

# Inclusive sustainable business practices in supporting dairy supply chains

Inclusive dairy supply chains

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## Abstract

**Purpose** – Food supply chains are facing significant changes and challenges coming from the need to adopt inclusive business practices and foster sustainable development. The current research aims to provide insights related to the inclusiveness of sustainable business practices of a dairy production co-operative where the smallholders are engaging with a traditional business mind-set. The purpose of the research is to deliver insights about the linkages between accounting and business practices in the adoption of an inclusive business model.

**Design/methodology/approach** – This research is based on the qualitative case study of a medium-sized production cooperative company operating in the dairy industry supply chain.

**Findings** – This study answers the call for research on accounting and control systems in the food sector, by exploring how management and control system is practised within contemporary supply chains. The research aims to analyse the contextual insights of managerial and organizational practices that facilitate inter-organizational relationships and coordination among actors that engage along the supply chain.

**Research limitations/implications** – The main limitation relates to the conditions of the time available and the limited number of interviews. Even if key actors were interviewed, a larger sample would have been more beneficial to the research. However, the lack of proper results for accounting tools and software access caused some loss to the research.

**Originality/value** – This paper emphasizes the effects of the “inclusiveness” of the sustainable business models between suppliers and leading companies by enhancing the sustainable business development within the supply chain, as part of a wider business model in the food sector from an inter-organizational perspective.

**Keywords** Food industry, Supply chain, Sustainable practices, Inclusive business models

**Paper type** Research paper

## Introduction

Over the past decades, the agri-food industry has been facing emergent challenges coming from increasing global competition and growing pressures for companies to adopt sustainable and inclusive business practices (Jambor and Babu, 2016). International norms and regulations on food security are proliferating hugely, in the attempt to ensure that social and environmental sustainability requirements are met while responding to global feeding needs (Validi *et al.*, 2014).

The agricultural sector is characterized by many small-, medium- and micro-sized firms, owned and managed by farmers-entrepreneurs. These firms mainly operate in a very competitive environment, where the globalization of the market, the reduction of trade

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barriers and the growing influence of food retailers challenge their survival. Small local suppliers and farmers need to respond to the complex demand coming from different segments of the supply chain, in terms of high hygienic and quality standards, growing local differentiation, full compliance to global production standards, food safety, food security and full traceability from the country of origin.

However, agri-food firms are slow at “modernizing”, as they lack technical and logistic skills, following low investment in training and new technologies. Aiming to face the existing and emerging challenges and exploit opportunities, agri-food entrepreneurs are required to change their mindset, from “inherited lifestyle” to become “businesspeople and accountants” and adopt a shared direction of doing business. To obtain a competitive advantage through production capacity, efficiency, technological innovation, information and knowledge sharing, farmers must diversify their activities, overcome barriers to development, negotiate better deals with suppliers and adopt innovative and sustainable business models (Sivertsson and Tell, 2015).

This research aims to analyse the contextual insights of managerial and organizational practices able to underpin the inter-organizational relationships and coordination among actors that engage in supporting the inclusive business models along the supply chain. We rely upon the case of Bella [1], a medium-sized cooperative production company operating in the dairy industry. The key strategy of the company is to deliver top-quality products combining tradition, experience and innovation by engaging with the local community. In our study, Bella is situated at the leading position of the supply chain, providing training, investments, guidelines and integrating within its inclusive business model the traditional business approaches of every single partner. We investigate the role of inter-organizational relationships and sustainable business practices in persevering inclusive food supply chain as well as the role played by sustainable business practices in presenting an integrated and inclusive view of the business model. We argue that these relationships provide for “sustainable and inclusive business practices”, i.e. the persistence of social, environmental and financial value creation thought out the entire supply chain. In this context, we discuss the role played by inter-organizational coordination and sustainable business practices as part of the “inclusive supply chain”.

The paper is organized as follows. Section 2 reviews the literature on business models as well as prior accounting studies in the food industry. In Section 3, we explain the theoretical framework, which draws upon the lens offered by the inter-organizational relationship approach. In Section 4, we explain the research methodology and introduce the background of the field study. The case study of Bella is analysed and discussed in Section 5. In Section 6 we discuss the case through the lens of inter-organizational approach. In Section 7, we highlight the key findings of the paper and the opportunities for future research.

## Literature review

### *Emerging business models in the food industry*

Following worldwide pressures towards sustainable growth and development, innovative business models are emerging in the food industry. These models aim to overcome the traditional approach to farming by relying upon new technologies, enhancing relationships across the supply chain (Tell *et al.*, 2016) and changing the farmer’s mind-set towards achieving cooperation goals through implementing local “strategic networks” (Berti *et al.*, 2017).

New business models are emerging as networks (Brinkmann *et al.*, 2014), involving the collaboration and coordination of several actors to improve production capacity, efficiency, technological innovation, information and knowledge sharing (Hussein *et al.*, 2016), as well as financial sustainability, long-term profitability (Bocken *et al.*, 2014) and better deals with suppliers (Zondag *et al.*, 2017).

