

# Bridging business model and inter-organizational coordination mechanisms in the Italian wine industry

Mario Pezzillo Iacono, Vincenza Esposito, Lorenzo Mercurio and Marcello Martinez

Mario Pezzillo Iacono is based at the Dipartimento di Economia, Seconda Università degli Studi di Napoli, Capua, Italy. Vincenza Esposito is based at the Dipartimento di Diritto, Economia, Management e Metodi Quantitativi, Università degli Studi del Sannio, Benevento, Italy. Lorenzo Mercurio is based at the Dipartimento di Studi Aziendali ed Economici, Università degli Studi di Cassino, Napoli, Italy. Marcello Martinez is Professor at the Dipartimento di Economia, Seconda Università degli Studi di Napoli, Capua, Italy.

## Summary

**Purpose** – *The aim of this paper is to interpret the concept of a business model from the pattern of coordination mechanisms used by an Italian wine cooperative to manage its inter-organizational relationships.*

**Design/methodology/approach** – *The business model is taken as the structure and governance of the relationships between the focal firm and its exchange partners. The empirical analysis is based on a qualitative investigation, analyzing material collected at the Farming Cooperative Gran Cru.*

**Findings** – *Several different coordination mechanisms were used to rethink the firm customer value proposition, showing a very complex and dynamic inter-organizational system: process control mechanisms, knowledge suppliers and clan control mechanisms. The combination of mechanisms enables the firm to govern the extreme complexity of external complementarities and interdependence among activities and resources.*

**Practical implications** – *The study is particularly helpful to managers because wine entrepreneurs and managers can influence their networks' features and strategies, as well as the mechanisms for governance of the relationships and extracting customer value.*

**Originality/value** – *The study seeks to enrich the debate on the strategy/structure fit by shifting the focus from the organizational to inter-organizational level of analysis. The analysis centers on boundary-spanning relationships between one wine firm and its partners and knowledge suppliers. This perspective brings business model analysis and inter-organizational design closer because variables of the business model – such as customer value – can be seen as combinations of inter-organizational coordination mechanisms.*

**Keywords** *Business model, Coordination mechanisms, Inter-organizational ties, Wine industry*

**Paper type** *Research paper*

## 1. Introduction

The international wine market is characterized by high level of complexity related to the multiple factors that affect this system. These factors may include the tastes of consumers in a given geographical, social or cultural context; consumption patterns and choice of distribution channel; technological upgrading; rules on labelling and entering the retail market; and policies adopted over the years and in the framework regulations (Pezzillo Iacono *et al.*, 2014).

The industry is also undergoing radical change, marked by a significant increase in competitive pressures and by major strategic and organizational transformations.

To adjust to this turbulent business environment, winemaking firms may change their business models (BMs) to improve fit with the new competitive and consumer demands of the industry (Voelpel *et al.*, 2004).

Management literature on the wine industry shows a growing interest in design of inter-organizational coordination mechanisms focused on the management of this sophisticated body of knowledge (Bell and Giuliani, 2007; Giuliani and Bell, 2005). Studies have typically investigated the role of coordination mechanisms and innovation, widespread in

Received 11 November 2014  
Revised 9 October 2015  
Accepted 16 November 2015

the wine industry, in different wine clusters (Cusmano *et al.*, 2010; Giuliani *et al.*, 2011). Pezzillo lacono *et al.* (2013), for instance, discussed different types of temporary inter-organizational collaboration, considering both structural/organizational features and innovation development.

Smith (2007) argued that knowledge-sourcing activities and inter-organizational relationships are important ways to improve the knowledge base and to complement internal activities. As the wine industry is highly fragmented, the underlying premise of this study is that, because of the increasing complexity of innovation and market evolution, wine firms view collaboration as an important way to improve their knowledge base and complement their internal activities (Doloreux *et al.*, 2015).

The main purpose of the paper is to interpret the concept of BM through the pattern of inter-organizational coordination mechanisms, using the example of an Italian organization operating in the wine sector. Our study investigated the characteristics of an Italian winemaking organization, a cooperative that we will call *Gran Cru*, which includes about 600 small producers and has recently achieved significant recognition both nationally and internationally for its innovations in product and processes.

