

COURSE MATERIAL

COMMENTS

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Kaisa Sorsa, Fabrizio Cafaggi, Paola Iamiceli,
Chiara Ferrari, Luana F. J. Swensson & Stephanie Law

TRANSNATIONAL PRIVATE REGULATION, SYSTEM LEVEL INNOVATIONS AND SUPPLY CHAIN GOVERNANCE IN THE COFFEE SECTOR

Evidence from Brazil, Italy and Finland



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EXECUTIVE SUMMARY

The Report on “Transnational private regulation, system level innovations and supply chain governance in the coffee sector: evidence from Brazil, Italy and Finland” presents the results of an empirical and comparative research conducted by a team of legal scholars of the Turku University of Applied Sciences (Finland), the European University Institute (Florence, Italy), the University of Trento (Italy), the University of Sao Paulo (Brazil).

System level change refers to simultaneous and broad-based change in operating models, structures and the interactions between them. This societal transformation, e.g. sustainability, requires institutional, socio/cultural, organizational as well as technological change. A societal transformation in which all aspects of society are expected to co-evolve towards and align with common goals is defined as system innovation. System level innovation (macro-innovation, e.g. institutional, socio-cultural innovation) is defined as a form of innovation that require significant adjustments in several parts of the business system they are embedded in (regulatory systems, business networks, public-private networks). Due to the fact that system level innovation processes frequently span beyond the boundaries of the firm they often entail the coordination of different parts of the value network. Sustainability is a system property. Therefore sustainability has worked as the system innovation example in this Study.

There has been lack of understanding how to link system-level innovations to the micro-level innovations (i.e. product/service and technology innovation on company level) as the system-level changes take place in other parts of the business environment than micro-level innovations do, in different times and places. Global coffee value chains and their contextual factors illustrate the context of our analysis and reveals the links between micro- and system-level innovations.

Among the major actors in system level innovations have traditionally been industry and multinational enterprises (MNEs). During the last thirty years the role of the non-governmental-organizations (NGOs) have strengthened and their relationship with the MNEs has changed.

The aim of the TPR inno project was to enhance understanding of the sources, barriers to and requirements for system-level changes (e.g. to attain a more sustainable production) and the aim was to enhance understanding, what role do TPR and contractual networks play in the system level innovations process in socio-technical regime of food. Second aim was to find out how regulation (TPR), contractual networks and innovations (micro-innovation) correlate.

The main purposes of the research focus on the two groups of questions outlined below.

(I) System level (macro-level) changes related questions:

- What are the sources, drivers and obstacles for the system level innovations and
- How do the private and public regulation and contractual networks trigger and promote system level innovations? How do TPR and contractual networks restrain system level innovations in the global food value chains?

(II) Value chain and micro-level (company level) related questions:

- What is the form of transnational supply chains in the coffee trade between Brazil and some European countries (namely Italy and Finland)? How does the type of product, namely commodity v. specialty, influence their forms? For example are high premium coffee supply chains shorter and more stable than those producing standard commodities? How relevant has become sustainability? How does it affect the relationships within the chain? Can we then distinguish between quality-driven product differentiation and sustainability-driven product differentiation?
- To what extent have public and private food- or coffee-related regulations influenced the structure of the supply chains? How has the shift towards supply chain approach in EU redefined both access to the European market and costs along the chain? To what extent have these changes stimulated the birth or consolidation of new intermediaries in producing countries? How have they modified the role of the more conventional intermediaries?
- What is the role for contractual governance in fostering supply chain development, then calling for the adoption of specific contractual structures to ensure compliance with standards and appropriate enforcement mechanisms?
- What is the role for network contracts in fostering supply chain development and compliance with standards?
- To what extent and how have public and private regulation fostered innovation and development, particularly (i) providing smallholders access to transnational supply chain and (ii) fostering safer and more sustainable production in terms of compliance with safety, social and environmental standards?
- What is the role for traders, farmers' cooperatives, NGOs, research institutes and other "intermediaries" in fostering production and transfer of innovation along the chain? Is this role alternative or complementary to the one possibly played by international roasters?

Answering these questions will enhance our understanding about the links between macro-level changes and innovations on one hand, and the micro-level innovations on the other hand. The second group of the questions focuses more on the value chain level and more particularly on the governance tools used.

The analysis has comprised both theoretical and empirical research. The former has been based on complex adaptive systems literature, legal, economic and sociological literature and on existing legislation and private regulation concerning the food and coffee sector at international, national and local levels. The empirical research has regarded three important value chains in the international arena, characterized by different size, market share and innovation strategies (Lavazza, Paulig and Illycaffè). On the producing end the research focused on Brazil, on the processing and distribution on Italy and Finland. The empirical research has been conducted between 2012 and 2013 through in-depth interviews with single farmers, farmers' organizations, roasters, traders, certifiers, distribution companies, public agencies in the three covered countries.

Although domestic markets do exist for coffee as for other commodities, the international dimension of coffee supply chains is dominating the global market, facing important changes and new challenges. Along the line linking Brazilian and European MS businesses, the former are responsible for green coffee production whereas the latter deal with the roasting and all subsequent processing phases to make the final product ready for distribution to the industry or to the end consumers. As far as Brazilian green coffee has been a standardized commodity, international roasters have relied on chain intermediaries able to source products at best economic conditions. Volume was the focus, not quality.

Due to radical changes in trade regulation both at national and transnational level with the liberalisation of quota system and the new role for international trade agreements, higher competition among green coffee producers took place at the end of the eighties. Since the beginning of the 1990s' different types of supply chains have started to emerge, depending on whether the focus is on the production of coffee as a (standard) commodity or the production of coffee as a specialty product. Lately an important difference has been linked to the compliance with certification obligations. This is true both for certification related to individual farmers or farmers' organizations and for chain of custody certification where the unit of analysis has become the entire supply chain. The role of certification becomes paramount in certain sectors of Ho.Re.Ca. where restaurants and fast food require only certified coffee.

The Study addresses two types of product differentiation and its correlation with supply chains: one mostly dealing with quality and targeting production of premium quality coffee; another one combining quality and sustainability, therefore adding an emphasis on compliance with process-related standards concerning the social, environmental and economic dimensions, as sometimes assured through third party certification. In both cases supply chain structure, actors involved and the governance instruments used are affected. Both of them represent system level innovations compared to conventional commodity coffee chains

The main drivers and obstacles for the system level innovations will be discussed grouping the drivers and obstacles to the macro-level institutional factors, market structures, actors and their roles and interactions between them. The findings of our Study will be discussed highlighting these elements. The system level innovation related questions have the chicken and the egg causality dilemma. The dilemma can be enlightened describing the changes and their timing on the different levels of the society. In our study we have analysed the changes on the macro-level environment (regulatory institutions, global trends) and value chains and company levels (micro level).

Drivers and obstacles for the system level innovations

Sustainability related transnational private regulation started to evolve already in the fifties and sixties but its major increase in the transnational trade took place later, in the nineties. The most important TPR schemes, organic and Fair trade, were aimed at to transform the prevailing agricultural practices (organic) and prevailing trading practices (fair trade) of the global trade towards new directions. The institutional level issues were one of the main obstacles for the breakthrough of system level innovations for sustainability on global level.

Coffee sector has been the frontrunner sector to implement the different sustainability initiatives in a major scale. In the consumer end of the value chains awareness and willingness to find alternatives to conventional coffee has been on the rise since 1990s (at least in Finland). The growth rate of sustainably produced coffee sales has been higher than the conventional commodities especially from the 2000s onwards which has strengthened the co-evolution effect. During the first decades of the sustainability initiatives the public regulation was one of the obstacles for the system level change for sustainability on the global level coffee trade. The transition for sustainability stayed on the niche market phenomenon in Finland before 2000 but the culture has dramatically changed during the last fifteen years.

The de-regulation of the international coffee agreements opened windows for opportunities on the socio-technical regime level. It was the major accelerator for the implementation of the existing TPR schemes and for the development of new schemes. After that both public and private regulation have influenced the occurred changes in coffee transnational supply chains. Liberalisation of coffee trade at national level in producing countries as well as the new developments in global market regulation, with the end of price control policies, the rise of interest on economic and sustainable development especially in consuming countries both on supply side and demand side of the value chain, have triggered competitive dynamics and favoured a race towards higher quality products and more sustainable production processes. The private regulation schemes, “regulatory innovations” which had stayed at a niche level in different countries for decades, started to reassert their role on global governance. New sustainability related initiatives were developed at the same time for the coffee sector which enhanced the competitive dynamic but at the same time strengthened the importance of the existing as well.

At the single country level the regulatory culture plays an obstacle or driver for the system level change. The legal culture of Finland has been very much favouring public law and state made law but now there is active discussion about the need for de-regulation. De-regulation has shown to be an important driver for the system level change in coffee sector.

Most important schemes, organic and HACCP food safety scheme have impact on the public law. In this way these schemes have represented proactive approach tackling global problems. Private regulation has largely contributed to define product and process standards and making them enforceable along the chains.

Drivers and obstacles for the system level change from value chain actors' perspective

The Study shows that quality-driven differentiation induces the roaster to establish a closer relationship with farmers, so reducing the length of the supply chain. MNEs have played a crucial role in the system level change in Finland as well in the global coffee value chains. Transfer of active knowledge is of major importance in this situation at any level of the chain and strong coordination is requested on the side of chain leader (the roaster). Intermediaries do play an important (though complementary) role in this case by providing specialized services aimed at ensuring compliance with high quality production along the whole chain. These services can be provided either under the direction of the roaster as supply chain leader (so, e.g., when the roaster mandates technicians to provide agronomic services to farmers or requests a laboratory to carry on product analyses before delivery), or outside a specific relationship with the roaster when these intermediaries (e.g. cooperatives or NGOs) provide for extension services and capability-building programmes due to enhance farmers' opportunities to access transnational supply chains oriented to high quality production. Building on previous studies of some of the authors, these have been referred to as "market intermediaries".

Sustainability-driven differentiation leads to partially similar dynamics. Indeed, the role for the chain leader is still pivotal in these chains driving to a closer relationship between the roaster and the farmers, periodically visited and “coached” also with regard to compliance with sustainable standards. At the same time the focus on sustainable standards tends to produce a wider net of strategic relationships with “market intermediaries” (e.g. NGOs, farmers’ cooperatives, specialized traders, etc.) and, when requested, assurance service providers, including certifiers. Compared with the case of quality driven differentiation, in this case higher decentralization occurs in terms of control over knowledge transfer to farmers and along the chain. At the same time it is important to highlight that, in both cases of high-quality driven differentiation and sustainable-driven differentiation, knowledge is never considered as a totally private good and its transfer is encouraged not only along the chain but, at least to some extent, also across chains. In the case of quality driven differentiation the Study shows that these “spill-over effects” are somehow deliberately searched by the roasters with the aim to spread a specialty coffee culture which is still far from being the mainstream in the global market.

The role of Transnational Private Regulation and contracts for the system level change

The Study contributes to shed light on the different impact of safety, quality and sustainable standards. Whereas the enforcement of safety standards still mostly requires the adoption of mandatory legislation and the involvement of public authorities, quality and sustainable standards are mainly enforced through privately administered schemes. Quality specifications are normally provided and enforced within the single supply chains under the direction and coordination of the chain leader (roaster), often through the support of intermediaries like traders, exporters, assurance service providers. Private standards related to sustainability focus on process and include also environmental and social aspects. Enforcement of these obligations does not occur through traditional mechanisms like courts or arbitration. Self-enforcing contracts and social norms play a major role. The adoption and enforcement of sustainability standards often lead farmers’ participation into wider networks and schemes to which several supply chains and market players take part. They may be commodity-specific (like in the case of Utz, at least until recently) or be operated as cross-commodities schemes.

Transfer of process-related knowledge and provision of extension services due to enhance farmers' awareness about standards and modes of compliance are key aspects of the impact generated by public and private regulation in the area of quality, safety and sustainability. Well beyond the single product delivery, innovative knowledge affects processes, procurement strategies, choice of investments, influencing the whole supply chain and in many cases the whole market. In this sense it may be qualified as system-level innovation having regard to both the source of the innovation (being more actors involved in its production and transfer) and the recipients of these transfers.

Indeed, roasters are not the only sources of innovative knowledge nor the exclusive vehicle for its transfer. Not only intermediaries, like traders, exporters, Ngos contribute to the definition and conveyance of standards along the chain but also retailers, especially when operating as large scale distributors (such as large scale supermarkets, fast food chains and the like), stimulate innovation processes leading to meet new consumers' trends and demand. This is particularly clear with regard to sustainability-related innovation as triggered by higher consumers' interest in Northern Europe consumption. The more innovative practices relate to compliance with safety and sustainability standards, the more innovation relates to processes besides products as such. Standardization of agricultural best practices is more and more influenced by the downstream segment of the chain.

Contractual governance plays an important role in the enforcement of quality, safety and sustainable standards. International commercial contracts increasingly play a regulatory function. Clearly, in relation to safety, contractual monitoring and enforcement are combined with administrative enforcement to a larger extent than for quality.

Quality specifications are among the most critical aspects to which contractual parties are requested to pay attention when drafting a supply contract and performing contractual obligations. Quality codes or protocols are often adopted and traders or the roaster itself play an important role in conveying the needed information to farmers to ensure due performance; these obligations not only relate to product quality but more and more to processes and agricultural practices in general.

Whereas, for *safety*, contracts tend to refer to international standards, mostly incorporated in domestic legislation, in the area of *sustainability* the Study shows different approaches: either the roaster refers to internationally used schemes (e.g. UTZ or Rainforest Alliance) and requests due certification of the product/producer, or the roaster elaborates its own Ethical Code or sustainability standards and ensure compliance by direct monitoring or intermediaries' assurance services (e.g. by the traders or ad hoc certifiers). The two can also be combined.

Codes of ethics and/or codes of conduct and suppliers codes are generally adopted within the broader context of the corporate social responsibility initiatives developed by roasters with the aim to promote the development and the growth of coffee producer communities, either directly or through the involvement of intermediaries who are their contractual partners. These instruments mostly state fundamental principles that must govern business relationships and tend not to define in detail the modes of action and the procedures to be followed in the area of sustainability. Still they represent a useful tool to integrate and complement the general terms and conditions governing the commercial transaction, which usually do not specifically define quality standards and/or regulate issues concerning sustainability (e.g. the European Coffee Contract of the European Coffee Federation). A greater level of detail and a precise definition of the procedures to be followed in complying with economic, social and environmental criteria are found in sustainability certification systems such as Utz certified, Rainforest Alliance, among those used by the roasters analysed in this Study. In fact, they are characterized by the provision of baseline criteria and progress criteria or checkpoints, in view of a continuous improvement, as well as the identification in some cases of unacceptable practices. Moreover, the compliance with these criteria is generally guaranteed by annual inspections of independent auditors, which may be or not the case for roasters' individual codes.

Compliance with roasters' or internationally used codes is often requested in the supply bilateral contract. The incorporation of standards into the contractual matrix opens the box of contractual remedies for breach of contractual duties, therefore including compliance with those standards. Under this perspective the Study shows that, as regards safety and sustainability, corrective measures (e.g. changing farming methods, ending a non-sustainable practice, etc.) have priority over any other remedy against the breach. This remains almost the sole practically used approach for violation of sustainability standards. In the area of safety, when correction is no longer possible or the product is irreversibly affected by the violation of a standard, product rejection may be compelled by the need to prevent unsafe products circulation. Product rejection does not necessarily imply contract termination. Contract termination remains an exceptional remedy, though being provided by the contract (and applicable law), with special regard to fundamental/material breach, as may be the case in particular for violation of safety standards. In the area of quality standards breach is addressed through price reduction only to the extent that the roaster is able to use the product or sell it in the market. Some of the interviewed roasters showed high reluctance towards price reduction due to high quality targets imposed to the supply chain and their commitment towards consumers.

Supply bilateral contracts are not the only instruments used in the governance of supply chains. In fact the Study shows that they are embedded within more complex networks playing complementary functions to the ones played by those contracts in the areas of innovation and sustainable development. The Study has examined several types of these networks among which stand: farmers cooperatives or associations, as drivers of knowledge transfer enabling a better access to global value chains; contractual and organizational networks established through the participation to a regulatory scheme (in the form of an association or a multi-party contract); partnerships among global players such as global roasters, Ngos, certification schemes due to launch capability-building programmes for farmers in producing countries; innovative knowledge partnerships among roasters, research institutes, universities for the development of research projects (mainly in the area of diversification of plant varieties) and/or the launch of educational programmes. Only in a few cases these initiatives are linked with the participation of the farmer in a single supply chain or the performance of a single supply contract, as it may happen when the participation into a certification schemes is requested under

the contract rules or when being part of an educational programme provides priority in the assessment of coffee slots offered for sale. More often these networks operate as facilitators for the smallholders' access to global value chains regardless of any specific link to a single value chain and roaster.