New business models are emerging also in the form of hybrid organizations, which pursue economic, social and environmental goals at once (Boyd *et al.*, 2017; Battilana and Dorado, 2010; Tell *et al.*, 2016). A further aspect is being enhanced by the rise of sustainable business models, which are aimed at ensuring social, environmental and financial performance in the profit and non-profit organizations through a range of initiatives, such as minimizing the consumption of energy and water and the maximization of societal and environmental benefits based on collaboration and sharing mechanisms (Stubbs and Cocklin, 2008; Bocken *et al.*, 2014).

Along these lines, “inclusive business models” connect the supply chain to emerging markets (Schoneveld, 2020). They emphasize the inclusiveness, fairness, durability and financial sustainability of trading relationships between upstream actors, such as small-farmers and downstream actors, such as processors, retailers and exporters (Vorley *et al.*, 2009). As stated by FAO (2015), the “inclusive business model (IBM)” promotes the integration of smallholders into markets by underlying the principle that there are mutual benefits for poor farmers and the business community. The IBM includes linkages between traders, farmers, organizations, agri-food processors, retailers and contract farming. The inclusivity aspect is related to the linkages between smallholders, small enterprises by enhancing the partnerships that include benefits for smallholder groups and small value chain actors. The business aspect is related to the management and accounting practices implemented within the supply chain.

Whereas such innovative business models are providing relevant opportunities for small farmers to survive, they also involve several challenges. These struggles are related to the need to ensure long-term financial survival while sustaining social and environmental performance (Stubbs and Cocklin, 2008; Zott and Amit, 2010; Boons and Lüdeke-Freund, 2013). In line with previous research, additional studies have emphasized the role of innovative business models in achieving better performance in the food industry and throughout the supply chain (Sargiacomo *et al.*, 2016). As emphasized by Cantino *et al.* (2016), the performance and the success of companies in the agri-food sector and therefore of the supply chain is linked not only to the development of foreign markets but mostly to the size of the company. According to their research large companies “[. . .] address the public en masse and are not normally present in the raw materials sector (p. 131)”, while small and medium agri-food companies centralize their activities to protect the raw materials ensuring traceability and sustainability as to influence the company’s long-term competitive advantage.

Furthermore, innovative networks and inclusive business models are challenged by the distribution of power throughout the supply chain, where a small number of retailers and distributors play a dominant role (Clapp and Fuchs, 2009; Lee *et al.*, 2012). In this context, as suggested by Stevenson and Pirog (2008) strategic alliances may help to recover the uneven distribution of value at the front end of the chain. Further studies have emphasized the role of control inequity within network relationships in the vertical agri-food industry. Control acceptance is a key factor in developing successful collaborative and cooperative relationships in agri-food channels (Hingley *et al.*, 2010).

Another challenge relates to the co-existence of patterns of the competition alongside cooperative agreements (Chen *et al.*, 2015). According to Lyson *et al.* (2008), supply chains are “long term networks of partnering business enterprises working together to maximize value for partners and end customers.” These supply chains often are seen in the literature as “extended enterprises”, “virtual integration” “value-added partnerships”, “strategic network” (Dyer, 2000, p. 27), “integrated value systems” (Handfield *et al.*, 2002, p. 5). Agri-food companies increasingly combine horizontal cooperation with vertical agreements (Lyson *et al.*, 2008; Kot, 2018). A further challenge for innovative business models relates to information asymmetries between upstream and downstream actors across the supply chain. Responsibility, credibility and commitment may reduce asymmetries and support the implementation

of agreements and contracts between actors along the supply chain (Verbeke, 2005). However, how to build responsibility and commitment across the supply chain remains a challenging process (Busco *et al.*, 2006; Free, 2008; Robalo and Gago, 2017).

In line with the aforementioned aspects, a current aspect that is highly significant for the agri-food sector embraces the Covid-19 pandemic. During the COVID-19 pandemic, food safety and food security were the most affected pillars in the food system (Galanakis, 2020). Further challenges faced by food companies rely on logistics, shortages, disruption and transportation within the supply networks (Hobbs, 2020). These aspects have enhanced two crucial aspects: (1) the growth of the online grocery delivery sector and (2) the increase in preferences of consumers for the local food supply chain (Hobbs, 2020) thus increasing food resilience to adapt and protect consumers' and stakeholders' health and safety. Considering the last challenge, Mollenkopf *et al.* (2020, p. 1) have provided evidence from the rise of a new and emerging business approach, the transformative supply chain, which suggests the need to change the company's focus, "... from the traditional focus on goods towards understanding supply chain activities as a process with which to co-create value with customers". The current pandemic revealed a fundamental lack of resilience in the food supply chain, affecting not only short-term welfare losses but also the entire food system (Chenarides *et al.*, 2021). To face such struggles, scholars have identified a model of supply chain resilience, which supports firms in increasing the shareholder's value by keeping flexibility across supply chains. Scholars have demonstrated how a single-line firm fails to maintain resilience over time, while flexible firms remain sustainable. This highlights the change in the business model of companies, adapting and changing their "on-going" way of doing business, including within their business model the ability to switch between distribution channels. These firms are also valued higher by investors and stakeholders by generating and distributing value and having an important impact on the social, environmental and financial sustainability of the company and the sector overall.