The paper is articulated as follows. First, the reference framework is given in Section 2, presenting our approach to the concept of business model. In Section 3, the methodology adopted for the empirical study is described. Then, the case study is described in Section 4 and discussed in Section 5. Finally, the conclusions and main limitations of this study are presented in Section 6.

## 2. Theoretical framework: understanding the concept of business model

To understand the concept of a BM, it is important to understand exactly what the term means and establish its key features. Although academics and others have increasingly adopted the concept, there is no agreed general definition (Onetti *et al.*, 2012; Shafer *et al.*, 2005). The lack of a common definition hinders more comprehensive research in the area because it is not possible to use a general concept without an exhaustive ontology of the term. An important step is therefore the identification of the components of a definition, based on a comprehensive analysis of the literature over time.

It seems to be generally accepted that the concept of BM is linked to the creation of value for customers and the various participants in the firm's value chain. This implies that a BM is a detailed description at a specific moment in time of how a company balances different building blocks and creates value for itself and its customers (de Reuver *et al.*, 2013).

According to Zott and Amit (2008), the BM represents a new unit of analysis, offering a systemic perspective on how to do business, encompassing organizational activities performed by a focal firm (Canonico *et al.*, 2012), as a source of value creation. They suggested that BMs include cooperation, networking, partnership, joint value creation and customer value proposition.

In general, most of the literature has tended to see the BM construct through a configurational approach. Johnson and Suskewick (2009, p. 52) pointed out that BMs "consist of four interlocking elements that, taken together, create and deliver value". These are customer value proposition, profit formula, key resources and key processes. Zott *et al.* (2011) supported a view of the BM as a construct that emphasizes a system-level, holistic approach toward explaining how firms do business. This holistic view of the BM concept is shared with other authors (Onetti *et al.*, 2012) who consider the BM as a promising and emerging new unit of analysis in the management field. They suggested that it brings several advantages, putting together organizational and strategic aspects and looking at how value is created and eventually captured. BMs are feasible and actionable instruments able to experiment with new resources and organizational forms (Teece, 2010). The objective of studying the BM is to understand how firms change and develop, linking strategy and organizational architecture in a "hub and spoke" model. BMs can be

considered as general frameworks, which evolve according to external inputs and firms' entrepreneurial orientation rather than using a defined path (Achtenhagen *et al.*, 2013).

Our approach is consistent with Zott and Amit's (2008, pp. 3-4) perspective. They claimed that:

The business model is a structural template that describes the organization of a focal firm's transactions with all of its external constituents in factor and product market [ . . . ] These developments have enabled firms to change fundamentally the ways they organize and transact both within and across firm and industry boundaries [ . . . ] Thus, the focus of organization design seems to have shifted from the administrative structure of the firm to the structural organization of its exchanges with external stakeholders.

This paper focuses on the firm's BM as a structural construct that captures its relationship with external parties. The BM can therefore be viewed as the structure and governance of relationships between the focal firm and its exchange partners (Zott and Amit, 2007). In other words, in this case, it represents a conceptualization of the pattern of coordination mechanisms adopted by a winemaking cooperative to handle the links between the firm and its partners. A natural step in applying inter-organizational design to analyze BM characteristics is to interpret inter-organizational ties through the coordination mechanisms used to manage them. A clear taxonomy was used to classify these mechanisms, and the most common coordination mechanisms (Grandori, 2001) are shown in the below list as follows:

1. Process control:
  - procedures, rules;
  - codes of business conduct;
  - strategic planning systems; and
  - budgets.
2. Clan control:
  - formal and informal meetings;
  - discussions, e-mails;
  - training;
  - organizational culture; and
  - communities of practice.
3. Outcome control:
  - performance-related contracts;
  - bonus and profit-sharing plans; and
  - pay per piece.
4. Brokers, intermediaries, knowledge suppliers
5. Hierarchy.

