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A SYSTEMIC APPROACH

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MARIA DE FÁTIMA ARRUDA SOUZA

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INDEX

1. INTRODUCTION

The wine business is a highly competitive global industry. In Portugal, the business is important to the economy and wine is part of the culture of the country. There is wine production in all regions of Portugal. Compared to other wine producers in the European Union (EU), Portugal is the fifth producer of wine in volume, just behind Italy, France, Spain, and Ger

many (IVV, 2020a).

Despite competing in the same market and seeking positive results as well, cooperatives are organizations that differ from corporations in many aspects. According to ICA - International Cooperative Alliance (2015a)[1], cooperatives are owned by their members and controlled by them democratically. Any surplus revenues earned by the cooperative are reinvested in the business or returned to members based on how much business they conducted with the cooperative that year. The purpose of cooperatives is to maximize members' service and satisfaction and to promote and assist community development. Corporations, on the other hand, are owned by investors, controlled by shareholders, profits return to shareholders based on ownership share, and their purpose is to maximize shareholder returns.

Cooperatives are also different from non-profit organizations (NPO). Although profit is not the purpose in either of them, cooperatives are business organizations that act in the market like any other investor-owned firm (IOF). The economic dimension is the mean by which the cooperative will reach its social dimension, satisfying the members. On the other hand, NPO aims to serve the public interest by delivering a service or product to the community. These organizations depend on donations, philanthropy, and voluntarism to operate, in general, attending needs in assistance areas such as health, education, housing, and so on (ICA, 2015b).

Two components in cooperatives define its identity, known as the dual nature of cooperatives. The first is the economic component characterized by being a business enterprise. The second is the primeval social component that is linked to serving the social group of members.

This duality in cooperatives, added to the challenges of facing a fiercely competitive business, sheds light on the necessity to provide wine cooperatives with the capacity to survive and achieve its social purpose towards the members.

Although there is no "recipe" that guarantees high performance, some resources and abilities allow cooperatives to become potentially able to reach their goals and become successful. In general, success in cooperatives is associated with reaching the main purpose of the organization that is satisfying the members while remaining sustainable. So, what are the capacities that can potentially drive wine cooperatives to achieve their goals?

The construct of organizational capacity has been used to enable NPO to improve its performance. This concept, originally developed to be applied in national development programs, may help to identify the factors that lead a cooperative to success. The purpose of organizational capacity is to identify the main abilities required for the organization to meet its objectives. The abilities or capacities may differ, and the challenge is to find the set of capacities that best fit the organization under study. Once the organization knows the main capacities, it is possible to develop them to improve performance.

This book is an adaptation of my Ph.D. thesis in Business Administration at the School of Economics and Management, University of Minho, Portugal. My supervisor was Prof. Ana Carvalho and the title of the thesis was "An organizational capacity model for Portuguese wine cooperatives".

The research was a qualitative study based on intensive semi-structured interviews. The sampling aim was to select cooperatives that could represent the diversity of the 67 active wine cooperatives in Portugal in 2015.

Nineteen cooperatives and unions answered the request and accepted to give at least one interview. The cooperatives and unions are from 12 different regions of wine production in continental Portugal.

There was considerable diversity in the sample; not only cooperatives from different regions but cooperatives with other features revealing significant ranges in the number of active members, the production in liters of wine, the price of the grapes, and the average size of the vineyards.

We interviewed 23 people: 15 members of the cooperatives (13 of those were presidents or directors of the Board of Directors - BoD) and eight managers. The interviews took place at the cooperatives or unions' offices and continued until theoretical saturation.

Therefore, this book will discuss wine cooperatives in Portugal, studying the external and internal environment of these organizations, proposing a systemic model. The questions to be answered are:

- What are the factors in the environment that affect the performance of wine cooperatives?
- What are the internal factors, presented as organizational capacity, that will potentially lead cooperatives to achieve success?

Before presenting the model, there is a literature review discussing cooperatives, organizational capacity, and the context of wine cooperatives in the wine business.

2. COOPERATIVES

The International Cooperative Alliance (ICA) defines a cooperative as 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. Cooperatives are businesses owned and run by and for their members (ICA, 2015a).

A cooperative is therefore a member group, described as a people-centered organization. Identified by a cooperative concept, it promotes the principles of self-help, self-dependence, and self-government (Puusa, Hokkila e Varis, 2016). Gupta (2014) says that cooperatives exist as experiments of democracy because they allow members to be part of something big without losing the sense of ownership and participation.

The purpose of cooperatives is not only to provide benefits to the members but also to generate a sufficient amount of surplus to maintain the long-term survival of the cooperative (Puusa, Hokkila e Varis, 2016).

This worldwide phenomenon known as cooperatives can have many variations, such as agricultural cooperatives, credit unions, work cooperatives, consumers cooperative, and more (Oorschot, Van *et al.*, 2013). One of the most expressive forms of cooperative is agricultural, where the farmers cooperate to sell their products together.

Cooperative organizations have social and economic dimensions, the social dimension is characterized by the relationships between the members, and the economic dimension associated with the relationships between members and the business. The two dimensions, also known as the dual nature of cooperatives, are equally important since the cooperative society owns a business, and the cooperative business is owned by a society (Nilsson, 1996)there are two categories of values: social values and sovereignty values. The cooperative principles are characteristics of the cooperative organization that aim to reduce transaction costs in the members' relationships with the cooperative. Thus we find two types of principles: business principles and society principles. Business principles state how relationships between the cooperative enterprise and the members should be designed. Society principles reduce transaction costs for members in their interactions.(Nilsson, 1996).

Because of this dual nature, cooperatives have been described as complex organizations with a variety of goals, some of which may conflict with one another (Puusa, Mönkkönen e Varis, 2013). Internally, cooperatives face conflicting objectives due to a specific double role of the members, as suppliers and owners, since members may wish to immediately obtain prices higher than the market price for their productions instead of making long-term investments with a residual surplus (Saïsset, Courderc e Saba, 2011).

Cooperative can also be seen as hybrid organizations since they incorporate elements from different institutional logics. Growing research on hybrid organizations indicates that they often contain and pursue conflicting goals, values, beliefs, practices, and so on, which creates an environment of contradictions (Hanf e Schweickert, 2014; Pache e Santos, 2013).

Cooperatives are unique organizations that make them different from IOF and NPO. For instance, IOF distribute dividends to the shareholders while cooperatives use patronage refunds to share the net surplus with their members (Zeuli e Deller, 2007). When compared to NPO, the main difference is that cooperatives are economic organizations while NPOs exist to serve the public interest.

Table 1 presents the main differences of cooperatives, IOF, and NPO concerning their purpose, ownership, control mechanisms, the composition of the Board of Directors (BoD), and the source and destination of the earnings.

Table 1 – Differences between cooperatives, IOF, and NPO

	Cooperatives	IOF	NPO
Purpose	Maximize members service and satisfaction	Maximize shareholder returns	Serve in the public interests
Ownership	Member-owned	Investor-owned	Generally, not "owned" by a person or member
Control	Democratically controlled - one member, one vote	Controlled by shareholder according to their investment shares	Controlled by a BoD elected by members
BoD	Group of members elected by members	Independent directors, managers, CEOs	Made up of volunteers who do not receive the services, usually chosen for philanthropic or political reasons
Earnings	Surplus (profit) are reinvested in the business or return to members based on how much business they conduct with the cooperative that year	Profits return to shareholders based on ownership share. Timing and dividend payment are determined by the BoD	Surplus is reinvested in the public benefit purpose and their operations
Source of funds or Generation of money	Through the equity of members	Through capital markets	By donation

Adapted from ICA (2014) and Nilsson (2001).

According to some authors (Birchall, 2004; Herbel, Rocchigiani e Ferrier, 2015; ICA, 2012), there are many social and economic contributions of cooperatives to their members and their communities, as follows:

- Cooperatives allow people to help themselves by creating their economic opportunities.
- Agriculture cooperatives help their smallholder producer-members access inputs, infrastructure, markets, better prices, training, and technologies.
- With open and voluntary membership as one of their founding principles, cooperatives help women access resources and opportunities by expanding their participation in local and national economies.

- Being focused on human needs, cooperatives have proven to be resilient and even recorded growth in times of crisis.
- They are also a source of decent employment for many people around the world.
- Collective action, particularly through cooperatives, offers an efficient way for family farmers to overcome the diverse barriers they face to their development: access to economic assets and knowledge, achieving gains from economy of scale, and improved market power with reduced risk and uncertainty.
- Cooperatives can allow family farms to access markets, turning them into viable and competitive units of production (Birchall, 2004prosperous and just world. These Millennium Development Goals today are the focus of the world's development agenda with multi and bilateral organisations, governments and civil society all seeking to find innovative ways to reach the goals by 2015. However, many are not taking into consideration the unique contribution that cooperatives can make, due in part to the fact that cooperatives have had a mixed history and the lack of visibility of the cooperative model. The author of this volume, Johnston Birchall makes an important point : the past record of those so-called cooperatives set up and controlled by government, and which miserably failed to lead to any economic and social development, are not part of the legacy of cooperatives as these are not true cooperatives. Thus, there exists the ever-important need to showcase what real cooperative enterprises have been and are capable of. The Cooperative Branch and the Policy Integration Department of the International Labour Office (ILO; ICA, n.d.; Herbel et al., 2015).

In the case of monopsony and oligopsony markets, as is frequent in the agricultural markets, cooperative entry serves to increase the price paid for the output of its members. This effect increases the income of non-members as well, as investor-owned competitors are forced to pay higher prices to compete (Novkovic, 2008). In other words, the presence of cooperatives in some markets creates a fairer trade environment when raising the prices and transferring power to the weakest chain link in agriculture, the small farmers.

Agricultural cooperatives are created to enable family farms to act as IOFs in agricultural markets while avoiding transaction costs and ensuring independent production to them (Tortia, Valentinov e Iliopoulos, 2013).

2.1. VALUES AND PRINCIPLES

Cooperatives are based on the values of democracy, equality, equity, self-help, self-responsibility, and solidarity. Cooperative members believe in the ethical values of honesty, openness, social responsibility, and caring for others (ICA, 2015b).

The cooperative principles are attributes of the cooperative organization and aim to reduce the transaction costs of the members in their relationships with the cooperative organization (Nilsson, 1996)there are two categories of values: social values and sovereignty values. The cooperative principles are characteristics of the cooperative organization that aim to reduce transaction costs in the members' relationships with the cooperative. Thus we find two types of principles: business principles and society principles. Business principles state how relationships between the cooperative enterprise and the members should be designed. Society principles reduce transaction costs for members in their interactions. (Nilsson, 1996). Cooperative principles give guidance to members and the cooperative organization about the relationship between them (Nilsson, 1996).

According to ICA (2015a) the latest version of the seven cooperative principles are:

- 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,
- 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 co-operatives at other levels are also organized democratically,
- 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 co-operative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the co-operative; and supporting other activities approved by the membership,
- 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,
- 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 co-operation,
- Cooperation among Cooperatives: Cooperatives serve their members most effectively and strengthen the cooperative movement by working together through local, national, regional, and international structures, and
- Concern for Community: Cooperatives work for the sustainable development of their communities through policies approved by their members (ICA, 2015a).

Gupta (2014) declares that the success of a cooperative organization can also be understood by the extent to which benefits are distributed beyond the members to the wider community where the cooperative is located, reflecting the ideal of the 7th principle - concern for community.

According to Birchall (2011), the first four principles are the fundamental ones, while the latter three are secondary to defining the identity of a cooperative. Traditional cooperatives tend to apply the principles with more rigor since the interests of members are the central focus of the organization (Oczkowski, Krivokapic-Skoko e Plummer, 2013).

Nilsson (1996) shows the relationship between principles and the values of cooperation presented in Table 2.

To him, the first three principles can be clustered into the values of equality, human rights, and freedom. The principle of economic participation brings economic justice and fairness to the members and from the three last principles emerges the concept of mutual assistance.

Table 2—Relationship of principles to the underlying values of cooperation

Principles	Values sets of cooperation
Voluntary and open membership Democratic member control Autonomy and independence	Equality, human rights, and freedom
Members' economic participation	Economic justice
Education, training, and information Cooperation between cooperatives Concern for the community	Mutual assistance

Source: (Nilsson, 1996)there are two categories of values: social values and sovereignty values. The cooperative principles are characteristics of the cooperative organization that aim to reduce transaction costs in the members' relationships with the cooperative. Thus we find two types of principles: business principles and society principles. Business principles state how relationships between the cooperative enterprise and the members should be designed. Society principles reduce transaction costs for members in their interactions. (Nilsson, 1996)

Oczkowski et al. (2013) argue that the application of the ideas of cooperation in cooperatives varies. Both internal and external pressures influence how the core principles are followed in practice. They affirm that recent research found that cooperative values and principles are applied in different ways and different contexts (Oczkowski, Krivokapic-Skoko e Plummer, 2013).

2.2. CHALLENGES IN COOPERATIVES

Although these principles and values form cooperatives' identity and guide their existence, they also pose several challenges. Mooney and Grey (2002), citing George Fauquet, say that there are two elements in a cooperative: a democratic association of persons and an economic organization. The coordination of these two principles creates the basic problem of cooperatives: cooperatives may pursue conflicting goals, in which case, they may not reach either one completely (Mooney e Gray, 2002).

According to Zamagni & Zamagni (2010), the reason why the cooperative organization might be considered difficult to explain and challenging to manage is the dichotomy of the business role and the member role. Couderc & Marchini (2011) alert that members and managers need to balance short-term individual member interest with long-term collective equity value building.

Zamagni & Zamagni (2010) say that the governance of a cooperative is difficult due to two features that shape the cooperatives' identity, the market code, and the social code. If the market code becomes dominant, it is difficult to distinguish cooperatives from for-profit companies.

On the other hand, when the social code is more evident, cooperatives face economic decline. In sum, the cooperative loses its identity whenever either the social or the economic aspect is sacrificed.

Cook (1995)free-rider, horizon, and portfolio problems presents some of the problems generated by cooperatives' own identity and characteristics. Table 3 shows the free-rider problem, the horizon problem, the portfolio problem, the control problem, and the influence costs problem known as the property rights problems that stand by agricultural cooperatives.

Table 3 - Property rights problems of agricultural cooperatives

Problem	Description
Free Rider Problem	Whenever one person cannot be excluded from the benefits that others provide, each person is motivated not to contribute to the joint effort, but to free-ride on the effort of others. (Ostrom, 1990). This situation is typical for open membership cooperatives.
Horizon Problem	A situation where a member's residual claim on the net income generated by an asset is shorter than the productive life of that asset. The horizon problem creates an investment environment in which there is a disincentive for members to contribute to growth opportunities. This problem is particularly severe concerning investment in research and development, advertisement, and other intangible assets. (Cook, 1995) free-rider, horizon, and portfolio problems
Portfolio Problem	A situation where cooperative members, due to the lack of transferability, liquidity, and appreciation mechanisms for the exchange of residual claims, are not able to adjust their cooperative asset portfolio to match their personal risk preferences. In cooperatives, the investment decision is "tied" to the patronage decision, and thus, from an investment point of view, members hold suboptimal portfolios. As a result, members attempt to encourage cooperative decision-makers to rearrange the cooperative's investment portfolio even if the reduced risk means lower expected returns.
Control Problem	A situation of divergence of interests between the membership and their representative BoD and management. Since the information provided and external pressures exerted by publicly traded equity instruments (stock market) is not present in cooperatives, and the members serving on the BoD may have little or no experience in effectively exercising control, governance bodies operate with a handicap.
Influence Costs Problem	A situation where members attempt to influence collective decision-making to their advantage. As shares in most cooperatives are neither transferable nor tradable, members that cannot exit the cooperative are left with only the voice option. Especially if the cooperative is engaged in a wide range of activities, influence activities complicate collective decision-making and lead to wrong decisions or o decisions at all.

