Putterman, 1998). Selfish motivation concerns professional growth and recognition of one's own abilities, interest in the work, and the pleasantness of the working environment while altruistic motivation pushes individuals to work to achieve social goals (e.g., helping people in need or defense of the environment).

This distinction is of fundamental importance for the study of the behavior of both workers and companies. In the first case, the neoclassical theory of the labor market

states that equilibrium is reached when supply equals demand, with the first sloping upward and the second downward. In practice we have seen that people endowed with strong intrinsic motivations are willing to accept lower wages, “donating” their labor,² so to speak, or in the extreme case of volunteering, people “work for nothing” (Freeman, 1997). They are also more productive (Becchetti, Castriota, and Tortia, 2013).

There are organizations such as social enterprises that can attract a high number of workers despite low salaries and flattened career paths. Using data from over 2,066 employees in a sample of 228 public, private, and social enterprises operating in the social services sector, Borzaga and Tortia (2006) showed that people employed in the later (cooperatives) declare greater satisfaction and loyalty to their institution. Becchetti, Castriota, and Depedri (2014), using data on Italian social enterprises, found a large number of people had decided to leave their jobs in the for-profit sector to migrate to the nonprofit sector, even if this resulted in a reduction in salary. Although their economic situations had deteriorated, many declared greater job satisfaction as a result of flexible working hours, better relations with colleagues and superiors, and the type of work that is more in line with their studies. The literature has therefore shown that the variables that motivate people can differ substantially from one person to another and that there is a mix of incentives to motivate workers that go well beyond the mere economic aspect.

If we move from workers to consider organizations, traditional economic models start from the assumption that companies pursue profit maximization. This hypothesis is reductive and appears to be motivated by the need to simplify theoretical-mathematical models (Scitovszky, 1943).³ For many economists, the dogma of maximizing profits appears justified from an evolutionary point of view in the case of private firms (which are the majority) (Scott Morton and Podolny, 2002): any company that does not pursue this objective will disappear in the long run as it involves a very strong incentive to minimize costs.

The motivation that drives owners/founders can, however, differ significantly. Schumpeter (1911) claims that entrepreneurs create new businesses for a variety of reasons that go beyond mere gain. First of all, there is the desire to create at least a kingdom, if not a dynasty. Then there is the desire for conquest, the impulse to fight to prove their superiority over competitors, and the yearning for victory—not for the fruits of success, but for success itself.⁴ According to Knight (1921), the “prestige of the entrepreneur” and the “satisfaction of being one’s own boss” must be taken into account when explaining an entrepreneur’s decision-making process.⁵

Scott Morton and Podolny (2002) defined companies as *profit maximizers* if they pursue the goal of maximizing profits and *utility maximizers* if they (primarily) pursue noneconomic objectives (e.g., product quality or social well-being). Reaching this second type of objective may lead to an increase in production costs and, as a consequence, a reduction in profits giving rise to a trade-off (Thornton, 2013, p. 169). Therefore, the owner/founder of a company (table 4.1) may also be driven by extrinsic

Table 4.1
Owner/founder motivation and company objectives.

Motivation	Objective
Extrinsic	Profit maximization; and perhaps quality
Intrinsic: egoistic (self-regarding)	Quality and reputation
Intrinsic: altruistic (other-regarding)	Development and employment

motivations (profit maximizer) or by intrinsic motivations (utility maximizer) of the egoistic type (quality of the wine and reputation of the company) or altruistic type (development and creating jobs). These objectives are not necessarily alternatives and can sometimes be pursued in parallel, as for example when an increase in quality in the long run is reflected in an increase in corporate profitability.⁶

Table 4.2 presents a classification of the main corporate types, with a description of the objectives of each one to give a better understanding of the differences between the various types of companies. Private companies reflect the neoclassical model more faithfully: the prime objective of most entrepreneurs is maximizing profit while social purposes are generally alien to the owner function. The pursuit of quality and corporate reputation is important for both profit maximizers if it increases long-term profitability and for utility-maximizer producers willing to give up part of their profitability to achieve noneconomic objectives.

Scott Morton and Podolny (2002) analyzed the intrinsic and extrinsic motivation of wine producers who were classified as profit or utility maximizers. The empirical results, obtained with surveys submitted to 184 Californian companies, show a strong variability in motivation, confirming the hypothesis that for all enterprises the sole objective of maximizing profits is not only reductive but also misleading. Further, entrepreneurs who are driven by intrinsic motivation (utility maximizers) on average produce wines of superior quality and are rarely ranked at the bottom. To reach the prefixed goals—whether they be profit, quality, and so on—the production inputs have to be chosen and combined appropriately. In a study that classified agricultural businesses in the state of Utah as utility or profit maximizers, Singell and Thornton (1997) found that utility maximizers have more capital and more family members working in the firm and fewer employees compared with profit maximizers. Dunkelberg et al. (2013) reached the same conclusions by analyzing the allocation choices of about three thousand new American companies created between 1984 and 1985.

The conglomerate is another type of private firm which is very profit-oriented. Some—as, for example, E. & J. Gallo, which owns other wine brands as well—have wine as their core business, in which case they have huge economies of scale and

Table 4.2
Legal form of companies and corporate objectives.

Legal form	Main objective	Profits/members' income	Quality and reputation	Development and employment
Private companies	Profits and quality	Yes. The main objective of entrepreneurs, especially utility maximizers, is to make profit.	Yes. Quality and reputation are important objectives, especially for utility maximizers, and may be a priority.	No. Apart from a few exceptions, entrepreneurs do not follow social objectives.
Cooperatives	Members' income	Yes. The main objective is to maximize price paid to members who contribute grapes.	No. There are strong incentives for opportunistic behavior and little sense of loyalty to the company brand. Excellent results can be achieved only in regions/cooperatives with high social capital, strict rules, and effective control mechanisms.	Yes, through the income earned from the grapes delivered to the cooperative.
Social enterprises	Employment of disadvantaged people	No. There are no owners or profit-making objectives. The business aims to cover costs and to offer employment to disadvantaged people.	The aim is to sell products, overcoming buyers' mistrust.	Yes. The main objective is to find employment for disadvantaged people.
Foundations	Objectives other than economic gain	No. There are no owners or members, and they do not work for gain. The business aims to cover the necessary costs to reach its statutory objectives.	They exist only if they are expressly written in the statute.	Yes. The founder decides the objectives that generally concern economic development and employment.
State-owned companies	Development and employment	Not a priority. The business aims to cover the necessary costs to reach its statutory objectives, usually to generate development and create employment.	They exist only if they are expressly written in the statute.	Yes. The objectives are decided by public authorities and generally concern economic development and employment.

large portfolios of products, increasing their bargaining power with distributors. Others instead belong to huge groups with well-differentiated activities, ranging from alcoholic beverages (including beer and spirits, like the British firm Diageo or the US company Constellation Brands) to fashion and luxury (like the French LVMH). These firms can affect competition by using profits from other sectors to lower their wine prices and force other firms out of the market (Thornton, 2013, p. 178).

The main goal of production cooperatives is to generate income for their members through payments in exchange for raw material and, in this way, create economic development and employment. They were set up to take over a further link in the value chain in wine making and to find a way around the critical moment of the harvest when the risk of grapes overripening dramatically shortens the period for negotiation. Wine production through a cooperative vastly extends this period because the finished product, unlike the raw material, can be kept for a long time. However, product quality, especially a good sensory profile,⁷ is more difficult to achieve, given the strong incentive for opportunistic behavior and members' weak sense of identification with the company brand. Further, quality is relatively undifferentiated for many agricultural products, holding little fascination for consumers, and therefore members do not feel obliged to make any extra effort to improve the result (as, for example, in cereal production).