Comparing the different studies, control mechanisms play a central role in coordination, which is coherent with the traditional classification of coordination mechanisms proposed in the literature. Mintzberg (1980), for example, described coordination mechanisms, including mutual adjustment, direct supervision, standardization of work processes, standardization of outputs, standardization of skills and standardization of norms.

This study focuses on the different mechanisms adopted by a wine firm to manage its inter-organizational relationships and their interdependences suggested by Grandori (2001).

### 3. Methodology

The study developed within a broader survey of the wine industry of Campania (Italy), which was funded by Italian Ministry of Education and aimed to monitor the primary structural, strategic, organizational and technological characteristics of the production companies (e.g. wine production, hectares cultivated, type of wine produced, organizational structure, exports and investments in new technologies) (Pezzillo Iacono *et al.*, 2013).

The empirical analysis is based on a qualitative investigation. The analysis used empirical material collected at the Farming Cooperative known as *Gran Cru*. The firm chosen for the case study provided a consistent rich setting for studying inter-organizational coordination. The company proved, through its significant product and process innovations in both technology and semantics, to have a strong drive towards internationalization and an approach consciously oriented to innovation. The organizational model investigated – a winemaking cooperative – is a common form in both Campania and Italy more generally. Winemaking cooperatives are responsible for a significant proportion of the total wine production in many major wine-producing countries, including most of the classical European wine countries. In Italy, they process about 60 per cent of the grape production and are responsible for a large part of the wine production in Campania.

The use of an in-depth case study is advised when the boundaries between phenomenon and context are not obvious, which is the case for the relationship between coordination mechanisms and BM (Dubois and Gadde, 2002). This is in line with Dyer and Wilkins (1991, p. 614) who advocated “deep case studies” and recommended researchers should be aware of the benefits stemming from “the careful study of a single case that leads researchers to see new theoretical relationships and question old ones”. They claimed that extensive single case descriptions would make it possible to take the rich context surrounding the case into consideration (Dubois and Gadde, 2013).

The analysis was carried out iteratively using a semi-grounded approach, so that the data informed the selection of theory (Van Maanen *et al.*, 2007). Three data collection techniques were used:

1. internal document analysis;
2. observation/site visits; and
3. semi-structured interviews.

Documentary analysis was used to obtain a rich understanding of the organizational structure and to identify particular issues related to coordination and control implications for knowledge management. Observation and site visits to corporate headquarters were undertaken to explore cultural issues, responsibilities and control-related issues. Staff interviewed included top managers and technical figures. All interviews were tape recorded and designed to obtain data on the use of different typologies of coordination mechanisms and on the nature of the relationship between coordination and control mechanisms and knowledge governance. Data were collected between February and early July 2015.

### 4. The winemaking cooperative

Founded in 1969, the Farming Cooperative *Gran Cru* is one of the biggest in Italy and holds a particular importance in the wine industry. The company is located in Capua and has more than 600 partners cultivating vineyards across about 1,000 hectares situated on hills with an average height of 250 m above sea level. The grapes are transformed by *Gran Cru* into wines and sparkling wines. The amount of wine produced is about 170,000 hl per year. The cooperative’s exports largely go to Germany, the UK, Norway, Japan, China and Russia.

The organizational solutions reviewed here are the result of a wide program of strategic, technological and organizational innovation, started in 2012 and currently still ongoing. From a strategic point of view, the general purpose of the program was to exploit the production capacity and the characteristics of quality, which were widely recognized in the domestic market for basic wines that are bought mostly by other producers, although some are sold to consumers. These were used to differentiate the cooperative's offerings into five types of product (bulk wines of quality, basic wines for large retailers at affordable prices, intermediate-quality wines, high-quality wines and experimental products such as sparkling wine) and to increase exports.

Major investments were made in the acquisition of new plant for the cold working of grapes, the development of a new plant for sparkling wine (the largest in Southern Italy) and the installation of devices for quality control and energy-saving (including the largest photovoltaic plant in Southern Italy). To upgrade the vinification process for white grapes, the company added eight soft wine presses and has at its disposal more than 2.5 million refrigeration units per hour to control the temperature for fermentation and cold maceration. All these mechanisms standardize and formalize the requirements for the incoming raw materials for the processing activities typical of the five types of wine offered by the company and for the volumes produced.