Adapted from Tortia, Valentinov, & Iliopoulos (2013, p. 30)

Ostrom (1990) alerts that all efforts to organize collective action must address a common set of problems, as coping with free-riding, for instance. The free-rider problem refers to the situation where a non-member receives benefits associated to the cooperative (e.g., higher commodity prices), but avoids becoming a member, and thus, does not contribute to the costs incurred by members alone. A similar problem occurs when members stop patronizing the co-operative temporarily due to their best and only interest (Iliopoulos e Theodorakopoulou, 2014).

Most cooperatives allow members to join without paying an entrance fee. This situation of new members as free-riders may reduce the members' motivation to become involved and to invest, thus creating a vicious circle (Nilsson, 2001).

The horizon problem is "caused by restrictions on transferability of residual claimant rights and the restricted liquidity through a secondary market for the transfer of such rights." (Cook, 1995, p. 1157)free-rider, horizon, and portfolio problems.

The portfolio problem appears due to the impossibility of having different investments when dealing with common or socialized assets (Tortia, Valentinov e Iliopoulos, 2013)and embedded in a broader framework which considers their transaction cost-economizing effect and their limitations in terms of limited ability to scale up production and to reach adequate market power. We maintain that these disadvantages represent the major motives for the creation of agricultural cooperatives, whose role lies in enabling the realization of advantages of large scale organization in agriculture while avoiding its transaction costs. (Tortia, Valentinov e Iliopoulos, 2013).

The control problem is caused by the lack of information and external pressure in agricultural cooperatives that lead to divergences between members and the governance bodies and it becomes more evident as the size and complexity of a cooperative increase (Cook, 1995) free-rider, horizon, and portfolio problems.

Influence activities that constitute the influence cost appear in cooperatives when organizational decisions affect the distribution of the surplus among members and when in pursuit of their selfish interests, the affected individuals or groups attempt to influence the decision to their benefit (Cook, 1995, p. 1157)free-rider, horizon, and portfolio problems.

2.3. PERFORMANCE IN COOPERATIVES

Frequently associated with pure financial logic, performance assessment is usually based on indicators like profitability, return on equity, or cash flow (Saïsset, Courderc e Saba, 2011). Focusing only on financial factors to evaluate the performance of cooperatives is, however, meaningless since it has "to take into account the objectives of the owners/members, as well as the marketing and processing of the cooperative's product in the supply chain" (Soboh et al., 2009, p. 466).

Members' returns and the continuity of the business should be viewed as the core of the objectives of the cooperative. Therefore, meaningful empirical evaluation of the cooperative's performance should address the dual objective nature of the organization (Soboh *et al.*, 2009).

According to Saïsset et al. (2011), the average remuneration per hectare of members is one of the key criteria of performance levels found in the literature for wine cooperatives. The authors add some other indicators that are also cited like sales development, average sales price, rate of added value, and average remuneration of members (per hectolitre and hectare).

Couderc & Marchini (2011), on the other hand, defined the following as acceptable variables of performance in wine cooperatives: sales, total sales per hectolitres of wine sold (average price), the impact of the sales of wine with origin/total commercialized, external costs/

sales, remuneration for the grapes delivered per hectolitre equivalent and remuneration for the grapes delivered per hectare cultivated.

In their research, Saïsset et al. (2011)used a tool created to design and implement economic and financial decisions, specific to cooperative firms. The financial indicators presented in this tool are turnover, salaries and fringe benefits, amortization costs, members' remuneration for grapes delivered, cash flow, capital expenditure rate, global indebtedness, middle and long term indebtedness rate, and working capital.

Kyriakopoulos, Meulenberg, & Nilsson (2004) utilize the following market indicators to measure firm performance: market share and relative market growth and financial indicators measured at both market and cost level, profit margin, departing from accounting measures used in previous studies.

All of these indicators proposed by Saïsset et al. (2011), Couderc & Marchini (2011), and Kyriakopoulos et al. (2004) focus on different aspects of the financial performance of the cooperative and may not be easily understood as those based on profit when assessing for-profit organizations. The search for the best indicator seems to be far from an end, but a simple and accepted way among members to measure performance in wine cooperatives is the total earning of the member, which means, the price of the grapes delivered and the surplus.

Accounting performance measures, like return on investment or solvency, are also not suitable to assess cooperatives, due to tension created by the contradictory purposes of paying their members the best price for the products received or charging the lowest price for the products supplied (Kyriakopoulos, Meulenberg e Nilsson, 2004).

As in cooperatives, the performance of NPO is difficult to assess since profit is not the object. In an attempt to develop measurements of evaluation for NPO, the concept of organizational capacity, presented in the next section, is used.

3. ORGANIZATIONAL CAPACITY

According to Eisinger (2002), organizational effectiveness is the ability to use the resources to sustain the organization's survival and functioning. Although Balser & McClusky (2005) alert that there are many approaches to assessing NPO effectiveness but little agreement about which goals should be measured, Eisinger's (2002) definition associates organizational effectiveness with the ability of the organization to be sustainable which seems to be a good fit for cooperatives.

In this study, we are mainly concerned with *organizational capacity*, as our analysis is located at the organizational level. Eisinger (2002) claims that organizational capacity is associated with the ability of an organization to accomplish its mission effectively and Hall et al. (2003, p.3) claim that organizational capacity refers to "the ability to perform or produce and is often used in reference to potential".

Although organizational capacity is a component of high performance, they are not synonymous. An organization with organizational capacity has the potential to achieve high performance, but that does not mean it will.

Performance assessment uses mainly financial indicators as assets, profits, and sales, and it depicts a static moment of the organization: the end of the fiscal year, for instance. On the other hand, organizational capacity assessment delivers a systemic view of the organization since it has a multidimensional approach using intangible and broader indicators as well.

Many authors have tried to identify which are the indicators to be used in assessing organizational capacity in NPO. Table 4 presents the many factors of organizational capacity found in the literature.

However, despite the diversity, there is mostly convergence in the way organizational capacity in conceptualized. It seems that the core elements of the organizational capacity of NPOs are inserted in the four following categories:

1. leadership, the capacity of the manager to attract volunteers and employees to the mission and the cause;

2. the capacity of raising funds and manage financial resources;

3. the relationship with the community; and

4. the operational capacity to deliver the service.

Generally, models and instruments tend to be effective when used by organizations in a particular sector for which they were designed and may not apply to other organizations (Bourgeois, Whynot e Thériault, 2015).

Table 4 – Factors or elements of organizational capacity

Authors	Factors, elements, or categories of organizational capacity (OC)	Referred as:
Hall et al. (2003)	1) Financial capacity, 2) Human resources capacity, 3) Relationships and network capacity, 4) Infrastructure and process capacity, and 5) Planning and development capacity	Five capacities of OC
UNDP (2007)	1) leadership; 2) policy and legal framework; 3) mutual accountability mechanisms; 4) public engagement; 5) human resources; 6) financial resources; 7) physical resources; and 8) environmental resources	The core issues to be assessed in OC
Fredericksen & London (2000)	1) Leadership and Vision; 2) Management and Planning; 3) Fiscal Planning and Practice, and 4) Operational Support	Four elements of OC
Austin, Regan, Samples, Schwartz, & Carnochan (2011)	1) capacity to generate financial, human, and informational resources, 2) capacity to manage and change organizational culture, 3) capacity to identify, support and demonstrate organizational leadership, and 4) capacity to create/support attitudes toward change.	The main inputs to OC building
McKinsey & Company (n.d.)	1) Aspirations (mission, vision, and goals); 2) Strategy; 3) Organizational skills (performance, planning, fund-raising, external relationships, and other); 4) Human resources; 5) Systems and infrastructure; 6) Organizational structure (governance, organizational design, coordination, and job design); and 7) Culture (values and practices)	The seven elements of the Capacity Assessment Grid
Eisinger (2002)	1) resources, 2) effective leadership, 3) skilled and sufficient staff, 4) a certain level of institutionalization, and 5) links to the larger community	Critical capacity elements
Bolton & Abdy (2007) cited by Cornforth & Mordaunt (2011)	1) leadership capacity, 2) management capacity, 3) adaptive capacity and 4) technical capacity	Four types of OC
Connolly & York (2003)	1) Adaptive capacity; 2) Leadership capacity; 3) Management capacity; and 4) Technical capacity.	Four core elements of organizational effectiveness
White, Fisher, Hadfield, Saunders, & Williams (2005)	1) program/services, technical resources, 2) human resources, and 3) finances	Elements of capacity categories
Vita, Fleming, & Twombly (2001)	1) vision and mission, 2) leadership, 3) resources, 4) outreach, and 5) products and services	Five components of OC
Blumenthal (2003) cited by Austin et al. (2011)	1) capacity to generate financial, human, and informational resources, 2) capacity to manage and change organizational culture, 3) capacity to identify, support and demonstrate organizational leadership, and 4) capacity to create and support attitudes toward change	Four performance domains of capacity building

Unlike NPOs, cooperatives are business organizations. While the performance indicators of IOF consider financial results, none of the frameworks designed to assess organizational capacity in NPO take into account the economic dimension of cooperatives. Thus, they seem not to be suitable for this type of organization.

4. THE WINE BUSINESS AND WINE COOPERATIVES

The origin of the species more accepted to produce quality wine, *Vitis vinifera*, is Europe. This grape is cultivated by the main wine grape growers in the world producing diverse wines according to the *terroir*[2] and the variety of the grape. Some of these grape varieties can be found outside Europe like Chardonnay, Cabernet Sauvignon, Merlot, Riesling, Shiraz, and Tempranillo, cultivated in the USA, Australia, New Zealand, Argentina, and Chile (Infovini, 2009).

There are many different types of wines, as follows (Infovini, 2017):

- Still wine – most wines are still wines, which do not contain gas (carbon dioxide). As examples of these wines are all regional wines and those from the Douro (except Porto wine), Alentejo, Vinho Verde, and, other production regions,
- Sparkling wine – can be distinguished by the presence of carbon dioxide bubbles, resulting from secondary fermentation. Portugal has many regions producing sparkling wine like Cantanhede, Távora-Varosa, Lisboa, and others,
- Fortified wine – in these wines, the fermentation (transformation of sugar into alcohol) is suspended by the addition of pure alcohol or brandy. The wine becomes sweeter and more alcoholic. Porto wine, Madeira, and Moscatel are examples of fortified wine

As for color, wines can be red, white, and *rosé*. In general, red wine is produced by the fermentation of red grapes, white wine from the fermentation of skinned grapes of any color and *rosé* is wine from red grapes. In this latter case, the grape skins are removed from the grape juice after some hours, just after the wine acquires the desired *rosé* color (Infovini, 2017).

Portugal joined the European Community (EU - European Union today) in 1986 and had to adapt its wine legislation and quality criteria to those of the other European countries. For that, the wine industry adopted the same designations used to define the wine from the regions: IG and DOC (Wines of Portugal, 2015a).

If a wine has an IG - *Geographical Indication* (Indicação Geográfica in Portuguese) or IGP – *Protected Geographical Indication*, this means that this wine was produced in that geographical area and at least 85% of the grapes came exclusively from that same area. Also, it has some attributes and quality related to that specific area. The wine with an IG is known in Portugal as "regional wine".

DOC – *Designation of Controlled Origin* (Denominação de Origem Controlada) and DOP – *Protected Designation of Origin*, refers to wines that are associated with an IG region and have superior quality and unique characteristics.

To regulate and certify IG and DOC wine production, each wine region in Portugal has its Regional Wine Commission (CVR – Comissão Vitivinífera Regional). Both IG and DOC are, therefore "certified" wines.

If the wine does not have the required characteristics of a Regional or a DOC, it is called "table wine" or just "wine". If the table wine has a mixture of wines from different countries in the EU, it can be labeled "wine of EU".

To sum up, the classification of the wine according to its quality is:

- Table wine or just wine: the wine produced with no designation of origin,
- Regional wine or IG wine: the wine produced with grapes of a specific region and with the characteristics defined by the CVR,
- DOC wine: the top-quality wines of the entire range. They are certified by the CVR of the region and must attend a roll of quality criteria to own the classification of a DOC.

Global wine consumption experienced extensive changes in the second half of the twentieth century. Old World countries, like France, Italy, Spain, and Portugal, traditionally big producers, and consumers, witnessed a decline. On the other hand, the New World countries as the United States, Chile, Argentina, Australia, New Zealand, and South Africa had an increase in the demand since the 1980s. The same happened in Northern European and Asian countries later (Martínez-Carrión e Medina-Albaladejo, 2010).

