There are no doubts at all that Agribusiness activities and Food are on the political agenda of any country in the world, as well as on the tables of many supranational organizations, as a pivotal point for the future of human beings. According to the World Bank 2016 Report on Enabling the Business of Agriculture, “the challenge of feeding a world population of 9 billion people by 2050 can be met only through vibrant, productive, profitable and sustainable food and agriculture sectors” (World Bank Group, 2016, p. VII). Indeed, in the last decade the growing international debate on the Agribusiness sector and Food industry witnesses the increasing concern on the different issues pertaining to economic sustainability, innovation, accounting, quality, management, safety, etc... (e.g.: FAO, 2016; WFP, 2016), whose different perspectives cannot allow to concurrently answer to all the main questions, as per their paramount importance for the future of the planet.

By adopting a managerial and accounting perspective, in this volume we seek to provide some answers to specific issues related to the wine, chocolate, coffee, diary, poultry and beekeeping industry, at the same time paying attention to financial statement analysis of the existing companies in the broad Mediterranean area, as well as to the propensity of earnings manipulation of EU agribusiness companies vis-à-vis US based industries.
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There are no doubts at all that Agribusiness activities and Food are on the political agenda of any country in the world, as well as on the tables of many supranational organizations, as a pivotal point for the future of human beings. According to the World Bank 2016 Report on *Enabling the Business of Agriculture*, “the challenge of feeding a world population of 9 billion people by 2050 can be met only through vibrant, productive, profitable and sustainable food and agriculture sectors” (World Bank Group, 2016, p. VII). Indeed, in the last decade the growing international debate on the Agribusiness sector and Food industry witnesses the increasing concern on the different issues pertaining to economic sustainability, innovation, accounting, quality, management, safety, etc. (e.g.: FAO, 2016; WFP, 2016), whose different perspectives cannot allow to concurrently answer to all the main questions, as per their paramount importance for the future of the planet.

In this volume we use an accounting and managerial perspective to analyse different issues related to the agribusiness industry. Therein, it is interesting to note that in the last decade there has been an increasing attention in the managerial and accounting research agenda of agriculture, food and agribusiness industry (e.g.: Bell and Shelman, 2011; Quinn, 2014; Walker, 2014, Messeni Petruzzelli and Svejenova, 2015). Indeed, whilst much time has passed since prior sporadic studies in this field of research (e.g., Maxwell, 1946; Cribari, 1953; Freear, 1970), a continuous flow of new research has emerged in the last years (e.g.: Consorti et al, 2016; D’Amico et al, 2016; Shelman et al, 2016; Slavich and Castellucci, 2016).

By adopting a managerial and accounting perspective, in this volume we seek to provide some answers to specific issues related to the wine, chocolate, coffee, dairy, poultry and beekeeping industry, at the same time paying attention to financial statement analysis of the existing companies in the broad Mediterranean area, as well as to the propensity of earnings manipulation of EU agribusiness companies vis-à-vis US based industries.

In particular, De Micco, Fabietti, Maraghini e Riccaboni, initially stress the pivotal relevance of agriculture and food in the global agenda of the future. In a related manner, in light of the current global economic, social and environmental scenarios, they investigate the main issues related to agriculture and food in the Mediterranean area. The
co-authors then illustrate a macro-economic analysis of the agri-food sector. Moreover, by analysing the aggregated financial statements of the companies, it is later provided a thorough accounting-based examination of the sector, focusing either on the Mediterranean area and on the Italian economy. The main future challenges of the Mediterranean agri-food companies are finally portrayed, thus concluding the opening chapter.

In chapter 2 Francesco De Luca and Francesco Paolone provide a portrayal of the different trends of the probability of accounting manipulation within the agribusiness industry with respect to US and EU-based companies. By adopting the Beneish Model (1999, 2013), and at the same time exploiting the *Orbis Bureau Van Dijk* database, the co-authors have tested the existence of earnings management (EM), at the same time ascertaining whether there is a relation between accounting standard adoption (US GAAP or IFRS) and EM propensity. Whilst EU-based companies (adopting IFRS) seem to be more inclined to earnings management, US-based companies (using US GAAP) show – on average – lower probability of earnings management. Empirical evidences can be explained by the different respective provisions, thus allowing to conclude that IFRS adoption leaves more space for earnings manipulation than US GAAP.