The program of change was focused primarily on the acquisition and development of new technical and organizational skills, the standardization of work processes, the adoption of specific coordination mechanisms between growers and technicians in the production area and the development of new management systems for planning and controlling production.

The change program has affected the salient strategic, technological and organizational features of the cooperative, requiring a significant review of patterns and practices in all three phases of its operations:

1. production of raw materials (grapes);
2. product processing (wines, sparkling wines and spirits); and
3. marketing.

The cooperative has had to move from a traditional approach based on sharing common decisions to a model focused on structured cooperation in a set of best practice decisions that integrate the members of the cooperative with external actors. The process of defining the value proposition for the customer has been permanently reshaped, including the definition of new permanent relationships with public institutions, professional consultants and market experts. In particular, the system used to develop new and important competencies is linked to the re-configuration of the main inter-organizational coordination and control mechanisms.

## 5. Analysis and discussion

The concept and design of BM in this work refers to the architecture of a firm's boundary-spanning relationships with other actors/participants. The coordination and control mechanisms used to handle these relationships provide a view on the structure of the firm's BM. In accordance with the approach of [Zott and Amit \(2008\)](#) and [Zott et al. \(2011\)](#), the BM of the cooperative can be interpreted as the result of the planning and implementation of specific inter-organizational coordination mechanisms (discussed in Section 5.1), leading to the strategic (re)positioning of its customer value proposition (discussed in Section 5.2).

### 5.1 Partnership, cooperation and coordination mechanisms

The push toward innovation created by the cooperative's BM can primarily be ascribed to its capacity to create structural partnerships with external entities that have played a central

role in the decision processes about the strategic positioning of the wine products and in the technical and organizational solutions adopted to sustain the change.

The cooperative has played the role of connector between at least two key groups that have contributed indirectly to the genesis of the innovations in processes and products. These are:

1. the groups of private/public actors/institutions who co-financed the various procedures of the change process; and
2. the team of professionals and experts, coordinated by an internationally-renowned oenologist who was subsequently employed as the scientific coordinator for the entire project.

*5.1.1 Private/public institutions.* The case study revealed the importance of the solid partnership created by the cooperative with the local administration systems (regional, provincial and community) and with industry associations. The cooperative benefited from funding for some experimental initiatives from a wide regional program of investments in the agricultural sector. These programs featured a strong push toward innovation in the agro-industrial supply chains in Campania. The cooperative's Vice-President participated actively during the planning and implementation of the project, in his role as a member of a task-force of researchers and professionals set up to steer the regional project. Their skills in administration and management enabled a constant flow of technical knowledge and strategic vision into the cooperative's innovation projects.

The Vice-President said:

The orientation meetings provided by the regional administration were mostly attended by the technical and administrative staff responsible for funding projects; but just as often we met scientists and agronomists involved in scientific research programs. So the calls and technical requirements for access to funding changed to accommodate the latest insights from the laboratories and research in the field. We all put in a lot of effort at this stage, but we managed to keep it quite contained.

The regional task force is governed by both *process control* and *clan control mechanisms*. The task force facilitated the development of common management methods that would guarantee the fit of the work with the public investment program and, consequently, the feasibility of the individual initiatives (categorized as *budget* and *codes of business conduct* in the list mentioned above). The requirements outlined in the public program were interpreted by the task force using both technical and management profiles, supplying the participants with mature and timely strategic visions that could be transferred to the various connected clusters (*strategic planning systems*).

The task force has also been a source of information and discussion about the primary inputs into the changes to production technologies desired by regional and European policy-makers (*formal and informal meetings*).

The formal task force therefore generated strategic and operational input, prompting the acquisition of new mechanisms of coordination and control of activities and innovations within the cluster. Thanks to its specialist competencies, the business provided technical and management information that could be imported easily and spread through the clusters, the key requirement for financing and active experimentation.