The wine sector, from this point of view, is more fortunate since it is not a question of the simple agronomic production of fruit: the transformation of grapes into wine involves an additional step that enhances differentiation, translating into a heightened identification of the cooperative member with the final product. The nature of wine as a product can also contribute favorably to the cause through its charm, history, and ties with the terroir. However, the prestige derived from the production of quality wine is shared with hundreds or thousands of other members, reducing the incentive to commit resources to obtain high-quality raw material. Excellent results can be achieved only in regions/cooperatives with high social capital, strict rules, and effective control mechanisms.⁸

Social enterprises can perform activities to offer socio-health and education services (classified in Italy as "type A," the most common) or to integrate disadvantaged people, such as the physically and mentally disabled, ex-prisoners, former drug addicts, and others into the labor market (classified in Italy as "type B") (Becchetti and Castriota, 2011). As there are no owners or profit-making objectives, social enterprises aim to cover costs and to offer services to the community and jobs to disadvantaged people. The purpose of achieving high-quality standards, if present, serves to allay buyers' suspicion of goods and services made by disadvantaged people.

Foundations are nonprofit legal entities created through an irrevocable donation and have neither owners nor members. They are managed by a committee that defines their goals (e.g., social or linked to a certain economic sector) and operating

methods. On the one hand, managers are not fully remunerated on the basis of the results of the foundation, which should negatively affect the quality and efficiency of management, but on the other hand these business types are characterized by a lower intertemporal discount rate (they are more “patient”), which can be a strong point in long-term investment planning (Frick, 2004).

Finally, in state-owned companies, profit is a secondary and possible goal while business activities are aimed at covering the costs necessary to achieve statutory goals that generally refer to development and employment. If the company operates in a competitive market, quality will aim at guaranteeing economic sustainability. If it operates in a state monopoly, quality is only necessary if it can compromise consumers’ and users’ consensus toward the political class, which is responsible for the appointment of managers.

In the wine sector, social cooperatives, foundations, and state-owned companies are rare while production cooperatives constitute a real economic power, especially in Europe.

4.2 Vertical Integration and Quality

A second criterion for the classification of companies in the wine-making sector is the level of vertical integration since this influences the quality of the product and, in turn, the reputation of the company (figure 4.1). In fact, to achieve qualitative excellence, the entire production chain from the vineyard to the cellar has to be closely controlled. Economides (1999) demonstrated with a theoretical model that the quality offered by only one

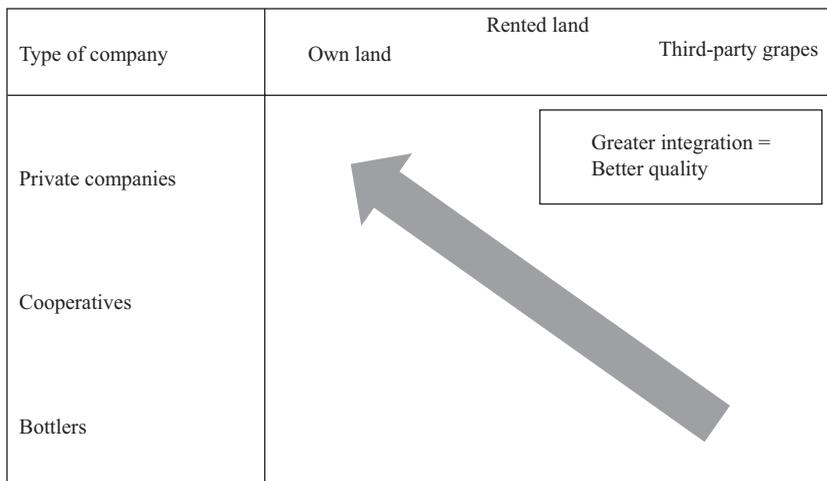


Figure 4.1
Type of company and level of vertical integration.

vertically integrated monopolist is higher than with a group of monopolists linked to each other in a direct vertical relationship. When there is an increase in the number of links in the production chain that are not subject to the direct control of the producer, it is reasonable to expect a decrease in the quality of the final good. From this point of view, there are three macro-groups of companies with a decreasing level of vertical integration and expected quality: private companies, cooperatives, and simple bottlers.

4.2.1 Private Companies

They vinify grapes that can come from land they own or rent or be purchased from third parties. The grapes coming from land that has been directly cultivated by the company, whether owned or rented, should be of the same quality, unless the rental agreement is short term, which could discourage expensive and irreversible investments. If grapes are purchased from third parties, suppliers could in principle guarantee higher quality and/or lower prices as they specialize in the production of only one good. These benefits, however, are frequently offset by incentives to opportunistic behavior because any increase in the price of wine sold only benefits the wine maker. The information asymmetry between supplier and buyer generates classical moral hazard (Pauly, 1968; Arrow, 1968). To solve this problem, the buyer can try to influence the behavior of the supplier and therefore the quality of the raw material in four ways (Hueth et al., 1999; Olmos, 2008), although these solutions are unlikely to lead to qualitative results on a par with those of land managed directly by the owner.

- Measure the quality of the product at the time of delivery to decide whether to accept the goods and how much to pay for them. An objective evaluation of the quality of grapes is, however, rather expensive and difficult to accomplish in a short time and on a large scale (Oczkowski, 2001). The most frequently used techniques, involving reduced costs and time, are based primarily on the analysis of the sugar content and color but lead to results that are at best satisfactory and certainly not perfect (Fraser, 2003).
- Periodically and directly monitor the supplier through field inspections. This activity does not necessarily have to be conceived as “quality control” and can serve to share information, experiences, and professionalism. An optimal number of inspections needs to be fixed to maximize the economic return because visits involve a cost in terms of specialized staff, and if they are too frequent they lose their value.
- Impose rules and production standards on vines and planted clones, agronomic techniques, frequency, and timing of pruning, irrigation, and so on.
- Make the supplier responsible for the price paid by binding it to the price obtained by the producer for the sale of the wine.

What matters most, however, in addition to capital and raw materials, is labor—that is, the managerial activity carried out by the owner or the external manager. Before

Berle and Means (1932), who were the first to document the rise of large corporations, economic theory did not make a clear and explicit distinction between ownership and management. In the following decades the literature made in-depth analyses of the contribution of these variables to company performance. In the wine industry private companies can be managed by the owner or an external manager. The decision to delegate control of the company to somebody outside the family unit can be taken for a number of reasons. First, an external manager may have more skills and experience and contribute to the winery's economic success. Delegation is more frequent as the size and complexity of the company grows (Colombo and Delmastro, 2004). Second, while it is reasonable to expect the company founder to be actively involved, later generations often cultivate and pursue interests other than the management of the family business. However, there is little literature on the relationship between the age of the company and management by external managers.