The literature on business models reviewed in this section has highlighted major characteristics and challenges for the effective implementation of emerging business models. Aiming to address these challenges, a key role can be played by accounting and management systems.

#### *Accounting for food supply chain*

Prior accounting literature has analysed financial performance and value creation in the food industry. In this regard, prior accounting studies have demonstrated the role played by performance management systems (PMS) in managing the challenges of integration between producers and distributors in the food industry (Spence and Rinaldi, 2014; Busco and Scapens, 2011). By drawing on Spence and Rinaldi (2014) perspective, they explore the relationship between retailers and producers in the food industry considering the implementation of a decision-making tool, which aims to embed sustainability in the supply chain. In this research, they reveal the role of accounting in uncovering complex patterns of relationships between different stakeholders. They argue that sustainability can be used to foster disciplinary effects upon social and environmental goals. On the other hand, Busco and Scapens (2011) explore the role of PMS in aligning strategies between producers and distributors in the food industry. They demonstrate that PMS can be drawn upon as a common language informed by accounting and non-accounting measures to manage the tensions between vertical and lateral relationships, standardization and differentiation, centralization and decentralization in the food industry.

According to Bititci *et al.* (1997) and Aramyan *et al.* (2007), to improve the supply chain performance, there is a need to look outside the boundaries of individual firms within the chain. Therefore, an accounting and management system needs to integrate internal and

external aspects of performance into a cohesive system, because an integrated system enhances the information flow within and outside the chain and encompasses financial and non-financial indicators (Lohman *et al.*, 2004).

Other studies have emphasized that companies cannot operate in isolation and to increase performance and obtain a competitive advantage, companies must operate and collaborate in ecosystems (Kramer and Pfitzer, 2016). Such strategy is dictated by the need to establish alliances and networks aiming to create and share value, have an impact on the ecosystem and emphasize change. Such an approach will not only advance social progress but also will help to find economic opportunities that single business units lose. In this context, literature advocates that in recent years competition has moved from an inter-firm level to an inter-supply-chain level (Lambert *et al.*, 1998).

Studies reviewed above suggest that accounting and management systems can be drawn upon by different actors across the supply chain to manage tensions between different performance dimensions, as well as between the different groups of interests involved. Yet, limited research has focused on how accounting and management systems can be drawn upon by different actors across the supply chain to sustain innovative and sustainable business models, thereby ensuring long-term competitive advantage and co-operation. We argue, instead, that shared accounting in business practices and inclusive business model approach can play a relevant role in supporting actors involved in the food supply chain by helping them in securing long-term survival while managing emerging challenges coming from the complex patterns of relationships that underpin the supply chain.

### Inter-organizational relationship framework

Under the lens of the inter-organizational relationships' perspective, scholars have identified strategic intra-firm and inter-firm collaboration along the supply chain able to create value for the company and customers (Cao and Lumineau, 2015). As argued by Dekker (2016), while the intra-firm studies focus mainly on aspects related to individuals, practices and processes within organizations. On the other hand, the inter-firm studies focus mainly on aspects related to the management of collaboration with partner and supplier firms and management of partner behaviour.

The integration of supply chain aims to form strategic collaboration, share information and business practices, organize operational processes within the supply chain, thus identifying the inter-organizational relationships as the central activity in the supply chain (Dekker, 2004; Flynn *et al.*, 2010; Liu *et al.*, 2016; Zhao *et al.*, 2011). The inter-organizational relationship approach is considered a crucial part of the coordination system among partners within the supply chain. The coordination among partners can be based on informal networks, inter-organizational groups, co-ordinators, co-ordinating units, non-administered programs, lead organizations and single organizations (Alexander, 1993).

Considering the inter-organizational approach, firstly, it relates to competitive advantage. Scholars such as Dyer and Singh (1998) and Duschek (2004) have identified four determinants of inter-organizational competitive advantage as (1) relation-specific assets; (2) knowledge-sharing routines; (3) complementary resources and capabilities; (4) effective corporate governance. Secondly, concerning the effective governance of inter-organizational coordination, Bonatto *et al.* (2021) identify two distinct types of inter-organizational corporate governance: contractual and relational (Poppo and Zenger, 2002; Lumineau and Henderson, 2012; Cao and Lumineau, 2015). The former identifies the significance of contracts between companies and the established results that must be achieved, through monitoring and control of procedures, practices, duties and rights. The latter engages with the coordination of relationships within the supply chain partners. Moreover, both aspects are tightly connected to trust, commitment and co-operation relevance between the company and its suppliers (Skjoett-Larsen, 1999; Gold *et al.*, 2010). Trust is seen as "...