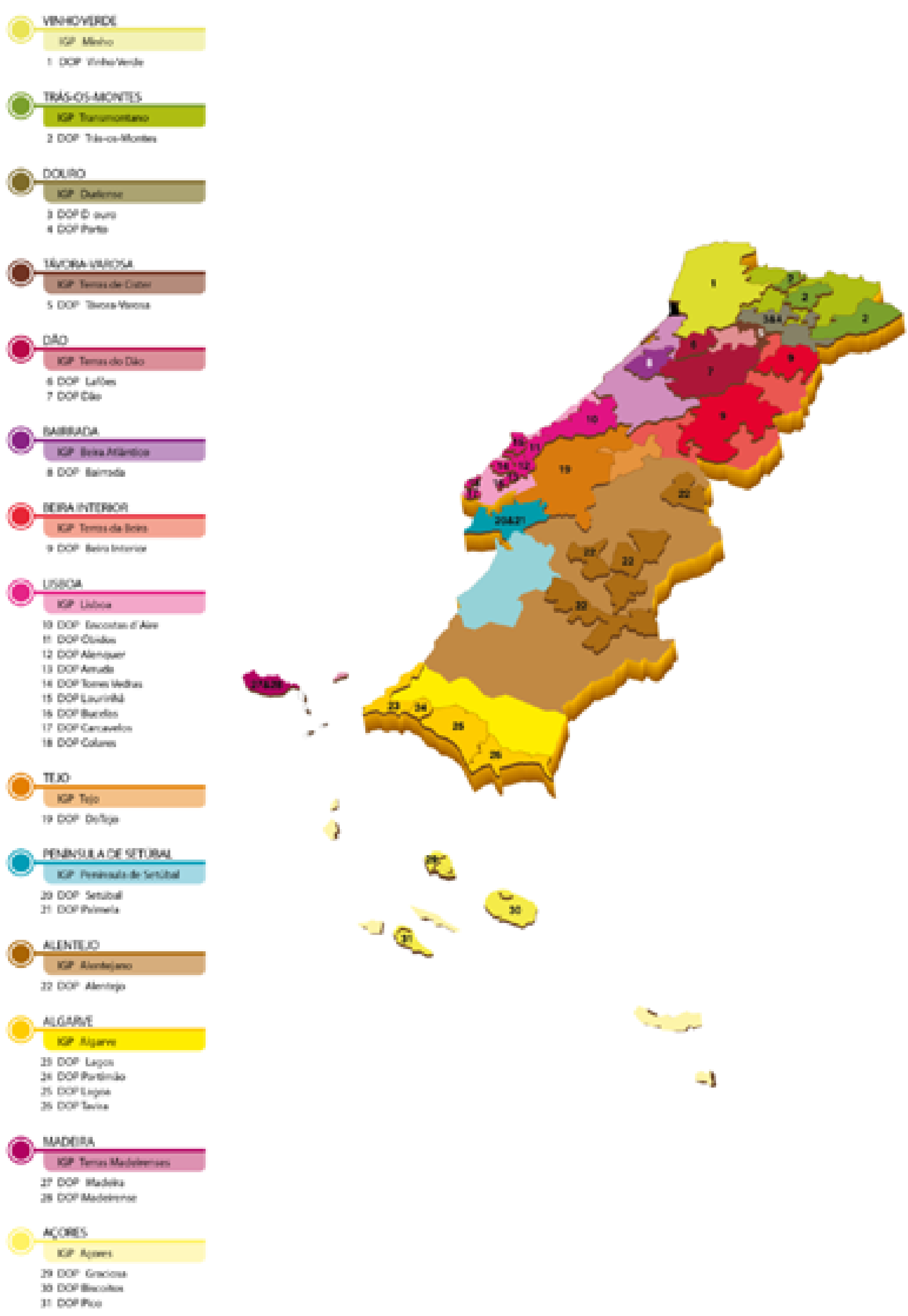
In the 2000s, new wine-producing countries conquered the traditional markets of European wine producers. The New World countries were not only expressive consumers but became established producers as well. In some of these countries, vineyards and winemaking have only been present for a few decades (József e Péter, 2014).

Despite the emergence of new wine-producing countries, the world's total vineyard surface area has been decreasing since 2000, mainly due to the reduction of European vineyards.

Portugal produces wine in all the regions of the country (Wines of Portugal, 2015b). Each one has different characteristics influenced by the soil, geography, and climate of the vineyard, the variety of the grape, and the production process.

There are 14 regions officially recognized, 12 in the continental part of the country, 1 in Madeira, and 1 in the Azores, as shown in Figure 1. Some of the regions can be divided into sub-regions that produce their certified wine.

Figure 1 – Wine regions in Portugal



Source: http://www.ivv.min-agricultura.pt/np4/regioes/

Historically, viticulture is a national economic activity, and wine is historically one of the most important export-oriented products in the Portuguese agricultural economy (Panzone e Simões, 2009).

Wine cooperatives contributed to 37% of the production of wine in Portugal in 2019 (IVV, 2020b). Until 2004 the percentage of the production of wine was equal or superior in the co-operatives compared to non-cooperative wine producers. Since then, the participation of the cooperatives on the production of wine has been dropping.

According to IVV, there are 74 active cooperatives in Continental Portugal in 2017.

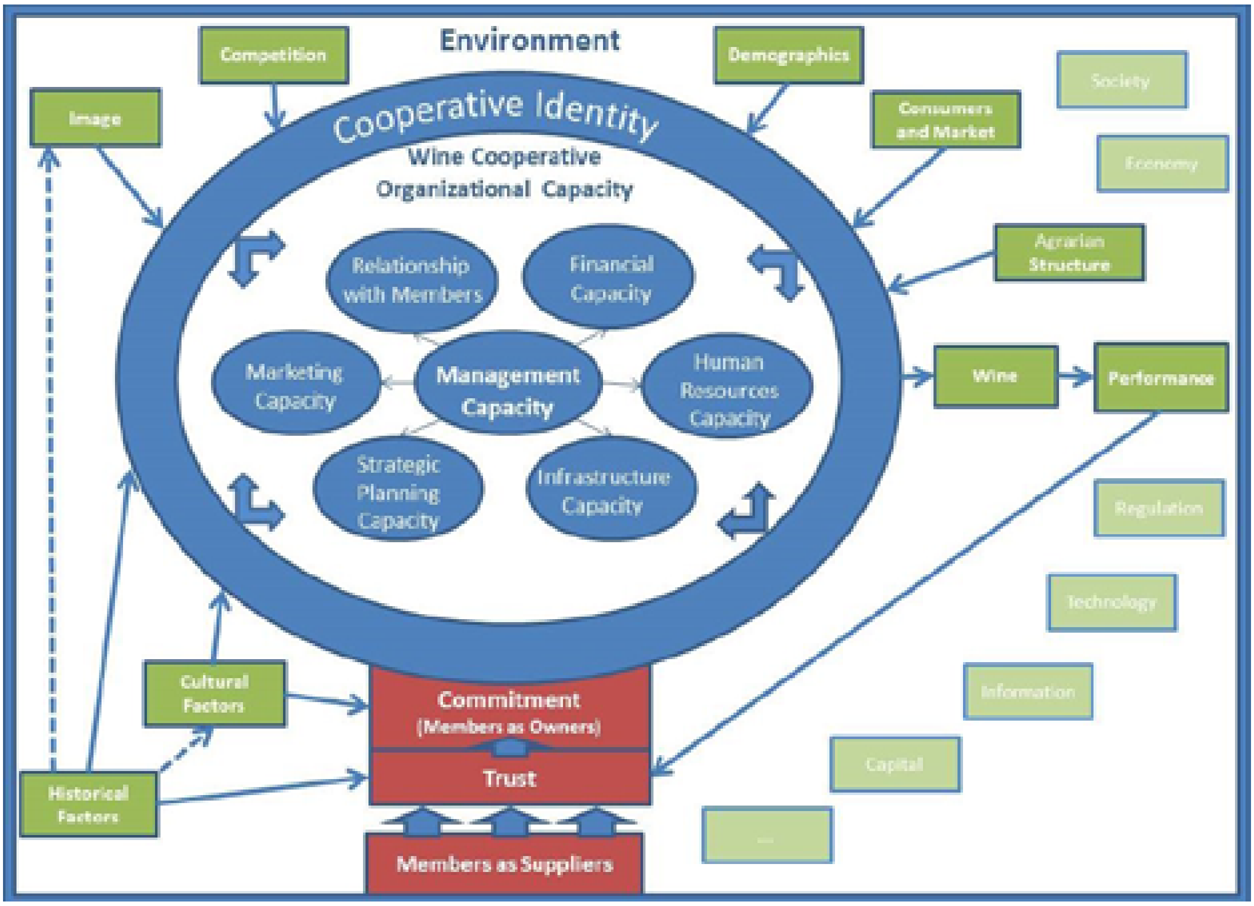
5. A SYSTEMIC MODEL FOR WINE COOPERATIVES

According to Costanza, Low, Ostrom, & Wilson (2001), while models are simplifications of the real world and a reduction of complex problems, they can contain important information about the problem under analysis. However, models are as accurate as the data used to build them. So, models are useful tools, can clarify problems, highlight hidden assumptions but are not infallible guides of the truth.

Therefore, the diagram of the model of the organizational capacity of wine cooperatives in Portugal presented in Figure 2 is a tool to enhance the understanding of the environment wine cooperatives are part of and the factors that interfere with their performance. In this case, the model provides a systemic view of the studied phenomenon.

There are three sets of categories in the model. The first set is *members* that includes the categories of *members as suppliers*, *trust*, and *commitment – members as owners*. A cooperative is a membership organization. Since it exists to satisfy their members and because the members are suppliers and owners, they must play these roles for the sustainability of the cooperative.

Figure 2: Organizational capacity and the environment of wine cooperatives in Portugal



There is no cooperative without members, so these categories are the foundation of the cooperative and are depicted in the model on the basis, supporting the cooperative.

The second set of categories, *internal factors*, represents the wine cooperative itself and is composed of *cooperative identity* and *organizational capacity*. This last category is divided into *management capacity*, *strategic planning capacity*, *financial capacity*, *human resources capacity*, *infrastructure capacity*, *marketing capacity,* and *relationship with members*.

Environmental factors is the third set and includes *historical factors, cultural factors, image, competition, demographics, agrarian structure, consumers and market, wine, performance*, and other secondary factors (faded).

These secondary factors are those common to all organizations, cooperatives, or otherwise, and, although they affect organizations, they do not have a distinct effect on wine cooperatives. Therefore, they are not the focus of this book.

Wine cooperatives are unique organizations and have different issues from other NPO. It is necessary to understand their environment and the factors that affect them to understand what determines the organizational capacity of those cooperatives. Also, members' attitudes and behaviors and the cooperative identity are particular aspects to be studied because they contribute to understanding the character of the cooperative.

The competence of the wine cooperative to manage all those factors described above – internal and environmental – greatly influences its potential ability to achieve success.

Each category will now be explained in detail, starting with *cooperative identity* and the outputs of wine cooperatives, *wine,* and *performance*. Following the directions of the arrows, the next set to be presented is *members*, then, other environmental factors, and finally, the *organizational capacity* of wine cooperatives.

5.1. COOPERATIVE IDENTITY

Organizational identity "is assumed to be a collective, commonly-shared understanding of the organization's distinctive values and characteristics" (Hatch & Schultz, 1997, p.357). It is linked to the perceptions, feelings, and thoughts of the members about their organization, and thus grounded in organizational culture.

In cooperatives, organizational identity is revealed by cooperative values and principles. They define what kind of organization a cooperative is and the goals of the cooperative organization.

To translate the values and principles into a legal framework and to regulate the functioning of cooperatives, each country has its laws that legislate on the matter of cooperatives. In Portugal, cooperatives are recognized as a form of organization, and the right to create a cooperative is enshrined in the Portuguese Constitution in its 61st article ("Lei Constitucional n.º 1/2005", 2005). The law that specifically rules the cooperatives in the country is the *Código Cooperativo* (Portugal, 2015).

The *Código Cooperativo* (Portugal, 2015) defines a cooperative as a non-profit organization that aims to satisfy the economic, social, and cultural needs and aspirations of the members.

To become a member of a wine cooperative, the grape grower must purchase a quota of production. Each quota is associated with the number of kilograms of grapes that the member will deliver to the cooperative, so the member can acquire more than one quota if he/she wishes and have more area to produce. Traditionally, even when members have more than one quota, which means delivering more grapes to the cooperative, they will continue to have only one vote. The distribution of the surplus, on the other hand, will be made proportionally to the weight of grapes delivered at the cooperative in the production year.

In cooperatives, the difference between the total revenue and the total costs is called surplus because, as a non-profit organization, using the word profit may lead to a misunderstanding of the goals of the cooperative. To IOF, profit is the main goal of the organization, so it has a positive meaning. If the concept is applied in cooperatives, the purpose of serving the members may be lost. On the other hand, the surplus has a neutral denotation and it is more suitable for the identity of cooperatives.

When a member leaves a cooperative voluntarily, one has the right to receive the capital subscribed.

Cook & Chaddad (2004) say that different models of cooperatives are emerging as traditional cooperative principles are relaxed. They describe a range of possible models that starts with the traditional cooperative, the one that follows all the cooperative values and principles, to a so-called “new-generation cooperative”, characterized by accepting members investors with power in the decision-making process (Cook e Chaddad, 2004).

In 2015, the *Código Cooperativo* was revised and amended to meet the modernization of cooperatives in the country. Some of the changes have a significant impact on wine cooperatives and generated conflicting opinions about them.

Portuguese cooperatives were organized according to the traditional cooperative structure with open membership, democratic control, restricted residual claims, and benefits to members proportional to patronage until the approval of the new *Código Cooperativo*.

The most controversial change is related to the democratic principle of one person, one vote. It was approved that members can have more than one vote proportional to their transactions with the cooperative, limited to three votes if the cooperative has up to 50 members and to five votes if the cooperative has more than 50 members (Portugal, 2015).

Another important change is that the new *Código Cooperativo* created a new role in the cooperative: the member-investor. While the member owns the cooperative, delivers the grapes, and receives the surplus, member-investors can invest capital in the cooperative as a business and wait for the return of the investment. The income from the investors is limited to 30% of the social capital of the members.

There is no consensus on these matters. Some believe that this rule was created for other types of cooperative since wine cooperatives will never be attractive to external investors. So, this new rule would not affect wine cooperatives. Others expect that members-investors may provide an alternative to the capitalization of wine cooperatives. However, none of the wine cooperatives in Portugal had used this new figure yet.

Another alteration in the law is mandatory. It limits the number of terms of the BoD to three mandates. Most of the interviewees agreed with this clause that intends to guarantee democratic management by the alternation of power.

Each cooperative has its statute. Most of the statutes are very similar, not only because they must meet the requirements of the cooperative law in Portugal, but also because most were developed with the support of FENADEGAS and other organizations attached to the cooperative movement, who advise a statutes template.

The statute regulates the activities of the cooperative, the creation and dissolution of the cooperative, the relationship with members, and the surplus distribution.

About the members, the statute defines that, to be a member of the wine cooperative, the person must produce grapes in the geographical area of the cooperative and must pay the minimum social capital required.

The main point of the rights of the member is the participation in the economic activity, which means that the cooperative must accept the grapes from the members. Regarding the duties, it is important to stress that the member must deliver all the grapes to the cooperative. These two clauses are the most sensitive aspects of the relationship between the cooperative and the members and will be discussed later.

On the one hand, the cooperative has the supply of grapes guaranteed. This situation can be positive to the cooperative, mainly in times of low production because the cooperative does not need to search for grapes in the market if the members follow the rule.

On the other hand, the cooperative must pay for any grape, regardless of its quality or variety. In this case, low-quality grapes or less desirable varieties may overload the reception of the grapes, the production, and the storage of the wine. Besides, low-quality wine has the same cost of production and takes the same time to be produced as high-quality wine, but will be sold at a much lower price.

Cooperatives are important to the agricultural sector in the world. They allow independent farmers to resist and survive the market power of big retailers (Tortia, Valentinov e Iliopoulos, 2013). In general, small farmers are more susceptible to the effects of crises because they do not have the resources needed to make necessary improvements (Alonso e Liu, 2012). The role of the wine cooperative is mainly to support the small farmer.

Most of the cooperatives have a substantial impact on the regions where they act. This influence goes beyond the relationship with members and can be framed by the 7th cooperative principle - concern for community.

Cooperative identity, mainly due to its dual nature, creates a challenge to the wine cooperative management that must undertake the contradictory forces generated from the economic element and the social element of cooperatives.

5.2. WINE

The performance of the wine cooperative will depend on the total of sales, the price, the quality, the costs of production, access to the market … of the wine.