The Study contributes to the analysis of the several legal instruments used in global value chains addressing the challenges of system level innovation in the area of quality, safety and sustainable standards. It shows that regulation, both domestic and transnational, public and private influence the changes of global supply chains. Symmetrically the research shows that the structures of global chain play a role in regulatory design especially when monitoring functions have been transferred to private actors, especially new intermediaries. Being based on case studies it does not enable any general claim on the relevance of each single model among those described, whereas it contributes to shed light on the impact of regulation on supply chains and the role for contractual and network governance in the era of sustainable development.

I. THE COFFEE MARKETS: ECONOMIC AND REGULATORY FOUNDATIONS

I PRODUCT MAPPING

Coffee's agro-industry comprises different goods, from coffee cherries, to green coffee, to roasted and instant coffee.

The first product produced in the coffee supply chain is the *coffee cherry*, which is the berry produced by coffee trees. After the primary *processing*, which has as its main aim to separate the bean from the skin and pulp of the cherry, the resulting product is called *green coffee* (PONTE, 2001, 4). There are basically three different processing methods: (i) the dry method (the most traditional and cheapest method, used mainly in production for the commodity market)¹, (ii) the wet method (a more expensive and sophisticated method, used mainly for the production of a higher quality product)², and (iii) the semi-washed method, a hybrid process that, combining characteristics of both traditional methods, is able to increase the quality of the beans with reduced processing costs³. A proper primary processing is, in fact, one of the key determinants for the improvement of the coffee quality (PONTE, 2001, 4; interviews with coffee producers, exporters, association and roaster in Brazil).

The green coffee beans constitute the exporting product of the producing countries⁴. As we may see below, the production of the coffee cherry and its processing, that may result in the green coffee beans, constitutes what we can call the **farming stage** of the coffee global value chain (GVC) (see below).

-
1. As affirmed by the ITC, "In the dry process the ripe cherries are dried in their entirety after which they are mechanically decorticated to produce the green bean (ITC, 2011, 88).
 2. In the washed or wet process, as affirmed by the ITC, "the ripe cherries are pulped and fermented to remove the sticky sugary coating called mucilage that adheres to the beans (this can also be done mechanically), and the beans are then washed and dried." (ITC, 2011, 88).
 3. In the semi-washed process "the ripe cherry is pulped and dried 'as is' with the mucilage still adhering to the parchment skyn" (ITC, 2011, 88). As we may see, the utilisation of this new processing method has significantly increased the production of high-quality beans in Brazil.
 4. Following the literature on the argument, we will adopt in this report the term "producing countries" and "coffee producers" referring to the production of green coffee, while the producers of roasted coffee will be denominated as "roasters" and their countries as importing countries.

Although there are many species and varieties of coffee, in respect of its economic importance, there are two main species: *Coffea Arabica* and *Coffea Robustas* (STANLEY, 2010, 68). The species Arabica is the best known, with a higher economic value and representing around 62% of the green coffee commercialised in the world. Its production is located mainly in South and Central America, Eastern Africa, Arabia and Asia (ICO website. See also TALBOT, 2004, 50).

The *Coffea Robustas*, on the other hand, is a product with lower economic value, used mainly in the instant coffee industry and cultivated predominantly in western and central Africa, throughout Southeast Asia and also in Brazil (ICO website). Brazil produces both species, although the production of Robusta coffee is significantly reduced in comparison with the Arabica one.

From green coffee, three main products can be produced in the **industrialisation stage** of the coffee GVC: (i) *roasted coffee*; (ii) *roasted and ground coffee* and (iii) *instant coffee*. These products can generate also other sub-products, such as the so-called “3 X 1” products (sugar, milk and coffee) such as soft drinks, preparations for cappuccino etc. (JAYO & SAES 1998, 24). Unlike in the case of sugar, the food industry using coffee as an ingredient rather than a final product represents a small share of the coffee market⁵. As we may see below, the industrialisation stage of the coffee GVC can include up to four different steps: roasting⁶, milling, and, in the case of instant coffee, solubilising and lyophilisation, which will be followed by packing and distribution (STANLEY 2010, 65, CACERES & ESCOBAR, 2006, 202).

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5. At the European level, while the total volume of roasted coffee (not decaffeinated) produced in 2013 is 2,464,165 tons, the volume of “extracts, essences and concentrates of coffee and preparations with a basis of these extracts, essences or concentrates or with a basis of coffee” is only 326,320 tons. Data are very clear also concerning Finland’s and Italy’s production. In fact, Finland in 2013 produced 103,508 tons of roasted coffee not decaffeinated and zero tons of extracts, essences and concentrates of coffee and preparations with a basis of coffee or these extracts. In Italy, the volume of extracts, essences and concentrates of coffee and preparations with a basis of these extracts, essences or concentrates or with a basis of coffee is quite small, 29,544 tons, compared to the volume of roasted coffee (not decaffeinated) produced in 2013, which is 115,100 tons (ECF, European Coffee Report 2013–14, pp. 12–13).
 6. Roasting is the process through which the green coffee beans are exposed to high temperatures that allow the beans to develop their aromatic qualities. (Lavazza website). According to Illycaffè “Roasting is what transforms the green beans into dark, fragrant coffee with its tantalizing aroma and flavour.” (Illycaffè website).

It is important to mention also that coffee can be roasted as a blend or as mono origin. Blends can be considered, as illustrated by Lavazza, as “secret recipes, prepared with care, which make the producer’s coffee unique and recognisable” (Lavazza website). They can be formed by a mix of different types of coffee (called origins) and may be 100% Arabica, a mix of Arabica and Robusta, or 100% Robusta. Mono-origins are formed by only one origin of coffee.

Geographically there is a division between the countries that are involved in the farming stage and the industrialisation one (see PONTE, 2004, 2).

As the natural conditions required by the coffee trees (such as warm climate without sudden temperature shifts and plenty of seasonal rain) are met between the tropics of Cancer and Capricorn, the production of *coffee cherries* and *green coffee* is concentrated in developing countries located in these regions, such as Brazil, where often the product has a major importance for their economy. On the other hand, the industrialisation of the product and, therefore, the production of *roasted* and *soluble* coffee, occurs mainly in developed countries, including Finland and Italy (as considered within this research project), where the consumption market is also concentrated⁷ (ITC, 2011, 32. See also PONTE, 2004, 2).

7. Brazil is the only exception being at the same time one of the main producer and consumer countries.

These countries can be defined, therefore, as *importers of green-coffee*. On the other hand, they are also *producers of roasted coffee*, whose production can be directed both to the internal consuming markets, and, in some cases, to external markets, becoming *exporters of roasted coffee*. This is, for example, the case of Italy, which is considered one of the main *exporters of roasted-coffee*, other than an important consuming country as we may see below. In the case of Brazil, it is important to mention that among the factors that contribute to keep this distinction between green-coffee producing countries (farming stage) and roasted-coffee producing countries (industrialisation stage) is the European Union regulation that imposes tax barriers for the import of Brazilian roasted coffee⁸. Although international roasters have started to operate in the country especially after the liberalisation of the coffee market⁹, they produce mainly for the internal market, that is, as we may see below, one of the biggest consuming markets in the world. These Brazilian roasters do not generally adopt an exporting strategy¹⁰.

8. See ITC, 2011, 34.

9. It is important to mention that in the case of Brazil also the national regulation has, historically, contributed to that. In fact, during the period in which the market was regulated, the government, through the *Instituto Brasileiro do Café – IBC (Resolução 953 and 956 from 1975 and 1976)*, controlled the opening of new roasting companies in the country and forbade the entry of foreign companies in the national market. In fact, it was only in 1978 that the first international roaster had the permission to operate in Brazil (SAES, 1995, 100).

10. According to Vegro et al, “Large international companies, particularly the coffee roasters in Brazil, do not see the export model as an attractive alternative to their respective business models. As they hold industrial plants around the world, the competition between subsidiaries is not seen as a healthy activity. Moreover, the existence of pulverized operations in several countries meets this strategic priority: to provide goods and services to local and regional markets” (author translation). (VEGRO et al, 2005, 218). In fact, while Brazil exported 30.141.000 of green-coffee bags in the 2011/2012 crop, it exported the equivalent of 63 bags of roasted/grounded coffee (CECAFÉ data). See also SAES & MIRANDA, 2011.

2 THE COFFEE MARKET: ECONOMIC DATA

2.1 GREEN COFFEE PRODUCTION AND EXPORT

The main green coffee producing country in the world is Brazil, followed in 2013 by Vietnam, Indonesia and Colombia (see chart 1), showing the rising importance of Asian sources in global coffee production. In the crop year 2013, these four countries were responsible for around 68.5% of the 111.8 million coffee bags (of 60 kg each) exported in the world (see chart 2)¹¹.

Other important producers are Ethiopia, India, Peru, Honduras, Mexico and Uganda (International Coffee Organization – ICO website). The main producing countries correspond also to the main exporting countries.

CHART 1. *Green coffee production of exporting countries. Elaborated with data from the ICO website (http://www.ico.org/new_historical.asp). Data as at October 2014.*

Crop Year 2013		
Country	(000 - 60kg bags)	% of 2013 world production (approximately)
Brazil	49,152	33.8%
Vietnam	27,500	18.9%
Indonesia	11,667	8.0%
Colombia	11,000	7.6%
Ethiopia	6,600	4.5%
India	5,075	3.5%
Peru	4,338	2.9%
Honduras	4,200	3.0%
Mexico	3,900	2.7%
Uganda	3,600	2.5%
Total world production	145,202	100%

CHART 2. *Exports of all forms of coffee. Elaborated with data from ICO website (http://www.ico.org/new_historical.asp). Data as at October 2014.*

Crop year Nov. 2013 to Oct. 2014		
Country	000 - 60 kg bags (approximately)	% of 2013/2014 export (approximately)
Brazil	35,656	31.9%
Vietnam	24,750	22.1%
Colombia	10,932	9.8%
Indonesia	5,287	4.7%
India	4,815	4.3%
Honduras	4,163	3.7%
Uganda	3,518	3.1%
Peru	3,375	3.0%
Guatemala	3,100	2.8%
Ethiopia	3,060	2.7%
Total export	111,785	100%

For a long time, coffee has played a significant role in the Brazilian economy. It represented 70% of Brazilian exports in the 1920s, and for many decades it has remained the main Brazilian export product.

Since 1860, Brazil has been the world's first coffee producer, becoming responsible for 80% of the world's total production in the beginning of the 20th century (SAES 1995, 28). Although its importance for the Brazilian economy has decreased through the decades, it still represents around 2% of Brazilian exports.

Currently, most of the production is still destined for export¹², although Brazil is also one of the world's biggest consumers of coffee.

11. In order to possibly have comparable data from the same year, the charts presented in this Report refer to 2012-13 crop year. Where available, also data concerning 2014 have been mentioned, in addition to 2012-13 data.

12. According to the Brazilian Coffee Industry Association (ABIC), in 2013 Brazil produced around 49 million coffee bags and exported around 31 million coffee bags in the same year, representing 63% of Brazil coffee production, while in 2011 77% of the coffee produced in Brazil was exported (see <http://www.abic.com.br/publique/cgi/cgilua.exe/sys/start.htm?sid=49>).

More particularly, Brazil is the major green coffee supplier of the EU. In 2013, Brazil exported 13,395,995 green coffee bags to European countries, being responsible for around 28.6% of their entire import. (European Coffee Report). (See figure 1 below.)

Imports of green, not decaffeinated coffee into the EU28 (excluding intra-EU trade) by main origins						
	2011		2012		2013	
	bags	%	bags	%	bags	%
Brazil	14.678.162	32,0	12.711.232	27,3	13.395.995	28,6
Vietnam	9.076.962	19,8	11.970.522	25,7	10.974.765	23,5
Honduras	2.515.220	5,5	3.140.923	6,8	2.837.088	6,1
Indonesia	1.992.702	4,3	1.994.040	4,3	2.781.382	5,9
Peru	2.489.995	5,4	2.615.155	5,6	2.478.210	5,3
Colombia	1.788.583	3,9	1.685.947	3,6	2.201.523	4,7
India	2.698.988	5,9	2.351.910	5,1	2.122.855	4,5
Uganda	1.840.773	4,0	1.615.952	3,5	2.116.038	4,5
Ethiopia	1.753.392	3,8	1.605.250	3,5	1.450.562	3,1
EU28 excl. intra-EU	45.907.170	100,0	46.506.163	100,0	46.777.420	100,0

FIGURE 1. Imports of green coffee into the EU28 by main origin.
Source: European Coffee Federation, European Coffee Report 2013–2014.

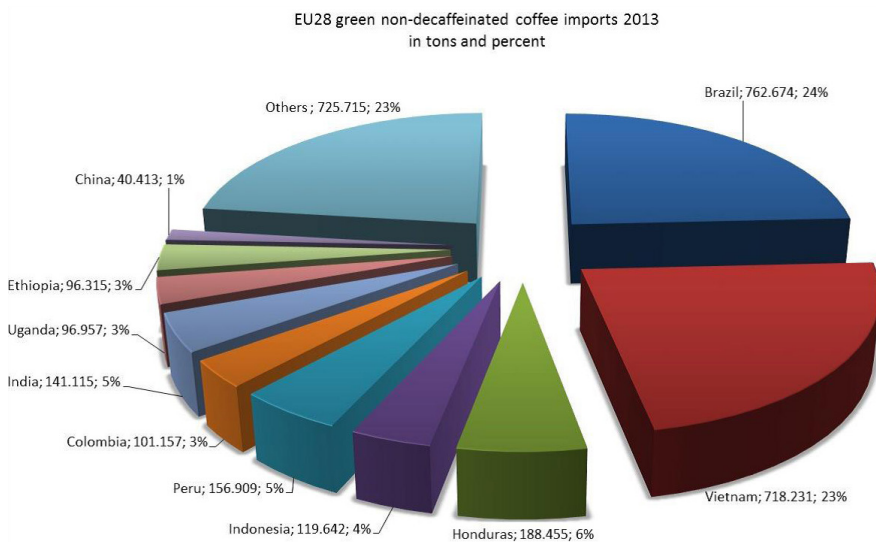


FIGURE 2. EU28 green non-decaffeinated coffee imports 2013 (in tons and percent).
Source: European Coffee Federation, Coffee Market Overview, August 2014.

In 2013, Brazil was responsible for 47.6% of the Finland green coffee import and 30% of the Italian one (ECF, European Coffee Report 2013–2014).

At global level, standard-compliant coffee production and sales continues to grow at a higher pace than conventional coffee, showing a transformation of sustainable coffee “from a niche market to a fully recognized strategic business management tool for mainstream and specialty coffee companies alike”¹³. From 2008 to 2012 standard-compliant coffee production grew 26% per annum.

In 2012 approximately 3.3 million metric tons of standard-compliant coffee were produced and 840,000 metric tons were sold as standard compliant, representing respectively 40% of global coffee production and 12% of global coffee exports in the same year. Also sustainable coffee production is concentrated in Latin America (accounting for approximately 77% of sustainable coffee production), with the growing importance of Asian countries; the top three producers of standard-compliant coffee by volume in 2012 were Brazil (40%), Colombia (17%) and Vietnam (15%). Among the different sustainability standards, in 2012 Utz Certified had the largest sales volumes and the second-place position in terms of production volumes, after the 4C Association initiative. Also Rainforest Alliance showed a rapid growth, with a decline in production volumes only in 2011, and Fairtrade and Organic, which are the oldest certification initiatives, reported a constant growth, although not at the same level as Utz and Rainforest Alliance. However, all these standards register significant oversupply, showing sales volumes lower than production volumes¹⁴.

13. J. Potts, M. Lynch, A. Wilkings, G.I Huppé, M. Cunningham, V. Voora, *The State of Sustainability Initiatives Review 2014. Standards and the Green Economy*, International Institute for Sustainable Development (IISD) and the International Institute for Environment and Development (IIED), 2014, p.p. 155-ff., part. p. 166. In this Report the following major international voluntary sustainability standards were included in the analysis: 4C Association, Fairtrade, Rainforest Alliance, Organic, UTZ Certified and the two “company-led programs” Nespresso AAA Sustainable Quality (AAA) and Starbucks Coffee And Farmer Equity Practices (C.A.F.E. Practices).

14. J. Potts, M. Lynch, A. Wilkings, G.I Huppé, M. Cunningham, V. Voora, *The State of Sustainability Initiatives Review 2014*, cit., pp. 164-165, 183.

With specific regard to Brazil, the country has reached a high level of sustainable coffee production: 40% of its total production qualifies as standard-compliant, with a greater relevance in terms of volume of 4C and Utz certified coffee production (see chart n. 3).