The cooperative actively participates in a local consortium of wine cooperatives, established in 2012. The consortium acts as a meta-organizer or broker and has the crucial role of organizing, governing and tuning the research and commercial activities of its members. The relationship between cooperative and consortium can be considered as a "latent network" (Sydow and Staber, 2002), in which ties between local cooperatives are dormant for some of the time but are routinely activated to accomplish specific projects or tasks. In 2013, for example, the consortium began experimenting with a precision viticulture (or satellite farming) system to maximize grape yield and quality, through practices such as trellis design, fertilizer application, irrigation and timing of harvest.

The cooperative also has a research project with two public universities. In the planning phase, the final configuration of the project team was achieved through the mutual coordination of actors including national and regional managers in charge of EU funds, *Gran Cru* managers, representatives of professional associations supporting Campania in the strategic planning process, representatives of the universities and professional experts on grape cultivation technologies and techniques (*formal and informal meetings, strategic planning systems, budgets*). In the project implementation phase, the coordination approach adopted was a working group of biologists (*knowledge suppliers*) and growers to carry out various sampling activities. Expert researchers on vine characteristics, together with senior growers, set out a schedule of visits to the vines (*formal and informal meetings, training*).

*5.1.2 Professional expertise.* The second type of formal partnership (*professional network*) that characterized the business model was found in the stable relationships between the firm's oenologists and the group of external consultants managed by an internationally renowned oenologist charged with supporting innovation across the cooperative. The professional network established between the outside consultancy group and the individual professionals was characterized, first, by its recognized technical competences and also by the strong personal ties between some of the cooperative's own oenologists and the consultants. In some cases, an oenologist working for an individual producer already had significant experience of collaborating with the consulting group (*communities of practice, organizational culture*).

The leader firm's oenologist said:

I and the consultant of the cooperative had been able to discuss at length the problem of how to organize the production of wine without sulfites during my doctoral research, which was done at his university. When we met in the vineyards and in the company, we realized the value of those discussions. I and the professor enjoyed experimenting in this area because we had studied all the theoretical assumptions and technical issues earlier. And my colleagues from other companies in the cooperative recognize the value of that previous knowledge and were less hostile to me before our proposals for change.

The innovations introduced in the production and purchasing of raw materials flowed from strategic and technical approaches imported from abroad thanks to the work of the consultants, leveraging their deep knowledge of the territory and traditional production techniques. This resulted in a longer, not only more challenging, experimentation period but also a more worthwhile exchange between outside experts and cultivators. External oenologists worked closely with agronomists and growers to introduce and experiment with new modes of growing, pruning, sanitizing and watering grapes. This has led to the development of new knowledge on how best to perform some traditional work activities (e.g. pruning) and a greater awareness of basic skills.

The President of the cooperative recalled:

The winemaker, coming from the outside and expert in grape production nationally and internationally, was amazed especially at the almost complete use of native species in our operations [ . . . ] The new technicians patiently explained to the growers how important it was to return to the old method of cluster thinning on the vine to ensure a better quality of grapes.

The lead consultant said:

I've always had a very clear idea of the kind of change promoted by our project. However, the path to get to the results of innovation that I proposed was full of interesting meetings with experienced people.

The high level of experience and knowledge of the workers in the cooperative and the use of appropriate mechanisms for coordination and control to handle the relationship with consultants (*clan control mechanism*) have resulted in an understanding of the innovations proposed and sometimes enhanced them with specific information on products and raw materials.

Finally, to support the marketing stage, a new marketing consultant (*knowledge supplier*) has been employed. New coordination mechanisms have created a new specialist role of management support (in charge of international relations). With appropriate language skills, the consultant manages and integrates relationships both with the cooperative sales office (through *meetings, discussions, e-mails, training*) and with international buyers and actively participates in international initiatives to support communication and promotion.

An overview of the inter-organizational mechanisms adopted by the cooperative is given in Table I.

### 5.2 Customer value proposition

The BM emerging from the change programs characterized by a radical rethinking of the process that defines the value proposition for the customer. The quest for quality and value creation have focused on a new and more sophisticated balance between knowledge and technology based on the needs and tastes of consumers. The new approach is accomplished through a set of organizational processes designed to accompany the client in a search that is more aware of their expectations, alongside the more traditional functions of market analysis.