Paola Signori and Massimo Sargiacomo in chapter 3 offer an overview of the main features of the global wine industry, at the same time highlighting how firms are facing pivotal challenges in an increasing global scenario. Starting from a precise portrayal of the main primary and secondary activities which compose the value chain in the wine industry, the chapter highlights how to build up an effective cost accounting architecture in a small-medium size wine company. By so doing the main accounting issues related to stock management are also illustrated. The way to achieve an effective supply chain integration in the wine industry is subsequently explained, thus concluding the chapter by depicting the contours of innovation and experimentation as main pivotal elements for the survival and re-launch of the wine business in all the world.

In Chapter 4 Valter Cantino, Simona Alfiero, Massimo Cane and Paola De Bernardi seek to highlight the main features of the chocolate industry, which is often described by many influential commentators as a “recession proof” sector. The co-authors illustrate the industry’s environmental perspectives and competitive trends, at the same time focusing on the historical and traditional Piedmont district. After having portrayed the main features of Italian and international market, it is adopted the business model Canvas in order to analyse the the cocoa-chocolate value chain, and highlight the main factors which enable the sector’s companies to generate economic and social value for all their stakeholders. The chapter is concluded by the investigations of some case-studies of chocolate businesses.

Massimo Pollifroni, Elisa Giacosa, Damiano Cortese and Simona Fiandrino in chapter 5 seek to enhance an understanding of the coffee sector, by unveiling how supply chain management could create added value for micro-companies. The co-authors aptly explain how the coffee sector is one of the most important industries in some countries
– Italy included – where it represents a pivotal source of development, growth and economic sustainability. After the contextualization step, it is proposed a conceptual model aimed at illustrating an approach to SCM in coordinated networks of micro-sized companies belonging to the coffee sector. Findings are thus elaborated and presented, as well as conclusions and implications of the study.

Ilenia Confente and Paola Signori in chapter 6 provide an overview of facts and trends in the global dairy industry, paying particular attention to the Italian scenario. Customer value and buying power are consequently analyzed, in order to better highlight the main features of the dairy supply chain structure, at the same time elucidating how trends, preferences, managerial and relational abilities are concurrently mounting successful approaches. Co-authors have then investigated sustainability issues, as per the paramount relevance and implications they have for managerial decisions and business models. International marketing strategies and digital marketing are conclusively explained, thus portraying how they can be successful deployed to the specific product categories.

In Chapter 7 Christian Corsi and Daniela Di Berardino have thoroughly explored the evolutionary path of the poultry sector, which in the last two decades has witnessed a transformation from a constellation of small- and medium-sized rural forms of production into a broader industrialization and strong vertical integration, thus fostering economies of scale of a small number of strong competitors. The operational characteristics of the supply chain are thus investigated, devoting much attention to the cost drivers and profitability of the primary actors. The criteria for determining the costs of supply are thus illustrated, at the same time providing evidences either of the products diversification and about the value chain features. The chapter is concluded by the study of an interesting business case.

Tiziana Di Cimbrini and Stefania Migliori in chapter 8 focus their investigation on food safety and quality management in beekeeping. The co-authors initially describe the principles of Hazard Analysis and Critical Control Point – whose methodology is referred to by various organization as the system of analysis and control of health risk associated with a food product – at the same time illustrating the main barriers which hamper its successful application to the beekeeping industry. They subsequently provide a comprehensive examination of the ADI Apicoltura case – which is a SME operating in the beekeeping industry – at the same time illustrating how HACCP may represent a pivotal tool to become familiar with TQM Conclusions are addressed to provide some reflections on the key-factors guiding to success in the HACCP implementation, as well as on its contribution to the competitiveness of the investigated firm.