CHART 3. *Standard-compliant production of coffee in Brazil (in mt) in 2011 and 2012 (all data are from 2012 except for Organic and Fairtrade that refer to 2011). Source: J. Potts, M. Lynch, A. Wilkings, G.I Huppé, M. Cunningham, V. Voora, The State of Sustainability Initiatives Review 2014. Standards and the Green Economy, International Institute for Sustainable Development (IISD) and the International Institute for Environment and Development (IIED), 2014.*

	Brazil production (mt)	Total World production (mt)	Brazil production as % of total world production of standard-compliant coffee	Brazil production as % of total national production of coffee
Organic (2011 data)	12,000	248,767	5%	0.5%
Fairtrade (2011 data)	50,000	380,000	13%	1.9%
Rainforest Alliance	85,517	265,565	33%	3.3%
UTZ Certified	232,336	715,648	33%	8.9%
4C Association	977,096	1,782,058	55%	37.5%

According to more recent data on exports of *organic* coffee elaborated by the International Coffee Organisation¹⁵, in 2013 Brazil exported 78,568 (60-kg) bags of organic coffee. Among the main countries of destination in 2013 were the United States, Germany, Belgium, Canada, Sweden, Japan, the United Kingdom and France. In the same year, Finland imported 4,802 (60-kg) bags of organic coffee (in all forms), representing 0.4% of total imports, and Italy imported 6,060 (60-kg) bags, equal to approximately 0.7% of total imports (elaborations from data concerning 2013, available on the ICO website and in the ECF, European Coffee Report 2013-14).

15. Available at the following link: <http://dev.ico.org/documents/cy2013-14/wsiteenglish/sc-13-e.htm>.

As regards Fairtrade coffee production, in 2012 Brazilian producer organisations with Fairtrade coffee certification were 25, on a total of 402 small producer organisations in 30 countries holding a Fairtrade certificate for coffee at the end of the same year¹⁶. Brazil was in 2011-2012 the second country (after Colombia) for Fairtrade coffee production capacity, producing 78,100 MT.

2.2 GREEN COFFEE IMPORT

The leading importing countries of green coffee are the United States, Germany, Italy, Japan, France and Belgium (see chart 3).

CHART 4. *Green coffee imports from all sources. Elaborated with data from ICO website (http://www.ico.org/new_historical.asp?section=Statistics). Data as at August 2014 (from January 2014 only consolidated data are published for the European Union).*

Calendar year Oct. 2012 to Aug. 2013		
	000-60kg bags	% of the world import (approximately)
United States	24,814	24.0%
Germany	20,063	19.4%
Italy	8,000	7.7%
Japan	7,691	7.4%
France	6,085	5.9%
Belgium	5,016	4.8%
Finland	1,197	1.1%
Total world import	103,488	100%

The EU28 imported more than 51 millions bags of green coffee in 2013, with a 2.2% decrease from 2012 (ECF, European Coffee Report 2013/14). Italy occupies the second position in Europe and the third in the world, importing around 7.7% of the world's production of coffee.

Italy imports mainly from Brazil, Vietnam and India. However, in 2013 there has been a market decline in imports of green coffee from these last two countries, while Indonesia has significantly increased its share in the Italian market (ECF, European Coffee Report 2013/14; Coffitalia, Annual Report, 2014/15, p. 11). About 30% of Italy's green coffee is imported from Brazil (see chart 4).

CHART 5. *Green coffee (incl. Decaf.) imported by Italy in 2013 (in tons). Source: European Coffee Federation, European Coffee Report 2013/14.*

Country of origin	tons	% of the Italian import
Brazil	152.082	30.1%
Vietnam	108.656	21.5%
India	64.229	12.7%
Indonesia	37.785	7.5%
Uganda	28.478	5.6%
TOT.	505.672	100.00

2.3 THE COFFEE MARKET IN IMPORTING COUNTRIES: ITALY

The import can be distinguished between import for domestic consumption and import for intermediary operations directed to export the final product.

Italy is both one of the main consumption countries and one of the main roasted-coffee exporting countries in the world. Almost all green coffee imported by Italy is roasted in the country and distributed both in the internal market (the biggest part) and in the external market (a smaller but significant part) in the form of roasted coffee¹⁷. One small part is used for industrial use for the preparation of products based on coffee (Coffitalia – Annual Report 2014-15, p. 14).

16. Fairtrade, Monitoring the scope and benefits of Fairtrade, Fifth Edition, 2013, pp. 68 ff.

17. Around 2% of the green coffee imported by Italy is re-exported as such to other countries. (Coffitalia Annual Report 2014-15, p. 11).

CHART 6. *Italy's imports and exports of coffee in 2013 and 2014 (at September 2014), in kg. Source: Istat, Coeweb – Foreign Trade Statistics. Time series (Import and export) by Combined.Nomenclature (CN8) Harmonized System (HS6).*

	2013	2014
Imports of green coffee (not decaf.)	495,296,133	395,845,428
Imports of green coffee decaffeinated	10,363,318	5,590,338
Imports of roasted coffee (not decaf.)	9,502,504	8,297,488
Imports of roasted coffee decaffeinated	1,018,831	787,356
Imports of extracts, essences or concentrates of coffee	3,717,720	2,978,057
Imports of preparations with a basis of extracts, essences or concentrates of coffee	3,549,285	2,868,891
Imports of preparations with a basis of coffee	19,928	35,090
Re-exports of green coffee (not decaf.)	9,552,857	5,290,010
Re-export of green coffee decaffeinated	471,370	358,060
Export of roasted coffee (not decaf.)	146,412,798	118,512,831
Export of roasted coffee decaffeinated	3,632,152	2,870,135
Export of extracts, essences or concentrates of coffee	527,151	386,313
Export of preparations with a basis of extracts, essences or concentrates of coffee	1,163,274	1,008,165
Export of preparations with a basis of coffee	1,804,002	1,313,321
Total consumption	356,713,546	284,072,069

As a roasted coffee producing country, Italy is one of the most important in the world. It is, as already mentioned, the second market in Europe, after Germany, for the volume of green coffee import and roasted coffee production (ECF, European Coffee Report 2013/14). Moreover, coffee is one of the most important sectors of the Italian food and beverage industry, with around 700 enterprises in the production level, over 7,000 specialised workers and a production which amounts to around 3.4 billion Euros, of which about one-third concern export (Coffitalia, Annual Report 2014-15, p. 11).

Although in Italy there are around 700 roasters, few large roasters with their private brands dominate the Italian coffee market. Lavazza, Nestlé Italiana (managing the brand Nescafé) and Nespresso Italiana, Mondelez Italia (holding various leading brands, including Caffè Hag and Splendid), Kimbo, Segafredo Zanetti and Illycaffè are the biggest ones (Coffitalia, Annual Report 2014-15, pp. 18 ff.).

As regards exports, in 2013, of the 505,659 tons of green coffee imported by Italy (decaffeinated coffee included), around 29.7% were exported as roasted coffee (150,045 tons). Italy is, in fact, the second most important European roasted-coffee exporting country after Germany (ECF, European Coffee Report 2013/14).

CHART 7. *Italy foreign trade in green-coffee and roasted-coffee. Source: Istat, Coeweb – Foreign Trade Statistics. Time series (Import and export) by Combined Nomenclature (CN8) Harmonized System (HS6).*

	2013
Green coffee import incl. decaf. (in tons)	505,659
Roasted coffee export incl. decaf. (in tons)	150,045

Italy exports mainly regular roasted coffee (not decaffeinated) (*see supra, Chart 5*). The main importers of Italian roasted coffee are European countries, representing around 70% of Italy’s exporting market (Istat, Coeweb – Foreign Trade Statistics). The main importing countries are Germany, France and Austria. Outside the European market, the most important importing countries of Italian roasted coffee are the USA, Australia and the Russian Federation. In 2013 there has been a significant expansion in the export to countries in Eastern Europe, the United Arab Emirates and China (*Coffitalia, Annual Report 2014-15, 12*).

The value of Italy's regular roasted coffee (not decaffeinated) export in 2013 was Euro 997,760,654 (Istat, Coeweb – Foreign Trade Statistics).

In Italy, the internal market is very significant as it is responsible for the major consumption of the roasted coffee produced in this country. (*see supra, Chart 5*). In fact, Italy was in 2012 the sixth biggest coffee consumer country in the world, with an internal consumption of about 289 tons of coffee¹⁸.

Distribution to consumers follows several paths. One mode involves direct selling from the roaster to the consumer, for example, through fully owned shops or cafès or through e-commerce. In addition to this there are two main segments through which coffee, and commodities in general, may be distributed: the *retail (grocery) market*, where food products are sold mainly for at-home consumption to the final consumer, and the *Ho.Re.Ca. market* (also defined as institutional/catering market), which includes hotels, restaurants, catering, specialised shops and bars, offices and vending machines, therefore identifying the out-of-home consumption. Two thirds of the overall volume of coffee consumed in Italy is sold through the retail segment, but this corresponds only to 30% of the total value of the sales, while 70% concerns the out-of-home segment¹⁹.

CHART 8. *Italian market of roasted coffee sales. Source: Coffitalia, Annual Report 2014-15, 17 (Elaborations by Beverfood.com on different sources).*

Sales channels	2012 (Mn Kg)	2013 (Mn Kg)
Retail	161,2	159,1
Ho.Re.Ca.	52,7	51,7
Vending + Office Coffee Service (OCS)	31,5	31,5
Tot.	245,4	242,0

18. ICO, World coffee trade (1963 – 2013): A review of the markets, challenges and opportunities facing the sector, 24.02.2014, table 1 on Final consumption value of the global coffee industry in 2012.

19. <http://www.massmarket.it/caffe.htm>. These data have been, indeed, confirmed by several interviewees operating as roasters and distributors in Italy.

The retail market is highly concentrated both on the side of retailers/buyers, with few large-scale distribution firms, and on the side of roasters/suppliers, with Lavazza alone dominating with a market share of 47% in value. Lavazza together with the other five national leaders (Nestlè/Nescafé/Nespresso, Mondelez Italia, Kimbo, Segafredo Zanetti and Illycaffè) control three quarters of the retail market²⁰. Private labels, from the groups and chains of the large-scale distribution chains and supermarkets (hereinafter LSD), have a significant participation in the market, especially regarding low-price products. (DAVIRON; PONTE, 2005, 144). They represent 8.5% of sales in this channel (Coffitalia, 2014-15, 18).

On the other hand, the Ho.Re.Ca. market is highly fragmented, given the high number and the variety of actors operating in the hotel, restaurant and catering sectors and the numerous local coffee brands sold through this channel. In fact, there are in total around 700 coffee suppliers and brands in this sector in Italy, although most of them have just a very small share of the market. In this channel there is not a leader; the first four large operators are Lavazza, Segafredo Zanetti, Illycaffè (Illy) and Kimbo²¹, which together have around 26% of the market share. (Coffitalia, 2014-15, 18; interviews).

There is also a new consumption area that crosses both distribution channels, large-scale distribution and the Ho.Re.Ca. channel: the portioned coffee. The concentration in this segment is also very high. This system was pioneered by Illy in the early 90s, but currently Lavazza, Nestlè (with Nespresso and Nescafé Dolce Gusto) and Illy/Kimbo, in partnership also with Indesit, are the most important companies in the sector. In fact, these four companies account for over 70% of the market (Coffitalia, 2014-15, 18).

As regards exports, among the Italian leading roasters, Lavazza, Illy and Segafredo Zanetti are the ones that have the strongest presence in the external market, especially for Italian espresso (Coffitalia, Annual Report 2014-15, 32).

Among them, Illycaffè is specialised and the leader in the high quality market, producing just one single blend of high quality coffee. On the other hand, Lavazza and Segafredo Zanetti have several distinct products and blends²² that include standard coffee but also special lines of differentiated ones, regarding either the high quality or sustainability criteria.

Finally, with specific regards to certified coffee Italy's import of this type of coffee still represents a quite small share compared to the total amount of green coffee import. In 2013 Italy imported about 470 tons of *organic* coffee, equal to 0.09% of its total green coffee imports (as well as in 2012), although the organic food market is well developed in the country. Looking at the geographical areas of import, organic coffee is mainly imported from America, in particular Central and South America, and a smaller quantity from Switzerland. In the global market, looking at the volume of exports of organic coffee in 2013, Italy had a share of 0.46% among the countries of destination²³.

CHART 9. *Organic coffee imports (value in tons). Data referred to: 2012–2013.*

Source: Sinab, *Bio in cifre*, 2014, p. 73

Year	Quantity in t
2012	452,52
2013	470,44

-
20. Coffitalia, Annual Report 2014-15, 18.
 21. Since 2012, among the first roasters in the Ho.Re.Ca. segment, for volume of sales, is Kimbo, pursuant to the supply contract signed with Autogrill (the Italian chain with eateries on motorways, stations and airports).
 22. According to Lavazza website “The blends are secret recipes, prepared with care, which make the producer's coffee unique and recognisable. All Lavazza's products for the home, office and bar segments are blends. The best blends include up to five or six different types of coffee (called origins) and may be 100% Arabica or a mix of Arabica and Robusta.” (Lavazza website).
 23. See ICO, Exports of organic coffee and differentiated coffees Calendar years 2005 to 2013 and January to June 2014, 15.09.2014, table 2.

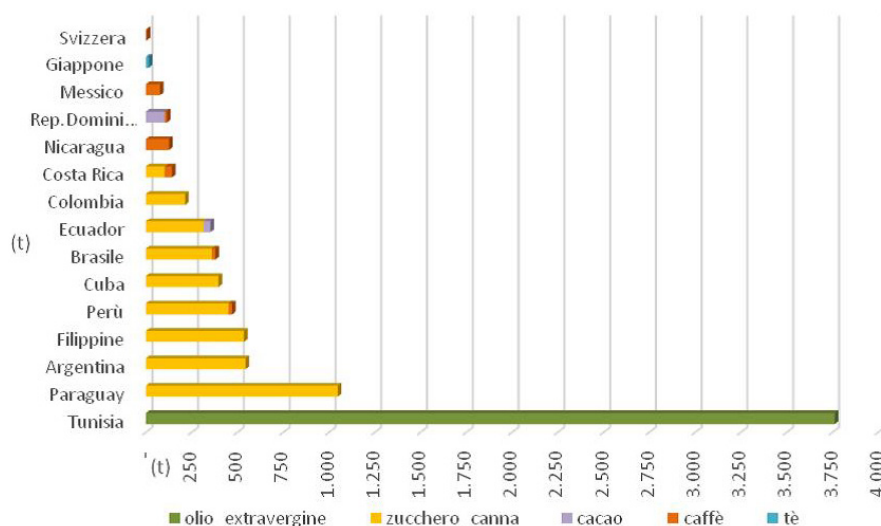


FIGURE 3. *Main organic products, included coffee, imported in Italy in 2013: geographical areas (in tons). Source: Sinab, Bio in cifre, 2014, p. 73.*

A similar scenario concerns Fairtrade coffee: in 2013 Italy imported about 555 tons of Fairtrade green coffee, equal to 0.10% of its total green coffee imports²⁴.

CHART 10. *Fairtrade green coffee imports (value in tons).*

Data referred to: 2009–2013. Source: Fairtrade Italia, Report of the activities “Vent’anni con Fairtrade Italia”, 2014, pp. 6-7.

Year	Quantity in t
2009	386,89
2010	448,02
2011	480,73
2012	452,52
2013	470,44

24. Fairtrade Italia, Report of the activities “Vent’anni con Fairtrade Italia”, 2014, pp. 6-7.

2.4 THE COFFEE MARKET IN IMPORTING COUNTRIES: FINLAND

Analysis of the Finnish coffee business means analysing the global coffee markets from the importing country's perspective from the transformation step to the consumption (see figure 4). Due to climatic reasons, coffee is not cultivated in Finland. Therefore, the analysis of the global coffee value chain from the Finnish coffee markets perspective will focus on the *coffee processing/roasting, distribution and consumption phases* mainly in the differentiated coffee segments.

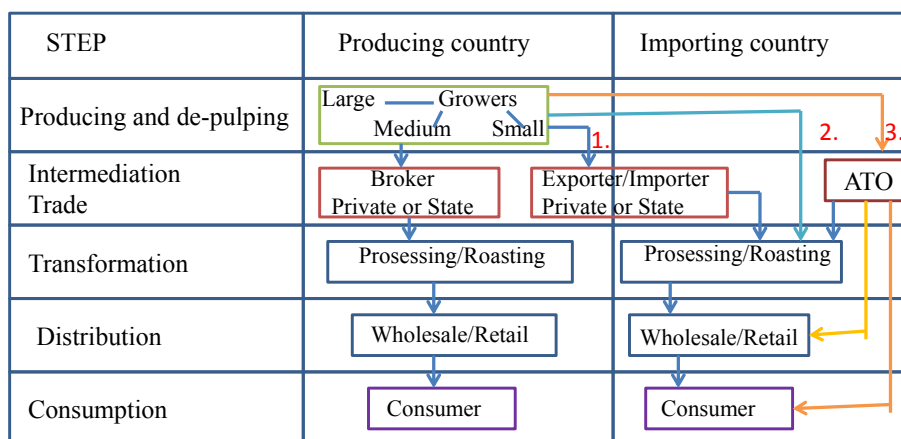


Figure x. Generic coffee commodity chain Martinez-Torres 2006,43.
*ATO = Alternative trade organization

FIGURE 4. *Generic coffee commodity chain.*

Finland is only a small-sized importer (see chart 11) of *green coffee* compared to other EU countries, with imports amounting to 1.2 thousand bags, or 63 thousand tonnes in 2011. The average between 1997 and 2011 has been 1.024 thousand bags (ICC 109-8, Annex III). This accounts only for a 1 per cent share of the world total. Finland is also a relatively small EU importer of *roasted coffee*, with imports amounting only to 164 587 bags, or 9.8 thousand tonnes in 2011. The amount of soluble coffee is quite minimal amounting to 18 thousand bags in 2011.