What is of greater interest here is to understand the impact of management on the quality of wine. Is the quality superior, net of all other variables, in the wineries managed by the owner or in those managed by an external manager? In an analysis of the Piedmontese wine market, Delmastro (2007) found that cellars managed by the owners in person got better qualitative ratings on average in the three main national guides (I Vini di Veronelli, the Slow Food Wines of Italy/Gambero Rosso, and the Italian Sommelier Association's Duemilavini), confirming the importance of many producers' noneconomic motivations found by Scott Morton and Podolny (2002).⁹ The manager, on the other hand, benefits only in part from the prestige enjoyed by the winery. They may be more interested in maximizing their pay, especially if the variable is linked to short-term profit, while investments in quality have a very long-term horizon. The possible differences between the objectives pursued by the owner (principal) and the manager (agent) represent a typical case of moral hazard (Pauly, 1968; Arrow, 1968; Zeckhauser, 1970), to which we can add the problem of adverse selection (Akerlof, 1970) caused by the recruitment of qualified personnel in a context with information asymmetries about the skills and talent of candidates.

Dilger (2004) and Frick (2004), however, come to opposite conclusions, both from a theoretical and an empirical point of view. Dilger hypothesizes that (1) an external manager has a greater interest in favoring quality over quantity because the costs connected to the improvement of agronomic and wine-making techniques fall on the owner, (2) an external manager has more skills compared with the owner, and (3) the owner evaluates the manager's skills not on the basis of the quantities produced or the profits made but rather the quality of the wine. Although the third of these hypotheses appears questionable, the author finds, using data relating to over 77,000 German wines produced by 309 companies in the period 1996–1999, that the bottles produced by wineries overseen by external managers on average receive better ratings in the *Der Feinschmecker* ("The Gourmet") guide.

Frick (2004) empirically investigated two antithetical hypotheses. First, companies managed by the owner should be more efficient and produce better wines because, all things being equal, it is difficult and expensive to monitor the work of managers. Second, the specific skills of an external manager have a positive effect on the product quality and business results. The econometric analysis conducted with panel data relating to 305 German wineries in the period 1996–1999 showed that private companies run by external managers produce better wines not only compared with private firms managed by the owner but also compared with cooperatives, foundations and state-owned companies.

4.2.2 Cooperatives

Wine cooperatives guarantee a lower degree of vertical integration compared with private companies since they directly control only the phase of vinification while the land remains the property of the member who cultivates it and then delivers the grapes to the winery. The member must obviously follow a series of indications and rules set by the cooperative, but the effort involved is a variable that cannot be completely controlled. As the members are remunerated on the basis of the quantities produced, the (individual) short-term advantages of opportunistic behavior aimed at maximizing quantities at the expense of quality tend to outweigh the (collective) long-term costs in terms of lower product quality and the reputation of the group (Pennerstorfer and Weiss, 2006, 2012; Fishman et al., 2008).¹⁰ This is especially true when the number of members grows because it becomes more difficult to check the behavior of the various cooperative members and because the individual member views the damage he causes the group with his opportunistic behavior as insignificant. The problem of moral hazard is exacerbated when members are free to decide the quantities they deliver. The decentralization of decision making leads to excess production (Albæk and Schultz, 1998), negatively affecting quality.

Economic models generally consider affiliation to a cooperative as given and the loyalty to an association as high. In reality, members can differ in the quality of their land, their moral qualities, and their loyalty to the common cause. As cooperatives guarantee freedom of entry (the “open door” principle), the social base may, on average, be made up of “worse” individuals than those who produce their own wine or sell grapes to private wineries. In other words, other things being equal, it may well be that the most ambitious landowners or those who have the best land decide to produce on their own while the less resourceful or those who have no chance of excelling decide to join a cooperative. In contrast, Fulton (1999) underlined the importance of both the commitment of members and a cooperative’s ideology for economic success where “cooperative ideology” means a preference for business types that can be controlled directly.

A series of empirical studies has led to rather consistent results indicating how cooperatives produce lower quality wines on average. Evidence of this is given in

Frick (2004) and Dilger (2004), who used German data, and Delmastro (2007), who used Piedmontese data on wine quality.¹¹ However, there exist illustrious examples of regions—such as the South Tyrol in Italy—that have, in fact, created prestigious cooperatives in terms of excellent quality while others—like Emilia Romagna and Trentino—have focused on quantity and ready-to-drink wines but guarantee excellent value for money. Both cases are success stories.

4.2.3 Bottlers

The lowest degree of vertical integration of production occurs with bottlers—private companies that do not produce their own wine but buy from other companies and then sell it under their own brand. In this case, the company relies entirely on suppliers both from the agronomic and the wine-making point of view. Although there is no empirical literature on the subject, these companies may be expected to have a minimum level of quality and to sell large quantities (usually) through mass market retailers. The very fact, however, that the wines produced by this type of company are not being reviewed in wine guides is indicative of their low quality.

4.3 Cooperatives in the Wine Sector: An Overview

In the previous section cooperatives were just fleetingly touched on. They were included in the classification of company types based on the degree of vertical integration that is then reflected in the quality of the product. This section will deal with them in a more in-depth, though not exhaustive, manner.

4.3.1 Beginning and Development of Cooperatives

Forms of spontaneous cooperation have always existed, but the origin of organized cooperation can be traced back to the creation of the first cooperative outlet in the English town of Rochdale in 1844 by twenty-eight textile workers and artisans. The aim was to open a business where even the poorest could buy basic necessities. It worked with modest contributions—about one pound each—from members. Unlike previous experiences that had failed immediately, this one was successful and expanded with the opening of a butchery and a mill. The greatest merit of this company, which has gone down in history with the name of the “Rochdale Society of Equitable Pioneers,” is that it laid down the ideological foundations of the cooperative movement that is still today based on the principles established in the society’s statute. Cooperatives later spread throughout Europe and then the world, moving from consumption to the production of goods and services, work, credit, building, and so on.

The growth of the cooperative movement in the wine sector was favored by the spread of phylloxera and powdery mildew, dramatically reducing the quantities produced toward the end of the nineteenth century with a consequent increase in average

prices. When the remedies were finally found, production gradually returned to pre-crisis levels that, together with the widespread production of adulterated wines, led to a sharp contraction in prices. The profitability of wineries was put to the test even further by the increase in production costs to combat vine parasites and diseases (fertilizers, pesticides, and grafting of European grapevines onto US rootstocks). This was all taking place in a historical period that also saw the emergence of trade union struggles and rising wages. Simpson (2000) believes that these elements encouraged first informal cooperation and then the birth of cooperatives. In France it became easier to form cooperatives after the abolition in 1844 of compulsory governmental authorization for the establishment of associations of more than twenty people. To sum up, the need to reduce production costs by making collective purchases of raw materials and sharing technological knowledge to fight vine fungi and parasites between the end of the nineteenth century and the first half of the twentieth century played a fundamental role in the growth of cooperatives.