a company's belief that another company will take actions that will result in positive results for the company, in addition to not taking unexpected actions that would result in negative results for the company" (Anderson and Narus, 1990, p. 45). Commitment is seen as "... the willingness of a party/company to maintain a relationship through investments of financial, physical or relationship-based resources" (Wang et al., 2018, p. 1174), while cooperation as a consequence of trust is seen as "... complementary coordinated actions taken by firms in interdependent relationships to achieve mutual outcomes or singular outcomes with expected reciprocation over time" (Anderson and Narus, 1990, p. 45). Concerning the inter-organizational perspective, trust can contribute to the long-term stability of co-ordination and collaboration between actors within the supply chain, commitment can contribute to the development of alliances and partnerships; while co-operation and co-ordination help in catching the partners' goals and targets, thus helping the creation and overview of valuable relationships (Zhao et al., 2008; Free, 2008; Robalo and Gago, 2017).

Previous research has pointed out that the inter-organizational relations approach influences the strategic alliances among companies, influences the achievement of competitive advantage and increase of company's performance through factors such as responsibility, commitment, control, contractual and relational governance agreements and mutualistic conditions. We rely in our research on an inter-organizational relationship lens considering the mutualistic [2] characteristic of the company in our analysis. Such an approach demonstrates how mutual agreement, co-ordination in reaching the same goals and shared preferences can be considered a value-creating process and have a relevant impact on the company's performance and growth (Uddin, 2017; Qrunfleh and Tarafdar, 2014).

## Research method

### *Method*

In this paper, we rely on an interpretative case study approach in a qualitative research perspective in order to get an in-depth understanding of the issue under analysis that requires contextual insight into management and organizational processes (Schwandt, 1994). We rely upon a case study being the most suitable approach to understand management in practice (Scapens, 1990). This method is mainly used to cover aspects and bring to light the tensions that often develop around the use of accounting and allow scholars to understand how accounting inspires action (Ahrens and Chapman, 2006).

By relying upon the case of Bella, we investigate the role of inter-organizational relationships and sustainable business practices in persevering inclusive food supply chain as well as the role played by sustainable business practices in presenting an integrated and inclusive view of the business model. Hence, the case study examined will illustrate not only the business practices but also the perspective that provides a rich insight into the organizational and managerial practice and its consequences for decision-making.

### *Data collection*

As a data collection method, we draw our evidence from (1) semi-structured interviews, (2) artifacts such as reports, financial statements, official documents, press releases, minutes of meetings, informal records, personal notes and memos. Interviews were conducted at Bella factory and by skype-calls and lasted on average two hours each. The first set of interviews was carried out with the owner and Chief Executive Officer (CEO) of Bella and enabled us to collect preliminary information about the background of the company and experience, its history and strategy as well as more specific information about the business model at work and the main challenges related to its implementation. The second set of interviews was carried out with the controller and control experts, to understand the role of accounting practices at work. Finally, we conducted the last set of interviews with farmers, to compare

different views of the business model and the role of accounting and management systems. In doing so, we were able to learn different views about the business model and the role of accounting within their management systems.

Given the nature and the importance of the Bella Company, as well as the company's involvement within the latest changes and awareness of the sustainability issues, Bella offers a significant setting for our study. We investigate the role of management and business practices within the inter-organizational relationships in supporting inclusive business models for the food supply chain as well as the role played by business practices in managing the inclusive business as well as the challenges providing insights about a more integrated and inclusive view of the business model.

### *Data analysis*

Data analysis started with the identification of key actors involved in the inclusive business model, their complex patterns of relationship, and the main challenges. Considering the first phase of data collection, interviews were transcribed and field notes were collected and analysed. This phase allowed the evaluation of some important preliminary data, giving ideas and suggestions of what can be implemented, changed, improved and learned from. The further level of analysis was based on the careful and in-depth investigation of transcripts, annual reports, external records, field notes and presentations. This step allowed us to better investigate into the management of Bella's reality.

Data collection and data analysis are based on a relevant degree of reliability throughout a structured case study database based on all possible collected documents, internal reports, internal presentations, semi-structured interviews, field notes, interview records. The validation process of the collected data has been subject to a process of data triangulation (Modell, 2005).

## **Findings**

### *Company overview*

Bella [1] is one of the largest Italian production cooperatives for milk processing, and one of the major players of the Grana Padano Consortium [3]. The company manages approximately 2,200 partners supplying 98.60% of raw milk to the processing stables from 55,000 cows located 184 cattle sheds.