Only a very small part of green-coffee imports is directly re-exported with the main destination being Russia and other Baltic countries. In 2011, re-exports of green coffee amounted to 18 thousand bags. This means that the green coffee is imported for processing purposes directed to the national consumption.

Analysis of the averages of total imports from all sources by form of coffee during the regulated market period²⁵ (1965 to 1989) and free market period (1990 to 2010) reveals that the share of the imports of green coffee has changed. During the regulated market period, the import of green coffee amounted to 98.5 per cent of all coffee imports. During the free market period, the share declined to 93.3 per cent. The decline can be explained with the growth of the imports of roasted coffee. During the regulated market period, the average share of imports of roasted coffee amounted only to 0.2 per cent of total imports but during the free market period it increased to 4.3 per cent of the total imports of coffee. (ICC 109-2 Rev.1).

The Finnish agriculture and food industry as well as the retail sector has experienced the transition from protected national economy into open globalised economy. According to Skurnik (2005, 139–162), the Finnish economic policy can be divided in three phases: 1) closed heavily regulated economy 1980–1988; 2) opening phase for the new globalised economy 1989–1994 and 3) open competitive economy 1995 onwards. Opening of the Finnish market coincides with the liberalisation of the global coffee market which may explain also the growth in the imports of roasted coffee. (SORSA 2014, 3–6.)

The imports of soluble coffee in the regulated market period was on average 13,000 bags, or 1.4 per cent of total imports. During the free market period, the average imports have grown to 27,000 bags, or 2.4 per cent of the total imports. The growth rate of soluble coffee imports seem to continue as the average was 32,000 bags between 2000 and 2010 and the data for 2011 shows 57,636 bags. (ICC-109-2 Rev. 1, ANNEX I).

25. The world trade of green-coffee was internationally regulated through a series of international treaties from 1962 to 1989. Time after that is called liberalised or free market period. Regulatory issues will be discussed in chapter 3.

CHART II. *Finland's imports and exports of coffee in 2011 (in 60kg bags).*

Imports of green coffee	1,064,292	63,857,520 kg
Imports of roasted coffee	164,587	9,875,220 kg
Imports of soluble coffee	57,636	3,458,160 kg
Re-exports of green coffee	18,355	1,101,300 kg
Re-export of roasted coffee	172,973	10,378,380 kg
Re-exports of soluble coffee	2,210	132,600 kg
Total consumption	1,092,977	65,578,620 kg

The most important countries exporting coffee to Finland since 1997 have been Brazil, Colombia, Guatemala, Kenya and Honduras. The share of imports from Brazil has grown from 24 per cent in 1997 to 40 per cent in 2011. During the last fifteen years, Brazil's average per cent share in total imports of coffee has been 37 per cent. The second position is held by Colombia, which has a 16 per cent average share in total imports of coffee. The other two important countries of coffee origin are Guatemala and Honduras, which are both from Central America. The only country from Africa that has held its position as an important coffee country is Kenya. Its average per cent share of total imports is 4.3. 75 per cent of the all imported green coffee in 2011 came from these five countries (www.kahvinet.fi).

The limited imports of roasted coffee compared to imports of green coffee indicates also the large role of domestic roasters in supplying the Finnish markets, and their considerable role in supplying roasted coffee to the Baltic countries.

CHART 12. Sales of roasted coffee in Finland (*www.kahvinet.fi*).

Sales of roasted coffee to the domestic markets		Sales of roasted coffee for export markets	
kg		kg	
1998	47,819,000	1998	7,803,000
1999	47,091,000	1999	8,418,000
2000	44,991,000	2000	7,299,000
2001	47,280,000	2001	6,239,000
2002	46,300,000	2002	5,910,000
2003	47,057,240	2003	6,044,640
2004	47,751,285	2004	6,332,000
2005	46,870,566	2005	5,571,004
2006	48,748,501	2006	6,530,625
2007	48,745,000	2007	7,675,918
2008	49,266,000	2008	8,551,000
2009	48,336,000	2009	9,151,000
2010	46,442,188	2010	9,529,220
2011	44,165,010	2011	8,710,057

The Finnish coffee roasting market can be described as being oligopolistic. There are only two main roasters, Paulig Ltd. and Meira Ltd., and two retail chains, S-Group and Kesko, with their private label brands (Rainbow (S-Group) and Pirkka (Kesko)). The *specialty coffee* market is instead operated by many small coffee roasters with their value chains (for the definition of specialty coffee, see box n. 4). The Finnish specialty coffee market has started to grow from 2005 onwards both in retail segment as well as on Ho.Re.Ca. segment. (SORSA 2014, 32–44.)

Paulig’s market share is around 70 per cent and Meira’s around 30 per cent of the final coffee markets. The roasters’ typical value chain structure is in accordance with arrow number one in the chart 12. The market share of private label coffee brands is continually growing.

The much smaller specialty coffee roasters in Finland are:

- Mokkaestarit²⁶ Ltd. situated in Tampere,
- Andesa cafeteria roastery²⁷ in Lohja,
- small coffee roasters (two coffee cafes) CafeSolo²⁸ in Pori,
- small roaster Turun Kahvipaahtimo²⁹ Ltd. in Turku,
- small Fresh Coffee Roastery³⁰ in Toijala, which roasts coffee for the Wayne's Coffee chain,
- small coffee roaster Porvoon Paahtimo³¹ and Kaffa Roastery in Helsinki,
- Kaffino³² roaster in Alahärmä.

All those small companies are family-owned and mostly specialised in specialty coffees. The specialty coffee companies are mostly local and many of them have their own cafeteria. Many of them have also sales via the Internet, which means broader distribution availabilities for their products. Therein they are operating both in the retail business and Ho.Re.Ca. business. Their procurement and distribution is mostly in accordance with the arrow two in figure 4.

26. Mokkaestarit started in 1990 and since then it has spread its operations. Its distribution channels are focused on the Ho.Re.Ca. sector and it has also an e-shop and local cafeteria in Tampere. http://www.mokkaestarit.fi/index.php?option=com_content&view=article&layout=detail&id=39

27. Andesa Tmi (Cafeteria roastery) started its business operations in Finland in the specialty coffee sector. At the same time, the coffee from Peruvian coffee partners (Gran Palomar) obtained the silver medal in the National Competition of Specialty Coffees (Peru). Its headquarters are situated in Tapanila, Helsinki. The roastery moved to Lohja in 2007, to a 180 m² factory. A wide diversity of specialty coffees were quickly incorporated into the roastery. In total, the roastery offers coffees from more than 15 different coffee producing countries.

28. <http://www.cafesolo.fi/>

29. <http://www.turunkahvipaahtimo.fi/myymala>

30. <http://www.freshcoffee.fi/>

31. <http://www.porvoonpaahtimo.fi/company.htm>

32. Kaffino is located in the south-west of Finland and it sales only specialty coffees. This roaster has also an e-shop. <http://www.kaffino.net/index.html>

The Finnish retail segment is very concentrated. Two grocery chains, Kesko and S-Group, together have a market share of around 80 per cent of the Finnish retail markets which means that getting the coffee to the shelves of these two main chains guarantees at least the good distribution network for the coffee brands. Kesko's market share was 34.7 per cent in 2012 and S-Group's market share 45.6 per cent³³. In 2013, Kesko's market share was 34 per cent and S-Group's 45.7 per cent. Kesko has slightly lost its shares in favour of the S-Group and Lidl chains³⁴.

2.5 THE PRIVATE LABEL SEGMENT IN IMPORTING COUNTRIES (ITALY AND FINLAND)

When analysing production and distribution of roasted coffee, not only should a producer's branded products be taken into consideration. An increasingly important role is played by so-called private labels, which are coffee products produced under the retailers' name. Retail chains take care of the private label production.

In the private label value chain, the retail chain produces the coffee under the private label brand either in Finland or abroad to be sold in the outlets of the chain. When the roasters (e.g. Paulig) operate with their own brands, the owner of the brand is the roasting company. This needs to be kept in mind when analysing the competition in the coffee markets. When buying the branded coffees into retail chains, the private label coffees and branded coffees compete with each other. *In this sense, the retail chain companies play a dual role in the commodity coffee markets acting as a producer and distributor at the same time.*

33. Nielsen's research news <http://fi.nielsen.com/news/documents/GroceryShopDirectory27March2013.pdf>

34. http://www.kauppa.fi/ajankohtaista/uutiset/s_ryhma_ja_lidl_kasvattivat_markkinaosuuttaan_paiivittaistavara kaupassa_24056

Private labels started in the 1970s and their relevance has gradually grown, although differently from country to country. Through a private label, retailers make a contract with suppliers for the production of specific goods to be sold under the retailer's name. Private labels do not merely offer a lower-cost alternative to branded products; they have started to address new specific market segments, targeting niche customer groups, such as the one of socially or environmentally sustainable products (e.g. fairtrade, organic), healthy products (e.g. low-fat food), or gastronomic quality food. Private labels represent for the large chains not only a great marketing tool to increase consumer loyalty to their brand name, but also a segment through which they achieve higher revenues, thanks to easier control on prices and margins of products under their own brand. Private labels modify the relationships between retailers and suppliers, introducing elements of cooperation together with competition.

In the European scenario, private labels have an important market share, although, for the first time since the economic recession began, it dropped by 0.1 pt in value and unit in 2014, standing now at 38.7% of all value sales and at 48.9% in unit sale³⁵. The European countries with a higher private label share (by value and volume) are Britain (51.5% by value and 59.2% by volume), Spain (42% by value and 49.7% by volume), France (29.1% by value and 39.7% by volume), The Netherlands (27.3% by value and 34.8% by volume) and Germany (24% by value and 34.9% by volume).

35. IRI Special Report, Private Label in Western Economies. Closing the price gap, losing share, December 2014, p. 4. "Germany is the exception in Europe with private label growth amongst grocery and drugstore (+0.7pt in value share and +1.0pt in unit share) as well as in the total market" (p.5).

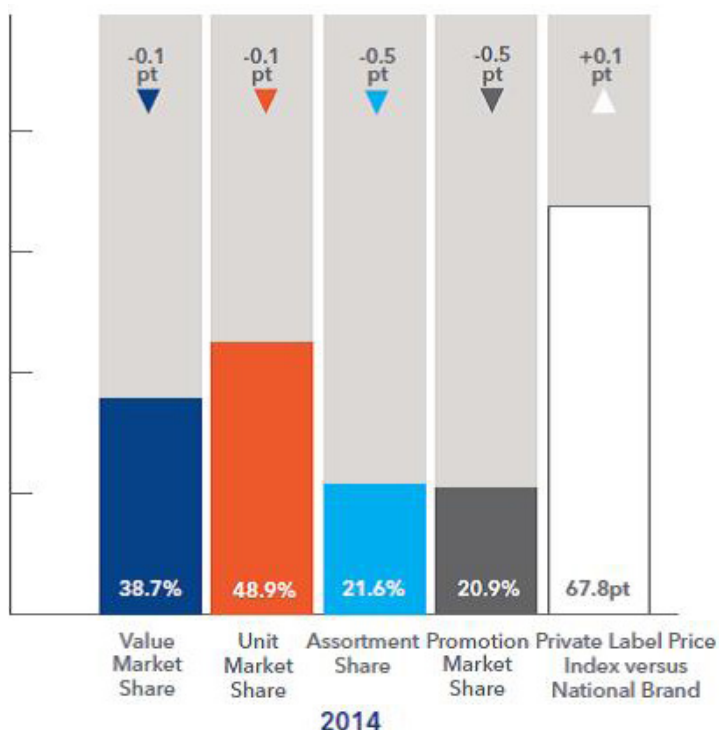


FIGURE 5. Private label's evolution for total fast moving consumer goods versus a year ago and explanatory factors in Europe. Source: IRI Special Report, Private Label in Western Economies. Closing the price gap, losing share, December 2014, p. 6.

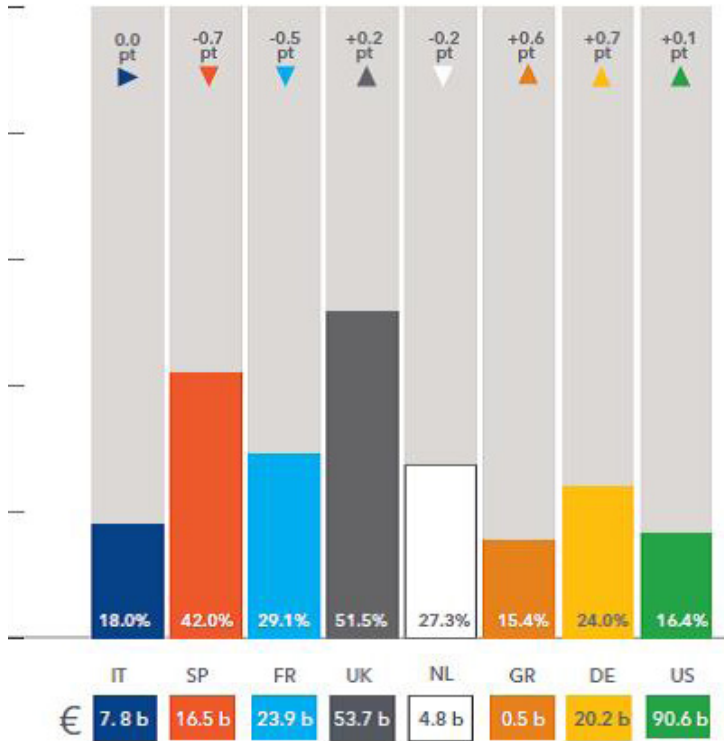
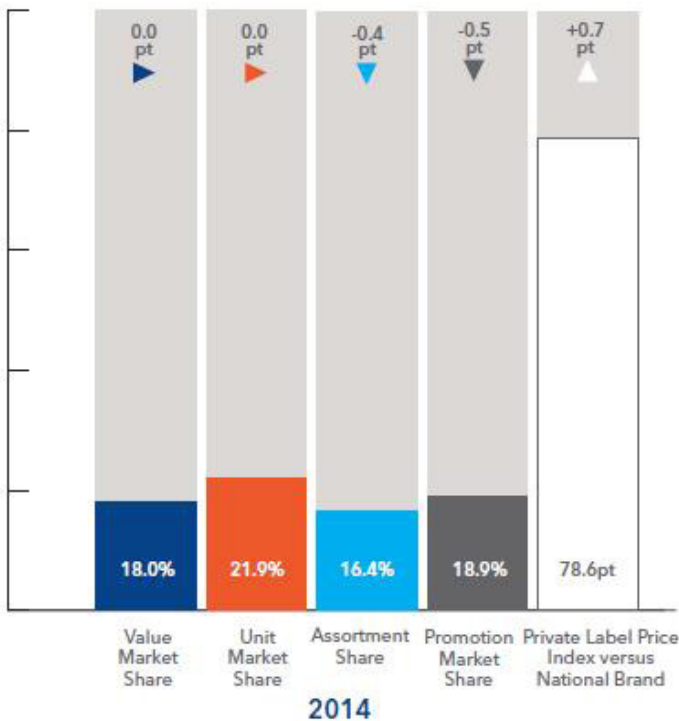


FIGURE 6. *Private label's value share by country. Source: IRI Special Report, Private Label in Western Economies. Closing the price gap, losing share, December 2014, p. 7.*

In the Italian market, after almost five years, private label stopped growing (0.0pt value share and 0.0pt unit share versus a year ago), reaching 18% in value share and 21.9% by volume in 2014³⁶. Private labels are still growing only with regard to premium and organic products³⁷.