Pescara, 29 September 2016

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References


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There is little doubt that agriculture and food represent two of the most discussed topics in the debate on the future of human development on Earth. As also highlighted by the series of international events that have taken place during the past year, issues such as food safety, security and sustainability have been increasingly challenging the capability of all social actors to cope with more and more discouraging global socio-economic and environmental trends. This is particularly true with reference to agri-food companies, especially those operating in the Mediterranean area, where the sector is a pillar of the majority of the economies and, consequently, in Italy, where the sector remains a vital component of a generally stagnant national economy. Given this premise, the purpose of this chapter is to provide an overview of the agri-food sector in the Mediterranean area. In particular, after a brief introduction in paragraph 1.1, paragraph 1.2 analyzes the main issues related to agriculture and food for the Mediterranean area in light of the current global economic, social and environmental scenarios. Then, after having presented a macroeconomic analysis of the agri-food sector in the Mediterranean area and in Italy in paragraph 1.3, paragraph 1.4 provides an accounting-based examination of the sector in both the Mediterranean basin

1 This chapter is the result of a joint effort by the authors who share its formulation. However, the writing of the specific sections was divided as follows: Angelo Riccaboni wrote paragraph 1.1; Giacomo Fabietti (corresponding author) wrote paragraphs 1.2, 1.4; Patrice De Micco wrote paragraph 1.3. The conclusions are to be attributed to all authors.
and the Italian economy, through an aggregated financial statement analysis on the companies operating in the sector. Finally, paragraph 1.5 concludes the chapter with some remarks highlighting evidence arising from the chapter and main future challenges for Mediterranean agri-food companies.
In conclusion, evidence provided by the chapter suggests that technological innovation, despite being important, is not sufficient to overcome problems undermining the full deployment of the potential of the agri-food sector. A key role, on the contrary, will also be played by organizational and management innovation (which can contribute to manage technological innovation in day-to-day activities) and, above all, by cultural innovation, as a means to change the way businesses perceive the pursuit of higher quality, safety and sustainability of food production. This, therefore, calls for accounting and management studies to strengthen research efforts, in the awareness that, given the multidimensionality of food and sustainability issues, they will have to establish a closer collaboration with other disciplines.

References


BUSCO C., RICCAVONI A. (2003), Knowledge management e integrazione di culture: il ruolo del controllo di gestione, proceedings of the XXVI AIDEA national congress.


BUSCO C. (2002), Sistemi di controllo e cultura aziendale. CEDAM, Padua.


CIHEAM (2012), Final declaration. 9th meeting of the Ministers of Food, Agriculture and Fisheries of the Member Countries of CIHEAM, Valletta, 27 September 2012.


FAO, WFP, IFAD (2012), The State of Food Insecurity in the World 2012. Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition. Rome, FAO.


SKURAS D., PSALTOPoulos D. (2012), *A broad overview of the main problems derived from climate change that will affect agricultural production in the Mediterranean area*. FAO/ OECD Workshop: Building Resilience for Adaptation to Climate Change in the Agriculture Sector, 23-24 April 2012. Rome, FAO.


Earnings Manipulation in the Agribusiness Industry: Evidence from US and EU Listed Companies

Francesco De Luca, Francesco Paolone

Accounting manipulation has been the subject of accounting discussions across the world, especially during times of financial crises. This article investigates the different trends of the probability of accounting manipulation within the agribusiness industry with respect to US and EU-based companies. We will be referring to the Beneish Model (1999, 2013), while using the Orbis Bureau Van Dijk database. We will be testing the existence of earnings management (EM) and comparing the final scores from US and EU companies along a trend line in order to assess whether there is a relation between accounting standard adoption (US GAAP or IFRS) and EM propensity. Main findings have shown that EU-based companies adopting IFRS appear to be more inclined to earnings management; while, on the contrary, the probability of earnings management tends to be lower for US-based companies adopting US GAAP on average. This could be explained by considering the different provisions under IFRS and US GAAP for agribusiness companies. In fact, accounting for EU agricultural producers is based on IAS 41-Agriculture, whereas companies adopting US GAAP should follow the Financial Accounting Standards Board Codification 905 guidance. Such preliminary analysis has allowed us to argue that, ceteris paribus, IFRS adoption leaves more room for earnings manipulation than US GAAP.