Cooperatives now hold significant, and at times dominant, market shares in various sectors of the economy, such as milk (100 percent in Malta, 99 percent in Sweden, 97 percent in Denmark and Finland, 90 percent in Uruguay, 84 percent in the Netherlands, 80 percent in Slovenia and Portugal), pork (100 percent in Malta, 90 percent in Denmark), beef (80 percent in Slovenia and Sweden), cotton (77 percent in Burkina Faso), fishing (90 percent in Malta), flowers (95 percent in the Netherlands), wood (73 percent in Canada, 70 percent in Slovenia, 38 percent in Finland), eggs (60 percent in Denmark), and fruit and vegetables (58 percent in the Netherlands) (Logue and Yates, 2005; Bogetoft, 2005; Pennerstorfer and Weiss, 2006). The list could go on, including credit unions, construction companies, and so forth. In the United States, thirty thousand cooperatives employ two million people while in Japan the turnover in the agricultural sector alone is around \$90 billion dollars (ICA, n.d.b.). The important role played by cooperatives in the creation of income and employment was explicitly recognized by the International Labor Organization in Recommendation No. 127 of 1966, renewed in No. 193 of 2002, and later actively promoted within the framework of the World Employment Conference of 1976 (Logue and Yates, 2005). The actual number of cooperative members—not only in production but also in consumption, credit, and so on—is even higher (see table 4.3) for a global total of 718 million members in 2013,¹² while a less conservative estimate stretches this number to one billion individuals employing over 280 million people (ICA, n.d.b.). Box 4.1 provides a brief description of the history of cooperatives in Italy.

Given their importance, it is surprising that the study of this type of company has practically disappeared from university courses and economics textbooks. Lynch, Urban, and Sommer (1989) examined the curricular programs of sixty-three American universities in 1977 and found that only twenty-four institutions, eighteen less

Table 4.3

Number of cooperative members in the world, 2013.

	The Americas		Asia		Europe		
Africa							
Kenya	8,650,000	USA	225,901,137	India	93,755,144	Italy	12,555,533
Nigeria	5,490,825	Canada	18,620,000	Japan	77,034,387	Great Britain	10,019,000
Rwanda	1,624,032	Brazil	15,279,400	Iran	36,902,477	France	9,669,638
Tanzania	1,380,000	Argentina	4,894,400	China	31,000,000	Poland	8,100,000
Zambia	877,442	Ecuador	2,962,000	Indonesia	30,000,000	Russia	5,040,000
Uganda	509,000	Mexico	2,479,900	Bangladesh	30,000,000	Finland	4,211,781
Mauritius	150,000	Colombia	2,436,002	Sri Lanka	12,100,000	Sweden	3,961,475
Lesotho	90,000	Costa Rica	1,465,400	Thailand	10,552,839	Germany	3,327,727
South Africa	56,000	Guatemala	1,113,200	Vietnam	6,500,000	Norway	2,329,378
Botswana	51,400	Uruguay	909,598	Malaysia	5,819,170	Denmark	2,004,803
Zimbabwe	10,000	Paraguay	810,200	Korea	5,372,740	Portugal	2,000,006
Guinea	772	Puerto Rico	682,677	Nepal	3,206,100	Belarus	1,500,000
		Bolivia	488,250	Philippines	2,000,000	Turkey	1,446,802
		Chile	472,000	Singapore	1,400,000	Cyprus	1,193,982
		Honduras	218,500	Myanmar	1,085,692	Czech Republic	722,205
		Panama	216,000	Pakistan	921,999	Spain	589,848
		El Salvador	136,700	New Zealand	600,000	Ukraine	482,700
		Peru	133,560	Kuwait	444,753	Austria	477,000
		Dominican Republic	118,900	Israel	153,000	Bulgaria	253,362

Jamaica	18,000	Mongolia	108,000	Slovakia	233,204
Venezuela	17	Australia	54,323	Moldova	200,200
		Tajikistan	50,000	Serbia	135,367
		Kyrgyzstan	20,000	Hungary	95,000
		Kazakhstan	16,700	Romania	66,184
				Latvia	50,000
				Holland	50,000
				Georgia	50,000
				Lithuania	40,058
				Belgium	40,000
				Croatia	27,115
				Switzerland	10,000
				Malta	4,606
				Ireland	2,500
				Armenia	1,133
Total	18,889,471		349,097,324		70,890,607
Total combined					718,233,243

Source: ICA.

Box 4.1

Brief history of Italian cooperatives.

The first Italian cooperative was set up in Pinerolo in 1849 and pioneered the rapid development of the movement that took shape with the foundation of both the National Federation of Cooperatives (Federazione Nazionale delle Cooperative) in 1886—later to become the League of Cooperatives (Lega delle Cooperative) in 1993—and the Italian Cooperative Confederation (Confederazione Cooperativa Italiana), which was of Catholic origin, in 1919. The years of the fascist dictatorship, however, brusquely slowed down the development of the movement as it was seen as an obstacle to the totalitarian regime and considered a carrier of Bolshevik ideologies. Many cooperatives were forced to close and their offices destroyed while the League of Cooperatives and the Confederation of Italian Cooperatives were dissolved between 1925 and 1927 and replaced by the National Fascist Authority of Cooperation (Ente Nazionale Fascista della Cooperazione), founded in 1926.

The postwar years saw the revival of the movement; trade associations were reestablished in 1945 and the General Directorate of Cooperation at the Ministry of Labor was formed in 1946. The DLCPS No. 1577 (Basevi law) regulating cooperatives was passed in 1947 and the “social function of mutual aid cooperation without private speculation” was recognized in article 45 of the Constitution of the Italian Republic in 1948.^a Today cooperatives are responsible for about 7 percent of gross domestic product (GDP), have twelve million members, provide over 1.1 million jobs, and hold leading positions in many sectors of the national economy (Fabbri, 2011).

Note: ^aThe source of this excursus was a page on the Confcooperative website accessed in 2014, <http://www.confcooperative.it/C9/La%20%20story%20cooperation/default.aspx> (page no longer available).

than in 1960, had courses focusing on the study of cooperatives, and in any case, they were not compulsory. Hill (2000) checked twenty-five economics textbooks used in Canada and concluded that cooperatives are ignored or at the most just fleetingly mentioned,¹³ while Kalmi (2007) analyzed the quality and quantity of space dedicated to the theme of cooperatives in economics textbooks used at the University of Helsinki from 1905 to 2005 and found that both had fallen drastically since World War II. The author explains this is due to the dominance of the neoclassical economic school of thought that includes only private company types in its models. Although this conclusion is plausible, the spread of McCarthyism and “Red Scare” around 1950 probably contributed to making the study of cooperatives unpopular in the United States and, in turn, in all other countries. Box 4.2 contains the definition, values, and principles of cooperatives as stated by the International Cooperative Alliance (ICA) while their strengths and weaknesses are discussed in the next paragraphs.

Box 4.2

The ICA definition, values, and principles of cooperatives.

Definition

A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise.

Values

Cooperatives are based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. In the tradition of their founders, cooperative members believe in the ethical values of honesty, openness, social responsibility and caring for others.

Principles

The cooperative principles are guidelines by which cooperatives put their values into practice.

1. Voluntary and Open Membership

Cooperatives are voluntary organizations, open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination.

2. Democratic Member Control

Cooperatives are democratic organizations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary cooperatives members have equal voting rights (one member, one vote) and cooperatives at other levels are also organized in a democratic manner.

3. Member Economic Participation

Members contribute equitably to, and democratically control, the capital of their cooperative. At least part of that capital is usually the common property of the cooperative. Members usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing their cooperative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the cooperative; and supporting other activities approved by the membership.

4. Autonomy and Independence

Cooperatives are autonomous, self-help organizations controlled by their members. If they enter into agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their cooperative autonomy.

(continued)

Box 4.2 (continued)**5. Education, Training, and Information**

Cooperatives provide education and training for their members, elected representatives, managers, and employees so they can contribute effectively to the development of their cooperatives. They inform the general public—particularly young people and opinion leaders—about the nature and benefits of cooperation.