36. IRI Special Report, Private Label in Western Economies, cit., pp. 27 ff.

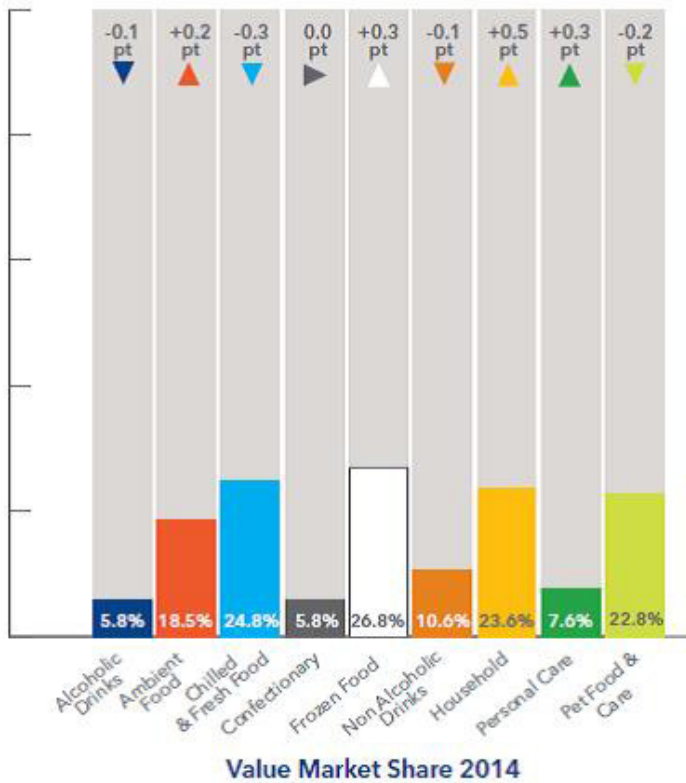
37. IRI Special Report, Private Label in Western Economies, cit., p. 4.



Sources: IRI InfoScan (hypermarkets and supermarkets)

FIGURE 7. Private label's evolution for total fast moving consumer goods versus a year ago and explanatory factors in Italy. Source: IRI Special Report, Private Label in Western Economies. Closing the price gap, losing share, December 2014, p. 27.

With specific regard to the coffee market, data about the first months of 2012³⁸ show, on the one side, a general decrease in the total sales volume of coffee (ground coffee, coffee beans and coffee pod), and, on the other side, a general increase in the sales volume of private label coffee (for the segments ground coffee, coffee beans and coffee pod), compared to 2011. In 2012, private label accounts for 14.2% of the total sales volume of the coffee market in Italy. Private labels are today leader in the espresso and pods segments, while they are third in the moka and fourth in the capsules segments³⁹. With regard to the leading large-scale distributor in Italy, Coop, the weight of private label coffee in 2012 is 25.2% of the total volume of Coop market for coffee (ground coffee, coffee beans and coffee pod), representing an increase of 4.6% compared to 2011.



Sources: IRI InfoScan (hypermarkets and supermarkets)

FIGURE 8. Private label's value share by categories in Italy. Source: IRI Special Report, *Private Label in Western Economies. Closing the price gap, losing share, December 2014*, p. 28.

In Finland, the retail trade chains Kesko group, S-Group and the international Lidl chain have their own *private labels* like Pirkka (Kesko chain), X-tra (S chain) and Bellarom (Lidl chain).

38. Nielsen AT, 26 August 2012.

39. Il Sole24Ore, 10 February 2013, p. 12.

2.6 CONSUMPTION: GENERAL TRENDS

In relation to consumption, the European Union was responsible in 2012/2013 for 31.2% of the total world consumption, followed by the United States and Brazil. Within the European Union the Member States with higher level of coffee consumption are Germany, Italy and France.

CHART 13. *World coffee domestic consumption. Source: USDA, Coffee World Markets and Trade, December 2014.*

Calendar year: 2012/13 and 2013/14 (October/September marketing year)				
	2012/13		2013/14	
	000-60kg bags	% of the world consumption	000-60kg bags	% of the world consumption
European Union	44,250	31.2%	42,560	29.9%
Unites States	23,392	16.5%	24,381	17.1%
Brazil*	20,110	14.2%	20,100	14.1%
Japan	7,370	5.2%	7,610	5.3%
Philippines*	4,405	3.1%	3,760	2.6%
Russia	4,070	2.9%	4,145	2.9%
Canada	3,555	2.5%	3,875	2.7%
<i>Total world consumption</i>	141,973	100%	142,416	100%

* Producing countries on a July/June marketing year

CHART 14. *European Union coffee domestic consumption.*

Source: ECF, *European Coffee Report 2013/2014.*

Calendar year: 2012/13 (July/June)		
	000-60kg bags	% of the European Union consumption
Germany	8,777	21%
Italy	5,695	13.7%
France	5,605	13.5%
Spain	3,624	8.7%
United Kingdom	2,822	6.8%
Finland	1,082	2.6%
European Union	41,630	100%

Brazil is the only country that is present in both groups of major producing (of green-coffee) and consuming countries.

“Europe has the highest per capita coffee consumption in the world. The EU consumes 2.5 million tons coffee per year, which equates to 4 kilos of roasted coffee per EU inhabitant per year. Every day some 725 million cups of coffee are drunk in the EU”⁴⁰. In terms of *per capita* consumption, Scandinavian countries stand out. Finland is the first in 2012 (as well as in 2013), followed in 2012 by Denmark and Sweden as biggest per capita consumption countries (see chart 10).

CHART 15. *Per capita coffee consumption.* Source: ECF, *European Coffee Report 2013/2014.*

	Per capita consumption in Kg.
Finland	12,00
Denmark	8,60
Sweden	7,31
Germany	6,40
Greece	5,81
Italy	5,63
France	5,43

40. European Coffee Federation website, <http://www.ecf-coffee.org/about-coffee/coffee-consumption-in-europe>.

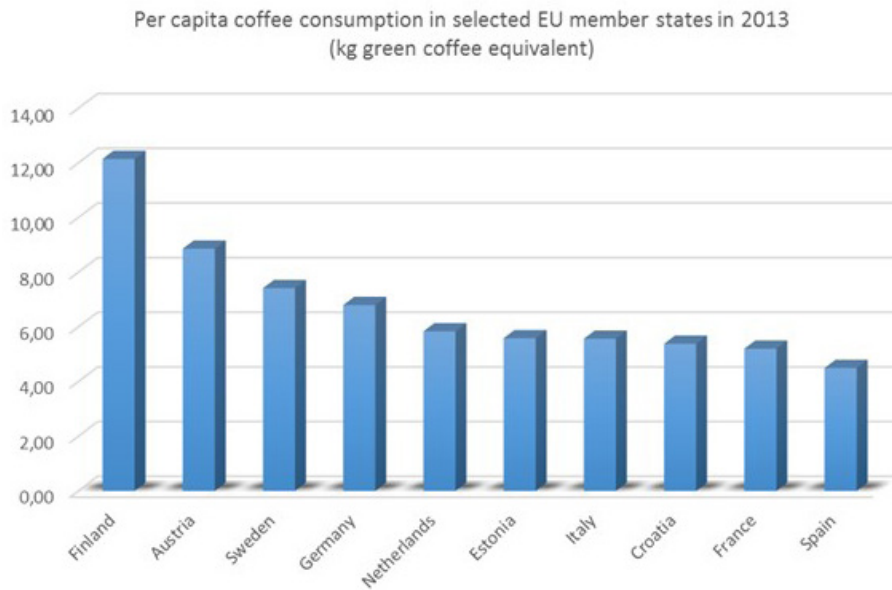


FIGURE 9. *Per capita coffee consumption in selected EU member states in 2013.*
 Source: European Coffee Foundation website (<http://www.ecf-coffee.org/about-coffee/coffee-consumption-in-europe>)

Looking at the average roasted coffee consumption in the last 14 years, from 1997 to 2011, both Italy and Finland are among the first five countries, respectively at the fourth and first place.

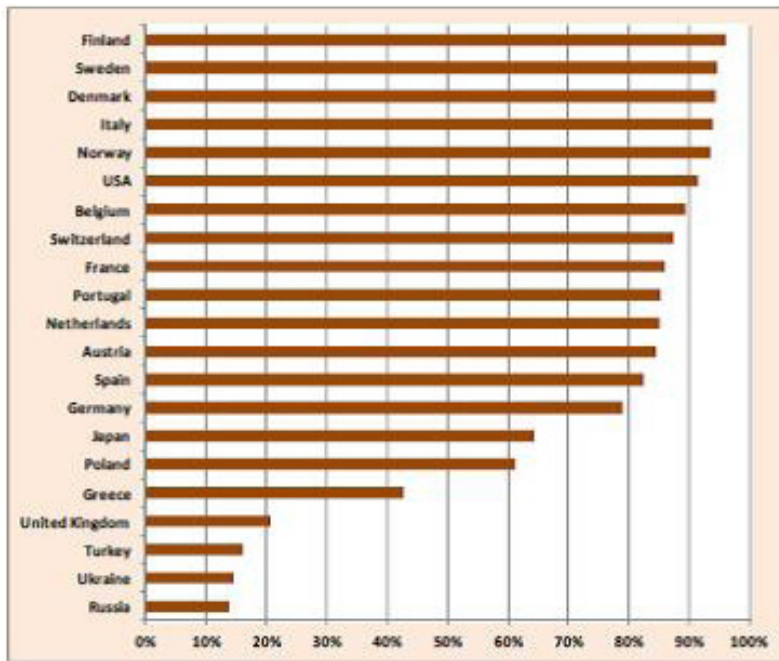


FIGURE 10. *Average roasted coffee consumption (%) in selected importing countries (1997 to 2011). Source: ICO Monthly Coffee Market Report, August 2012 <http://www.ico.org/documents/cmr-0812-e.pdf>*

2.6.1 Italian Coffee Consumption Patterns and Trends

As a general trend, in most countries the retail sales for in-home consumption represent 70 to 80% of the overall distribution of coffee, but differences emerge from country to country⁴¹. In Italy, the out-of-home consumption is quite widespread, representing one third of coffee consumption⁴² (see also fig. 11 for the average out-of-home consumption in the last 14 years, from 1997 to 2011). However more than two-thirds of coffee is sold through the retail segment, mainly in hypermarkets and supermarkets for in-home consumption⁴³.

41. ITC, *The Coffee Exporter's Guide*, 2011, pp. 17 ff.

42. Coffitalia, *Annual Report 2014-15*, p. 17.

43. Coffitalia, *Annual Report 2014-15*, p. 17.

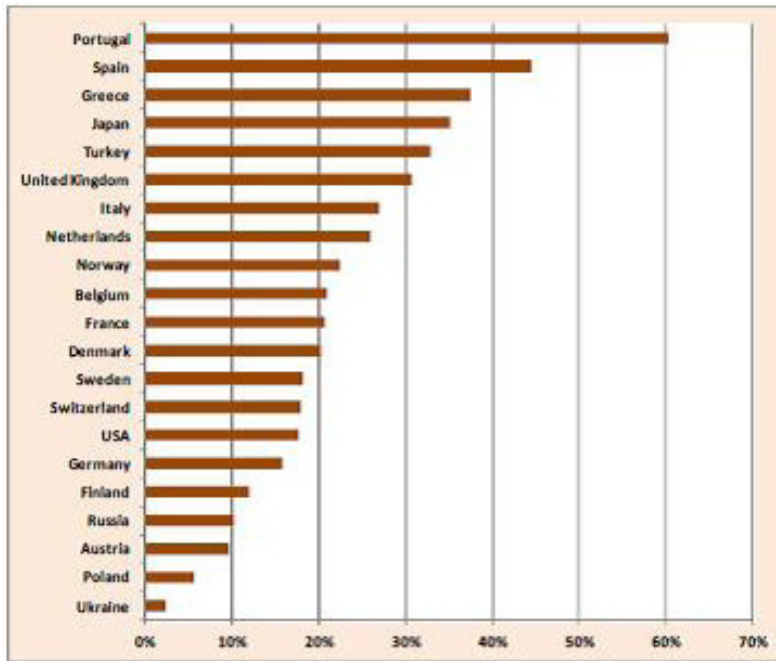


FIGURE 11. Average out-of-home coffee consumption (%) in selected importing countries (1997 to 2011). Source: ICO Monthly Coffee Market Report, August 2012 <http://www.ico.org/documents/cmr-0812-e.pdf>

Compared to the previous year, in 2013 coffee sales in the retail channel in Italy, show a decrease in volume just over 1%, with specific regard to the segments of ground espresso, coffee beans, instant coffee and decaffeinated coffee, and a 2% decline in value due to the decrease of average selling prices. However ground coffee for the moka pot, which is the most important segment, was stable in volume.

Portioned coffee is the only segment showing in the same year an increase both concerning the volume (+6.5%) and the value (+12.8%). In the retail channel it counts for just 5.4% of the total volume of ground coffee sales, while in value it represents over 20% of the total value.

With reference to 2014 (ending in July 2014)⁴⁴ coffee sales volume is stable (+ 1.1%), with a decline in value (-2.2%) and a turnover of over 1 billion euro (IRI data, total Italian hyper + super + lsp with a small retail area up to 300 sq.m.). Within this picture, however, most of the segments show a negative trend with the sole exception of capsules which have grown both in volume (+ 20.1%) and in value (+ 16.6%, for a total of over 146 million euro)⁴⁵. From 2011 to today, the number of Italian families using this product has almost doubled, rising from 1,5 to 2,6 million (equal to 11% of Italian households).

CHART 16. *Volume and value variations of coffee sales in the retail channel (2014 (year ending in July 2014)–2013). Source: IRI data, total Italian hyper + super + lsp mentioned in Stefania Colasuono, Caffè: un anno “amaro” tranne per le capsule, 27 October 2014, cit.; Fabrizio Patti, L’Italia vuole solo il caffè in cialda. E lo paga caro, 23 November 2014, cit..*

	Volume variations	Value variations
Tot. Coffee	+1.1%	-2.2%
Ground coffee for moka	+2.3%	-3.7%
Espresso	-5.5%	-8.3%
Decaffeinated	-6.8%	-8.9%
Beans	-0.6%	-1.4%
Pods (cialda)	-2.4%	-5.9%
Capsules (capsula)	+20.1%	+16.6%

44. Stefania Colasuono, Caffè: un anno “amaro” tranne per le capsule, 27 October 2014, available at http://www.distribuzionemoderna.info/content.php?id_sezione=16&id=179&vai=1&indice_scelto=1&titolo_notizia=Caff%E8:-un-anno-%93amaro%94-tranne-per-le-capsule; Fabrizio Patti, L’Italia vuole solo il caffè in cialda. E lo paga caro, 23 November 2014, available at <http://www.linkiesta.it/caffe-in-capsula-italia-incantata-dal-marketing>.

45. It should be noted that the average price of ground coffee espresso is € 9.84 per kg, while the average price of capsules and pods rises to 37.69 euro per kg and that of capsules alone has reached 46.48 euro per kg. Maurizio Bertera, Caffè, la guerra delle capsule spiazza Nestlé, 18 April 2014, available at <http://www.linkiesta.it/guerra-delle-cialde-di-caffe>.

Looking at certified coffees, both organic and Fairtrade coffee are still niche markets in Italy, although Italian consumption of Fairtrade products in general and coffee in particular are growing⁴⁶. As shown in the 2014 Fairtrade Italia Report, in fact, the retail value of Fairtrade coffee (finished products) in Italy increased by 15% in 2013 compared to 2012 (reaching a total of 7.102.000euros), despite the economic crisis. Moreover, it is worth noting that 51% of Fairtrade coffee sold in Italy in 2013 have also the organic certification⁴⁷. At a global level, the total sales volume of Fairtrade coffee reached 134,100 MT in 2011–2012, with an increase of 9% compared to the previous year, and 37% of Fairtrade coffee production is organic certifiable⁴⁸.

Although organic and Fairtrade coffee is mainly sold through the retail segment, in supermarkets and hypermarkets, also as private labelled products for in-home consumption, new trends are emerging in the out-of-home channel. In fact, in 2013 the volume of Fairtrade coffee sold in the Ho.Re. Ca. channel increased by 7% compared to 2012, reaching a share of 26% with 434.026 kg of coffee sold in the Ho.Re.Ca. channel, vis-à-vis 74% of the retail segment⁴⁹. In 2013 there were forty brands of Fairtrade coffees for the out-of-home segment produced in Italy by thirty roasters, among which there are also some of the top players, such as Kimbo, which has developed a new product, Kimbo Espresso Fairtrade, specifically for the Ho.Re.Ca line⁵⁰.

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46. CBI, Coffee in Italy, 2011, available at http://www.cbi.eu/system/files/marketintel/2011_Coffee_in_Italy.pdf. The market share of organic coffee in Italy was estimated in 2008 at 0.5% and that of environmentally friendly and ethically produced coffee, such as Fairtrade coffee, stood at less than 1% (E. Pay, The market for organic and Fairtrade coffee, FAO, Rome, 2009, p. 9 and 12).
 47. See Fairtrade Italia, Report of the activities “Vent’anni con Fairtrade Italia”, 2014, pp. 6-7.
 48. Fairtrade, Monitoring the scope and benefits of Fairtrade, Fifth Edition, 2013, pp. 69-70.
 49. See Fairtrade Italia, Report of the activities “Vent’anni con Fairtrade Italia”, 2014, pp. 28-29.
 50. A. Muzio, La tazzina equosolidale arriva al bar, 30 October 2013, available at <http://www.mixerplanet.com/la-tazzina-equosolidale-arriva-al-bar/>.