1 The chapter is the result of a joint effort by the authors who share its formulation. However, the writing of the specific sections has to be divided as follows: Francesco De Luca (corresponding author) paragraphs 2.1, 2.2, 2.6; Francesco Paolone paragraphs 2.3, 2.4, 2.5.
Learning objectives
After reading this chapter you should be able to:
• Understand which are the main differences in agribusiness accounting within the IFRS and US GAAP frameworks;
• Understand how it is possible to assess the probability of earnings manipulation for a company;
• Find which accounting environment (IFRS or US GAAP) is more inclined to earnings management within the agribusiness industry.
Summary

This study investigates the different trends of account manipulation probability within the agribusiness industry with respect to US and EU-based companies. We adopted the Beneish Model (1999, 2013) and we tested the existence of earnings management (EM) by comparing the final scores from US and EU companies along a trend line in order to assess whether there was a relation between accounting standard adoption (US GAAP or IFRS) and EM propensity. By considering the threshold of -1.78 (Beneish et. al, 2013), we observed that in the European environment, only in 2008 and in 2014, the average of M-Score of the considered sample was lower than -1.78: it follows that, in other years, the average scores were higher than -1.78 and that there was more propensity to manipulate accounts. The percentage of potential manipulator companies was lower than 50% only in 2007, 2009, 2010, and 2011 and in this sense we can affirm that, under IAS 41, adoption risk of EM practices is quite diffused. On the contrary, the analysis of the US environment, showed a different evidence. In fact, only in 2008 the average M-Score (5) appeared higher than the cut-off value, while for all other years the average scores were under the threshold. It follows that in the US GAAP environment, ceteris paribus, there is a lower risk of EM practices within the agribusiness industry. In conclusion, findings have confirmed that ASC 905 guidance is more conservative than IAS 41 and appears to leave less room for EM practices. We argue that, instead, fair value accounting for agriculture assets and produce leaves more room for preparers of financial reporting carrying on EM practices.

References


FINANCIAL ACCOUNTING STANDARDS BOARD (FASB) (2009), *Accounting Standard Codification Section 905 Agriculture*. FASB. Norwalk, CT.


This chapter offers an overview of the main features of the global wine industry, at the same time portraying how firms are facing pivotal challenges in an increasing global scenario. The chapter illustrates the main primary and secondary activities which compose the value chain in the wine industry. In a related manner, it is explained how to build up an effective cost accounting architecture in a small-medium size wine company, at the same time disclosing the main accounting issues related to stock management. The chapter subsequently highlights how to achieve a supply chain integration in the wine industry, and finally depicts the contours of innovation and experimentation as pivotal elements sustaining the survival and re-launch of the wine business in the world.

Learning Objectives:
This chapter covers the following topics:
• Value chain in the wine industry
• Supply Chain Management;
• Cost Accounting architecture in the wine industry;
• Main Accounting issue in stock management;
• Innovation and Experimentation styles;
• Supply chain orientation and design.

1 The chapter is the result of a joint effort and formulation. Nevertheless, Paola Signori (corresponding author) wrote sections 3.1, 3.5, 3.6 and 3.7, while Massimo Sargiacomo wrote sections 3.2, 3.3 and 3.4.
Chapter 3

Value-based approaches provide a better evaluation of value drivers that affect overall revenues, costs of goods sold, expenses, and assets (Rappaport, 1987). Activity-based costing offers a financial and performance view of the processes and activities comprising the supply chain (Pohlen, 2005). In the wine business, firms typically interact with many others, dealing in multiple supply chains with numerous suppliers and customers, so that internal measures are not sufficient to reflect the real complexity of the broader value chain.

Recognizing the potential benefits of supply chain integration, in the future we will see more collaboration in wine supply chains, to work on improvements in both efficiency and effectiveness in wine distribution (Flint et al., 2016). Innovations in supply chain design and management will enable markets to be reached at costs never seen before. Wineries will work with partners, taking advantage of recycling and reverse logistics. Moreover, partnership will become better in information and data sharing to advance value chain accounting techniques.

Unfortunately, around these topics very few best practices can actually be found in this industry, mainly famous for other managerial strengths. Despite this and other contributions, which have covered important accounting and supply chain issues, practitioners still need more wine industry-related research following these lines of investigation: supply chain metrics linking performance with shareholder value; cost accounting and activity-based management; balance scorecard; stock and management issues; and dynamics and trends of supply chain innovation.

Although we hope that this chapter can represent a new beginning toward those directions, the above mentioned topics seem to deserve more attention from the academic community in the near future.