It starts to be produced at the farms, in the vineyards. Vineyards are planted with the grapes that best fit the conditions of the soil and the climate of the place (Infovini, 2009). Therefore, depending on the region, it is possible to find different grape varieties that will create different wines. For example, the grape Alvarinho, planted in the region of Monção and Melgaço or the grape Loureiro from the valley of the Lima, are varieties of grapes adapted to those micro-regions that produce *Vinho Verde*.

Portugal is a country that has many autochthon grape varieties, i.e., native grape varieties that allows the country to produce diverse quality wines with unique characteristics (Infovini, 2009). Some of these grape varieties have a high value in the market and have differentiated prices, such as Alvarinho, Touriga Nacional, or Moscatel de Setúbal. Some others produce unique wines as the variety Baga, planted mainly in the region of Cantanhede.

In between harvests, called *vindima* in Portugal, the member must treat the vineyard pruning, guiding the grapevine growth, preventing diseases, and irrigating, if necessary.

The harvest occurs in late September, beginning of October, when the grapes reach the highest level of sugar. The higher the degree of sugar, the higher is the level of alcoholic fermentation. After the *vindima,* the farmer member takes the grapes to the wine cooperative for the transformation process of producing wine. It is obtained by the alcoholic fermentation of the sugar in the juice of grapes, and the final product must have more than 8,5% of alcohol in it (Infovini, 2009).

The quality of the wine depends on the quality of the grapes. One can produce bad wine with good grapes, but no one can produce good wine with bad grapes. Most of the managers and members of the BoD recognized that reducing costs is crucial to the survival of the cooperative, but investing in the quality of the wine is also important. Old vineyards must be renovated with more productive plants, with varieties more adapted to the *terroir*, or more valued in the market, to enhance the quality of the grapes.

Although quality is needed, the price must be consistent with it, especially in a very competitive business.

5.3. PERFORMANCE

High performance, in general, is linked to attaining the goal of the organization. If the goal is reached, the organization is successful. It seems simple, almost obvious, but that is what makes this approach feasible and practical. The purpose of an IOF is to maximize profit. The more profit, the more successful the organization is. NPO and cooperatives have different goals. Cooperatives exist to satisfy their members, and, as long as the satisfaction can be measured or at least detected, success can be identified. (Helmig, Ingerfurth e Pinz, 2014)

Although success can have different forms, in wine cooperatives, the satisfaction of the members towards the cooperative seems to be attached to the earnings received, which is translated into grapes "payment" and surplus. If the farmer is not content with her situation as a member, he or she will sell the grapes to another producer (and leave the cooperative) or stop producing grapes.

The cooperative, on the other hand, must be sustainable, which means, the financial results must not be negative to guarantee the longevity of the organization. As long as the cooperative can balance its assets and liabilities, in a stable financial situation, it will survive. Thus, if the members are receiving more for the grapes than other producers would pay, it means the cooperative is successful; it is sustainable and satisfies the members. In this case, the perception of success is only valid for each particular case and reflects a static situation, but remains nevertheless valid.

In sum, although there are different approaches for assessing performance in cooperatives, the price and the payment terms are the parameters most easily perceived by the members as synonymous with success or failure. Moreover, the fact that the cooperative is unable to pay the grapes is an indication that sustainability is also threatened. So, price and payment term seem to be the best indicators to understand the performance of wine cooperatives.

The first performance indicator for wine cooperatives is the price paid for the grapes. Table 5 depicts the prices of the grapes paid to members compared to the average market price paid by for-profit organizations.

Table 5 – Average price of grapes: cooperatives x companies

Coop	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Price	=	↑	↑↑	=↓	?	=↑	=	↑↑	=	↑↑	=	↑↑	=	=	=	↑↑

The price paid by the cooperative can be:

- ↑↑ Above the price paid by the market (6 cooperatives),
- =↑ Slightly above the price paid by the market (1 cooperative),
- = Equal the price paid by the market (7 cooperatives),
- =↓ Slightly below the price paid by the market (1 cooperative).

The other indicator of the performance of cooperatives is the payment term. In general, cooperatives cannot compete with for-profit wine producers in this matter, who pay for the grapes within 1 to 3 months after the purchase. Cooperatives, in turn, pay their members within 18 months[3], including the surplus. This is a sensitive issue for the cooperatives that can be compensated with better prices or the security of the reception of the grapes from members.

Table 6 presents the month and the terms of the payments received by the members of some cooperatives. Five cooperatives did not provide this information.

3 After the reception of the grapes, the cooperative starts the production of the wine. In January, the sales of the wine begins. The appraisal of the results will be ready around March, 18 months after the delivery of the grapes, and will take into account the sales of the fiscal year (from January until December).

Three patterns emerge when joining the two tables: cooperatives that pay a higher price for the grapes than the market, cooperatives that pay the grapes after the appraisal of results, and cooperatives that pay the same or slightly more than other companies.

There are five cooperatives in the first set that pay a higher price for the grapes than other producers.

They can be divided into two subsets:

- Cooperatives that pay in the short term:

- One of the cooperatives pays the grapes until December of the same year of the harvest, remaining only the surplus to be distributed after the appraisal of the results (usually, no more than 5%)
- Another anticipates 30% (before the *Vindima*) and pays the remaining until January, remaining only the surplus to be distributed after the appraisal of the results, and
- A third pays in two times until March, remaining only the surplus to be distributed after the appraisal of the results.

- Cooperatives that pay in the middle term are:

- One cooperative pays in 3 times distributed throughout the 18 months, and
- Another pays in 3 times, starting after 9 months of the *Vindima*.

All those five cooperatives are successful and are located in different regions of wine production in Portugal, which means that the agrarian structure affects the wine cooperative but is not a requirement for high performance. Success in wine cooperatives is not limited by the region.

Table 6 – Percentage of the payments to the members (grapes + surplus)

	Cooperative															
Month	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Aug	**?**	**?**							**?**	**30%**				**?**	**?**	
Sep	***Vindima***															
Oct																
Nov																
Dec			**30%**								**25%**	**50%**				**95%**
Jan						**50%**				**40%**						
Feb							**20%**						**30%**			
Mar												**45%**				
Apr																
May											**25%**		**30%**			
Jun						**45%**										
Jul			**30%**				**30%**									
Aug								**35%**			**25%**		**30%**			
Sep	***Next Vindima***															
Oct																
Nov							**30%**									
Dec								**35%**								
Jan																
Feb																
Mar	**?**	**?**	**40%**	**100%**	**100%**	**5%**	**20%**	**30%**	**?**	**10%**	**25%**	**5%**	**10%**	**?**	**?**	**5%**

The second set is composed of cooperatives that only pay for the grapes and the surplus after the appraisal of the results. These two cooperatives pay only the same or slightly under the market price for the grapes; both in the same wine production region. One of them is experiencing financial difficulties.

The third set of cooperatives is those that pay the same or slightly higher than other wine producers, as follows:

- One of them pays in 2 times, 8 months after the delivery of the grapes, remaining the surplus to be paid after the appraisal of the results. This cooperative is the biggest producer of its region and exerts considerable power over members,
- Another one pays in 3 times, 10 months after the delivery of the grapes. This cooperative is struggling to survive,
- Two cooperatives pay for the grapes in 3 or 4 times, distributed until the appraisal of the results. One of those has just recovered from a difficult time and has resumed investments. The other is still recovering from stagnation and financial problems led by a new BoD.

It seems that all the cooperatives that pay higher prices for the grapes than the other producers in their regions are successful, confirming that the price of the grape can be a good parameter to identify performance in wine cooperatives.

Although the payment term seems to be another acceptable parameter of performance, there is an exception among the successful cooperatives: one of them does not have a short payment term as the others. This cooperative is a reference not only in the region but in the whole country, so it seems that it has the power to decide whatever payment term is more convenient to the sustainability of the cooperative.

To illustrate the advantage of being a member of the cooperative, here is an example based on grape prices paid in the region in the previous year. Assuming the costs of producing the wine were the same in both organizations, and that the average price paid for the grapes by the for-profit wine producers is 25 cents/kg and by the cooperative is 38 cents/kg (with surplus), it is possible to conclude that:

- Members received 13 cents more than the market price because they are associated with the cooperative, otherwise, they would receive 25 cents/kg,
- 38 cents/kg is the total value (price + surplus) paid for grapes that made the cooperative reach its break-even point, which means, the income and the expenses of the organization are the same.

So, the difference of 13 cents/kg x 10.000.000 kg = 1.300.000 euros is the surplus of the cooperative and would be the profit of the company.

The way members perceive the performance will impact their trust towards the cooperative. If the cooperative does not pay according to what was previously agreed, either in value or payment term, the trust will be destroyed.

5.4. MEMBERS AS SUPPLIERS

Members of agricultural cooperatives have the dual-role of suppliers and owners of the cooperative. In wine cooperatives, the main raw material is the grape, and all the grapes come from the members (grape growers), except in extreme and rare situations when the production of the members is not enough for the cooperative. In such cases, the cooperative may buy grapes from non-member farmers.

Cooperatives exist because members believe they would fail if they had to act alone in the market. Being part of a cooperative allows them to fulfill their goals (Nilsson, 1996). Moreover, small farmers can achieve economies of scale and scope like IOF through cooperation (Altman, 2014).

The alternative to deal with these threats is becoming a member of a cooperative. In other words, cooperatives represent an alternative to maintain the independence of small farms while providing the means for these farms to remain or become competitive through the achievement of adequate scale economies and market survival potential (Altman, 2014).

Although wine cooperatives were created to receive the grapes, what happens in practice is that cooperatives "buy" the grapes from the members. There is a difference between receiving the grapes and buying the grapes. The original concept of a wine cooperative is that the members own it and the surplus will be distributed (or retained to investments in the cooperative) according to the weight of grapes each member delivers to the cooperative.

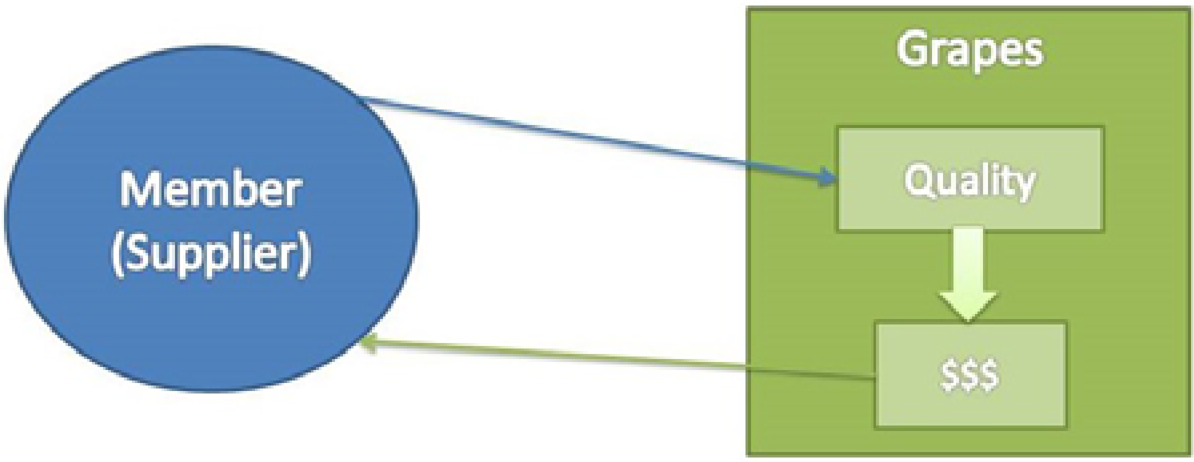
When "buying" the grapes, the cooperative pays for the grapes according to a set price before knowing the financial results of the fiscal year. The grapes are the raw material for the wine that will be produced and sold during the next year. Paying in advance constitutes, in effect, buying the grapes, not distributing the surplus to members.

Unfortunately, many members are more concerned about receiving the payment of the grapes than with any surplus they may accrue. It seems that there are many reasons for this scenario to occur, but it is possible to list the most evident. The feeling that appears in most of the members is that they are not owners of the cooperative but, at most, business partners of the cooperative.

This position of members seeing themselves primarily as suppliers of the cooperative, as shown in Figure 3, is a frequent complaint of members of BoD and managers, most of whom recognize members as owners and would prefer them to behave as such.

However, in the cooperative with the lowest number of members of the sample, where members actively participate in the decisions of the cooperative, the manager commented that members act as owners of the cooperative.

Figure 3 – Perception of members' role in a wine cooperative: members as suppliers



Under this view, the member, a grape grower, sells the grapes to the cooperative and is remunerated, in general, according to the quality of the grapes. In these cases, the relationship between the member and the cooperative is consigned to the trade of the grapes, and members do not accept their role as owners of the cooperative. Hence, the sustainability of the cooperative is not an issue to these members, and their focus is on price and payment term only.

When members see themselves only as suppliers, they do not commit to the cooperative ideal.

5.5. TRUST

Mayer, Davis, & Schoorman (1995) say that people depend on others to achieve their personal or organizational goals. The trade among members and the cooperative is characterized by the trust (Puusa, Hokkila e Varis, 2016). Trust has been construed in social science predominantly in terms of one's belief about the motives or intent of another party. Thus, trust exists when one believes others to be benevolent and honest. By choosing to trust, the person becomes vulnerable (Andaleeb, 1995) and vulnerability accepts some risk. Although trust is not taking risks, it entails a willingness to take risks (Mayer, Davis e Schoorman, 1995).

In the model, trust is one of the three supporting pillars of the cooperative and its organizational capacity. Trust depends, mainly, on the performance perceived by the members, but also on historical factors, and it will impact the commitment of the members towards the cooperative.

Without trust, managers and the BoD have no legitimacy and this may lead to an unbearable situation. As Nilsson (2001) points out, it is known that social aspects are important to cooperative organizations. For a cooperative to function, there must be at least some trust between the members and the organization. Every time a group of members is elected for the BoD, a bond of trust is created. Besides being satisfied with their supplier role, members must feel that they can also trust on the social group on which they depend (Puusa, Mönkkönen e Varis, 2013).

A trusted organization will have more flexibility to pursue competitive strategies involving its partners because there will be fewer controls towards the organization. Thus, the cooperative will act free to take initiatives to enhance performance. (Andaleeb, 1995).

As presented before, the price and payment term of the grapes are the factors that members most frequently associate with the success or failure of the cooperative. Most of the interviewees were emphatic when saying that trust in cooperatives boils down to the payment of the grapes.

The more satisfied the members are with the cooperative as a trading partner and as a member organization, the more they trust the board of directors and the management. Also, the less satisfied, the less they trust the cooperative (Nilsson, Kihlén e Norell, 2009).

Trust can be destroyed if conflicting objectives between management and the members are not settled. As a result, members become less involved in the cooperative, management takes control, members become increasingly dissatisfied, and the BoD and management lose legitimacy among members (Oczkowski, Krivokapic-Skoko e Plummer, 2013).

In practical terms, when trust is destroyed, when members do not believe that they will receive payment for the grapes, they will try other alternatives and the first option is, in general, to sell the grapes to other wine producers, breaking the contract they have with the cooperative. This means that the cooperative cannot count on the supply of the grapes anymore. If this situation turns into a snowball, with members selling the grapes to other producers, the cooperative will collapse without raw material to produce wine.