% RETAIL
% HORECA

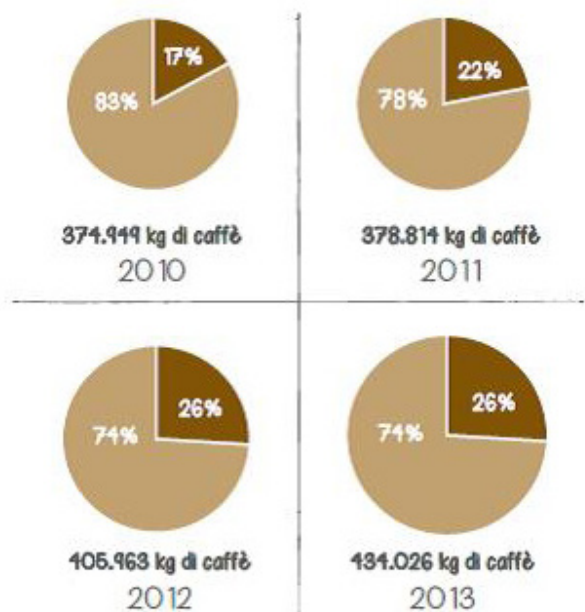


FIGURE 12. Volume of Fairtrade coffee sold in the Ho.Re.Ca. and retail segments in Italy (2010-2013). Source: Fairtrade Italia, Report of the activities “Vent’anni con Fairtrade Italia”, 2014, p. 29.

2.6.2 Consumption – Finnish coffee consumption: patterns and trends

The Finnish coffee consumption history cannot be described without at the same time describing the history of Gustav Paulig’s company. The historical development of the coffee business is interconnected to the changes in coffee consumption patterns and technological developments.

A short history of the Finnish coffee business

Established in 1876, Gustav Paulig's wholesale business was one of the first in Finland *to sell imported products like coffee*, sugar and spices. At that time, there were no coffee roasting companies in Finland, but *people roasted the green coffee beans at home*⁵¹. (Voipio 1993, 68–71). Mr. Paulig was one of the *first persons to sell roasted coffee*: there had been some coffee shops before Mr. Paulig that roasted the coffee before selling it, but they did not survive the depression caused by World War I (Sipilä 2007).

Mr. Paulig's roastery business did not succeed immediately: people were sceptical about ready-roasted coffee for quite long, since they were accustomed to picking out their green coffee beans and assessing the beans' quality themselves (Voipio 1993, 72). Knowing how to roast coffee was considered every wife's basic skill. Furthermore, the beans were only sold in 5, 10 and 20 kg packages, which was a big amount of coffee for one household to buy (Boström et al. 1997, 117). Hence, it was not *until the mid-1920s*, when Mr. Paulig started to sell roasted coffee in smaller and more convenient ½ kg packages, that its sales really took off. At the same time, the sales of green coffee dwindled rapidly (Voipio 1993, 73). Salesmen also lured Finns to buy roasted coffee by appealing to their price awareness: as roasted coffee weighed less than the green beans, its price per kilogram was lower (Sipilä 2007, 24).

The selling of ground coffee began in the late 1920s (Sipilä 2007, 16). However, as coffee loses much of its aroma once it has been ground, *people opted for non-ground coffee until the 1950s*, when vacuum-packed coffee came to the market (Sipilä 2007, 53). As smaller roasters could not afford to invest in vacuum packing machinery (Sipilä 2007, 53) and as the nature of the production became more technical, the number of coffee roasters dropped *from nine in the 1970s to three* in the early 1990s (Voipio 1993, 146). Nowadays, however, several small specialty roasters have been established, and the number has risen again to about a dozen.

Mr. Paulig's decision to sell roasted coffee in small packages proved to be the right one (Boström et al. 1997, 117), and Gustav Paulig Ltd. has continued to be Finland's leading coffee company even today. Another big Finnish coffee company is Meira, which roasts around 30 per cent of the coffee consumed in Finland.

Finnish coffee consumption patterns

Throughout the 20th century, Finland ranked among the biggest coffee-consuming countries, and in the 1970s Finns surpassed Swedes as the biggest coffee drinkers in the world (Voipio 1993, 74). During the last fifteen years, Finland continues to be “number one” in the per capita coffee consumption as the trend shown in chart 11 seems to continue in 2011–2013. In 2011, average per capita consumption was 12.3 kg (ICC 109-8, ANNEX II). In most of these thirteen European countries average per capita consumption is relatively high.

CHART 17. *Average per capita consumption in selected importing countries. (ICC 108-1, 2012, 2).*

	Austria	Belgium	Denmark	Finland	Greece	Netherlands	Norway	Poland	Portugal	Sweden	Switzerland	Turkey	Ukraine
1997	8.2	5.2	9.2	11.0	4.1	9.1	9.2	3.1	3.6	8.4	6.0	0.2	0.2
1998	8.3	7.7	9.7	11.7	3.7	7.5	9.5	3.1	4.1	8.5	6.8	0.3	0.2
1999	8.4	4.9	9.8	11.4	3.5	5.6	10.6	3.1	4.3	8.7	7.2	0.2	0.3
2000	6.6	6.7	8.9	11.2	3.8	7.0	8.8	3.2	3.8	7.9	6.9	0.3	0.2
2001	7.6	5.2	9.7	11.0	3.0	6.3	9.4	3.5	4.3	8.4	6.8	0.3	0.3
2002	6.9	8.7	9.0	11.2	4.5	5.9	9.1	3.4	4.2	8.2	6.8	0.3	0.6
2003	5.3	9.2	8.1	11.1	5.1	6.5	9.0	3.5	3.8	7.9	7.0	0.3	0.8
2004	7.3	8.1	9.4	11.9	4.7	7.3	9.2	3.6	3.9	8.2	5.9	0.3	0.9
2005	5.6	6.7	8.8	12.6	4.7	7.1	9.6	3.6	3.7	7.7	8.9	0.4	1.3
2006	4.4	8.8	9.1	11.9	4.6	7.8	9.2	3.1	3.8	8.7	7.5	0.4	1.2
2007	6.1	6.3	8.7	12.0	5.5	8.4	9.8	2.4	3.9	8.2	7.9	0.4	1.4
2008	6.5	3.7	7.6	12.6	5.3	4.8	9.0	2.6	3.7	8.3	9.1	0.4	2.3
2009	6.4	5.3	7.4	11.9	5.2	3.2	8.9	3.2	3.9	7.3	7.7	0.4	1.9
2010	6.5	4.9	9.5	12.1	5.3	4.9	9.2	3.4	4.1	7.9	8.0	0.5	2.0
Average	6.7	5.6	8.9	11.7	4.5	6.5	9.3	3.2	3.9	8.2	7.3	0.3	1.0

In kilograms

With a total population of 5.4 million inhabitants and an average consumption of more than 1 million bags, Finland has had the highest per capita consumption of the thirteen countries compared in the International Coffee Council research. According to the ICC research, Finnish people used 12.1 kg coffee per capita, which is approximately at the same level as around the middle of 1990 (see chart 13). Even though the per capita consumption ranks high, the total consumption accounts for only a 0.9 per cent share of the world total.

51. Mr. Paulig was confident that, in the retail trade, green coffee would eventually be supplanted by roasted coffee, and therefore he decided to start up Finland's first commercial roastery in 1904.

CHART 18. Consumption in thirteen European countries. (ICC 108-1, 2012, 2).

	Austria	Belgium	Denmark	Finland	Greece	Netherlands	Norway	Poland	Portugal	Sweden	Switzerland	Turkey	Ukraine	All selected countries	All importing countries	World total
1997	1 087	886	808	939	739	2 367	675	1 966	603	1 241	712	236	167	12 427	76 380	100 539
1998	1 105	1 309	854	1 001	668	1 961	702	1 965	696	1 248	811	286	126	12 732	78 037	103 018
1999	1 123	834	869	979	641	1 471	785	1 985	737	1 279	863	265	253	12 085	80 313	105 853
2000	875	1 133	791	967	687	1 860	657	2 046	646	1 173	827	287	179	12 128	79 113	105 496
2001	1 013	884	868	947	548	1 677	710	2 222	745	1 251	816	290	228	12 201	82 002	109 802
2002	926	1 484	805	970	827	1 574	692	2 201	720	1 224	821	359	440	13 043	82 929	111 382
2003	720	1 579	724	966	929	1 743	683	2 242	657	1 178	852	367	647	13 287	84 533	113 925
2004	956	1 396	849	1 034	871	1 978	709	2 281	685	1 234	722	403	739	13 898	89 106	120 032
2005	772	1 158	795	1 102	870	1 927	743	2 267	656	1 170	1 099	464	1 025	14 048	88 178	120 801
2006	612	1 537	822	1 047	857	2 129	721	1 993	671	1 315	932	497	968	14 102	90 200	124 627
2007	847	1 103	794	1 057	1 015	2 292	771	1 554	684	1 244	989	516	1 057	13 923	92 981	129 354
2008	908	650	688	1 115	978	1 324	715	1 681	654	1 272	1 149	484	1 733	13 351	94 798	132 917
2009	886	934	679	1 058	974	898	715	2 001	705	1 133	966	521	1 460	12 929	92 152	131 828
2010	903	871	864	1 080	994	1 347	746	2 156	728	1 221	1 012	610	1 485	14 016	93 708	135 040
Average	912	1 126	801	1 019	828	1 753	716	2 040	685	1 227	898	399	751	13 155	86 031	117 471
% Share in all importing countries	1.1%	1.3%	0.9%	1.2%	1.0%	2.0%	0.8%	2.4%	0.8%	1.4%	1.0%	0.5%	0.9%	15.3%		
% Share in world total	0.8%	1.0%	0.7%	0.9%	0.7%	1.5%	0.6%	1.7%	0.6%	1.0%	0.8%	0.3%	0.6%	11.2%	73.2%	

In thousand bags

The comparison of coffee consumption can be made comparing the forms of coffee consumption in relation to total consumption. The different forms of consumption are roast versus soluble and pods versus other type of consumption. Finns do not only drink more coffee than other nationalities, but *they also prepare it differently*. *Light-roasted coffee* is favoured by consumers. 94% of the consumed coffee in 2011 was light-roasted. (www.kahvi.net). In Finland, coffee is roasted lighter than in Southern and Central Europe (Sipilä 2007, 9). In fact, the Finnish coffee is known to be the lightest roast in the world: as light a roast is only available in Northern Sweden (Kaaria 2009).

The reason why Finns use light roasted coffee is in the Finnish coffee culture, which changes very slowly. According to the Paulig interview, the main coffee raw material for Paulig’s coffee has been Arabica. Paulig also uses mainly washed coffee as their raw material. Washed green coffee is purchased from Central America and Africa. The Brazilian green coffee is mostly dried coffee, which Paulig uses less. Because Paulig’s coffee brands are produced from different blends, there are also many suppliers in different parts of the world (Paulig interview). According to the leading coffee barista in Finland, Paulig’s coffee is high quality. They have top quality coffee (cup of excellent coffee over 85 points), which may apparently be considered specialty coffee, but given the large amount of coffee roasted it cannot be classified as specialty coffee. (Barista interview). (SORSA 2015, 16–21),

Another issue that has an impact on the selection of coffee raw-materials is the quality of the drinking water. According to Kesko's coffee purchaser, the water in Finland is much softer than in other countries. Therefore the raw material needs to be of very high quality as one can taste very easily any quality defects. (Kesko's coffee purchaser interview). (SORSA 2014b, 34–35).

However there is a trend in the Finnish coffee culture towards darker roasted coffee, as well as better knowledge of Italian espresso. The reason for this is that Finnish people travel a lot and they learn new coffee drinking habits abroad (Kesko's coffee purchaser interview). Coffee roasters have brought also dark roasted coffee blends onto the market, which enables experiments in Finland as well. (SORSA 2015, 16–20).

The soluble coffee which has been a growing trend in other countries is not yet well-known in Finland. The share of soluble coffee (see chart 14) in total consumption is relatively stable in Finland, having dipped below four per cent from 2004 to 2010, but recovered slightly in 2011. All coffee prepared at home in Finland is in the standard form of roasted coffee and according to the available data no use of coffee pods is registered even though a few countries have recently developed a significant market segment for coffee pods (ICC 109-8, 6, 15).

CHART 19. *Total consumption of roasted and soluble coffee in Finland. (ICC 109-8, 2012, ANNEX VI-2).*

Finland	Total	Volume				Percentage shares			
		Roasted			Soluble	Roasted			Soluble
		Standard	Pods	Subtotal		Standard	Pods	Subtotal	
1997	939			900	39			95.9%	4.1%
1998	1 001			963	39			96.1%	3.9%
1999	979			943	36			96.3%	3.7%
2000	967			927	40			95.8%	4.2%
2001	947			909	39			95.9%	4.1%
2002	970			927	42			95.6%	4.4%
2003	966			924	42			95.7%	4.3%
2004	1 034			999	35			96.6%	3.4%
2005	1 102			1 063	39			96.4%	3.6%
2006	1 047			1 008	39			96.3%	3.7%
2007	1 057			1 016	41			96.1%	3.9%
2008	1 115			1 072	43			96.1%	3.9%
2009	1 058	1 018	0	1 018	40	96.2%	0.0%	96.2%	3.8%
2010	1 080	1 039	0	1 039	41	96.2%	0.0%	96.2%	3.8%
2011	1 093	1 049	0	1 049	44	96.0%	0.0%	96.0%	4.0%
Average	1 024	1 036*		984	40	--	--	96.1%	3.9%

* Average from 2009-2011

Nowadays coffee is an integral part of Finnish culture: it is seen as a commodity that everyone is entitled to, and coffee consumption is little affected by income levels or coffee prices. Finnish consumers are price-oriented (Barista interview; Paulig interview). (SORSA 2014b, 35–40).

A very important trend in the coffee sector is sustainable production, which is communicated to consumers using eco-labels. The aim of the eco-labels is to persuade consumers to change their consumption patterns to favour sustainably produced products (SORSA & JOLKKONEN 2014, 10–27). Fairtrade and organic are the first two certification schemes in the Finnish coffee markets. After 2005, however, the number of other certification schemes has grown, especially the UTZ certified coffee labels. (SORSA 2014b, 33–34; 43–44.) Nowadays the amount of certified coffee is between four to six per cent in Finland according to Paulig’s director Elisa Markula. (Ruokatiето 2012a).

Fairtrade coffee has been offered to Finnish consumers since 1999. A number of fairtrade-labelled coffee brands have been produced first by Kesko in 1999 and later in 2006 by Meira. The growth of the certified coffee market in Finland can be explained by the interest of the frontrunner organisations to add certified coffee brands on their product categories (SORSA 2014b, 33–35; 43–44) and the long history of the fairtrade brand in Finland (SORSA 2014b, 12–15.) ”Finland is in a good fourth place in per capita consumption of Fairtrade products”, says Janne Sivonen, executive director of Fairtrade Finland. The sales of fairtrade-labelled products amounted to 152 million euros in 2012, which is 28 euros per capita. The total sales of fairtrade products in 2011 amounted to 102,673,112 euros and in 2012 to 152,263,629 euros. The growth rate was 48 per cent⁵². The most relevant role played in the growth was explained to be fairtrade coffee consumption out of home, in restaurants and cafés.

52. http://www.fairtrade.net/fileadmin/user_upload/content/2009/resources/2012-13_AnnualReport_FairtradeIntl_web.pdf

In 2010, the turnover of organic food products reached 80 million Euros and every fifth Finnish household purchased organic products on a regular basis, compared to 17 per cent in 2008. In 2011, sales increased by 46% from 2010. The organic market in Finland was increasing rapidly in 2011, with demand exceeding supply. Food retailers responded by offering more organic products in their stores. Organic products were sold to the tune of EUR 202 million in 2012 – an increase of 24 per cent from the year 2011.

Sales of organic foods continued to grow steadily in Finland in 2013. Yet domestic production of many products is unable to meet consumer demand. As a result, a record volume of organic food is now being brought into Finland⁵³. However, in comparison to its neighbouring countries, Sweden (3%) and Denmark (7%), the market share in Finland (1.2 %) was still low.

Organic coffee was launched on the Finnish markets in 1998. All three most important wholesale companies (Tuko, Kesko and Inex Partners) at that time took organic coffee to their product categories⁵⁴. The high product prices, however, are the most important obstacle for the growth of sales of organic coffee and other products (Prices are much more high than, for example, in Sweden.