**Summary**

The purpose of this chapter was to offer an overview of the global wine industry, to describe its challenges and how firms and their leaders are addressing the opportunities created by them, at the same time covering different issues about supply chain integration, related accounting perspectives and value chain analysis. In particular, we offered a focus on wine value chains, to understand primary and secondary sources of value, and to discuss related accounting issues and techniques. After presenting the wine value chain, this chapter also emphasized the importance of upstream and downstream integration, horizontal collaboration and clustering strategies as potential drivers of value. Innovation forms and styles, supply chain design
potentials, and some insights around sustainability are finally introduced to complete the discussion.

References


SPANO F.M. (2010), L'economia delle imprese vitivinicole, Milano: Giuffrè.


---(2015), Scheda di settore della Filiera Vitivinicola (21/10/2015), ISMEA, Retrieved from www.ismea.it


---(2016), Supply Chain definitions and glossary of terms, Council of Supply Chain Management Professionals, CSCMP, Retrieved from www.cscmp.org
This chapter is the result of research carried out in the chocolate sector and its main aim is to illustrate the most important features of an area that is frequently described as “recession-proof”. Products are characterised by the “lipstick” effect because consumers are prepared to give up most luxuries in an economic crisis, but not chocolate. In fact, chocolate sales have seen continual growth over the last few years. This research aims to comprehensively outline the sector through analysis and study of the “chocolate industry”. It will illustrate the industry’s environmental prospectives and competitive trends both at international and national level, while rounding up the data with an in-depth look at the historical and traditional district in Piedmont. With this in mind, we will use the framework interpretation represented by the business model Canvas to highlight the cocoa-chocolate value chain with its standard processes and relative incisive factors for success. These factors - key resources, key partners, key activities, etc. - allow the companies of this sector to create economic and social value for all their stakeholders. We will conclude by illustrating some case studies of chocolate businesses that represent different parts of the chocolate value chain and therefore have distinct and specific degrees of vertical integration and horizontal concentration.

1 The chapter is the result of a joint effort by the authors who share its formulation. The authors are Valter Cantino, Simona Alfiero, Massimo Cane, Paola De Bernardi.
We hope that this chapter will contribute to the reader’s knowledge of this apparently mature sector which has thousands of years of history and a value chain which has undergone fundamental changes in recent years and which has a strategic role in the global and local economic market.
Summary

Its characteristics of being a popular product nationwide and the peculiarities of its companies, make the chocolate sector a worthy subject for research and analysis aimed at highlighting evolving trends and understanding the distinctive factors for success, through business case studies.

In the first part of this study, evolving trends concerning supply and demand have been analysed. This brought to light how the dynamics of the chocolate market and the relative companies have been characterised by a continual evolution over the last ten years.

Up until 2000, chocolate consumption and manufacturing were mostly concentrated in Europe and North America. In the last ten years, however, a new trend in consumer and production models has been recorded. As far as demand is concerned, new consumer markets have developed in South America, Asia and Arab countries, which represent the new frontiers of chocolate-manufacturers, able to counterbalance the slowing down of traditional markets like Europe and North America.

Selling abroad and consequently being present on rapidly developing foreign markets therefore represents one of the first factors of success for companies in the sector. Another factor for success is represented by the size of the
company and its position in the complex chocolate value chain. Depending on size, companies position themselves differently along the value chain. Large companies who address the public en masse are not normally present in the raw materials sector, but they are present in semi-finished products. Small to medium sized enterprises concentrate on the selection and safeguarding of top rate raw materials. In fact, this sometimes happens following their purchase of a cocoa plantation, so they can offer a first class product with a premium price policy. Traceability, sustainability and use of new communication tools and product sales online also represent factors able to influence the company’s chances of long-lasting success.

References


CAMERA DI COMMERCIO INDUSTRIA ARTIGIANATO E AGRICOLTURA DI TORINO, La produzione di cioccolato e la lavorazione del caffè nelle imprese piemontesi, 2016.


INTERNATIONAL COCOA ORGANIZATION, *The chocolate industry*.


MARKETLINE, *Chocolate Confectionery in Italy*, 2015.


5

The Coffee Sector: how the Supply Chain Management creates added value for micro-companies

Massimo Pollifroni, Elisa Giacosa, Damiano Cortese, Simona Fiandrino
Chapter 5

not distinguish between companies based on age or status of family businesses, which could impact both on the company and their stakeholders’ needs. Each company’s individual characteristics may influence which SCM mechanisms they apply. In addition, we only focused on the coffee sector, due to its being representative. Future research could improve the proposed model by firstly distinguishing between different types of companies and, secondly, by comparing the coffee sector to others regarding emerging different features and their impact on applying the SCM.