Without the members' trust, there is no commitment. Trust joins members and the organization, leading to participation, commitment, and acceptance of ownership.

5.6. COMMITMENT (MEMBERS AS OWNERS)

Commitment is the third factor, after members as suppliers and trust, to support the organizational capacity of the cooperative.

Organizational commitment is defined as "the strength of an individual's identification with and involvement in a particular organization", characterized by:

1. a strong belief in and acceptance of the organization's goals and values;
2. a willingness to exert considerable effort on behalf of the organization;
3. a definite desire to maintain organizational membership. (Porter, Steers, Mowday, & Boulian, 1974, with attitude measures (Organizational Commitment Questionnaire and Job Descriptive Indexp. 604)

Commitment can be evaluated by the level of participation of the members in all aspects of the cooperative. It will depend on the perception and acceptance of the members that they own the cooperative and that they are also responsible for its performance. (Porter *et al.*, 1974) with attitude measures (Organizational Commitment Questionnaire and Job Descriptive Index

As such, members are not only mere suppliers. As owners, they should not only guarantee the quality of the grapes they deliver to the cooperative but also participate actively in the decision-making and monitoring process of the cooperative.

However, it is common among wine cooperatives to have no candidates other than the previously elected group at the elections for the board and committees. It seems that most of the members do not want the responsibility of being an elected representative.

In large and complex cooperatives, members can feel that they have no control and this can lead to dissatisfaction, low involvement, and mistrust in cooperative leadership (Nilsson, Kihlén e Norell, 2009).

The lack of engagement of members with some cooperatives illustrates their desire not to exert any democratic control. An inability of some cooperatives to get quorums at meetings and sufficient voting numbers reflects the apathy of many members.

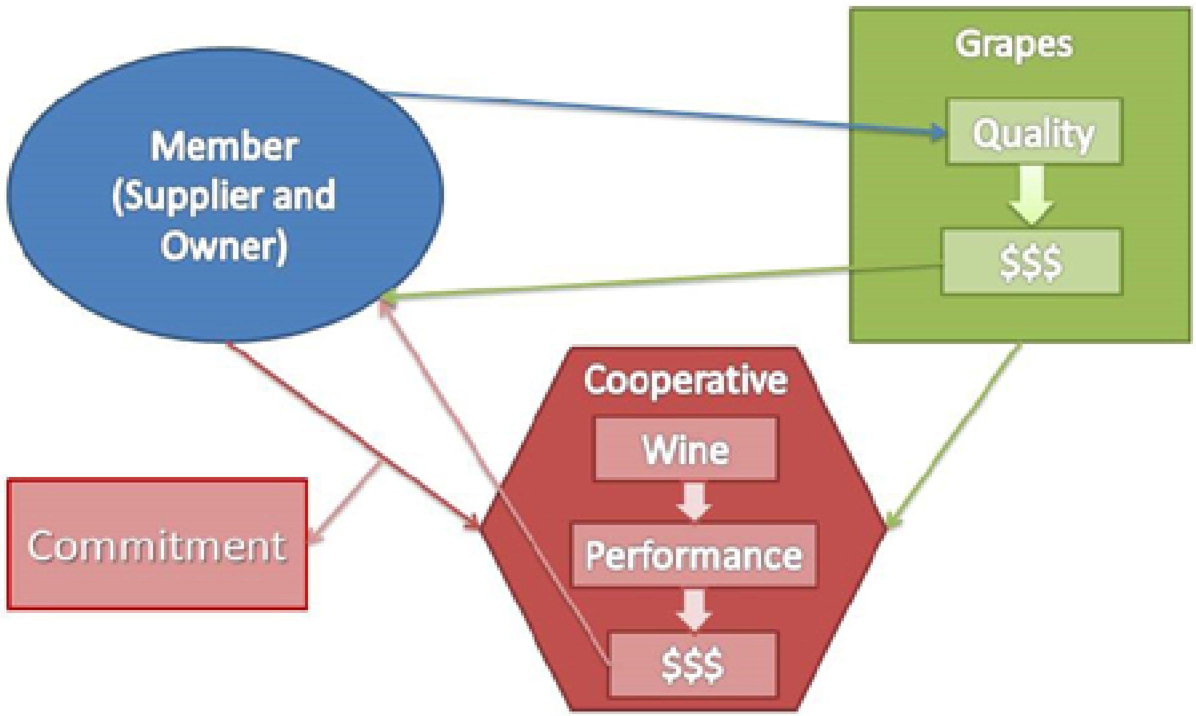
The matters to be discussed at the assembly seem to have great influence be on members' willingness to participate. If the matters up for discussion affect the members directly and personally (like prices or the organization of the *vindima*), they will be more inclined to come than if the matters relate solely to the running of the cooperative, which reinforces the notion that most members have a utilitarian relationship with the cooperative and find it hard to accept their role as owners.

Figure 4 shows how members can relate to the cooperative as suppliers and owners. The most important thing to the member is the price of the grapes when the perception of the member is restricted to the role of supplier. Members in this situation will sell the grapes to the cooperative and, in case of a better price, will be tempted to sell them to other producers. The cooperative is seen only as a buyer.

When members see themselves as owners too, they accept their dual-role in the cooperative and understand that the product they sell will become the raw material of the wine cooperative. The price of the grape will interfere in the cost of the wine produced and sold by the cooperative. If the cooperative has a surplus, the members will receive their share according to the weight of grapes each delivered in the cooperative. So, members will receive twice: the price paid for the grapes plus the surplus. The surplus will be lower if the price of the grape is higher, and vice-versa, but the total will remain roughly the same.

Besides, if the members see the cooperative as their own, they will realize that the performance of the cooperative depends not only on the price of the grapes but also on the quality of the grapes. In this case, members would produce the grapes that are more suitable to the needs of the cooperative, according to the demands of the market.

Figure 4 – Perception of members' role in wine cooperative: members as suppliers and owner



In an attempt to overcome the lack of participation, some cooperatives develop extra activity to bring the member to the cooperative and to enhance the commitment towards the performance of the cooperative.

Although participation seems to be the best way to evaluate commitment, they are not the same. The simple fact that a member goes to an Assembly does not guarantee that this member is committed to the ideal of the cooperative. In contrast, a member of a wine cooperative may be identified with cooperative values and principles and involved in the cooperative project but, even though, not participate in Assemblies.

However, this same member produces the grapes demanded by the cooperative, is careful with the vineyard, follows all the legal requirements regarding the plantation and harvesting, and delivers all the production, high-quality grapes, to the cooperative. This member also understands that the main source of resources for investments in cooperatives is the surplus, meaning that, if the earnings from the cooperative are not high this year, it is because the cooperative will retain some surplus for renovations to continue to be competitive.

Of course, this is an extreme example and most committed members would participate in the decisions of the cooperative. However, it is worth illustrating the importance of the three factors of the category *members* in the model. When members trust, they become committed. They believe and trust that the elected BoD and managers are qualified to conduct the cooperative to achieve its goals and be successful. From the members' point of view, as suppliers, they expect to get higher prices for their grapes, but as owners, they desire the sustainability of the cooperative, the source of their earnings as farmers. A committed member will put the collective interest first and work for the long-term sustainability of the cooperative.

Among the cooperatives participating in this research, all the interviewees complain about the lack of commitment of the members, but it was more evident in those cooperatives with recent performance issues.

Members as suppliers, *trust,* and *commitment* are the three factors of the category *members* that are part of the model, forming its base.

5.7. HISTORICAL FACTORS AND CULTURAL FACTORS

Many of the present circumstances of the wine cooperative can be explained by its historical origins. Most of them were founded during the 1950s and 60s, encouraged in a top-down process and supervised by the *Estado Novo*[4] government, to receive the grapes from small farmers and enhance the scale of wine processing, stocking, and marketing (Rebelo e Caldas, 2015; Rebelo, Caldas e Matulich, 2010).

In other words, wine cooperatives were created in Portugal to provide a place where farmers could deliver their grapes.

The creation of the cooperatives in Portugal, stimulated by the regime, influenced the perception of the member towards the cooperative, only as a place to "sell the grapes".

Also, the history of the cooperatives will affect the image the general public creates about cooperatives. In the early years, cooperatives were only concerned about receiving all the grapes from the members.

Cultural factors also play a role in different aspects of the wine cooperative environment. Besides the local resources and agronomic practices, history, culture, and local knowledge are embedded in the definition of *terroir* (Touzard, Chiffoleau e Maffezzoli, 2016).

Culture is the result of the way people solve their problems in a country, a region, or an organization through time. So, culture is strongly attached to historical factors. Schein (1988, p.7) postulates that culture "can be thought of as the accumulated learning that a given group has acquired during its history".

Thus, culture can be understood as a pattern of basic assumptions invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore is to be taught to new members as the correct way to perceive, think, and feel about those problems (Schein, 1988).

4 The *Estado Novo* was an authoritarian regime with an integralist orientation installed in Portugal in 1933. It ended in 1974 with the Carnation Revolution. The prime-minister of the *Estado Novo* was Salazar.

It is known that culture influences the behavior of people inside and outside organizations. The cooperative nature, participation, and commitment of members are all affected by the culture of the country or region. Some cultures are more cooperative than others and the sense of community among the people is stronger. As a consequence, people participate more.

According to a member of the BoD, people in the Mediterranean culture are more passive and they are used to paternalism, which means when there is a problem the expectation is that the State will solve it. The same occurs in cooperatives.

Although the wine business is affected by the culture, it impacts the culture by the way people interact with the landscape and its territories. The wine economy interferes in the configuration of the landscape and in the way its population occupied the territory.

5.8. IMAGE

Organizational image is “a holistic and vivid impression held by an individual or a particular group towards an organization and is a result of sense-making by the group and communication by the organization of a fabricated and projected picture of itself…”. The image formed can be affected by the intentions and influences of the organization or many actors. (Hatch e Schultz, 1997, p. 359)

Most of the interviewees are very conscious of the importance of brand image for the success of their products. But they also recognize that the image cooperatives still have among many people is negative. According to them, cooperatives are seen as producers of a great volume of low-quality wine.

This is due to the history of most of the cooperatives. The image and reputation of an organization are tightly attached to its history. Reputation seems to be the result of a historically affected perception. (Dressler, 2016)

As said before, cooperatives were created to receive the grapes from the members and to sell bulk wine, in general. At that time, the quality was not an issue and the wine was sold mainly in the region.

It seems that the image of wine cooperatives is still associated with low quality. Many authors declare that wine consumers feel limited in their capability to judge regarding product quality, so, reputation serves to complement or substitute product quality assessments. Research supports that expert ratings affect the image of wineries, and consequently have major effects on the price of the wine. (Dressler, 2016). Cooperatives operating on a larger scale could gain significantly by promoting quality through their award-winning high-end quality wines (Schamel, 2015).

Although reputation is linked to the organization’s historical behavior, it can be changed if new information comes to light (Lange, Lee e Dai, 2011). It seems that the process to create a positive image for cooperatives is arduous, according to the interviewees.

Without reliable information, quality indicators accredited by wine awards and prizes contribute to building a reputation in the minds of consumers (Schamel, 2015). This is the main strategy pursued by Portuguese wine cooperatives to create a better image of cooperatives and their wines.

However, the image of the wine cooperatives is changing, although still an issue.

The image of wine cooperatives in Portugal must be faced by managers and members with responsibility and urgently. Some cooperative leaders seem aware of this and are seeking change. However, being an issue related to the whole sector, the federations, unions, and the authorities should engage in pursuing strategies, alone or collectively, to change the current image of wine cooperatives.

5.9. COMPETITION

In 1996, Nilsson alerted that competition was becoming keener and the markets were turbulent, so business efficiency was required to the survival of cooperatives (Nilsson, 1996).

Portugal has a considerable number of wine cooperatives, some of them highly successful, some finding it hard to survive in modern times. However, a significant number of new independent for-profit wine producers usually called *Quintas* and small producers have emerged in the last years making the competitiveness of the market even higher (Wines of Portugal, 2015a).

In such a highly competitive sector as the wine business is in Portugal and the world, it is a challenge for cooperatives to achieve high performance. It is increasingly difficult for wine producers to be sustainable with the globalization of the wine market and the growing competitiveness of the wine business (Sellers-Rubio, Alampi Sottini e Menghini, 2016).

There is great concern about products from other countries, especially in the EU. Spain is an example of addressing the market with low-price wines. That induces Portuguese producers and wine cooperatives to pursue other strategies than low prices to be competitive. In addition to the prices of other EU wine producers, the prices practiced by big Portuguese wine producers also represent a real threat to the wine cooperatives.

So, most cooperatives seek alternative strategies to stay in the market and be sustainable, as further discussed in the topic of strategic planning capacity.

5.10. DEMOGRAPHICS AND AGRARIAN STRUCTURE

One of the main threats to Portuguese wine cooperatives is the aging of the members. This is the reflex of what is happening in the country, added to the fact that young people do not want to stay in agriculture anymore. The population in Portugal is becoming older. The aging index[5] of continental Portugal was 138.9 in 2013. This means that there are 38.9% more people over 65 years old than people under 14 years old in continental Portugal. Alentejo had the higher index (180.7) and the North region (125.3), the lowest (INE, 2014a). Most of the interviewees are deeply concerned about this.

On the other hand, it seems that although aging is a concern, some cooperatives do not see that as an irreversible situation. In some cases, there are young people involved as members and very committed to the cooperative. Also, because growing grapes in some regions is profitable, people will be disposed to continue with the vineyards.

5 Aging index = [(resident population with 65 years old and more) / (resident populations from 0 to 14 years old)] x 100

Naturally, young people will only work in the land if agriculture becomes more profitable or if it is, at least, comparable to working in the cities. FAO (2011)'s report about youth and agricultural cooperatives describes how rural youth see agriculture. It seems that agriculture is not a remunerative or prestigious profession to youth and they will continue to leave agriculture until they find meaningful economic opportunities and attractive environments in rural areas.

In 2013, farms represented half the area of Portuguese territory and the agrarian population was 6.5% of the resident population of the country. From 2009 to 2013, there was a decrease of 15% in the number of rural properties, mainly in small farms under 20 ha. During the same period, the average size of the rural properties increased from 12.0 ha to 13.8 ha (INE, 2014b).

Another relevant factor is the agrarian structure, which in Portugal differs across wine regions. In the *Vinho Verde* region, for instance, the average size of the vineyards of wine cooperatives members is 0,5 ha while in the region of Setúbal, the average size is 11 ha.

The size of the farms in a region will interfere in the number of members of the wine cooperatives. If the average size of the vineyards is low, the cooperative will need more members to have enough volume of grapes to achieve gains of scale.

On the other hand, if the average size of the farms is bigger, a lower number of members will achieve the volume of grapes needed by the cooperative. In general, wine cooperatives with a low average size of the members' vineyard intend to increase the number of members while cooperatives with high average size of the vineyards do not search for new members. In most of the cooperatives, the size of the vineyard varies greatly. In general, in the same cooperative, there are very small farmers and very big farmers.