The definition of value includes ongoing research involving customers, which continually questions the basis on which it was founded. Research and development functions therefore become a distinctive asset; they are made available not only to engineers to adjust the supply of products to the needs of the market but also to customers to interpret their needs.

The organizational solutions adopted to implement this new approach also converged in a specific set of inter-organizational coordination mechanisms, around the role of oenologists and marketing specialists in decision-making. The quality assessment of the product in the wine sector is characterized by a process of codification and standardization, supported by increased understanding of the chemistry of wine composition and use of devices that

**Table I** The inter-organizational coordination mechanisms adopted by *Gran cru*

<i>Inter-organizational relationship</i>	<i>Coordination mechanism adopted</i>	
Cooperative – local institutions	Process control	Codes of business conduct Strategic planning systems
	Clan control	Formal and informal meetings Communities of practice in local consortium of wine cooperatives
Cooperative – university research team	Process control	Strategic planning systems Budgets
	Clan control	Formal and informal meetings between university researchers and professional experts on grape cultivation technologies Training on project research results Working group (biologists and growers)
	Knowledge suppliers Broker, intermediary	The consortium acts as a meta-organizer
Cooperative – local consortium External oenologists – internal oenologist	Clan control	Discussions, e-mails Training Organizational culture Communities of practice
External oenologists – internal market specialist	Knowledge suppliers	Based on the competence recognition of the consultant
	Knowledge suppliers	External experts with recognized technical leadership on production and purchasing of raw materials and on the consumer preferences
Marketing consultant – cooperative sales office	Knowledge suppliers	The consultant suggests new partnership forms with international buyers
	Clan control	Meetings, discussions, e-mails, training

electronically test the wine's organoleptic qualities. This study detected and highlighted, however, the important role played by individual intuition and judgment on the definition of the wine's attributes. Although general indications and limitations are defined by a disciplinary standard, traditional practices, peculiar to each winery, together with the vision of the oenologists, contribute to the specificity of each product, determining the unique flavor of each wine and fitting it to the marketing goal.

An example of the new approach is *Capua Sole*, one of the company's new flagship wines. It has been tailored to respond to specific chromatic and sensory qualities, particularly appreciated by the Russian market by aging the wine for 12 months in oak barrels. The four marketing specialists hired by the firm defined the relationship with Italian and foreign buyers and the marketing mix choices (Vrontis *et al.*, 2011). According to one marketing specialist:

We have to generate a wine with innovative meaning through the instruments at our disposal [...] The attributes and innovation of bottles and labels, for instance, represent the main factors underlying wine packaging perceptions. Consumers use these characteristics to define more abstract "constructs" to use while assessing and choosing between alternative products. In reports by our firm on the Chinese market, for example, an important unique selling point of the product was that it evoked a certain classical ambience, reviving the spirit of ancient Rome – in fact, this area was a former province of the Roman Empire.

Two elements were identified as particularly important:

1. first, the role of integration in the two macro-phases of production; and
2. second, the role of the lead oenologist as a facilitator of learning as a result of his numerous innovation initiatives involving visits to the company, meetings and discussions with growers.

The case shows that the role of oenologists and marketing specialists (*knowledge suppliers*) was crucial in decision-making processes to redefine the hallmarks of the product. Although general indications and limitations are laid out by regulations and traditional practices, the individual oenologists help to determine the unique flavor of each wine to support market research findings.

## 6. Concluding remarks, implications and limitations of the study

This study aimed to improve understanding of the choices of a wine cooperative around coordination mechanisms adopted to manage inter-organizational relationships and redesign the BM.

The structure and mix of coordination mechanisms used is the expression of the organizational and strategic specificity and "uniqueness" of the cooperative's networking. Several different coordination mechanisms were used to rethink the firm's customer value proposition, showing a very complex and dynamic inter-organizational system: *process and clan control mechanisms* and *knowledge suppliers*.