6. Cooperation among Cooperatives

Cooperatives serve their members most effectively and strengthen the cooperative movement by working together through local, national, regional and international structures.

7. Concern for Community

Cooperatives work for the sustainable development of their communities through policies approved by their members.

Source: ICA, n.d.a.

4.3.2 Advantages/Strengths

Cooperatives present a series of advantages and strengths that have made their development and diffusion in the world possible. The first is related to the increase in economies of scale for producers who would otherwise be too small to compete (Schroeder, 1992; Hansmann, 2012; Bijman et al., 2012). This is particularly important in countries which, for both historical and demographic reasons, have seen land ownership fragmented into a myriad of small plots. This is the case of Europe because the continent has a very long history and high population density. Table 4.4 shows the marked differences between wine-producing countries that have a population density in the Old World that are five, ten, or even one hundred times greater than in the New World, with the only exception of China (see box 4.3 for an explanation of why cooperatives are so important in Italy).

The second advantage of cooperatives is the opportunity for members to acquire an additional link in the value chain (Bijman et al., 2012)—that is, the transformation of grapes into wine and its marketing—materializing at the end of the process in the redistribution of profits to members in proportion to the quantities supplied.

This is particularly important in the wine sector, which is characterized by chronic excess supply, because the agronomic side is considered the weak link in the chain. In fact, grape producers have limited bargaining power due to the high perishability of the raw material, ferocious competition in the market, and domestic demand that has fallen in southern Europe since the 1970s. The cooperative, therefore, increases the bargaining power of the individual producer in line with the philosophy of “unity is strength,” both when selling their products and buying raw materials, seeds, and

Table 4.4
Population density of main wine-producing countries.

Country	Population growth rate (% year) 2005–12	>Mid-year population estimate (thousands) 2012	Area (km ²) 2012	Population density (inhabitants/km ²) 2012
Germany	-0.1	81,932	357,137	229
Italy	0.5	60,851	301,339	202
China	0.5	1,350,695	9,596,961	141
France	0.5	63,556	551,500	115
Portugal	0.0	10,542	92,212	114
Austria	0.4	8,466	83,871	101
Spain	0.9	46,163	505,992	91
Greece	0.2	11,290	131,957	86
United States	0.9	313,914	9,629,091	33
Chile	1.0	17,403	756,102	23
Brazil	0.8	193,947	8,514,877	23
Uruguay	0.3	3,381	176,215	19
New Zealand	1.0	4,433	270,467	16
Argentina	1.0	41,282	2,780,400	15
Australia	1.5	22,684	7,692,024	3
Canada	1.1	34,880	9,984,670	3

Source: Author's calculations using data from United Nations, Statistics Division (n.d.).

so forth (Schroeder, 1992; Bogetoft, 2005; Logue and Yates, 2005; Hansmann, 2012; Pascucci, Gardebroek, and Dries, 2012).

In a study on the US milk market, Cakir and Balagtas (2012) demonstrated that cooperatives use their market power to increase the sale price by up to 9 percent above the marginal cost, amounting to a transfer of income to their advantage of about \$600 million a year. In a detailed historical excursus Simpson (2005) retraced the tumultuous events that upset the French wine market at the end of the nineteenth century. With the spread of phylloxera, grape production was drastically reduced after 1875, forcing wine producers to look for raw material abroad or to carry out real adulterations and frauds to the detriment of consumers. When phylloxera was defeated, domestic production returned to precrisis levels, but many manufacturers and traders continued to use foreign raw material and to “synthesize” artificial wines, thus reducing drastically the profitability of the sector. To solve the situation, grape growers in the regions of Midi, Bordeaux, and Champagne used their political influence to convince public authorities to intervene and fight fraud by establishing

Box 4.3

Why is the cooperative movement so important in Italy?

Cooperatives are very important in Europe because of its longer history and higher population density compared with the New World. This has led to fragmented land and small firms.

In Italy the situation is exacerbated by two further elements: 35 percent of the territory is covered by mountains and the 1950 reform intensified the dispersion of land ownership. Law No. 841/50, which contained rules for the expropriation, reclamation, transformation, and allocation of land to small farmers, tried to improve the dramatic economic conditions of agricultural workers immediately after World War II. Through the expropriation of large estates and the subsequent reallocation of the land in small units, it endeavored to create a less unequal distribution of wealth and income by giving laborers the basic instruments necessary to provide for themselves.

However, sometimes there is a trade-off between efficiency and fairness. The agrarian reform transformed large estates of thousands of hectares into a multitude of production units of such modest size (generally from two to twenty hectares) that they were often inefficient as a result of the reduced economies of scale. Joining forces in a cooperative was a way of circumventing the problem.

All this explains the leading role played by cooperatives in Europe and in Italy: as shown in table 4.5, eight of the top twenty-five Italian wineries (by turnover) were cooperatives in 2012 and 2013, and three among the top five were also cooperatives. The table also shows a strong propensity for these companies to internationalize, their share of foreign sales varying considerably but often exceeding 50 percent of total sales. In the wine sector in Italy the average size of plots of land owned by cooperative members is around a hectare, varying from a minimum of 0.1 to a maximum that generally does not exceed ten or twenty hectares. With the exception of the producers of the highest quality wines, the minimum size to cover operating costs is around twenty to thirty hectares, so the majority of these small owners would not be able to produce wine but only sell the raw material to other wine makers.

appellations and creating producer cooperatives to contrast the excessive power of producers and traders.

Both in advanced (Nilsson, 2001; Bijman et al., 2012) and developing (Becchetti, Castriota, and Conzo, 2015) countries, however, the most immediate and tangible advantage for members is the higher and more stable price paid by cooperatives than by private buyers for the raw material. The higher price is due to the reasons mentioned above—namely, economies of scale, bargaining power, and the appropriation of an additional link in the value chain. Further, if the cooperative establishes strict quality standards and is able to effectively monitor and motivate producers, the raw material may be of a higher quality than the members would have guaranteed to a private individual, with a positive reflection on the amount paid. Price stability is

Table 4.5
The top 25 wineries in Italy by turnover.

Ranking	Firm name	Location	Turnover 2012 (millions of €)	Turnover 2013 (millions of €)	Foreign share (%) of turnover 2013)	Type of firm
1	Cantine Riunite & Civ	Campegine (RE)	512	534	62.5	Cooperative
2	Cavaro	Faenza (RA)	284	327	27.2	Cooperative
3	Campari (divisione vini)	Milan	196	228	n.d.	Family
4	Mezzacorona	Mezzacorona (TN)	160	163	58.5	Cooperative
5	Fratelli Martini Secondo Luigi	Cossano Belbo (CN)	158	159	90.0	Family
6	P. Antinori	Florence	157	166	67.2	Family
7	Cavit Cantina Viticoltori	Ravina (TN)	153	153	78.0	Cooperative
8	Casa Vinicola Zonin	Gambellara (VI)	140	154	76.2	Family
9	Enoitalia	S. Martino Buon Albergo (VR)	113	128	75.6	Family
10	Giordano Vini	Diano d'Alba (CN)	110	101	47.7	Mixed
11	Cantina sociale cooperativa di Soave	Soave (VR)	107	103	50.3	Cooperative
12	Casa Vinicola Botter Carlo & Co.	Fossalta di Piave (VE)	104	136	94.8	Family
13	Gruppo Cevico	Lugo (RA)	96	117	21.2	Cooperative
14	Gruppo Santa Margherita	Fossalta di Portogruaro (VE)	95	102	61.5	Family
15	La Vis	Lavis (TN)	92	85	76.2	Cooperative
16	Compagnia De' Frescobaldi	Florence	85	83	62.1	Family
17	Schenk Italia	Ora (BZ)	84	81	75.3	Foreign
18	Collis Veneto Wine Group	Monteforte D'Alpone (VR)	76	78	15.2	Cooperative
19	Contri Spumanti	Cazzano di Tramigna (VR)	71	93	39.3	Family
20	Ruffino	Pontassieve (FI)	71	72	93.2	Foreign
21	Cantine Turrini Valdo & Figli	Riolo Terme (RA)	67	85	81.6	Family
22	Masi Agricola	S. Ambrogio di Valpolicella (VR)	66	65	91.2	Family
23	Fratelli Gancia & Co.	Canelli (AT)	64	50	29.4	Mixed
24	Casa Vinicola Caldirola	Missaglia (LE)	64	59	28.3	Family
25	MGM Mondo del Vino	Forlì	64	66	66.6	Mixed