Since family farms cannot achieve large productions, they have two disadvantages: they do not achieve economies of scale and do not develop market power (Tortia, Valentinov e Iliopoulos, 2013). It is difficult for family farmers to acquire machinery and equipment because the cost is too high for them. So, these farmers have no access to new farming technologies that require large investments. Besides, the smallest farmers do not have the area to justify the investment in modern farm machinery (Herbel, Rocchigiani e Ferrier, 2015).

Otherwise, mechanization is difficult and complex in some old vineyards. In these cases, the manpower requirement is high, leading to higher production costs and a consequent increase in the price of the grapes (Lourenço-Gomes, Pinto e Rebelo, 2015)and the largest and the most heterogeneous mountainous wine region in the world. Viticulture covers 44,000 ha, and since 2001 an area covering 24,600 ha has been designated as the most representative territory of the Demarcated Douro Region, the Alto Douro Wine Region. This region is included in the list of World Heritage Sites as an evolving and living cultural landscape. The Demarcated Douro Region fits the terroir model, as its economy is based on wine (Porto wine and Douro still wines. In an attempt to overcome these weaknesses, the government program that stimulates vineyard renovation, VITIS, allowed the farmer to implement new planting techniques that lower the production costs of the vineyard.

One of the factors that conditions the agrarian structure is topography. So, it is not only the low ability to invest in machinery, but also the topography of the place where the vineyard is located that constrains mechanization. The reason why it is difficult to dissociate the landscape from the size of the farms is that, in general, areas with mountains and hills, or even valleys, are characterized by small farms in Portugal, while plane areas have bigger farms. The fact is: tractors are made for plane land, as in Alentejo, for example. In some regions like Minho, Douro, Dão, and Beira Interior, mechanization is almost impossible. In these cases, the production costs are higher.

The perception of most of the interviewees is that the tendency of agriculture in Portugal is to have larger and larger areas of vineyards. Then, the way to maintain agricultural production is by resizing the farms to make them profitable.

In some regions, most members have viticulture as a secondary activity. According to INE (2014b), only 6.2% of the producers are full-time farmers, and most of those complement their earnings with pensions and retirement income. As part-time farmers, their business aims differ widely from full-time farmers (Ashforth e Reingen, 2014; Hanf e Schweickert, 2014). In general, only major producers can have viticulture as their main activity.

Some members depend on the income they get from the grapes to guarantee next year's production. Those who have viticulture as a secondary activity rely on that money to treat the vineyard until the next harvest. Without it, these members would probably abandon the activity altogether.

For INE (2014b)'s report, when farmers were asked about the intention of continuing their rural activity, 95.1% declared they want to continue to be farmers in the next 2 years. The main reasons for continuing with the rural activity were:

- its affective value (48.3%),
- complementing earnings (31.4%),
- the lack of other professional alternatives (9.9%), and
- economic viability (8.6%).

It seems that rural activity is not economically attractive to farmers, reinforcing what is found in the literature and said by the interviewees. Besides, the fact that affective value is pointed as the main reason to continue as farmers highlights the fact that agriculture is not an option for the young – maybe only in the lack of other professional alternatives. Young people may not have developed the same "affection" for the farm as old people. This information should be a warning to policymakers that want to develop rural areas and guarantee agricultural production in and for the next generations. Unless farm work becomes economically attractive to young people, the future of rural areas in Portugal is uncertain. Young people need to be trained and educated to enhance the productivity of the farms and the association in cooperatives should be incited.

Altman (2014) claims that small farms are crucial in agriculture. He adds that large IOF, because of their size, take advantage of economies of scale and transaction costs. Small farms can achieve that, only through cooperative membership.

According to Roelants et al. (2014), policies should encourage youth cooperative start-ups and employment. This would not only generate youth employment in cooperatives but also guarantee the renewal of the members and support innovation and adaptation to change in the cooperative.

Rural migration towards large metropolises and economic desertification of peripheral regions would have been more intense as a world phenomenon if cooperatives had not been active in encouraging local production and employment and had they not provided economies of scale to small farmers (Roelants, Hyungsik e Terrasi, 2014). Apart from this, in Portugal, cooperatives contributed to the survival of wines and grape varieties that would disappear if farmers could not sell their grapes for a price that allows them to maintain the vineyards.

Portugal is very rich in grapevine biodiversity and there were 1482 different varieties detected in the XIX century. More recently, many of these varieties were abandoned or are at risk of extinction, and although 341 are officially authorized for wine production, around 50 varieties are the most planted in Portuguese vineyards (Almadanim *et al.*, 2007).

5.11. CONSUMERS AND MARKET

Despite a potentially expanding consumer market as a result of population and economic growth in some regions of the world, the wine industry is facing numerous challenges (Alonso e Liu, 2012), mainly because of the reduction of the consumption in UE and the entrance of new world producers in the market.

Despite the significant presence of European wine cooperatives in the market, in Portugal, the market share of wine cooperatives has been dropping since 2000, as seen before. (Nilsson, 2001)

Wine cooperatives sell wine in three different ways: bottled, in bag-in-box[6], and bulk. Glass bottles are the most common way to store and sell top-quality wines. In general, bag-in-box are 3 or 5 liters-packages used to sell medium and low-quality wines, like Regional or table wine. The "box wine" is an alternative to the 5 liters glass bottles previously used to sell these types of wine because it preserves wine quality up to six weeks after it was opened.

Although bulk wine is the cheapest wine on the market, most of the wine cooperatives in Portugal still sell it. Buyers of bulk wine are either:

- other wine producers (cooperatives or otherwise) that need to complement their wines,
- other wine producers or merchants that sell it as table wine to restaurants, hotels, bars, and so on,
- other producers when the cooperative cannot store or sell all its wine, even if the wine has the quality to be bottled,
- wine brandy producers, for distillation.

Bulk wine is a viable option for cooperatives only if its production cost is very low. In general, low costs depends on the infrastructure, scale, and price of the grapes, from a coopera-

6 The bag-in-box container is composed of a doubled-layer bag made of a plastic laminate including metallized polyester (PET) and low density polyethylene (LDPE) or ethylene vinyl acetate (EVA). This composite pouch is placed inside a rectangular paperboard container for mechanical protection purposes. The pouch is equipped with a special valve fitment for dispensing wine. Pouches are filled under vacuum and whatever headspace remains is filled with nitrogen, an inert gas. As wine is removed through the valve, the pouch collapses, thus protecting the remaining product from the effect of oxygen (Revi, Badeka, Kontakos, & Kontominas, 2014, p. 332).

tive perspective. To the farmer, the low production cost is related to the agrarian structure, level of mechanization, and productivity of the vineyard.

However, in most of the wine cooperatives, the sale of bulk wine is not a strategy but an alternative to selling wine with low quality. Since cooperatives must receive, by regulation, all the grapes that members deliver, the quality of the wine varies according to the quality of the grapes received. The sale of wine in bulk poses a risk because of the strong price competition in this sector.

Wine cooperatives sell their wine in the national and international markets. The national market is divided into off-trade (big distributors and supermarket chains) and on-trade (hotels, restaurants, cafes, and others).

Although certified wines have lower rates of sales in off-trade and on-trade, the rates in euros are higher. Therefore, there is a considerable advantage in selling on the on-trade market.

However, while the off-trade market is composed of just a few and strong buyers, characterized as an oligopsony market, there is a considerable number of hotels, restaurants, bars and so on, scattered throughout the country that, even without the same negotiating power of off-trade buyers, requires a sales and marketing force able to reach them.

The environmental factors and the behavior of the members as suppliers and owners will affect wine cooperatives, as said before. Cooperative managers and members of the BoD should understand the impact that those factors cause and act to seize the opportunities and avoid the threats in the market. Therefore, wine cooperatives will depend on their abilities to survive. Thus, it is imperative to recognize what are the specific elements that compose organizational capacity in wine cooperatives.

5.12. ORGANIZATIONAL CAPACITY

This model of organizational capacity for wine cooperatives proposes seven interconnected dimensions: *financial capacity*, *infrastructure capacity*, *marketing capacity*, *human resources capacity*, *relationship with members*, *strategic planning capacity*, and *management capacity*.

FINANCIAL CAPACITY

This capacity is related to the cooperative's ability to pay its expenses and generate a surplus.

There are two strategic financial issues in wine cooperatives. The first one is the payment of the grapes. As seen before, grapes are the main raw material in wine production, and the suppliers are the members. Cooperatives must be able to provide a price equal or superior to the price paid by the market with a reasonable payment term.

Paying below average for the grapes or worse, not paying at all, compromises members' trust towards the cooperative.

Once members no longer trust the cooperative, their commitment will be destroyed, and they will consider selling their grapes to another wine producer. In this case, the cooperative may not have enough grapes, not be able to produce enough wine, and not generate enough sales to pay for the grapes, and a vicious circle is settled.

Another strategic aspect that deserves special attention is the investment in infrastructure.

Long-term strategies, especially in relation to investment in technology and other modernization, must generate a return on that investment to guarantee the long-term viability of the winery (Alonso e Liu, 2012). New equipment can lower the production costs by improving gains of scale, increasing the processing capacity at the reception of grapes, production, and storage of wine. Also, to achieve the quality patterns required by legislation and the market, permanent investments in infrastructure are required.

On the other hand, some cooperatives have failed because they invested in expensive new plants without enough financial capacity for it. Many cooperatives had financial problems because the managers invested in renovations of infrastructure without the corresponding ability to pay the debts.

The best option for an investment decision seems to be the one that attends to the preferences of the "average" member. However, due to the diversity of individuals' preferences, only a small group will be fully satisfied with the investment (Nilsson, 2001). The BoD and managers must understand that and seek the best option for members and the cooperative.

INFRASTRUCTURE CAPACITY

Wine cooperatives are big plants, with big machines, requiring large areas. The infrastructure involved represents large capital investments.

As seen in *financial capacity*, to lower the unit cost of wine, cooperatives must invest in equipment that allows them to achieve economies of scale and scope.

Accepting new members is another way to enhance scale. It is known that new members will benefit from the existing assets of the cooperative, but they will also contribute to an increase in the volume (Nilsson, 2001). Economies of scale is a key factor in wine cooperatives.

In the reception of the grapes, for instance, cooperatives must accept all the grapes from the members in a short period (harvest in Portugal lasts for around 30 days). In this case, the infrastructure must support the total incoming grapes. Otherwise, the final product, the wine, may lose quality.

Each step of the transformation process requires expensive equipment: receiving bins, destemming, crushing and pressing machines, fermentation tanks, storage vats, and bottling lines. Besides, it is necessary to have cellar space for the storage of bottled wine and barrels, if the wine requires maturation.

The current situation in many cooperatives, regarding machinery, is that it is obsolete. Moreover, some of them did not invest in the renovation of the infrastructure to meet the changes in the business.

As said before, wine cooperatives infrastructure is extremely expensive and requires caution concerning renovations or expansions of the plant, machinery, and equipment. However, the dynamic and competitive market of wine demands constant investments in this matter to guarantee low costs, scale, and quality.

HUMAN RESOURCES CAPACITY

All organizational capacity models recognize the importance of the people involved. As Vidal-Salazar et al. (2012, p.2) declare, "the factors of organizational competitiveness are, to a great extent, linked to the abilities, skills, and competencies of human resources.".

Like any other organization, wine cooperatives depend on people to operate. Employees are inside the cooperative every day and must be competent and motivated to perform their activity according to the aims of the cooperative.

The human resources capacity represent a set of different skills and knowledge that can be associated not only with competitive factors related to the financial, technological, and product/market factors, as well as to communications, the relationships between the individuals, problem-solving, and so on (Vidal-Salazar, Hurtado-Torres e Matías-Reche, 2012).

Besides the traditional focus on technical skills and competencies, there is a trend to assess individual's capabilities using other criteria, such as attitudes and values (Kay, Franks e Tato, 2004). This can be valid for cooperatives as well. All the people who work in the cooperative must be qualified in their field, but they must also know and identify with the cooperative principles. According to Nilsson (1996, p. 639), "if the employees of the organization accept cooperative values much is gained since they will then probably work for the benefit of the members, and communications between members and employees will be easier.". (Nilsson, 1996).

The particular nature of wine cooperatives must be understood not only by members, members of the BoD, and managers but also by all the employees. Unless they fully accept the purpose of a cooperative, they may behave in incongruent ways and seek to maximize profits instead of attending the members' needs, for instance.

All the relationships between the cooperative and the members (suppliers and owners) or between the cooperative and the market also depend on the employees.

There is an urge for professionalization in all sectors of the cooperative, which can be achieved the same way as any other organization, training and developing the employees and hiring already qualified professionals. Specifically, the expertise of the winemakers will determine the quality of the wine. They must develop quality wines with the grapes that the cooperative receives from the members allowing for the needs of the market, and this ability requires a set of competencies that are crucial to the cooperative.

According to Roelants et al. (2014, p. 103), human resources management in cooperatives is "a combination of conventional standards and cooperative practices. In particular, the fieldwork revealed a people-centered vision in cooperative HR management and an emphasis on managing relations between workers and other stakeholders". (Roelants, Hyungsik e Terrasi, 2014)

The BoD and managers should recognize and disseminate throughout the organization the benefits of being a cooperative and following the principles (Oczkowski, Krivokapic-Skoko e Plummer, 2013). The 5th principle of cooperatives, education, training, and information, fits this recommendation recognizing the need to educate not only employees but also managers and members.

MARKETING CAPACITY

It is not enough to produce quality wines; it is necessary to sell them too.

Until 1998, wine cooperatives did not have to invest in marketing because the consumers “knocked on the doors” of the cooperative to buy the wine.

They were product-oriented, and the market for Portuguese wine was mainly national and regional. Most of the wine that was sold at that time was in bulk, although the quality could be classified as regional wine, sometimes.

After Portugal had become a member of the EU, the competition in the wine sector increased significantly: there was more offer of wine from European countries, sometimes with more quality and lower prices. Besides, Portuguese wine cooperatives had to adapt their production to the requirements of the EU if they wanted to reach those markets.

Cooperatives that did not realize the need for this alteration in the way they approach the market went bankrupt or had financial difficulties because they could not sell their wine, since the consumer did not come to them anymore.

Those cooperatives that survived changed to become more market-oriented and developed marketing capacity. That means, cooperatives started to be concerned with knowing the market and the needs of the consumers, and produce the wine the market expects.

Moreover, cooperatives became aware of the competitiveness in the wine business and started to look outside the organization.

Nowadays, it seems that wine cooperatives have accepted that they need to prospect and develop new markets, to promote their wines nationally and internationally, to achieve a good price-quality ratio, and to guarantee their wine reaches the consumers.

RELATIONSHIP WITH MEMBERS

There is no cooperative without members. Cooperatives rely on long-term and repeated exchange relationships with their members to generate a collective benefit (Goel, 2013).

The information channel between members and managers is an important competitive advantage of agricultural cooperatives compared to IOFs (Iliopoulos e Hendrikse, 2009).

In wine cooperatives, members provide all the grapes to produce the wine.

The relationship with members will impact the trust and the commitment of the members towards the cooperative. As the purpose of the cooperative is to serve its members, the stronger the bond between them, the closest the cooperative is to achieve its goal.