• The model’s validity: our model has not been tested empirically as the purpose of this research was the creation of a conceptual model. However, its empirical testing will be the purpose of future research. In fact, it will be important to carry out an empirical analysis and take multiple case studies or examples from the analyzed sector.

References

BELL D. - VALENTINE G. (1997), Consuming Geographies: We Are Where We Eat.


Caiazzza R. (2015), Explaining innovation in mature industries: evidences from Italian SMEs, Technology Analysis & Strategic Management, 27(8), 975-985.

Camera di Commercio, Industria, Artigianato e Agricoltura di Torino (2016), La produzione di cioccolato e la lavorazione del caffè nelle imprese piemontesi, Torino.


Carr M.K.V. (2001), The water relations and irrigation requirements of coffee, Experimental Agriculture, 37(01), 1-36.


COURVILLE S. (2003), Use of indicators to compare supply chain in the coffee industry, Greener Management International, (43), 93-105.


Industrial Marketing Management, 29(1), 65-83.


Marketline Industry (2015), Hot Drinks in Italy, Marketline industry, London.


Pollifroni M. (2010), Green Public Accounting. Profili di rendicontazione ambientale per un’azienda pubblica responsabile e sostenibile, Giappichelli, Torino.


Creating Value within the Dairy Supply Chain

Ilenia Confente, Paola Signori

This chapter focuses on the dairy sector and it aims to point out some important topics that are linked to the marketing and the supply chain within this industry. In the introduction, this contribution strives to provide an overview of facts and trends in the global dairy industry, with particular attention to Italy. Next, important concepts concerning customer value and buying power are discussed in order to better understand the dairy supply chain structure and how trends, preferences, managerial and relational abilities are driving successful approaches.

Another section is dedicated to sustainability issues, which also are drawing increasingly attention to this industry, as one of the core value affecting managerial decisions and business models. We will conclude by discussing some implications of international marketing strategies and providing some insights about how digital marketing can be applied to these product categories.

Learning Objectives:

This chapter covers the following topics, all related to the dairy industry:

- Facts and trends in the dairy industry
- Value and power in the dairy supply chain
- Dairy products and consumer preferences
- Ecosystem services and sustainability
- International marketing
- Digital marketing and co-creation

The chapter is the result of a joint effort and formulation. Nevertheless, Ilenia Confente (corresponding author) wrote sections 6.2, 6.4 and 6.6, whilst Paola Signori wrote sections 6.1, 6.3 and 6.5.
Chapter 6

The big challenge for companies is to understand and meet customers’ needs and wants. Marketing communication plays an important role in affecting consumers’ behaviour and preferences. Its effect has been enhanced thanks to the advent of Web 2.0 that has allowed and promoted the interaction and co-creation of contents by users. Social media communities represent the right context where consumers can share their word of mouth about personal dairy consumption and preferences. Digital marketing analysis now represents a real time updated source of information useful for innovation.

Summary

This chapter opens with an overview of the trends regarding supply and demand for dairy products. There are different resources and factors that can be taken into account when considering the competitive environment of the dairy chain. A high degree of integration among dairy chain partners, a high level of know-how in the industry and a high degree of supply differentiation to meet customer needs represent key factors to enable dairy companies to succeed in their markets. Effective supply chain management can help companies to link and synchronize actors and activities involved in producing and delivering milk and dairy products to the final consumer. Moreover, service-orientation, sustainability and the adoption of modern communication tools represent other factors that can help companies to gain and maintain a competitive advantage on a global scale.

References


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KAPLAN A. M. (2012), *If you love something, let it go mobile: Mobile marketing and mobile social media 4x4*, Business horizons, 55(2), 129-139.