53. http://yle.fi/uutiset/organic_imports_muscle_into_finland/6747553

54. <http://www.maailmankuvalehti.fi/node/2791>

3 MARKET REGULATION AND MARKET STRUCTURE

3.1 THE GLOBAL MARKET

3.1.1 Regulation, market and supply chain during the period of international market regulation (1962–1989)

The world trade of green-coffee was internationally regulated through a series of international treaties, the International Coffee Agreements (ICAs), for almost 30 years: from 1962 to 1989, with effectiveness periods and suspension ones⁵⁵. They were in force during the following periods: 1962-1972, 1981-1985 and 1988-1989.

It can be affirmed, in fact, that coffee was one of the first commodities to be internationally regulated with the aim of controlling the world trade (PONTE, 2001, 9).

Already during the first half of the 20th century, fluctuating prices of coffee led to attempts to stabilise the coffee market at a time of political and economic uncertainty in various coffee producing regions, including South and Latin America, and Africa. At that time, the International Coffee Organisation (ICO), an intergovernmental organisation set up under the auspices of the United Nations as an instrument to develop cooperation among its members⁵⁶, has been influential in the coffee market. It succeeded in managing the coffee agreement between exporting and importing countries. During the period in which the ICA system was in operation, prices were volatile, due to various factors, including climate. Volatility and fluctuation of prices are described as elements characterising the time before the adoption of ICAs (as if they were the justification for an intervention) and as something going on despite the ICAs.

In 1962, the first ICA was concluded with the aim of halting a declining price trend and stabilising prices above their free market level (AKIYAMA et al, 1990, 158). It was signed by the majority of green-coffee producing and importing countries⁵⁷ providing for: (i) quotas and controls on exports and imports to balance supply and demand and to control prices, (ii) a voting formula in favour of importing countries, (iii) a certificate of origin scheme, as well as (iv) an Executive Board and Council for governance.

The International Coffee Organization was in charge of administering the ICAs (ICO website. See also SAES & NAKAZONE 2002, 6; and also STANLEY, 2010).

The main intervention mechanism was the export quotas` system for the producing countries which were members of the agreements. The Agreements sought to match supply to demand, with the aim of stabilizing prices. It was only in 1976 that a selective adjustment system was introduced, consisting of setting indicative prices. The ICA's regime consisted of determining a high target price for the green-coffee in the international market and to control it through the allocation of green-coffee export quotas for each of the producing countries. Within the agreement, the green-coffee exporting countries committed not to export the product beyond the established quotas, while the importing countries committed to acquire green-coffee only from the members of the ICO and within the exporting countries' established quotas (SAES, 1995; AKIYAMA et al, 1990, 158). When market transactions reached prices that exceeded the indicative price range, the quotas were increased, and when the transactions amounted to prices below the indicative price range, the quotas were reduced. Price stability of the green-coffee traded in the

55. As defined by the International Coffee Organization "The International Coffee Agreement (ICA) is an international treaty that sets out the ICO objectives and the basic framework within which it operates. The treaty is agreed to by Member Governments and lasts for a set period of years." (ICO website).

56. "The International Coffee Organization (ICO) is the main intergovernmental organisation for coffee, bringing together exporting and importing Governments to tackle the challenges facing the world coffee sector through international cooperation. Its Member Governments represent 97% of world coffee production and over 80% of world consumption." ICO website. Among its members, since the beginning of its activities, are Brazil, Italy and Finland.

57. E.g. Finland has ratified coffee agreements since their beginning, LAAKSONEN, 2008, 36.

world was therefore promoted by controlling the volume of exports through quotas and not through direct control of prices. In fact, there was not a strict price control, but an indication of prices and a quota system aimed at price stabilization (SAES, 1997)⁵⁸.

The agreements, indeed, were important to maintain price stability in the short-term, concerning transactions between countries that were part of the agreements, in the period between 1962 and 1989 (ANDRADE, 1995).

The domestic entry barriers, regarding both farming and trade, were often mediated by the governments of green-coffee producing countries that, most often, have also regulated their domestic market. This includes the possibility for green-coffee producing countries to increase or decrease domestic trade in order to absorb excess production or to enable full exploitation of international trade quotas. On the other hand, entry barriers for countries as producers' units were politically negotiated, through the establishment of the quotas renegotiation within the ICO mechanisms and subject to collective consent. (PONTE 2004, 3). According to SAES (1997), price stability during international regulation only occurred due to the regulatory role of the Brazilian market that has established itself as a residual offeror. In the first five years of the regulation, Brazil exported 10 million bags less than its quota permitted, giving its competitors further increases in exports.

According to the literature within the ICA regime (from 1962 to 1989), combined with regulated markets in producing countries, there was internationally a relatively stable institutional environment, where rules were relatively clear, changes in the rules were politically negotiated and there was a relative fair and stable distribution of the income produced in the GVC between consuming and producing countries (PONTE, 2004, 3).⁵⁹ At that time, the coffee market was characterised by a relative equilibrium of forces between producing and consumer country operators and there was not a strong concentration in the roasting or trading segments. In fact, it can be affirmed that the coffee global value chain was not driven by any particular segment, nor controlled by producing or consuming countries (PONTE, 2001, 11).

58. The quota system was linked to price in the 1976 Agreement (and followed in the 1983 Agreement), with quotas being applicable only when prices fell. This essentially amounted to a failure to regulate prices.

59. According to the same author, the distribution of total income generated along the chain was relatively stable, with farmers getting around 20 per cent of the total, and consuming country operators around 50 per cent.

This system, however, has created perverse incentives for increased production. In 1975 there was a frost in Brazil which caused large increases in prices on the international market and, as a consequence, many producing countries increased their production (SAES, 1997; SOUZA, 2006). This general increase in coffee production among producing countries led to increased exports to consumer countries that were not part of international agreements. Varangis & Akiyama (1990, apud SAES, 1997) estimate that exports not covered by international agreements came to represent 16% of total exports between 1981 and 1985 and it is assumed that the discounts were around 30% to 50%.

Another important characteristic of this period is that green-coffee used to be traded almost exclusively as an undifferentiated product. We will refer at it as a so-called “commodity model”. Indeed, with prices being driven by regulation, there was no effective space for price differentiation based on process or product quality.

3.1.2 Regulation, market and supply chain after the liberalisation of the coffee market

“Policy matters to make global value chains (GVC) work for development. If countries decide to actively promote GVC participation, policymakers should first determine where their countries’ trade profiles and industrial capabilities stand and then evaluate realistic GVC development paths for strategic positioning. Gaining access to GVCs and realising upgrading opportunities requires a structured approach that includes embedding GVCs in industrial development policies (e.g. targeting GVC tasks and activities); enabling GVC growth by creating a conducive environment for trade and investment and by putting in place infrastructural prerequisites; and building productive capacities in local firms and skills in the local workforce. To mitigate the risks involved in GVC participation, these efforts should take place within a strong environmental, social and governance framework, with strengthened regulation and enforcement and capacity-building support to local firms for compliance.” (UNCTAD 2013).

In 1989, the system of quotas and controls was suspended, for a variety of reasons, including the changing consumer market and the nature of the coffee market itself, characterised by the emergence of new coffee production countries⁶⁰. Following the suspension of the system, coffee prices dropped dramatically, having been relatively stable for some time.

The suspension of the existing regime gave rise to increased entry barriers: entry barriers to production, with governments withdrawing services previously given to farmers; and entry barriers to international trade, with roasters setting further requirements governing participation. This liberalisation of the industry also led to the deregulation of the trading system (together with control and quota systems), with governments and other bodies taking a lesser, or rather, no role in oversight. In their place, trade associations emerged to fill the gaps, providing greater opportunity for the interests of buyers to make their way to the fore⁶¹.

International Coffee Agreements were signed with different objectives from the ones previously pursued. The 1994 Agreement provided for a focus on establishing a forum for coffee policy and on promoting a transparent market. The 2001 Agreement further highlighted the significance of a sustainable coffee market and the need for communication and transfer of technology between members.

The most recent ICA was signed in 2007 and came into force in 2011. Its purpose is to promote an “information forum”, sustainability and development, providing also for the establishment of the Consultative Forum on Coffee Sector Finance, the Projects Committee, the Promotion and Market Development Committee, and the Finance and Administration Committee.

As we may see, arguably this process created scope for opportunities in respect of innovation, promoting novelties in the coffee regime, including process and product innovations, developing trading systems and regulatory regimes (SORSA 2012).

60. K. Van Dingenen et al., ‘European and Belgian market for certified coffee. Final report’ (2010) CTB/BTC NoBXL 609, pp.6–7.

61. K. Van Dingenen et al., ‘European and Belgian market for certified coffee. Final report’ (2010) CTB/BTC NoBXL 609, p.52.

The opportunity to regulate the market has meant an opportunity to the increased importance to the development and use of safety and sustainability standards. Existing initiatives Fairtrade and organic certification schemes strengthened their positions in the European markets. From the system level innovation perspective the liberalisation of the coffee market fueled the implementation of the Fairtrade and organic standards and on the other hand opened opportunities for the new schemes. (SORSA 2010, 90–96). Sustainable Agricultural Network (Rainforest Alliance) co-operation started already 1987 and it also continued to get more market share in global markets. Global Good Agricultural Practice's (GLOBALG.A.P.) roots began in 1997 as EUREPGAP, an initiative by retailers belonging to the Euro-Retailer Produce Working Group. British retailers and supermarkets' representatives in continental Europe worked together. They become aware of consumers' growing concerns regarding product safety, environmental impact and the health, safety and welfare of workers and animals. (SORSA 2010, 75–86). Other coffee related initiatives, UTZ certified was borne in 2002 and the newest one, 4C initiative in 2006. The main difference between these schemes was that most of them were aimed at to be used as a marketing tool for consumers and GLOBALG.A.P and 4C were focused on risk management. (SORSA 2009, 51–76) but all of them were aimed at to be used as a tool to improve the competitive advantage of the companies which implemented them (SORSA 2011, 105–113).

With the end of the International Coffee Agreement in 1989 and the subsequent liberalisation of the market in the green-coffee producing countries, the structure of the coffee *market* and of its global value chain (*GVC*) has *changed* significantly.⁶²

These changes in the regulation of the coffee market, both internationally and nationally, impacted on the coffee market in several different ways.

62. On the argument of the “de-commoditisation” of the coffee market, see, among many, FITTER & KAPLINSKY, 2004; DAVIRON & VAGNERON, 2010; PONTE, 2001; PONTE, 2004; PONTE & DAVIRON, 2005; VAN DINGENEN et al, 2010, AKYIAMA et al, 1990. From the point of view of Brazil, see, among others, SAES, 1995.

One of the main results of the end of the ICA regime, in fact, was the *significant change in the balance of power within the coffee GVC*. As affirmed by Ponte, *market relations shifted from the described relative equilibrium between agents from producing and consumption countries to a dominance of international traders and roasters over farmers, local traders and governments of the producing countries*. (PONTE 2001, 11).⁶³ In fact, as affirmed by the same author, mid-sized traders found themselves too small to compete with larger ones, therefore, going bankrupt or merging with others or being taken over by the majors. As a result, they either went bankrupt, merged with others, or were taken over by the majors, making therefore the market more concentrated. (Ponte, 2001, 16). On the other hand, the level of concentration in the roaster market had reached a level even higher than in the segment of international traders. (Ponte, 2001, 16)⁶⁴.

Roasting was consolidated as a sector with four companies, Sara Lee, Kraft/Philip Morris, Procter and Gamble and Nestlé, buying half of all green beans traded, and the top ten companies accounting for 60–65% of all sales of processed coffee in 2000. (ITC 2002). There has been very little vertical integration between roasters and international traders, with one exception being Tchibo, which has vertically integrated all the way into estate production in Tanzania. (PONTE 2001). Some roasters were said to source from local exporters as well as international traders in order to reduce their dependence on any one actor. (PONTE 2001).

These changes were accompanied by a drastic reduction in the coffee price on the commodity market and a significant increase in price volatility. To make the situation worse for producers, deregulation and the subsequent consolidation in the coffee industry also affected the distribution of the total income generated along the coffee GVC, with a significant reduction for green coffee producers.

63. As affirmed by PONTE “Market relations have substituted political negotiation over quotas. Producing countries have disappeared as actors in these interactions (...). The market-regulation power of the ICO has been voided. Domestic regulation of coffee markets plays an increasingly weaker role. All of this indicates that the institutional framework is moving away from a formal and relatively stable system where producers had an established “voice” towards one that is more informal, inherently unstable and buyer dominated. PONTE, 2004, 4.

64. With regard to roasters and marketers it should be noted that nowadays five corporations, namely Kraft, Nestlé, Sara Lee, Procter & Gamble and Tchibo, control around 50% of the global market. Looking at the global coffee trade, around 40% of it is controlled by five companies: ECOM, Louis Dreyfus, Neumann, VOLCAFE and Olam International (Fairtrade and coffee, Commodity Briefing, May 2012, p. 10).

In fact, Talbot estimates that in the 1970s around 20 per cent of the total income of the coffee trade was retained by producers, while the average proportion retained in consuming countries was almost 53 per cent (See TALBOT, 1997, 65-7 and PONTE, 2001, 14). Between 1980/81 and 1988/89, according to both authors, producers still controlled almost 20 per cent of total income and around 55 per cent was retained in consuming countries. After the collapse of ICA in 1989, however, the situation changed dramatically. As affirmed by Talbot and Ponte, between 1989/90 and 1994/95, the proportion of total income gained by producers dropped to 13 per cent and the proportion retained in consuming countries increased to 78%. This, as affirmed by Ponte, represents a substantial transfer of resources from green coffee producing countries to consuming countries, irrespective of price levels. In fact, it can be affirmed that in the same period roasters were able to maintain retail prices at relatively stable levels (Ponte, 2001, 15) (for more information see TALBOT 1997, 65-7; PONTE, 2001,14–15; FITTER & KAPLINSKY 2004, 7; SAES 2008: 87)⁶⁵.

Between 1997 and 2001, coffee prices fell by almost 70% in nominal terms, falling to below the cost of production in many countries (FAO 2004). Prices reached their lowest levels for 30 years in nominal terms and for 100 years when adjusted for inflation. (LEWIN et al. 2004).

65. As affirmed by PONTE “The collapse of the ICA regime and increased consolidation in the coffee industry have affected the distribution of total income generated along the coffee chain. (...) Between 1980/81 and 1988/89, producers still controlled almost 20 per cent of total income; 55 per cent was retained in consuming countries. After the collapse of ICA in 1989, the situation changed dramatically. Between 1989/90 and 1994/95, the proportion of total income gained by producers dropped to 13 per cent’ the proportion retained in consuming countries surged to 78 per cent. This represents a substantial transfer of resources from producing to consuming countries, irrespective of price levels. PONTE, 2004, 5. See also TALBOT, 1997, 63; and SAES, 2008, 87.

We will below look at all *these changes* from the Brazilian point of view and will observe *how these have created the context for the development of a differentiated coffee market with distinct GVC structures and ways of access, which became a good alternative for producers to escape from the uncertainty of the commodity market.* In this process, *new intermediaries* (such as the Brazilian Special Coffee Association (BSCA supported by the Brazilian government) and even a *multinational company* (MNC) like Illycaffè (Illy) played a key role in the development of this market in Brazil and in relation to the access of Brazilian producers to the GVC and to the international market.

Other significant changes occurred in relation to the import and export tariff system regulated through the ICAs and recently renewed by the 2007 Agreement, as shown by the box below.

Box n. 1 – European Tariffs for the Trade of Coffee

Import Tariffs

International coffee trading is regulated by the International Coffee Organization, of which the European Union is part, and in relation to which, it is party to the International Coffee Agreement of 2007. The purpose of the Agreement is to promote the sustainable development of the coffee sector.

The WTO promotes non-discrimination in international trade. In relation to barriers to the coffee trade, the Agreement particularly provides that the 77 members of the ICO (including 31 importing and 45 exporting countries – and the EU), should aim to ‘limit tariff-related and regulatory barriers to coffee consumption such as preferential tariffs, quotas, government monopolies and subsidies’. Thus, Article 24 provides that ‘Members recognize the importance of the sustainable development of the coffee sector and of the removal of current obstacles and avoidance of new obstacles which may hinder trade and consumption.’ The Agreement also provides that the Certificates of Origin system is implemented in each of the exporting countries, in order to enable information collection on the production, imports, exports, consumption and prices of coffee.

The EU does not impose import duties on green coffee imports, nor does the US, Canada or Japan. Russia does not impose tariffs on green coffee but roasted coffee imports are tariffed at 10% with a minimum of € 0.20 per kg. The US and Canada do not impose tariffs on processed coffee. In the EU, in respect of processed coffee, different import duties are applicable, depending on the country of origin and nature of the coffee-related product. This is known as ‘*tariff escalation*’; the tariff increases, the more processed the product is. The following table sets out the duties applicable in respect of coffee imports from Brazil (based on Generalised System of Preferences – except for ‘extracts and essences’).