It has been said that cooperatives should invest in the training and education of cooperative employees. Besides the traditional training of HR, the training should be considered an investment and focus on how cooperative employees can better interact with cooperative members (Roelants, Hyungsik e Terrasi, 2014).

Cooperatives should create different mediums to stimulate the ability to dialogue with members to be loyal to the purpose of the organization and to maintain cooperative identity by reinforcing their values and principles (Puusa, Mönkkönen e Varis, 2013).

Members joined wine cooperatives in the first moment to have a fair price for their grapes. They still need the cooperatives. On the other hand, cooperatives also need their members to guarantee the supply of grapes.

To build good relationships with cooperative members, it is necessary to serve each member in their preferred way, being able to foresee their preferences, anticipate competitive action, and build profitable relations with them to deliver superior value to them. This is essential to avoid the members turnover (Cegarra-Navarro e Arcas-Lario, 2011)it is necessary to serve each member in their preferred way. However, this task is very hard to accomplish without first being fostered and it therefore requires empowerment by co-operative managers and not obstruction by the erroneous perceptions of managers. This paper aims to highlight the links between the extent to which a co-operative possesses an unlearning context, and the strengths of its co-operative knowledge. Design/methodology/approach: The research model and hypothesized relationships are empirically tested using the structural equation modeling approach, validated by factor analysis of 277 co-operative members in the agricultural sector in Murcia (Spain.

In general, wine cooperatives regularly support their members in the production of the grapes in different ways: financial, logistical, and technical support. Members perceive the support they receive from the cooperative as positive since it can lead them to obtain better prices for the grapes.

The relationship between the cooperative and its members is strongly linked to the production, quality, and price of the grapes. To guarantee fair trade, most of the cooperatives created a system of payment that penalize the member with a discount on the price of the grape when the quality is below the established pattern, or, if the variety is not wanted. Conversely, when grapes have a higher standard, the member receives a bonus on the price.

Among the cooperatives that participated in the research, the more successful the cooperative, the more rigorous is the cooperative in penalizing members, not only reducing the price of the grapes but applying other sanctions fixed in the statutes. The extreme sanction would be the expulsion of the member. Some cooperatives, because they fear losing members, are more flexible about the application of the rules and accept some misbehavior of their members.

Analyzing the data, it is possible to notice that the cooperatives with higher performance are those without inactive members. The member is active or is out. In general, a member can be expelled if he or she does not deliver any grapes for three years, or if the member commits serious misconduct as selling the grapes to another wine producer. One can conclude that members follow the rules because they know the consequences of not doing so.

Ostrom (1990) sets out design principles that are necessary for the effective governance of common-pool resources. Iliopoulos & Theodorakopoulou (2014) declare that these principles determine the efficacy of groups formed to self-manage common pool resources.

As a list of recommendations, the principles presented by Ostrom (1990) to minimize the problems of managing common-pool resources are: 1) Clearly defined boundaries, 2) Congruence between appropriation and provision rules and local conditions, 3) Collective choice arrangements – individuals affected by operational rules can participate in modifying the rules, 4) Monitoring, 5) Graduated sanctions – whoever violates operational rules is likely to be assessed graduated sanctions, 6) Conflict-resolution mechanisms, and 7) Minimal recognition of rights to organize – independence from government authorities.

Ostrom's principles, applied to cooperatives, can highlight some issues related to management and the relationship with members. The first two principles recommend that individuals understand their rights, boundaries, and the rules for the relationship between them and the organization. Members should know their role in the cooperative both as suppliers (in wine cooperatives) and owners and recognize the rights and duties of each of these roles. The democratic feature, a cooperative principle, already provides members the power to create and modify the statutes.

Besides, members should actively monitor the performance of the BoD, the managers, and the cooperative. As seen before, wine cooperatives' statutes determine the expulsion of members who sell grapes to other wine producers and it seems that those cooperatives that apply the rule with rigor are those financially stable. Moreover, different from the time when they were created, wine cooperative in Portugal are independent of government authorities.

STRATEGIC PLANNING CAPACITY

Nowadays, it is widely accepted that thinking strategically and practicing strategic management have positive effects on organizations' performance (Analoui e Samour, 2012). NPO and cooperatives are no exceptions. Wine cooperatives must define what they want to be and where they want to be in the future.

Planning is a process that requires knowledge to understand the context and to define the strategies available to approach it. Bad or lack of planning may lead the cooperative to critical situations. There are decisions, about investments, for instance, that may impact the cooperative in all other areas: finance, quality, costs, marketing, and so on.

Cooperatives must be able to identify opportunities and threats in the environment and choose ways to achieve their goals, considering their weaknesses and strengths.

There are some strategies that wine cooperatives may pursue, according to the type of wine they produce, the markets they want to reach, and the distribution channels they will use.

As shown before, cooperatives can sell bulk wine, "box" wine, and bottled wine, each one associated with different levels of quality of the wine. In general, cooperatives sell low-quality wine in bulk. However, some cooperatives see themselves forced to sell regional and even DOC wine in bulk, despite its association with low quality. This happens because, either those cooperatives have no buyers for all their bottled wine, or because the cooperative does not have the infrastructure to bottle and store all the superior wine produced.

One of the cooperatives in this research sells DOC wine in bulk to other wine producers of the region because they do not have storage capacity. In sum, they end up producing wine for other companies to sell and realize the greater profit. Most of the managers recognize that the markup (profit margin) is in bottle wine, not in bulk wine.

However, this strategy is an acceptable alternative, especially if the cooperative has already strong partnerships with the buyers.

But it is important to be aware that a low price strategy in the wine market is risky because the costs of production in Portugal are higher than in other countries of the EU. Also, it is a strategy that does not promote customer loyalty. When price is the main concern, even long partnerships can be undone.

As said before, pursuing the strategy of selling bulk wine is acceptable only if the cooperative has low production costs, and this is possible only in a few of the wine regions of Portugal. The price of the main raw material (grapes) – resultant from the size, the topography, and the level of mechanization of the vineyard, added to the infrastructure and gains of scale of the cooperative – will compose the cost of wine.

Other strategies may conduct cooperatives to a sustainable future: production volume, a differentiated offer, or market diversification.

There are different paths for cooperatives to increase production, like joint productions or expanding the number of members. One of the reasons that cooperatives intend to increase production is to achieve new markets. The new wine-producing countries base their strategy on a more industrialized form of viticulture to achieve high volumes, economies of scale, and consequently, competitive prices. Besides, they strongly invest in marketing their brands to promote a perception of consistent quality in the consumer (Chambolle e Giraud-Héraud, 2003).

Brands are an intangible asset that is difficult to imitate and can generate higher returns, consumer awareness, and trade power. Brands are the opposite of a commodity, which is a product with little differentiation and solely dependent on the forces of supply and demand (Kontogeorgos, 2012). Differentiation seems to be a strategy sought by many wine cooperatives in Portugal. It can be achieved by capitalizing on the unique grape types found in the country.

Cooperatives are also aware that the needs of the market change and they must develop new products to meet the trends. The ability to identify what the market wants and react with a proper wine is highly desired.

Also, diversifying the targeted markets is another of the strategies proposed to face unstable wine markets and tough competition.

One cooperative presented a distinct strategy from most of the interviewees. They are willing to invest in regional wine instead of DOC wine. The region of this cooperative has a strong tradition in regional wine, not in DOC wine. Thus, it seems that the investment to insert DOC wines in the market alone would not be worthwhile, at least not until DOCs of the region become better known.

There are many strategies that cooperatives can pursue, including low cost, focus market, or diversification. However, the strategy must be coherent with the reality of the region and the cooperative's capacity. Besides, any strategy should be chosen as a result of medium and long-term planning.

MANAGEMENT CAPACITY

The most important of this set of interdependent organizational capacity dimensions in wine cooperatives is management capacity. Strongly associated with the abilities of the manager and the members of the BoD, it integrates all other capacities: *financial*, *human resources*, *infra-structure*, *strategic planning*, *relationship with members*, and *marketing*.

According to most of the interviewees, wine cooperatives should be managed like any other company. A member of the BoD attributes the failure of some cooperatives to deficiencies in management capacity, which seems to be the main concern in management of wine cooperatives in Portugal.

The interviewees believe that it is vital to the cooperative to have professional managers. This is what happens in the biggest cooperatives visited and seems to be a trend in those recovering from difficult times.

Some cooperatives have had good results being managed by a member of the BoD. But in general, these members have a degree in management or a similar area that classifies them as professionals. Also, there is a risk in having a member of the BoD accumulate the function of manager, which is to lose the manager if the BoD is not re-elected.

There are two aspects to consider regarding the professionalization of management in wine cooperatives. First is the complexity of the organization. Small wine cooperatives that produce and sell only one or two products (bulk and regional wine, for instance) to the national market are less complex than those also operating internationally with many distribution channels, and may not be so dependable of professional managers. In these cases, the BoD is also operational management.

Second, the cost of a professional manager is higher than the cost of a member of the BoD acting as a manager, and depending on the size of the cooperative, it may not afford to pay for that.

However, as the cooperative grows, the tendency is to hire professional managers, so the BoD takes care of decision control, while decision management is the responsibility of managers (Bijman, Hendrikse e Aswin van Oijen, 2012). It seems that the perception of the majority of the interviewees is that the BoD must define the strategies of the cooperative and control the actions of a professional manager.

Cooperatives aim to be sustainable while satisfying its members, and here lies the main responsibility of cooperative managers.

Although the issues faced by wine cooperatives when dealing with the market are the same as IOF, the cooperative identity must be recognized. Managers of cooperatives need the same competencies as managers in other types of organizations, but they cannot be limited to those competencies if they want to lead the cooperative to achieve its goals. The additional competencies required to manage a cooperative are linked to the ability of the manager to reach the balance between the antagonistic forces inside the cooperative due to its dual-nature: economical satisfaction of the members and the sustainability of the cooperative.

Jussila & Tuominen (2010) propose a set of elements of managerial competence in cooperatives (Table 5). According to the authors, there are three types of competences, each one with different elements in it. The first competence is knowledge, the second is attitude and the third is skill. Most of the elements associated with the managerial competencies focus on the cooperative values and identity.

According to Nilsson (2001), members have different ideas about investments and yields, and to decide how to weigh members' opinion may be a difficult task for managers. Jussila & Tuominen (2010) argue that the cooperative way of doing business may not only make management different but also more demanding.

Table 5. Elements of managerial competence in cooperatives.

Type of competence	Specific elements	
Knowledge	Information and understanding of	Cooperative value-based management Customer interface management Multi-business management Community development
Attitude	Identification with cooperative values Readiness to speak out	
Skill	Cooperative value-based management skills Customer interface management skills Community development skills Visionary leadership skills	

Source: (Jussila e Tuominen, 2010)

Managers must incorporate cooperative values as their own and act according to them. If managers are not identified with cooperative values, the cooperative is likely to fail (Jussila e Tuominen, 2010), since the tendency is to focus on profit maximization instead of satisfying members' needs. "The integrity of the purpose of cooperatives will only be protected if we develop a market for cooperative management that is based on professionalism rooted in cooperative values and undertaken by men and women who have a vocation to follow the profession of cooperative management". (Davis, 2001. p.35)

As the core element of organizational capacity in this model, management capacity is the ability that wine cooperatives must survive and satisfy members' economic needs. Personalized in the figure of the manager, it assumes that the person in this position will be able to understand the peculiarities of wine cooperatives and their environment.

6. PRELIMINARY ATTEMPT TO EVALUATE ORGANIZATIONAL CAPACITY IN WINE COOPERATIVES

Each element of the *organizational capacity* of wine cooperatives in Portugal affects and is affected by the other elements, by members, and by environmental factors. Any *financial* decision, for instance, will impact the relationship with members, because it will interfere in the earnings of the member. The option to reinvest the surplus in the cooperative means a reduction in the payment of the members. On the other hand, while investing these resources in the renovation of infrastructure reduces the short-term earnings of the members, it can guarantee the long-term sustainability of the cooperative.

The *infrastructure capacity* is the ability to recognize the need for investments in machinery and equipment in wine cooperatives to enhance the production and storage capacity, to increase the quality of the wine, to reduce production costs, and to reach gains of scale. However, it is not worthwhile to have scale and quality if the organization is not able to sell the wine. Thus, *marketing capacity* is crucial to wine cooperatives because it is this ability that will guarantee the revenues from sales. Besides, the cooperative must deal with the low-quality image of wine cooperatives and search for strategies to overcome this constraint.

Knowing the needs and desires of the consumers and the market will demand adaptations in the cooperative and also in members' vineyards regarding grape varieties, modes of production, and quality of the grapes.

People are responsible for the expertise in each of the capacities in any organization, so, *human resource capacity* is required in all the elements of organizational capacity.

Strategic planning capacity depends on *marketing capacity* to understand the market opportunities and challenges, on *human resource capacity* to predict the future, on the *relationship with members* to guarantee the supply of grapes, on *infrastructure capacity* to produce the wine, and on *financial capacity* to support the selected strategy.

Thus, the elements in the model of *organizational capacity* in wine cooperatives in Portugal are strongly interconnected and, sometimes, it is difficult to realize the boundaries between them.

Management capacity is the main capacity in the model because it must recognize and coordinate the relationships between all the other capacities, bridge the environmental and internal factors that affect the organization, incorporate the *cooperative identity*, and involve the *members as suppliers* and *owners* to achieve the purposes of the wine cooperative.

To evaluate the *organizational capacity*, the manager and members could start by identifying the forces in the environment and their effect in the wine cooperative. Then, the categories that represent the wine cooperative should be assessed individually to provide a picture of the cooperative's potential to be successful. Table 7 provides a list of questions that may help with this task.

The first category set to assess is *members*. The evaluation of this set will allow the cooperative to understand the way members perceive the cooperative and their willingness to be an active part of the organization. The main issues in the category *members as suppliers* are grape quality and the grape varieties that members can deliver to the cooperative, and the price and payment term of the grapes, ensured by the cooperative. Grape quality and varieties are indicators of the engagement of members in their role as suppliers. If they produce and deliver to the cooperative high-quality grapes and the varieties required by the cooperative, they show their desire to continue being a member of the cooperative. As members perceive performance through the price of the grapes and the payment terms, the cooperative should consider paying prices equal or higher than the market on regular terms.

Trust is strongly linked to the payment of the grapes. If cooperatives delay or do not pay for the grapes, trust will be weakened.

Besides, if the cooperative has a history of weak performance, members will react to the situation faster. There are some indicators of lack of *trust* towards the cooperative, for instance, when members start to sell their grapes to other producers, or the number of inactive member increases or is already high, and if members are voluntarily leaving the cooperative.

The acceptance of the ownership role is the highest level of member *commitment* to the cooperative. It depends on how much members *trust* the cooperative and their understanding of their role as owners – to be engaged in the decision-making and monitoring process of the cooperative. One indicator of *commitment* is members' participation in the matters of the cooperative, whether in Assemblies, voting, or running for the boards. Besides, they must understand that the cooperative must be sustainable, which means that part of the surplus may be reinvested in the cooperative instead of distributed to the members.