Source: Mediobanca (2014), Indagine sul Mercato Vinicolo, table 5.

the result of a cooperative's commitment not to follow fluctuations in the market, especially in times of crisis, favoring in this way its members' financial planning of revenue and expenses.¹⁴

Another significant benefit is the ancillary services provided to members, such as the supply of seeds and fertilizers, agronomic advice, and so on (Logue and Yates, 2005), which increase worker productivity and/or reduce costs, with obvious consequences for net income. Most of the time cooperative members underestimate or are completely unaware of the cost incurred to provide these services and the advantages they derive from them.

The separation of ownership from the effective control of the company is the source of what in economics is called the "principal-agent problem" (Rees, 1985; Milgrom and Roberts, 1992). In this respect cooperatives limit both the risk of moral hazard and the problem of the owner having to monitor the manager when he delegates power (Novkovic, 2008; Cook, 1994). In cooperatives, in fact, the manager is often a member (especially in smaller ones) while in private firms power is often delegated to an external manager who can pursue objectives that differ from those of the owner. The manager has a short-term perspective as he can be removed at any time and therefore often aims to maximize profits immediately (as year-end bonuses are linked to results), even if this behavior in the long run may jeopardize brand reputation or growth prospects.

In addition to the strictly economic advantages, cooperatives benefit from more favorable tax treatment than for-profit firms (Sexton, 1990; Tennbakk, 1995; Cook, 1995). They also have a psychological boost from the satisfaction of taking part, albeit indirectly, in the management of one's own business, which is based on the tenets of cooperatives—the ideals of justice, equity and reciprocity (Fehr et al., 2007; Pascucci et al., 2012).

From a more "macro" perspective, cooperatives have a greater survival rate, and their productivity is at least comparable with private companies (Logue and Yates, 2005; Defourney, Estrin, and Jones, 1985; Hall and Geyser, 2004; Simpson, 2005; see Valette, Amadiou, and Sentis, 2018 for a study on wine cooperatives). They also contribute to greater equity in distribution (Vanek, 1970) because members do not only act as a factor of labor but also have a share in the distribution of profits. Next, with a larger number of owners, cooperatives have a lower risk of frauds, and this is particularly important in the agri-food sector for their implications for human health. Last, but not least, cooperatives are very difficult to take over because the sale must be approved by an absolute majority of members. This ensures that the ownership of the company remains in the home country.

However, as Pascucci et al. (2012) pointed out, the advantages of cooperatives may be partially overestimated since many of them allow for less rigid relationships with their members and since many members are so only on paper.¹⁵

4.3.3 Disadvantages/Weaknesses

After reviewing the strengths of the cooperatives, we now move on to examine the weaknesses identified in the scientific literature. The first concerns an issue that has already been discussed—namely, the possible self-selection of members who could have poor land or less intrinsic motivation and initiative. In other words, it is argued that, all things being equal (for example, the number of hectares and geographic context), an owner of valuable land and/or someone who is strongly motivated is unlikely to join a cooperative and would probably prefer to create a company of his own.

Secondly, there are obvious problems of adverse selection and moral hazard. Adverse selection concerns the quality of the grapes delivered by members to cooperatives. As in the car market described by Akerlof (1970), the application of a uniform price to goods of differentiated, but not observable, quality can lead to the self-exclusion of the best suppliers or, hypothetically and theoretically speaking, even to the disappearance of the market. Besides, as some cooperatives do not insist on members delivering all their grapes and as there is a risk of a partial sale to third parties under the counter, the worst grapes could end up in the cooperative. Information asymmetries between members and the cooperative, therefore, lead to a moral hazard with respect to the quality of the grapes—this time as a consequence of the farmer's commitment rather than the quality of the land, even if having a share in company profits should mitigate the problem to some extent (Defourney, Estrin, and Jones, 1985; Jones and Pliskin, 1988).

Moreover, as members are remunerated on the basis of the quantities delivered, there is a strong incentive toward overproduction (Albæk and Schultz, 1998; Bogetoft, 2005), which has a negative impact on quality. As discussed above, the solution to the problems of adverse selection and moral hazard is quality control at the time of delivery, inspections, strict rules, and so on, but it is only partial. The scientific literature has shown how, on average, the quality of wine produced by cooperatives is lower than that of private companies.

While decision-making power is firmly concentrated in the hands of the owner or manager in private companies, it is exercised by a manager in cooperatives but should represent the will of all the members. This can cause difficulties both in organization (Defourney, Estrin, and Jones, 1985) and coordination, especially if the quality of the product is differentiated and members are heterogeneous.

It is often said (Furubotn and Pejovich, 1970; Porter and Scully, 1987) that cooperatives make fewer capital investments than traditional companies because of the lack of property rights that prevents them from selling shares or capital assets when members leave the cooperative. This would act as a deterrent to the use of equity and an incentive to rely on credit. In light of these considerations, it is reasonable to expect a higher level of indebtedness than in private companies (Soboh et al., 2009). Ferrier and Porter (1991) reached the conclusion that cooperatives are a suboptimal organization because of the limited time horizon of members; the nontransferability

of shares; and control and management problems that lead to technical, allocation, and scale inefficiencies. The authors supported their statements by analyzing US data on the dairy sector in 1972. But, in fact, in the case of a member withdrawing from the cooperative, share capital is liquidated strictly at its nominal value, but it can also be reduced in proportion to the losses attributable to the capital and in any case on the basis of the criteria established in the articles of association. In line with this, Maietta and Sena (2008) used Italian data on a group of private companies and wine-producing cooperatives for the period 1996–2003 and did not find any undercapitalization in cooperatives in comparison with private companies.

Finally, cooperatives may be characterized by greater risk aversion and reluctance to adopt new technologies since the activity of the cooperative is the main source of livelihood for many members and often production cannot be diversified or unproductive activities abandoned, as noted by Katz (1997) in a study conducted on 228 private companies and eighty-three cooperatives over the period 1988–1992. The author came to the conclusion that the company type plays a fundamental role in determining the corporate strategies of agricultural enterprises.