The company was established in 1900 with the main objective to offer quality products combining tradition, experience and innovation in the dairy industry. The president of Bella emphasized: *"The secret of our history and its longevity is right here, in the production cooperative, which, today as in 1900, works to give continuity and value to our tradition and future generations. Therefore, it is important to live in the present by planning the future of our suppliers and our employees, but above all by thinking about the future of our young people. A future that will always see us ready to face global challenges so that our extraordinary dairy tradition is increasingly appreciated, in Italy as well as in the world."*

Since its foundation, the company has seen and experienced many changes, challenges, difficulties and growth periods, where its commitment to the local territory, modernization, innovation, artisanal experience and traditional flavour allowed them to keep tight connections with its keen objectives. As part of the company's strategy, the company aims to maintain a short distance between the field and the production plant. From the beginning of its existence, Bella has had a strong commitment towards modernization with particular attention to hygiene and safety protocols. Therefore, Bella has adopted a controlled supply chain certification to check and trackback every step of the production process, from the feeding of animals to the distribution of products, thus guaranteeing the full traceability and security of products. Such a

strategy allows the company to keep track of all activities, business practices and efficient costs management. The strong point of the company's strategy has always been diversification and flexibility, which increasingly became an important element for the company's success.

#### *Bella's inclusive business model*

Bella is a dairy production cooperative company. From the last years, Bella is going through a phase of revision of its business model and development strategy by implementing an inclusive business model across the company, aiming to integrate traditional practices within a sustainable business model and analysing its reference markets, the main national competitors and the research of new opportunities for improvement. The general manager (GM) of Bella is pursuing a path of organizational and cultural renewal which over the next years which aims to consolidate the position acquired and achieve the operational excellence of the cooperative. *"The goal—explains the GM—is to achieve a reduction in industrial costs and an increase in revenues. The future vision of the company—is based on a few, but fundamental concepts: respect for traditions, respect for people, animals, and the environment, be proactive and innovative, continuously offer products that can satisfy even the most selective and attentive consumers"*. This underlines the view of the company in including its partners and suppliers into the company's business model by contributing to the redistribution of social, environmental and economic sustainability.

A strong principle that Bella pursues is responsibility and transparency: (1) *in cattle sheds*, by guaranteeing the welfare and health of animals, (2) *in the processing plants*, by guaranteeing that highest quality standards are applied, (3) *in the relationship with suppliers and customers*, by guaranteeing the best product.

Bella's business strategy is deeply oriented towards increasing products with higher profitability value, focussing on brand and product distinctiveness, service, reliability and sustainable productions that are made respecting people, the environment and animals. Considering the need to coordinate a range of activities along the supply chain at different stages and levels, Bella pursuit to redefine its business model and create different units which best suits business needs. The new strategy adopted by Bella provides evidence about the inclusion and the design of the accounting and management system, aiming at the consolidation of strong ties between suppliers and the leading company. In this way, planning procedures, measurement practices and business logic are shared among all actors within the chain. *"The advantage - still emphasizes the president - is not to be a mono-product company, but be able to attenuate the great oscillations in positive and negative of the markets and to give greater stability for the future. When Grana Padano, for example, is in crisis, the Group's performance remains on average attractive. The wellness derives from exports, where we are present in 60 countries worldwide. Again, not focusing all the business only on a few countries mitigates the risks and uncertainties related to political decisions, economic and health crises. Diversification also concerns the sales channel because the turnover is divided between retail trade, ho.re.ca (hotels, restaurat, cafe) and normal trade"*.

#### (1) Issues and challenges

Some difficulties concern the innovation and modernization processes adopted by small size farmers, investments needs for production plants, dimension, knowledge and skills. Although the leader company is engaged in sharing business practices, investments, technology and information with all its partner farmers, there are still concerns linked to the sharing of proper supportive practices. The management success of both, Bella and its farmers are co-ordinated and co-dependent, and there still needs to be more inclusive in business approach and share knowledge and innovation across the supply chain.

#### *Bella's accounting disclosure practices*

This research provides evidence on how business practices are shared among supply chain partners in encouraging the inclusive business model, focussing mainly on group

planning, monitoring and control of different activities, optimizing the use of resources, supporting the process of decision making and the performance evaluation process. The accounting and management systems within Bella relates to the internal accounting control practices shared among all partners, which includes all quantitative and qualitative data from financial and non-financial information. This disclosure data was analysed considering the Bella’s reports and communication to stakeholders.

(1) *Financial disclosure*

Bella within its disclosure data provided information related to financial information through the (1) *cost control systems* – by enhancing direct and indirect cost measurement; (2) *planning and control system* – by providing clear commercial and industrial budgets, to align present with future quantity needed and quantity of raw materials supplied by partners; (3) *financial reports and CEO statements* – by providing clear disclosure of economic situation of the company, underlying costs, revenues, investments, debts related to the current and previous years, thus having a continuous monitoring process of the company’s growth; and (4) *major Key Performance Indicators (KPI’s)* – by providing important indicators related to different areas or services within the company. All KPI’s presented by the company can be analysed considering the performance of each supplier. Some of the major KPI’s proposed by the company are disclosed in the following [Table 1](#):