The case shows that the role of oenologists and marketing specialists (*knowledge suppliers*) was crucial to upgrade internal skills and competence. The external experts made use of visual skills and intuition or judgment in critical problem-solving and experimentation activities to support the production of higher-quality wines. *Clan control mechanisms* were important to integrate inter-organizational knowledge and techniques. The combination of mechanisms enables the firm to govern the extreme complexity of external complementarities and interdependence of activities and resources.

The contribution to the literature is twofold. The study has enriched the debate on the strategy/structure fit by shifting the focus from organizational to inter-organizational level of analysis. The traditional focus in the literature has been the firm's internal structure, but this study centered on boundary-spanning relationships between a wine firm and its partners and knowledge suppliers. This brings BM analysis and inter-organizational design closer

together because variables of BM, such as customer value, can be seen as combinations of inter-organizational coordination mechanisms (Grandori and Soda, 2006).

This study has therefore shown that adopting a broader view of organizations can be valuable in understanding the concept of BM. BMs can even be interpreted as the threads that orchestrate and connect firms with external parties.

Even though the main objective of this work is to contribute to theory-building, it also has practical implications (Van Geenhuizen and Soetanto, 2009). It is particularly relevant for managers because they can influence their networks' features and strategies, as well as the governance mechanisms for the relationships and the way in which customer value is developed.

This study has some limitations. First, its qualitative approach was consistent with the objectives and the nature of the research question and allowed insights to be drawn that have helped to advance theories. Future studies should, however, consider using a larger sample of wine cooperatives to verify whether the results can be generalized. Considering structural forms of BM as contingency factors would generate research hypotheses about the features of inter-organizational coordination mechanisms and the development of product and process innovation.

## References

- Achtenhagen, L., Melin, L. and Naldi, L. (2013), "Dynamics of business models – strategizing, critical capabilities and activities for sustained value creation", *Long Range Planning*, Vol. 46 No. 6, pp. 427-442.
- Bell, M. and Giuliani, E. (2007), "Catching up in the global wine industry: innovation systems, cluster knowledge networks and firm-level capabilities in Italy and Chile", *International Journal of Technology and Globalisation*, Vol. 3 Nos 2/3, pp. 197-223.
- Canonico, P., De Nito, E., Mangia, G., Martinez, M. and Mercurio, R. (2012), "Meta-logistic operators as focal organizations in Italian logistic platforms", *IUP Journal of Supply Chain Management*, Vol. 9 No. 2, pp. 31-43.
- Cusmano, L., Morrison, A. and Rabellotti, R. (2010), "Catching up trajectories in the wine sector: a comparative study of Chile, Italy, and South Africa", *World Development*, Vol. 38 No. 11, pp. 1588-1602.
- de Reuver, M., Bouwman, H. and Haaker, T. (2013), "Business model roadmapping: a practical approach to come from an existing to a desired business model", *International Journal of Innovation Management*, Vol. 17 No. 1, pp. 1-18.
- Doloreux, D., Shearmur, R. and Guillaume, R. (2015), "Collaboration, transferable and non-transferable knowledge, and innovation: a study of a cool climate wine industry (Canada)", *Growth and Change*, Vol. 46 No. 1, pp. 16-37.
- Dubois, A. and Gadde, L.E. (2002), "Systematic combining: an abductive approach to case research", *Journal of Business Research*, Vol. 55, pp. 553-560.
- Dubois, A. and Gadde, L.E. (2013), "Systematic combining – a decade later," *Journal of Business Research*, Vol. 67 No. 6, pp. 1277-1284.
- Dyer, W.G., Jr. and Wilkins, A.L. (1991), "Better stories, not better constructs, to generate better theory: a rejoinder to Eisenhardt", *Academy of Management Review*, Vol. 16 No. 3, pp. 613-619.
- Giuliani, E. and Bell, M. (2005), "The micro-determinants of meso-level learning and innovation: evidence from a Chilean wine cluster", *Research Policy*, Vol. 34, pp. 47-68.
- Giuliani, E., Morrison, A. and Rabellotti, R. (2011), *Innovation and Technological-Catch-Up: The Changing Geography of Wine Production*, Edward Elgar, Cheltenham.
- Grandori, A. (2001), "Neither hierarchy nor identity: knowledge-governance mechanisms and the theory of the firm", *Journal of Management and Governance*, Vol. 5 Nos 3/4, pp. 381-399.
- Grandori, A. and Soda, G. (2006), "A relational approach to organization design", *Industry and Innovation*, Vol. 13 No. 2, pp. 151-172.