4.3.4 Conditions for the Success of Cooperatives

In order for a cooperative to be successful in terms of product quality and brand reputation as well as in economic terms, it needs to have a number of characteristics. The first is the homogeneity of members (Hanf and Schweickert, 2007a, 2007b; Capitello and Agnoli, 2009): in fact, if they are very different or pursue different objectives, this will lead to inefficiencies typical of when things are done randomly. To avoid the formation of heterogeneous groups of members, the objectives and operating rules of a cooperative must be established clearly from the beginning. Precise rules lead to the self-selection of members.

Second, the number of members should not be too small (to guarantee economies of scale and the visibility of the company brand) nor too large because the risk of opportunistic behavior will increase, as described above (Kollock, 1998; Rey and Tirole, 2007; Pennerstorfer and Weiss, 2007, 2013; Fishman et al., 2008; Castriota and Delmastro, 2015; Bonroy et al., 2018).¹⁶ Although it may often be preferable to avoid the proliferation of members, the statute of many cooperatives forbids barriers to entry in accordance with the “open door” principle, even when there is a need to create “strategic groups” (Porter, 1980). However, if production or commercial capacity has reached saturation point, a temporary block on the entry of new members can be set up and possibly renewed.

The pursuit of shared statutory objectives depends on the commitment of members (Fulton, 1999) and is helped by the presence of large quantities of human capital and social capital. The first can be defined as an individual’s set of skills, values, and state of health acquired during their life, which will affect future income (Becker, 1962). The

second concerns the institutions, the rules, and norms that regulate the quality and quantity of social interactions (Putnam, 1993). Both vary from one region to another and influence the propensity to cooperate. In their study on a sample of Italian agricultural cooperatives, Pascucci et al. (2012) used binary variables to capture the less favorable attitude toward cooperation of people living in southern Italy, a circumstance that Menzani and Zamagni (2009) explained by the scarce presence of this type of organization in the south. The sustainability of the cooperative model depends on the existence of social preferences and cooperative rules compatible with low levels of opportunistic behavior and with stringent mutual monitoring (Ben-Ner and Ellman, 2013).

Strict rules, however, are useless if there is no effective system of controls and penalties (Castriota and Delmastro, 2015). The checks must be frequent enough to discourage opportunistic behavior by members—but not too frequent as to weigh down on the budget of the company—while sanctions in case of violations of the regulation must be severe. However, since it is the management of the company that is responsible for checks and penalties, and it may include members, there is a clear problem of conflict of interest.

4.4 Industrial Districts/Clusters

4.4.1 Definition of Cluster

An industrial district is an agglomeration of small- and medium-sized businesses operating in a circumscribed territory, specializing in one or more phases of a production process, and tightly integrated through a complex network of formal and informal economic and social relations. Alfred Marshall is considered the “father” of the theory of industrial districts as he had already defined the concept and its characteristics in the late nineteenth century. Marshall and Marshall (1879) stated that

some of the advantages of division of labor can be obtained only in very large factories, but that many of them, more than at first sight appears, can be secured by small factories and workshops, provided there are a very great number of them in the same trade. The manufacture of a commodity often consists of several distinct stages, to each of which a separate room in the factory is devoted. But if the total amount of the commodity produced is very large, it may be profitable to devote separate small factories to each of these steps.¹⁷

Economies of scale, defined as the decrease in average production costs connected to the growth of the size of production, can be internal or external. The former refer to the size of the company and to the efficiency of its management while the latter are the result of the general development of the sector to which it belongs. In his studies with applications on the British economy of the late nineteenth century, Marshall (1890) showed how it is possible to pursue, with an interconnected network of small businesses, external economies of scale comparable with the internal ones present in

large companies. In different contexts, therefore, the typical efficiency of large-scale internal production can be achieved by grouping a large number of small businesses in the same district and subdividing the production process into various phases, each of which can be performed in a small factory with maximum efficiency. Districts can have vertical forms (when businesses specialize in different stages of the production cycle) or horizontal forms (when they perform similar activities in the same production process), but most of the time there is a combination of the two.

Industrial districts are present in many countries of the world and have found ideal conditions for growth in Italy. The big industrial crisis of the 1970s forced large companies to relocate some stages of production and fostered the development of specialized small- and medium-sized enterprises in niche sectors, exploiting the craft traditions that had developed over the centuries. In Italy there are now more than one hundred industrial districts¹⁸ employing approximately a quarter of all the workers in the country, with the greatest concentration in Lombardy and in the Marche (ISTAT, 2001). This has encouraged various scholars, first and foremost Giacomo Becattini, to investigate this situation, defined as “a socio-territorial entity characterized by the active presence of both a community of people and a population of firms in one naturally and historically bounded area. In the district unlike in other environments such as manufacturing towns, community and firms tend to merge. ... The fact that there is a dominant activity differentiates the district from a generic ‘economic region’” (Becattini, 1990, p. 38).

Michael Porter has studied overseas business groups. He defined clusters as “geographical concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries and associated institutions (e.g., universities, standards agencies, and trade associations) in a particular field that compete but also cooperate. ... Clusters are a striking feature of virtually every national, regional, state, and even metropolitan economy, especially in more economically advanced nations” (Porter, 2000, p. 15).¹⁹ And again: “a cluster is a geographically concentrated group of interconnected businesses and associated institutions in a particular field, linked by commonalities and complementarities. ... Clusters also often extend downstream to channels or customers or laterally to manufacturers of complementary products or companies related by skills, technologies or common inputs” (Porter, 2000, p. 16).

4.4.2 Advantages of Clusters

In the same study Porter (2000) identified the competitive advantages of being located in an industrial cluster that may involve (1) productivity, (2) innovation, and (3) the creation of new businesses. When companies and production factors are concentrated in a delimited territory leading to agglomeration economies, competitive advantages tend to self-feed over time (Scott, 1988; Storper, 1989; Arthur, 1990; Krugman, 1991).

The location of a company near a cluster means skilled labor can be recruited and other production factors purchased at low prices while the proximity of companies of the same or different groups promotes institutional and personal relationships and, therefore, the exchange of information and ideas with spillover phenomena (Saxenian, 1994). Productivity is also boosted by the complementarities existing among companies that produce different goods or services—as in the case of the tourism sector involving many businesses that range from hotels to restaurants, from transport to airport services, and so forth—and reputation that spreads to all companies in an area when a number of operators achieve levels of excellence.

A series of services, such as specialized training programs or some types of infrastructure, is provided by public authorities only if a conspicuous number of companies justify the use of large public resources. Network economics has highlighted the role played by informal contacts in reducing transaction costs thanks to greater trust between parties (Mueller, Sumner, and Lapsley, 2006). Further, the agency problems that arise in vertically integrated companies can be avoided because clusters can guarantee greater efficiency and quality thanks to the competitive pressure of companies that have access to the same production factors and similar technologies and cost structures. Peer competition is heightened by the desire to excel in the local business community both in terms of economic results (extrinsic motivations) and prestige (intrinsic motivations of a selfish type). The presence of various companies that produce similar goods or services and have access to similar technologies and factors reduces monitoring costs since managers can easily compare the cost structure of their own company with competitors'.

The benefits of innovation are no less important than those of productivity. The network economy has always highlighted the importance of informal relationships in facilitating the dissemination of information (Hippel, 1994). Further, companies within a group are able to understand the new needs of customers and adopt process and product innovations more quickly than those operating in isolation. Watching the behavior of competitors enables them to continuously revise the benchmark they must aim at while taking part in research consortia and technology parks furthers interaction and information exchange with effects that filter down through the whole sector. The recruitment of specialized personnel from rival companies in the same district favors the transfer of technologies and knowledge, especially in areas where innovation is linked to learning-by-doing processes. As the presence of many companies with similar characteristics poses the risk of eroding profit margins, there is a powerful incentive for continuous innovation and product and/or cost differentiation.