(2) *Non-financial disclosure*

Bella within its disclosure information provides also non-financial information, related to social and environmental data. Considering the environmental data, Bella refers to the activities and actions implemented by the company to face the current environmental challenges and respond to norms and regulations. In line with this request, Bella has obtained International Organization for Standardization (ISO) certifications to comply with quality standards, ISO certifications that certify the full traceability of milk production, guaranteeing the “made in Italy standard” at every stage of the production process. One important step towards achieving environmental sustainability is given by the adoption of the Kyoto Protocol, which proves the implementation of a cogeneration system able to sustain the recycling energy, reduction of (1) water consumption by 40%; (2) electricity consumption by 8%; (3) methane gas by 15%, (4) the emissions of CO<sub>2</sub> by 10% and (5) carbon dioxide emission by 2,500 tons. Considering social sustainability, Bella has been part of a project “Quality products based on the conscious use of resources” promoted by Lombardy Region in the North of Italy, with the common goal to engage with the development of an integrated sustainable and quality supply chain. In this project were involved 12 out of 220 partners with the scope to pilot a program able to measure and evaluate digitally the sustainable performance of the local territory.

(3) Environmental Policy and Code of Ethics

The company is engaging with an Environmental Commitment Policy, where the 4 pillars of environmental engagement are proliferating. These pillars are (1) *use of renewable energy sources*; (2) *reduction of water consumption*; (3) *pollutant emission control* and (4) *use*

Turnover <sup>1</sup> CY-PY	New entries % CY-PY	Commissions % CY-PY
Quantity Kg Milk CY-PY	End of the year % CY-PY	Transport % CY-PY
Average price Kg Milk CY-PY	Promotional CY-PY	Margin % CY-PY

**Note(s):** <sup>1</sup> CY- current year, PY – previous year, Kg–kilogram

**Source(s):** Author’s own elaboration

**Table 1.**  
Major performance KPI’s

of low environmental impact equipment, plants and vehicles. This policy is providing an important approach to respect the environment and protect the agricultural territory. Bella shares its Environmental Policy and Code of Ethics with suppliers and partners, as main guidelines for achieving the environmental sustainability objectives that the company has set for itself and for the partners.

The commitment towards Food Quality and Territory is translated into specific choices responsibly applied to the entire production chain: from safeguarding the environment and animal welfare to sharing values with partners and consumers. As mentioned by the President of Bella “... *this is a new stimulating and challenging starting point, so much we have achieved but so much remains to be done. The theme of social, economic and environmental sustainability has been at the centre of our actions for years. Only with an integrated vision and oriented to the common good companies can have a future. The institutions do well to incentivize, through dedicated contributions, the sensitivity of companies to sustainability issues* ...”.

#### (1) Issues and Challenges

There are real concerns related to the innovation needs that must be adopted by companies. The small farmers are operating in a global market and mature dairy sector, with very low or close to zero economic margins. Farmers are struggling to introduce new products or innovative processes due to higher costs which often are not recognized by the market. However, Bella believes that it is ethically necessary to engage and implement pioneering solutions by contributing to mitigating the risk and reducing the environmental impact of the production. Bella has done a lot in coordinating and implementing inter-organizational relations among partners, but there is still room for improvement.

In this analysis, we highlighted the managerial and organizational practices able to underpin through the inter-organizational relationships the co-ordination among actors that engage in supporting the inclusive business models along the supply chain. In line with the theoretical constrains, we rely upon strategic intra-firm and inter-firm relations. Considering the strategic intra-firm relationships, the company is engaging with individuals as all suppliers are partners of the company, due to the mutualistic approach. The sustainable business practices and processes implemented rely on sharing business practices, investments, technology and information between partner farmers. The CEO affirmed that the small farmers grow together with the leading company in skills, technology, size and investments. However, there are still matters linked to the sharing of proper supportive practices. By drawing on the second perspective, the strategic inter-firm relationships, the company relies on the management of collaborative practices and the management of individual responsible behaviour, based on the adoption of the common Code of Ethics. The management success of both, Bella and its farmers are co-ordinated and co-dependent, however there is still the need to be more inclusive in sharing knowledge and innovation across the supply chain.

By considering the two types of inter-organizational corporate governance types, Bella relies upon both, contractual agreements and relational agreements. The former agreement enhances the contracts between the company with suppliers, retailers, processors. The latter agreement enhances the coordination among partners, which regards the quality and quantity of raw materials supplied to the production plants. Both types of corporate governance agreements are established by the mutual statute of the dairy production company, which highlights profit and non-for-profit characteristics of the co-operative company.