The cooperative must follow the values and principles that characterize the *cooperative identity*. Also, members, employees, and managers should understand and accept their dual nature.

To assess the *organizational capacity* of wine cooperatives, each capacity should first be assessed individually. *Financial capacity* is a reflex of the way the cooperative balances its assets and liabilities. If the cooperative does not have enough sales revenue to cover operating costs and investments, its financial situation is in danger.

Wine quality, economies of scale, and reception, production, and storage capacity depend on *infrastructure capacity*. The cooperative must evaluate the situation taking into account these aspects to identify the need for renovations.

Table 7 – Preliminary criteria to evaluate organizational capacity in wine cooperatives

	Categories	Main issues	Assessment questions
Members	Members as suppliers	Grapes (quality and varieties), payment of the grapes	Are members producing high-quality grapes? Are they producing the varieties required by the cooperative/ market? Are the prices paid for the grapes equal or superior to the prices paid by other wine producers? Are members satisfied with grape prices and payment terms?
	Trust	Members' income (grapes + surplus), payment term, history of performance	Is the cooperative paying the grapes on time? Is there any delay in payments of the grapes and surplus? Does the cooperative have debts with members? Is there a history of "bad" performance of the cooperative? Do members seem to trust the cooperative and the BoD? Is there any evidence that they are selling their grapes to other producers? Are there inactive members? Are there members leaving the cooperative?
	Commitment – members as owners	Participation (elections, Assemblies and boards), price of the grapes x sustainability of the cooperative, acceptance of ownership	Do members vote for board elections? Do they participate in Assemblies? Are they willing to run for the cooperative's boards? Do they understand that surplus is a source for investments in the cooperative? Do they feel like owners of the cooperative? Do they accept the ownership role?

Wine Cooperative	Cooperative identity	Cooperative values, cooperative principles, dual nature of the cooperative	Do members, employees and managers internalize and act according to the cooperative values? Does the cooperative follow the cooperative principles? Is the dual nature of the cooperative accepted by members, employees, and managers?
Wine Cooperative – Organizational Capacity	Financial capacity	Assets x liabilities, payment capacity (cash flow), investments in infrastructure, sales, costs	Is there a balance between assets and liabilities in the cooperative? Is the cooperative able to pay for its debts? Are sales revenues enough to cover operating costs and investments in infrastructure, machinery, and equipment?
Wine Cooperative – Organizational Capacity	Infrastructure capacity	Economies of scale and scope, wine quality, reception, production, storage capacity	Is infrastructure obsolete? Is it adequate for the expected quality? Are there economies of scale? Is reception, production, and storage capacity enough for the expected weight of grapes received and the volume of wine produced in the cooperative?
Wine Cooperative – Organizational Capacity	Human resources capacity	Technical skills and competencies, motivation, identification with cooperative values and principles	Do employees have technical skills and the desired competencies to work in their fields? Are they motivated? Are they identified with cooperative values and principles? Is the 5th cooperative principle – education, training, and information - being applied in the cooperative?
Wine Cooperative – Organizational Capacity	Marketing capacity	Market-orientation, salesforce, competitive prices, quality x price	Is the cooperative market-oriented? Does the cooperative know what the market and consumers want? Is the price consistent with the quality of the wine? Is the price of wine competitive? Is there enough promotion and marketing of the wines? Are the distribution channels reaching the right consumers?
Wine Cooperative – Organizational Capacity	Relationship with members	Dialogue with members, financial, logistical, and technical support, penalty x bonus system according to the quality of the grapes	Are there communication channels that facilitate and stimulate the dialogue between members and cooperative's leadership? Does the cooperative know the needs and expectations of its members? Does the cooperative give financial, logistical, and technical support to members regularly? Is there a well-defined penalty and award system for the payment of grapes according to their quality?
Wine Cooperative – Organizational Capacity	Strategic planning capacity	Planning (medium and long-term), identification of opportunities, threats, strengths and weaknesses, consistency among wine (DOC, regional, table – bottled or bulk), market, distribution channels, and elected strategies (low cost, diversification, market focus)	Does the cooperative have a medium and long-term strategic plan? Is the cooperative able to identify opportunities and threats in the market? Can the cooperative identify its strengths and weaknesses? Does the cooperative have a strategy to address the market coherent to each type of wine (DOC, regional, table)? Is the cooperative exploring the peculiarities of grape varieties of its region? Is the cooperative able to identify the risks involved in choosing to sell bottled versus bulk wine? Is the cooperative able to compete on equal terms with other producers? Is the selected strategy clear to everybody?
Wine Cooperative – Organizational Capacity	Management capacity	Professionalization (management skills and competence), sustainability x members' satisfaction, identification with cooperative values and principles,	Is there a professional manager running the cooperative? Is the manager qualified to run the cooperative? Is the manager identified with cooperative values and principles? Are manager and BoD able to deal with the dual nature of the cooperative? Is the manager able to identify the antagonistic purposes of being sustainable and satisfying members? Can the manager integrate all the other capacities and transform them into actions to enhance performance?

Besides the technical skills and competences to do their jobs, employees must be motivated. In cooperatives, there is another requirement to *human resources capacity* which is the identification with cooperative values and principles. To achieve that, cooperatives should follow the 5th principle – education, training, and information.

Cooperatives should be market-oriented. They should know what the market wants and provide a wine with a competitive price consistent with its quality. Moreover, the cooperative must promote and market its brands and find distribution channels that reach the desired markets to enhance *marketing capacity*.

To achieve success satisfying the members, cooperatives must know their needs and expectation. To reach that, it is imperative to have communication channels that facilitate and stimulate the dialogue between the cooperative leadership and the members.

Besides, the *relationship with members* is improved when cooperatives provide financial, logistical, and technical support to the members. It is recommended that the cooperative provides a payment system that penalizes low quality and adds a bonus when the quality of the grapes is superior to encourage members to produce better grapes.

To assess the *strategic planning capacity* one should first verify if the cooperative knows how to plan and the existence of a medium and long-term strategic plan is an indicator of that. The cooperative must have strategies to address the market coherent to each type of wine, be it a DOC, regional, or table wine. Besides, managers must be aware of the risks involved in choosing to sell bulk wine, for instance. It is important that, whatever strategies are chosen, they are clear to members and employers. This will help members, in particular, to understand the requirements of grape quality. Also, one point to investigate is if the cooperative is exploring the peculiarities of grape varieties of its region, concerning Portuguese wine cooperatives.

Management capacity is the ability that managers must integrate all other capacities in the model and transform them into actions to enhance performance. It is increasingly necessary to have a professional qualified manager to run the cooperative. Moreover, the manager must be identified with cooperative values and principles and be able to deal with the dual nature of the cooperative. Assessing this key capacity should also allow for a more integrated view of the cooperative's capacity, where the way the different dimensions of organizational capacity affect each other is taken into account and an integrated, consistent plan of action for improvement may be devised.

7. CONCLUSION

It is known that cooperatives represent a significant role in the world, promoting economic and social outcomes in many countries. According to ICA (2015c) a cooperative is an association of persons united voluntarily to meet their common needs and aspirations through a democratically controlled enterprise. Cooperatives are businesses owned and run by and for their members.

Cooperatives are organizations based on two components, a social and an economic one, which means, they are business enterprises and a social group of members. Because of this dual nature, cooperatives are organizations with two purposes that must deal with the competition in the market and fulfill the objectives of the members. Although cooperatives are non-profit driven, they are different from NPO because of the economic dimension. On the other hand, a cooperative differs from an IOF since its purpose is to satisfy its members' needs, not to maximize profit.

There are different types of cooperatives, such as agricultural cooperatives, credit unions, work cooperatives, consumers' cooperatives, and more, each one with its specificities. In agricultural cooperatives, for instance, members are simultaneously owners and suppliers. The dichotomy of the business and the social roles creates a challenge to the management of these organizations.

Cooperatives share values and principles that define their identity. The cooperative values and principles are beacons to the organization and members' behavior.

As non-profit driven organizations, cooperatives demand indicators to assess performance that are not anchored in profit. The evaluation of cooperative performance should address its dual nature focusing on members' return and the continuity of the business.

Organizational capacity was developed to evaluate NPO and is generally defined as the ability that enables an organization to fulfill its mission. This ability depends on a variety of capacities that may differ according to the context in which the organizations are inserted and the characteristics of the organizations under study.

The wine business has undergone some changes in recent decades. Global wine consumption decreased in Europe and increased in New World countries. Also, the New World countries became expressive wine producers and reached the global market. In the same period, Europe faced a reduction in its vineyard area.

Portugal produces wine in all the regions of the country, although it has seen a decrease in the vineyard area. Wine is one of the most important export products of the Portuguese agricultural economy. Although the contribution of cooperatives in the wine production in Portugal has dropped, it is still significant.

The model presented here was developed from data gathering. As a simplification of reality, the model provides a systemic view of the wine business and the interaction with wine cooperatives in Portugal. In addition to identifying the main elements that compose the model, the features that seem to promote cooperative performance are outlined. There are three sets of categories. The first set is *members*. Since the cooperative is a membership organization and its purpose is to attend to members' economic needs, this set represents the foundation of the cooperative. Three categories compose this set: *members as suppliers*, *trust*, and *commitment – members as owners*.

Members of agricultural cooperatives have both the roles of suppliers and owners. The main reason why farmers (grape growers) become members of a wine cooperative is to achieve economies of scale and scope to face the competitive wine business. As suppliers, the members' main focus is the price and the payment term of the grapes, which are perceived as indicators of *performance* of the cooperative. If the wine cooperative delays the payments or does not pay, members will lose confidence in the organization. This situation can be intensified if there is a history of "bad" performance. The lack of *trust* will lead members to pursue other alternatives to sell their grapes, which will inevitably reduce grapes supply in the cooperative and worsen its performance.

Besides suppliers, members are also owners. Although members must *trust* the cooperative to accept this role, other factors also interfere in the level of members' *commitment* towards the cooperative. The findings suggest that the members' cultural background may facilitate or hinder commitment. Besides, the creation of cooperatives was historically conducted by the government in a top-down initiative which reinforced the dependent and passive behavior of members.

Environmental factors is the second set of categories. In addition to *historical* and *cultural factors*, *image*, *competition*, *consumers and market*, *demographics* and *agrarian structure*, and the outputs *wine* and *performance* compose the set.

Portuguese wine cooperatives produce certified and table wine to sell to the national and international markets. In a highly competitive business, *image* has an important role. Cooperatives' image is strongly attached to its *history* of producing quantity instead of quality wine. Although the quality of cooperatives' wine has greatly improved and is already recognized among experts, the final consumer still associates cooperatives with inferior wine, forcing these organizations to look for strategies to minimize the impact of a bad image. One alternative is to participate in blind taste contests, for instance.

One of the main threats to Portuguese wine cooperatives is the aging of members. Besides, young people do not feel attracted to farm work. The only way to lure youth to farms is to make the activity more profitable. This is a great challenge to policy-makers if they wish to guarantee agricultural production.

The average size of vineyards varies depending on the wine region, mainly because of the topography. Plane areas have bigger farms with a high level of mechanization. Regions with hills and mountains are characterized by small farms. The bigger the vineyard, the lower the production cost of the grapes.

The third set represents the cooperative itself. It contains the categories *cooperative identity* and *organizational capacity*. Cooperative values and principles define the organizational identity of cooperatives. In Portugal, the legal framework that regulates the cooperative sector is *Código Cooperativo*. Although some articles of the law changed in 2015, wine cooperatives remain organized according to the traditional structure of open membership, democratic control, and benefits to members proportional to patronage.

Wine cooperatives must receive all the grapes from the members and members must deliver their grapes to the cooperative. The guarantee of grape supply can be an advantage of wine cooperatives only if members are committed to the quality of the grapes. Otherwise, the cooperative will have low-quality grapes that will be reflected in wine quality as well.

One of the characteristics of *cooperative identity* that most challenges managers and the BoD is the dual nature generated by the social and economic elements of cooperatives.

The other category in this set is *organizational capacity*. The results pointed to seven capacities that are impacted by cooperative identity, members' profile and behavior, and the environmental factors of wine cooperatives. *Financial capacity* is the ability to balance assets and liabilities to guarantee the survival of the cooperative. *Infrastructure capacity* allows the cooperative to identify the need for new machinery and equipment to increase gains of scale, enhance quality, and increase storage capacity. Of course, this will be possible only if the cooperative has financial resources to spend on renovations. *Human resources* are behind each other capacity and their expertise is crucial to the success of any organization, not only wine cooperatives. *Marketing capacity* is the ability to recognize the market demands and guarantee that the wine reaches the consumer. *Wine* depends on the grapes and its production process that are attached to the cooperative infrastructure.

Cooperatives need their members as owners and suppliers. Besides, the purpose of the cooperative is to satisfy them. Our findings suggest that *relationship with members* significantly impacts cooperative results and to enhance the quality of this relationship cooperatives must invest in education and support to members, and a payment system containing rewards and penalties according to grape quality.

The core capacity of the model is *management*. This is the ability that managers need to acquire to lead the cooperative to achieve its goals. It enables them to coordinate all other capacities by recognizing the cooperative identity, understanding the relationships between all the environmental factors, and the cooperative.

The main issues that affect each capacity dimension are explored to arrive at a guide to evaluate the organizational capacity of wine cooperatives. Although not complete, the guide presents some preliminary criteria that may help managers and members assess the organizational capacity of their cooperative, adding practical usefulness to the model.

The main contribution of this research is to provide a better understanding of the particular environment of wine cooperatives and to offer an alternative view to management by identifying the success factors through a model tailored to the specificities of those organizations. The concepts of organizational capacity are therefore applied to cooperatives in such a way that both the social and the economic dimensions are considered. This research adds to previous publications by proposing an integrated, systemic model that encompasses all internal and environmental factors of wine cooperatives and depicting their relationships.

Also, some important implications for management in wine cooperatives emerged from the findings. The model shows the main environmental factors that affect wine cooperatives and their relationship with members. Managers can identify each of these factors in their own cooperative and define strategies to address them. Besides, awareness of the peculiar features of the cooperative identity can help managers to accept that cooperatives require a specific managerial approach, different from IOF or NPO. Moreover, the model and the preliminary criteria proposed, facilitate the assessment of organizational capacity in wine cooperatives, which will provide information about which capacity, competences, and abilities the cooperative should develop to increase the potential to succeed.

This study highlighted the importance of cooperatives, mainly, agricultural cooperatives to small farmers and the continuity of rural production. So, these fields merit further investigation. Other suggestions for future research include:

- The validation of the wine cooperative organizational capacity model in other countries and in other agricultural cooperatives where members are also suppliers and, as an extension, to cooperatives where the product is not a commodity,
- The further examination of the influence of the agrarian structure, farmers' profile, and the role of wine cooperatives in rural development, all of which emerged in the present study as relevant, but were not explored in detail,
- A more in-depth exploration of the impact of culture in the commitment of members towards the cooperative, which was another problem that appeared in the research and deserves a deeper understanding.

Authors have mentioned the lack of research on the management of cooperatives, so any study on this sector, especially on agricultural cooperatives, is welcome.

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