Finally, clusters facilitate the creation of new businesses since entrepreneurs operating in the territories are more likely to hear about opportunities to do business in new products or services. The very existence of a cluster signals business opportunities and

profits, often attracting investments from neighboring areas. The entry of new companies is encouraged by low entry barriers: the presence of many companies with similar production facilities, in fact, reflects economies of scale on the supply side, sustainable capital requirements, and relatively easy access to distribution channels as well as the absence of restrictive government policies. The risk of retaliation upon entry by companies already present in the market also decreases when the sector is fragmented. The presence of a network of successful producers and suppliers reduces the perception of potential new entrants as a threat, thus lowering barriers to entry even further.

4.4.3 Drawbacks of Clusters

The literature has, however, also identified some possible negative effects of clusters on profitability and innovation. On the one hand, the concentration of many operators in a limited space can exacerbate competition (Mueller, Sumner, and Lapsley, 2006) and lead to the depletion of some factors of production (e.g., raw materials, skilled labor, etc.). On the other hand, if companies have a common entrepreneurial mind-set, the cluster can delay innovations, thereby perpetuating established habits and approaches and rejecting new ones. A further disadvantage linked to industrial districts is the lack of diversification in production. This exposes the area to the risk of sudden impoverishment should the sector experience a phase of recession or even begin to decline because of the emergence of radical process or product innovations that benefit other districts.

Overall, in light of the studies and the arguments presented, the advantages seem to far outweigh the disadvantages, so the state should support the development of industrial districts.²⁰ Support can take place in four areas as follows (Porter, 2000, p. 28, figure 3):

1. the context that influences company strategies and competition: the government should set up departments that can serve the cluster, work to attract foreign direct investments, favor exports, and eliminate barriers to local competition;
2. the conditions that determine demand: the state should establish a set of rules to reduce regulatory uncertainty as well as systems of classification and certification of quality and act as a sophisticated buyer of high-quality products;
3. the conditions that influence the supply of production factors: public authorities should set up study and training programs tailored to the needs of the cluster, finance research programs in local universities to promote technologies in the district, and provide the communication infrastructures and transport that companies need;
4. connected companies: the government should favor meetings (forums) that put all the companies in the cluster in contact with each other, work to attract suppliers of the surrounding areas, and establish industrial parks and free trade areas based on the characteristics of the district.

Clusters in the wine sector are geographic concentrations of interconnected companies belonging to sectors which serve each other, as well as the public institutions that provide public goods and services and trade associations. Figure 4.2, taken from Porter (2000), describes the structure and ramifications of the Californian wine cluster, but it applies to any region. On the agronomic side the production of wine involves companies supplying cuttings, chemicals, tools for the harvesting of grapes, and the irrigation of land while the enological side includes companies producing wine-making equipment, barrels, bottles, caps, labels, advertising, specialized magazines, tourism, and food. There are also the public bodies appointed to define and enforce the rules aimed at combating fraud and ensuring the quality and wholesomeness of the foods, and finally there are the public institutions that provide services like specific advanced training. The structure, therefore, is much

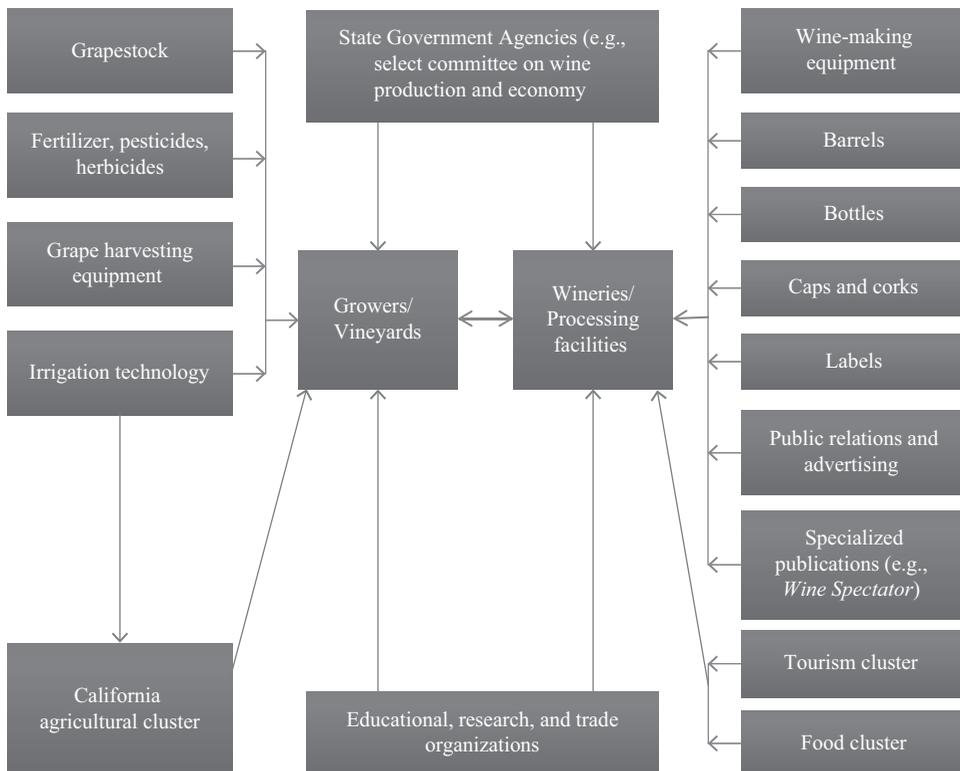


Figure 4.2

Structure of the wine cluster.

Source: Porter (2000), p. 17, figure 1. The figure describes the Californian wine cluster, but it fits any wine region in the world.

more complex than might be imagined and includes various professional sectors and figures.

The literature highlights the contribution made by wine clusters to local economies. Mueller, Sumner, and Lapsley (2006) focused on California and came to the conclusion that the geographic aggregation of companies producing grapes, wine, machinery, and services originates mainly from economies of scale in grape production and lower transport costs. Larreina (2007) analyzed the multiplicative effects of the development of the wine sector on the economy for the Spanish region of Rioja by constructing input-output tables that provide a complete picture of the flows of products and services in a given year. With this statistical tool, the direct, indirect, and induced contribution to GDP and employment of a certain economic sector—in this case the wine sector—can be reconstructed (Kurz, Dietzenbacher, and Lager, 1998).²¹ The author, also in view of the indirect effect, came to the conclusion that a fifth of the Rioja economy is attributable to wine production, and public authorities should therefore support with appropriate policies. Larreina, Gómez-Bezares, and Aguado (2011) developed the study of the contribution of wine to the economy of this region with a series of different approaches. Other studies on wine clusters have been conducted by Doucet (2002) for Aquitaine in France, Porter and Sölvell (2003) in the Victoria region of Australia, and Williamson and Wood (2003) for Cape Town in South Africa, though the dispersion of companies in very extensive territories in the New World makes the measurement and classification of clusters more questionable. Finally, Francioni, Vissak, and Musso (2017) showed that in the wine sector network relationships help wine producers to expand internationally because they benefit from contacts with tourists, friends, relatives, and other partners.