### Discussion

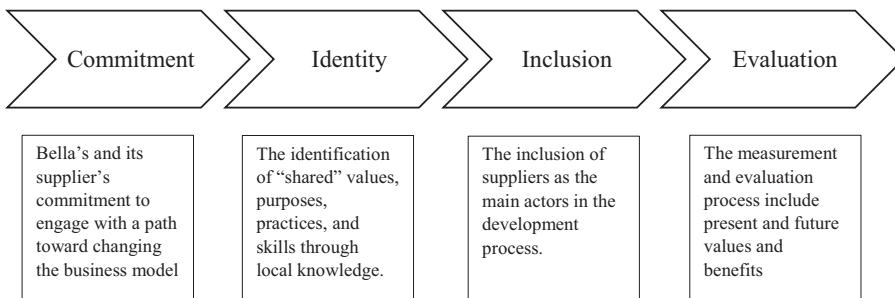
In this paper, we have focused on the insights of managerial and organizational practices able to underpin the inter-organizational relationships among actors that engage in supporting

the inclusive business models along the supply chain and the key role played by accounting and management systems in the co-ordination of farmers within a dairy supply chain.

The literature on business models and food supply chains we engaged in this research has mainly explored different approaches and archetypes of business model emphasizing mainly the inclusive business model critical aspects and challenges, thus highlighting the necessity to change the attitude of farmers, from “traditional approach to being business managers”. In this paper, by relying on emerging business model literature, we unveil that the integration of a traditional business model within an inclusive approach has the purpose to achieve business development, generate innovation, sustainability and resilience. In the case of Bella, managers have adopted a coordinated management system within their corporate governance by enhancing contractual and relational agreements between partners, through key pillars like modernization, sustainability and technology. Bella was able to innovate and integrate within its business model a range of sustainable factors that provided the inclusion of actors within the network, by involving its suppliers within the general process of planning and decision making. Table 2 provides the major insights related to the challenges and critical aspects that Bella faced during the process to reach the achievement of an IBM.

In line with the accounting and management practices adopted by Bella and by its suppliers, a major topic is related to the engagement with the digitalization of all the supply chains. The introduction of new technologies and management practices were essential to improve the environmental impact of agricultural production and livestock farming in the Bella supply chain, with important measured and measurable results. New agronomic and management practices, new Information Technology (IT) tools, an increasingly widespread sensitivity, have allowed a significant reduction in the use of drugs, fertilizers and health aids with an increase of monitoring over the factories, controlling costs and increasing efficiency. A great diffusion among Bella’s factories was the establishment of biogas and photovoltaic panels, which generated a large production of energy from renewable sources, having a consequent important reduction of CO<sub>2</sub> emissions into the atmosphere, effectively creating a common circular economy. Moreover, as stated by the CEO, “*The cooperative has implemented a plan to improve the efficiency of packaged milk, thus protecting the workforce and improving the environmental impact. Less plastic in the bottles and change of packaging, optimizing our production lines*”.

Considering, the main theoretical aspect, we rely upon “inter-organizational relationship” as referring firstly to the strategic of inter-firm and intra-firm relationships between Bella and its partners within the supply chain and secondly to the two different corporate governance



Source(s): Author's own elaboration

**Table 2.** Critical aspects for the achievement of an inclusive business model in Bella

types, mainly the contractual and relational (Bonatto *et al.*, 2021). Considering the strategic intra-firm and inter-firm relationships, Bella is engaging with people and individuals because all suppliers are partners of the company, due to the mutualistic approach of the co-operative. The sustainable business practices and processes implemented rely on sharing business practices, investments, technology and information between partner farmers. By drawing upon the second perspective, the strategic inter-firm relationships, the company relies on the management of collaborative practices and the management of individual responsible behaviour.

On the other hand, the contractual governance in the Bella case identifies the significance of contracts between Bella and its partners and the established results that must be achieved, through monitoring and control of procedures, practices, duties and rights. The relational governance enhances the engagement of Bella within the co-ordination of relationships along with the supply chain partners. Moreover, both aspects are tightly connected to responsibility, commitment and control relevance between the company and its suppliers as major critical aspects in achieving an inclusive business model.

In line with our case study, Bella has always considered its farmers to be an inclusive part of the company. The way Bella has developed its business model and has participated in the designing of its farmers' business model, reveal important consideration in line with the strategy for growth and development of the entire chain. As argued by the CEO, each partner grows in terms of skills and competencies, technology and size. Thus, farmers within Bella's supply chain provide certified resources which comply with high standards, ensure full traceability of products, maintain artisanal work by enhancing tradition, high quality and commitment to the local territory.

The case of Bella we relied on, has illustrated how within a multinational company can coexist both, traditional and inclusive business models. This approach allows the multi-national company to share knowledge, investments and innovation involving corporate control and monitoring of different phases along the supply chain. The main tool to consider when connecting growth and development to sustainability and innovation activities relies on the accounting and management practices, which represent a balanced set of aspects from productivity to performance of the supply chain. We investigated the role of inter-organizational relationships and sustainable business practices in persevering inclusive food supply chain as well as the role played by sustainable business practices in presenting an integrated and inclusive view of the business model. We argue that these relationships provide for the "sustainable and inclusive business practices", i.e. the persistence of social, environmental and financial value creation thought out the entire supply chain. In this context, we discuss the mediating role played by inter-organizational co-ordination and sustainable business practices as part of the "inclusive supply chain" because these relations emphasize the inclusiveness, fairness, durability and financial sustainability of trading relationships between upstream actors, such as small-farmers, and downstream actors, such as processors, retailers and exporters.