Signori P. - Flint D.J. (2016), Digital Marketing Innovations and their role in service ecosystems, the exchange of value and social impact, Conference Proceeding of the XXVI International RESER Conference, Naples.
Vitaliano P. - Ifamr I. (2016), Global Dairy Trade: Where Are We, How Did We Get Here and Where Are We Going?, EVERY GENERATION NEEDS ITS LEADERS., 27.
The chapter analyzes the structural characteristics of one of the most self-sufficient and greatest GDP contributors in the agri-food sector: the poultry industry. Various factors, both institutional and market-related, have affected the profitability and the structure of the sector in the last two decades, resulting in a substantial abandonment of small and medium-sized rural forms of production in favor of broader industrialization and strong vertical integration, which has favored the increase in economies of scale. The first part of the chapter explores the evolutionary path of the poultry sector, focusing on the factors and strategies that have enabled enterprises to overcome repeated crises, by recovering a part of their profit margins. The operational characteristics of the supply chain are then analyzed, with particular regard to the cost drivers and profitability of the primary actors in the supply chain. The second part of the chapter explores the transformation process of the poultry industry, as well as the economic benefits of the processing industry and the criteria for determining the costs of supply. Additionally, evidence of the diversification of the products and of the features of the value chain is given. The analysis is completed with the study of a business case, an example of Italian excellence in the poultry sector. The chapter concludes with the authors’ remarks on the future prospects of the sector.

1 The chapter is the result of a joint effort and formulation. Nevertheless, Daniela Di Berardino wrote sections 7.1 and 7.2, whilst Christian Corsi (corresponding author) wrote sections 7.3, 7.4, 7.5 and 7.6.
Learning objectives

After reading this chapter you should be able to:

- Understand the structure and the strategies of the poultry industry;
- Understand the cost allocation criteria in the supply chain;
- Understand the cost drivers and the profit drivers within the sector;
- Recognize the critical factors in the cost management accounting in this industry.

7.1 The evolution of the poultry industry in Europe and in Italy

Over the past fifty years, the Italian poultry sector has been radically transformed from a marginal agricultural sector, based on small family farms with low levels of profitability and typically rural forms of production, to a highly integrated industrial structure, ranking among the top 7 producers in Europe and contributing 3.5% to the total national food industry turnover (INEA, 2015).

The late industrialization of the sector in Italy, compared to the major European producers, such as the UK, France, and Germany, can be attributed in part to the slow development of commercial distribution. Some studies (Tessari and Godley, 2014) indicate that, since the fifties, relations between producers and retailers in Anglo-Saxon countries have been very solid, which gave impetus to production, simultaneously favoring automation and an increase in size of poultry farms. In contrast, until the eighties in Italy, the distribution network was predominantly fragmented and represented by small independent retailers, operating on a small scale while being weakly linked to numerous small producers. The latter, on the other hand, were mainly represented by diversified family farms, associated with equally small and diversified farms that did not allow for large-scale production. In addition, they lacked forms of integration, which were already strong overseas and able to organize production while reducing time and costs. The gradual development of the distribution network, in which the French and Anglo-Saxon buying groups assumed a dominant role, also allowed simultaneous increases in the demand and production in Italy. The growing need has been met by increasing the level of automation, hence increasing investments in technological and manufacturing innovation by manufacturers, and thus production volumes. At the same time, the need to improve productivity and speed up the time of conversion of factors in products has led to increased specialization in production, both for farms and producers, resulting in an improved collaboration that over time has been perfected in the form of a strong vertical integration of the supply chain. The primary result of this transformation has
Summary

The chapter analyzes the operational factors, the strategies and the determinants of cost and profit in the poultry sector, one of the most self-sufficient sectors in terms of production, but also one with precariously balanced profitability. The most penalized players in the supply chain are the farms, whose margins are eroded by the cost of feed and the bargaining power industry of processing. This has also allowed the creation of a payment network connecting the different operators involved in the poultry industry over time, a tight integration that characterizes all phases. This has been possible thanks to the establishment of agistment contractual relations, which bring significant benefits in terms of livestock management, achievement of production output and economic benefits for those involved. Moreover, from the economic-financial analysis of a company characterized by excellence in the Italian poultry sector, it emerges how this sector shows good profitability levels despite a decreasing and, at the same time, a not-so-solid financial equity structure.

References

Bagnara G. (2001), Situation and prospects for the poultry market, Emilia Romagna Agriculture Magazine, Agriculture Special, September.


CRPA (2007), Italian poultry farming and production costs (Italian poultry industry and the production costs, Notizie, N. 9.