- Johnson, M.W. and Suskewick, J. (2009), "How to jump-start the clean economy", *Harvard Business Review*, Vol. 87 No. 11, pp. 52-60.
- Mintzberg, H. (1980), "Structure in 5's: a synthesis of the research on organization design", *Management Science*, Vol. 26 No. 3, pp. 322-341.
- Onetti, A., Zucchella, A., Jones, M.V. and McDougall-Covin, P. (2012), "Internationalization, innovation and entrepreneurship: business models for new technology-based firms", *Journal of Management and Governance*, Vol. 16 No. 3, pp. 337-368.
- Pezzillo Iacono, M., Esposito, V. and Berni, A. (2013), "Temporary project network and innovation: a research on Italian regional wine industry", *International Journal of Managing Projects in Business*, Vol. 6 No. 2, pp. 274-292.
- Pezzillo Iacono, M., De Nito, E., Esposito, V., Martinez, M. and Moschera, M. (2014), "Investigating the relationship between coordination mechanisms and knowledge in a wine firm", *Knowledge and Process Management*, Vol. 21 No. 4, pp. 280-291.
- Shafer, S.M., Smith, H.J. and Linder, J.C. (2005), "The power of business models", *Business Horizons*, Vol. 48, pp. 199-207.
- Smith, K. (2007), "Technological and economic dynamics of the world wine industry: an introduction", *International Journal of Technology and Globalization*, Vol. 3, pp. 127-137.
- Sydow, J. and Staber, U. (2002), "The institutional embeddedness of project networks: the case of content production in German television", *Regional Studies*, Vol. 36 No. 3, pp. 215-227.
- Teece, D.J. (2010), "Business Models, Business Strategy and Innovation", *Long Range Planning*, Vol. 43 Nos 2/3, pp. 172-194.
- Van Geenhuizen, M. and Soetanto, D.P. (2009), "Academic spin-offs at different ages: a case study in search of key obstacles to growth", *Technovation*, Vol. 29 No. 4, pp. 671-681.
- Van Maanen, J., Sorensen, J.B. and Mitchell, T.R. (2007), "The interplay between theory and method", *Academy of Management Review*, Vol. 32 No. 4, pp. 1145-1154.
- Voelpel, S.C., Leibold, M. and Tekie, E.B. (2004), "The wheel of business model reinvention: how to reshape your business model to leapfrog competitors", *Journal of Change Management*, Vol. 4 No. 3, pp. 259-276.
- Vrontis, D., Thrassou, A. and Rossi, M. (2011), "Italian wine firms: strategic branding and financial performance", *International Journal of Organizational Analysis*, Vol. 19 No. 4, pp. 288-304.
- Zott, C., Amit, R. and Massa, L. (2011), "The business model: recent development and future research", *Journal of Management*, Vol. 37 No. 4, pp. 1019-1042.
- Zott, R. and Amit, C. (2007), "Business model design and the performance of entrepreneurial firms", *Organization Science*, Vol. 18 No. 2, pp. 181-199.
- Zott, R. and Amit, C. (2008), "The fit between product market strategy and business model: implication for firm performance", *Strategic Management Journal*, Vol. 29, pp. 1-26.

### Corresponding author

Mario Pezzillo Iacono can be contacted at: [mario.pezzilloiacono@unina2.it](mailto:mario.pezzilloiacono@unina2.it)

---

For instructions on how to order reprints of this article, please visit our website:

[www.emeraldgroupublishing.com/licensing/reprints.htm](http://www.emeraldgroupublishing.com/licensing/reprints.htm)

Or contact us for further details: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)