## Conclusions

This paper explores the contextual insights of managerial and organizational practices able to underpin the inter-organizational relationships and coordination among actors that engage in supporting the inclusive business models along the supply chain. We investigate the role of inter-organizational relationships and sustainable business practices in persevering inclusive food supply chain as well as the role played by sustainable business practices in presenting an integrated and inclusive view of the business model. We argue that these relationships provide for the "sustainable and inclusive business practices", i.e. the persistence of social, environmental, and financial value creation thought out the entire supply chain. In this context, we discuss the role played by inter-organizational co-ordination and sustainable

business practices as part of the “inclusive supply chain”. These aspects have emphasized the need for accounting and management systems to oversee and achieve the benefits of co-ordination and co-operation at the individual and organizational levels. We have underlined the new forms of collaboration between organizations in supply chains to achieve higher performance in fast-moving and dynamic environments.

The inclusive perspective allows Bella’s decision-makers to face challenges and difficulties while continuing the commitment to engage with local territory, innovation and artisanal experience. From the other side, such perspective provides integrated measures and an inclusive business model approach which allow farmers to design together with the leading company growth strategies and investments plans. Over the years, the important outcomes emphasized by the management systems managed to achieve important investments, increase planning and control strategies for factories’ growth, knowledge transfer, modernization of departments, warehouses, plants and machinery. The main consequence of this extension gave rise to an increase in product differentiation, exportation, hence conquering a leading position on the market, offering highly sustainable and quality products.

This paper emphasizes the effects of “inclusiveness” of business models between farmers by enhancing the sustainable business development within the supply chain, as well as the importance of the role of accounting and management system in managing the complex managerial structures within the organization as part of wider business models in the food sector. These models are highlighted as comprising a complex inter-organizational relation and are deeply involved in the creation of added value, strong coordination relations, therefore focussing on the achievement of competitive advantage, economic, social and environmental sustainability and long-term survival across the food value chain.

The empirical evidence presented and discussed in this paper refers to a small company. However, the findings of our research paper can be extended to projects and practitioners on larger scales that need to achieve social, environmental and financial sustainability. Our findings confirm previous studies on the necessity to transform the traditional business model into a more inclusive one, emphasizing that companies cannot operate in isolation, they need to increase their performance and obtain a competitive advantage, companies must operate and collaborate in ecosystems, share tangible and intangible value as the primary source of achieving competitive advantage, increase performance and ensure economic growth to all partners. Considering the current struggles emphasized by the post-COVID-19 pandemic, companies require the co-existence of a deeper relationship between supply chain farmers, where inclusion and integration play a crucial role in logistics, food safety and security, traceability of production process and transparency in reporting and management practices. Finally, companies and social organizations play a crucial role along with accounting and management practices, in supporting the inclusive business model of agri-food supply chains in fostering the adoption of sustainable practices focussing on the safeguarding of the territory, the environment and ensuring fair and equal shared value among farmers.

#### *Limitations of the study*

This case study aims to analyse a production co-operative organization in the dairy industry and share with scholars and practitioners the best practice of an organization’s management practices. The context was refined on how a company can design and implement an inclusive business model and integrate within it the traditional experiences of artisanal farmers to differentiate its products and services, by offering the best quality product to consumers and better deal to farmers. In this regard, this paper shed light on many different issues for understanding the most important business changes, critical aspects that a company faces during the process to achieve of an IBM. However, being a single case study, it has no aim to generalize the results, rather it has the aim to share and exchange the case-specific knowledge

with the literature and practitioners. The main limitations relate to the conditions of the time available and the limited number of interviews. Even if key actors were interviewed, a larger sample would have been more beneficial to the research. However, the lack of proper results for accounting tools and software access caused some loss to the research.

In line with this, further research can be implemented to understand the use of accounting and management systems in the relationship between performance measurement and strategy and how these relations change in the dynamic environment. Moreover, a different research theme can focus on the different types of relationships along the supply chain (bilateral, multi-lateral, direct and indirect) and how these relations are managed by the different actors and the role of accounting and management systems in these processes.

### Notes

1. Bella is a pseudonym used for reasons of confidentiality.
2. Mutual companies are mutual societies which fall under the protection of the National Constitution, as they are entrepreneurial activities whose existence is based on co-operation and mutual help. Mutual companies are types of companies whose purpose cannot be for profit, but must be to provide members with advantages, it can be the sale of goods, work, services at advantageous conditions compared to those usually practiced on the market.
3. Grana Padano Consortium – is the union of producers, cheese maturers and retailers to preserve the originality and high-quality standards of the cheese.

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