CRPA (2011), Italian poultry farming and production costs (Italian poultry industry and the production costs, Notizie, N. 1.

CRPA (2015), PROMOTING good condition in laying hens, Studies and Research (Eng. Healthy recommendations for broilers).

The poultry industry in Italy


ISTAT (2001), *economic data*, www.istat.it

NOMISMA (2016), Italian poultry farming: a sustainable model
And the integration of the industry in the meat sector, Bologna.


USDA (2015), *Structure of the Global markets for meat*, AIB.
The HACCP methodology is referred to by various organizations as the system of analysis and control of health risks associated with a food product. It is a systematic approach to the identification, evaluation and control of those steps in food manufacturing that are critical to product safety. Currently, HACCP principles are the basis of most food quality and safety assurance systems (Codex Alimentarius, EU and US food legislation, most private standards). Experiences and literature have highlighted a number of barriers to the successful implementation and operation of HACCP in SMEs, such as inadequate knowledge, time-related issues relating to monitoring and recording, excessive documentation. On the other hand, the HACCP principles represent an opportunity for SMEs to familiarize with the basic principles of Total Quality Management and, consequently, to adopt them in all the other activities increasing their competitiveness. Considering the above mentioned aspects, the aim of this chapter is to show, by means of a case study, how a SME can successfully overcome the possible barriers to adopt the HACCP and use it as a tool to become familiar with the principles of Total Quality Management. The chapter is structured as follows. After the introduction, section 2 describes the principles of HACCP and the main barrier to their application in SME. Sections 3 and 4 illustrate the case of ADI Apicoltura, a

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1 The chapter is the result of a joint effort by the authors who share its formulation. However, the writing of the specific sections has to be divided as follows: Tiziana Di Cimbrini (corresponding author) paragraphs 8.1, 8.4, 8.5; Stefania Migliori paragraphs 8.2, 8.3 and the focus section.
SME operating in the industry of beekeeping, and which has successfully adopted the HACCP. The conclusion provides some reflections upon the key factors of the success in adopting HACCP and its contribute to the competitiveness of the firm investigated.

Learning Objectives
After reading this chapter you should be able to:
• to understand the process of implementation of the internationally recognized quality control procedures (HACCP) in a leading company operating in beekeeping;
• To link the adoption and effects of HACCP to wider quality management policies; and
• To draw implications about the impact of HACCP on corporate success and competitiveness of SME.
Summary

ADI Apicoltura has successfully overcome the typical barriers faced by SMEs in implementing HACCP thanks to a set of critical factors. Concerning the organizational dimension, the commitment and the direct involvement of the owners have led the Iacovanelli family to develop a hands-on experience of the technological change requested by the HACCP. Concerning the information dimension, a customized recording system has been developed in order to avoid excessive documentation and the risk of transforming the implementation into a bureaucratic procedure. Concerning the managerial dimension, a routine of continuous improvement of the HACCP plan has been established. All these factors have allowed ADI Apicoltura to use the experience of implementing the HACCP system as a tool to channel the ownership’s natural inclination towards quality into a set of rational procedures inspired by Total Quality Management. This result has led the company to increase its competitiveness in national and international markets. The main idea we wanted to convey through this chapter is that the implementation of this system of food safety control can be an opportunity for the SMEs, which can overcome their limits and familiarize with the basic principles of a managerial approach to quality. However, this case study has brought us to the conclusion that at least two prerequisites are necessary to seize this opportunity. First, the commitment and motivation of the owners is essential to trigger a proactive instead of a compliance approach to the implementation. Second, the preference for flexible solutions is necessary to
allow the HACCP principles to fit the company’s peculiarities.

References


DI FELICE R., (2015), Programma quadro per l’attuazione nella regione Abruzzo dei regolamenti comunitari in materia di miglioramento della produzione e commercializzazione dei prodotti dell’apicoltura, Regione Abruzzo.

Food safety and quality management in beekeeping

http://doi.org/10.1016/j.ijhm.2004.04.005


IZSAM- Istituto Zooprofilattico Sperimentale dell’Abruzzo e del Molise “G.Caporale” (2013), Studio sulla caratterizzazione dei mieli abruzzesi.


Untermann, F. (1999). Food safety management and misinterpretation of