According to the ITC, “a specific additional measure aimed at the lowering of tariffs for imports from developing countries. It formally exempts WTO member countries from MFN [Most Favoured Nations] for the purpose of lowering tariffs for these countries, without also doing so for developed countries. The preferential GSP [Generalised System of Preferences] tariff rates are beneficial but still present a barrier in the majority of coffee importing countries. LDC stands for Least Developed Country”; ITC, *The Coffee Export Guide*, (ITC, Geneva; 2011), section 2.11.2. The GSP is essentially an exception to the general WTO principle of non-discrimination in international trade (which generally provides for the imposition of a Most Favoured Nation rate), providing for reduced tariffs for selected products originating in developing countries. In addition to tariff standards, other rates are established through Regional Trade Agreements (RTAs). These types of agreements are thought by the WTO to amount to 489. The rates will depend on the particular agreement itself.

The information below is based on data available from the EU External Trade Export Helpdesk website on the 6th August 2012, available at <http://www.exporthelp.europa.eu>.

Import Duties for Green and Processed Coffee into the EU (Tariff %)					
	Green 0901110000	Green Decaf 0901120000	Roasted 0901210000	Roasted Decaf 0901220000	Essences, Extracts 2101110000
Brazil	0	4.8	2.6	3.1	9

‘Tariff escalation’ has the effect of deterring exporting countries from processing their own coffee. The more processed the coffee, the higher the import tariff. Thus, with regard to instant or soluble coffee, the tariff is higher than that applicable in respect of unprocessed green coffee. Instant or soluble coffee is classified within a category in relation to which exports from Brazil are subject to the standard MFN rate. As can be seen from the table above, in 2012, this was 9%. It has been suggested that these tariffs have negatively affected the Brazilian share of this instant or soluble coffee market. Instead, to provide for added value, coffee is rather processed within the EU. As a result, there is scope for advantages for European roasters over those in the country of origin.

It should also be noted that different import systems exist in different Member States. The regime in place is dependent on the status of the producing country in respect of the Generalised System of Preferences, or relevant Economic Partnership Agreements and Bilateral Trade Agreements.

The EU had the political power, technical expertise and aid-and-trade approach to development, which were required in the context of liberalised coffee markets. It had more power to influence events on the coffee market than any other country or trading bloc. Its Member States made up 15 of the 21 importing-country members of the ICO, and accounted for 46.0 per cent of the world’s coffee imports in 2000⁶⁶. (The USA’s share of imports was 22.9 per cent.) The EU had co-operation arrangements with nearly every coffee-producing country, 27 of which were in the African, Caribbean and Pacific (ACP) group while most of the others worked with the EU’s Asia-Latin America Programme (ALA). (OXFAM 2003⁶⁷)

In the early years of the EU, the EEC had developed different systems to tackle the problems related to the international commodity trade and especially the price fluctuation. The EEC Stabex scheme for 44 commodities (mostly agricultural) was established first by the 1975 Lomé Convention, then revised in 1979 by Lomé II. Money was paid as interest-free loans (or grants for the least developed countries) and was calculated on the basis of export earnings shortfalls for each of the commodities. However, its geographical coverage was limited to the African, Caribbean and Pacific (ACP) signatories of the Lomé Convention and, normally, to their exports to the EEC only. (ODI 1982).

Tariffs for raw products imports have been significantly reduced thanks to the negotiations conducted at the international level in the framework of the GATT and WTO. In particular, while tariffs imposed on green coffee imports have been removed, those on processed coffee (roasted and soluble) are still in place and depend on the relevant applicable agreements: Generalised System of Preferences (GSP), Economic Partnership Agreements (EPA) or Bilateral Trade Agreements⁶⁸. Moreover, many coffee-producing countries have relevant bilateral agreements with the EU pursuant to which tropical products are made available to EU consumers and specific support is granted to developing countries. Coffee is one of the main products imported from the African, Caribbean and Pacific states (ACP) with which the EU has a privileged relationship thanks to the Cotonou Agreement⁶⁹. With specific regard to Brazil, trade pillars negotiations, suspended in 2004, have been resumed in 2010 and “cover trade in goods, including agriculture, services and government procurement, the protection of intellectual property rights including geographical indications, sanitary and phytosanitary (SPS) measures and sustainable development”⁷⁰. The special arrangements with the ACP countries have been promoted within the framework of the Common Agricultural Policy (CAP), whose aims are to improve agricultural productivity, to ensure stable supply and affordable safe food to EU consumers, to stabilise the markets and to ensure a fair standard of living for the agricultural community, also simplifying the regulatory environment through a Single Common Market Organisation (CMO)⁷¹ replacing the basic 21 CMO regulations. The single CMO, however, does not include specific provisions for coffee.

66. In 2000/01, the EU's 15 member states imported 47.9m 60kg bags of coffee, compared with 23.8m in the USA, according to the ICO.

67. OXFAM Briefing Paper 36, Europe and the Coffee Crisis, A Plan for Action. http://www.oxfam.org/sites/www.oxfam.org/files/coffee_0.pdf

68. ITC, Coffee exporter's guide, 2012, p. 34.

69. EU Commission, International aspects of agricultural policy, Background document for the advisory group on international aspects of agriculture, updated 1 June 2012, pp. 27 ff.

70. EU Commission, International aspects of agricultural policy, cit., pp. 49.

71. Council Regulation (EC) No 1234/2007 of 22 October 2007.

Finally, exporters interested in exporting coffee extracts (concentrated products obtained by extraction from roasted coffee beans, including soluble coffee and instant coffee) to the EU must also meet the legal requirements for the composition and labelling of coffee extract, set by EU Directive 1999/4/EC in order to ensure certain quality.

The "Generalised Scheme of Preferences" (GSP⁷²) was a set of EU rules allowing exporters from developing countries to pay lower duties on their exports to the EU⁷³. The EU's GSP provides preferential access to the EU market to 176 developing countries and territories. The list of countries can be found in Annex I to Regulation (EC) 732/2008.

The most important countries from where Italy and Finland import raw coffee are Brazil, Vietnam and India in the case of Italy, and Brazil, Colombia, Guatemala, Kenya and Honduras in the case of Finland. Brazil, India, Kenya and Vietnam have GSP treatment. The other three, Colombia, Guatemala and Honduras have so-called GSP+ treatment. *GSP+* is a special scheme with enhanced preferences for countries that ratify and implement international conventions relating to human and labour rights, environment and good governance.

The imports from developing countries to Finland have focused on coffee and fruits. The imports of coffee are almost a third of the whole imports from developing countries. In 2003–2005 imports from Brazil amounted to 38 per cent from all imports from Central and South America. (Suomen kehityksmaatuonti 2007, 5) and in 2005 coffee amounted to 50 per cent of all imports from Kenya. In Finland, the import tariff system before European Union membership was based on the EEC's GSP system. Most of the coffee exporting countries to Finland have been included to the aid-and-trade system as part of the Ministry of Foreign Affairs and Development Policy.

3.2 THE REGULATION OF THE COFFEE MARKET IN BRAZIL

3.2.1 Regulation, market and supply chain before the liberalisation of the coffee market

Brazil was one of the main signatories of the 1989 ICA, described above, and supported a market policy control until the beginning of the nineties. In fact, one of the reasons for the success of the international agreement was precisely the support of Brazil as the leading producing country that, with the aim of attracting other producing countries to perform a price sustainability and stability policy, established itself as a residual offer, retaining its stocks while other countries expanded their production (SAES 2008, 83).

In Brazil, before the international liberalisation of the coffee market, the internal market was characterized by a strong interference of the State in planning and coordinating the main activities in all the stages (farming, commercialisation, industrialisation, distribution and consumption) of the coffee sector (SAES, 1995, 52). As affirmed by SAES there was a “systematic regulation, in which the State defined the rules of competition in the domestic coffee market affecting the dynamics and performance of each of its segments” (SAES, 1995, 60). Due to the importance of coffee for the Brazilian economy, which represented 70% of the Brazilian exports in 1920⁷⁴, the regulation of the sector was under the responsibility of the Ministry of Development, Industry and Trade (hereinafter MDIC) and not under the responsibility of the Agriculture, Livestock and Supply, as for the other agriculture products.

The main instrument used by the government and by the MDIC to coordinate and regulate the sector was the *Instituto Brasileiro do Café* (hereinafter IBC).

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72. EEC's scheme was the first to be implemented on 1 July 1971. Within the next three years, GSP were implemented e.g. by Finland and other Scandinavian countries (Norway, Sweden, Denmark). WESTON et al. 1980, 5–8.
 73. See the evaluation of EEC's GSP scheme and recommendations for change, Weston, Ann & Cable, Vincent & Hewitt, Adrian (1980). The EEC's Generalised System of Preferences. Evaluation and Recommendations for Change.
 74. Coffee, for a long time, has played a significant role in the Brazilian economy. It represented 70% of Brazilian exports in the 1920s, and for many decades maintained itself as Brazil's main export product. (SAES 1995, 28–29) Although its importance to the Brazilian economy has reduced through the decades, it still represents around 2% of Brazilian exports.

The IBC was the governmental institute in charge of defining and coordinating all the coffee sectorial policy in the country. It was created in 1952 by the law n. 1779 as an autarchy, with legal personality and its own assets⁷⁵. The IBC could release resolutions through which it was able to regulate and coordinate many of the activities of the sector according to the State interests (SAES, 1995, 52).⁷⁶

Among the many activities of the IBC there were (i) the promotion and coordination of public research on the sector, (ii) technical and economic assistance for the coffee production, (iii) quality control, (iv) the establishment of an official and exclusive classification system (v) the control and release of authorisation for the operation of roasters and exporters in the country and the distribution of the national export quotas through the authorised exporters.

It is important to mention that, as regards the research and innovation policy in the coffee sector, one of the characteristics of that period is that focus of research and innovation was almost exclusively in increasing the productivity, rather than the quality of the product, following, therefore, exclusively the standards of the commodity business model.

In fact, according to Jayo and Saes, “one of the main failures of the coffee policies in Brazil at the period of the market regulation, was the lack of sensibility to realise that the transformation of commodities into specialties would become an important variable of competition in markets for food and drinks. By treating coffee as a homogeneous product, the policy discouraged investments in quality, and inhibited segmentation strategies in the production and marketing of coffee” (author’s translation). JAYO & SAES, 1998, 4.

75. Brazil is a federation which has three federated entities: the Federal Union, the states and the municipalities, each of them endowed with certain powers and legislative autonomy established by the Constitution. The Federal Union, the states and the municipalities have a duty to guarantee the provision of certain public services as stipulated in the Federal Constitution. In order to guarantee the provision of public services within its jurisdiction, these federated entities may choose to internally organise staff to provide the services and to take over the coordination of the public services execution. Or they can opt for decentralisation, which consists in the creation, by means of a public act, of separate legal entities regulated by public-law regime specifically entitled to implement certain public services or to regulate the provision of these services by the private sector. These entities are called “autarchy”. The “autarchies” are subject to the same legal regime of the federated entity responsible for its creation. This means that they have the same duties and the same rights of the federated entity in what concerns the provision or the regulation of the public service for which they were created. The increase in charges undertaken by federated entities points to the need for decentralisation of activities.

Furthermore, with the Decree n. 41.080 from 1957, the IBC had the exclusive competence for the standardisation, classification, supervision, exam and analysis of the coffee to be commercialised both in the internal and the foreign markets. (SAES, 1995, 100). With the Resolução n. 953/1975 and Resolução n. 953/1975, the Brazilian government allowed the IBC also to control the opening of new roasting companies in the country and forbade the entry of foreign companies in the coffee sector in the national market (SAES, 1995, 100). During the same period, Brazil also maintained coffee price tabulation. This price control practice, related also to public policies to control inflation, is considered to be the major cause for the consolidation in the Brazilian coffee market (for consumers, retailers and governmental authorities) of the idea that coffee is a homogeneous product. (SAES & NAKAZONE 2002, 5). As a consequence, there was no space to add value to the product through differentiation.

Through the fixed-price policy, Brazil has guaranteed the acquisition of green-coffee from the producers for this price, distinguishing among just two categories of coffee (named “group I” and “group II”) with a very small differentiation of price between them. According to SAES (1995), group I was coffee type 6 or better, without “Rio Zona” taste, which is considered a repulsive taste, and Group II was coffee type 7 or better, with this repulsive “Rio Zona” taste. The type of the coffee was established according to the number of defects found in one coffee sample. This illustrates, as affirmed by Jayo and Saes, how the public policies in the sector and the activities of the IBC were oriented to favour the quantity, not the quality, of the green-coffee produced in the country (JAYO & SAES, 1997, 4)⁷⁷.

76. One example is the IBC resolution n. 161 that, according to SAES, “created the first norms of incentive for the implantation of the industry of soluble coffee in Brazil” (SAES, 1995, 59).

77. As affirmed by Jayo and Saes (author’s translation): “The policy of incentives to produce, in the context of regulation of the entire coffee system, favoured the quantity and not the quality. A clear example is in the administration of the guaranteed price policy through which the government used to guarantee and/or buy the surplus of production. The establishment of the price distinguished only between two categories of coffee – group I and II – and sometimes the differentiation of the price between them was very narrow.”(JAYO & SAES, 1997, 4).

Another important point is that a guaranteed fixed price led to a systematic decrease in the Brazilian coffee quality, with negative impacts on its export, especially after the deregulation of the international market. Brazil, in fact, became recognised worldwide as a low quality coffee exporter. It is important to mention that in 1953 a resolution (Instrução n. 70) of the Superintendence of Money and Credit instituted a system of multiple exchange rates for the export of Brazilian products. Through it, the coffee received a differentiated exchange rate: while it was Cr\$ 28.32/ U.S.\$ for the other exporting products, for the coffee the exchange rate was established in Cr\$ 23.32/U.S.\$.

As affirmed by SAES, this became the most powerful instrument to allow the government to raise funds from the coffee sector to finance the activities of the IBC. In fact, the amount of money obtained through this mechanism (i.e. the difference of value between the exchange rates, denominated also as exchange confiscation) constituted the "**Fundo de Reserva de Defesa do Café**" (Fund of Reserve and Defence of the Coffee), that had as its main aim to fund the policies within the coffee sector and coordinated by the IBC. (SAES, 1995, 54). In fact, because of not being part of the policies of the Ministry of Agriculture, the coffee sector could not receive the funds of this Ministry, as can other agricultural products. (FARINA, SAES, 1999, p. 61). Therefore, for the coffee sector, the Funcafé was established and managed by the IBC with significant autonomy. The Funcafé was established by *Decreto-Lei* n. 2295 from 1986, regulated by Decree No. 94874 of 1987, and ratified by Law No. 9239 of December 22, 1995.

As regards the **market and the GVC**, as already mentioned, during the ICA regime (1962–1989) the Brazilian internal market was a controlled market. The price of the product (green coffee) was controlled and maintained fixed and high through the internal fixed-price policy. The trade of the product was also controlled internationally by the quota system established by the ICA that was domestically applied and coordinated by the IBC.

Regarding the production of roasted coffee in the country, the market was also controlled, given that, as already mentioned, there was the prohibition of international roasting firms and exporters to operate in Brazil without the Government's permission.

On the other hand, within the ICA regime, the governments of the producing countries could artificially maintain a stable and fixed high price for the homogenous lots of green coffee through the fixed quotas regime and, as in the case of Brazil, guarantee the acquisition of the green-coffee from the producers for this price with little or no differentiation based on the quality of the product. (JAYO & SAES, 1997, 4).

Therefore, on the one hand, with the listed and fixed prices, there was no possibility of adding value to the product through the improvement of its quality or other differentiation criteria and, on the other, with the guaranteed acquisition from the government based on a high price that did not take into consideration particular attributes or quality of the product, producers were also discouraged from investing in better quality or other forms of differentiation that were more costly to produce.

During this period the coffee business was structured almost exclusively around the "commodity model". This is, in fact, the first, and still remains the most traditional coffee market, accounting for around 88 per cent of the coffee trade in the world ("conventional coffee") (GIOVANUCCI et al., 2008, 33).

As we may see below, the prevalence of this business model has led, at the upper level of the supply chain, (i) to the disincentivisation of the producers to invest in sustainable or quality standards, and has made them aim to meet the minimum requirements; and (ii) to the development, in the coffee-producing countries, of a production, trading, and research organisation structure based upon compliance with the commodity standards and on increasing the efficiency of the production of, and trade in, a uniform product (CAFAGGI & SWENSSON, 2012, 12, see also JAYO & SAES, 1998).

According to Farina, the Brazilian agriculture was highly protected as part of the import-substitution model of development. As a consequence of these policies, two groups of agricultural products were created: internal market products and export products. While the prices of the former were determined by domestic supply and demand, the prices of the latter were determined in world markets. Sector regulations and barriers to trade created and preserved that distinction. Through the 1980s, agricultural policy protected “domestic market products” at the expense of export products, to guarantee an adequate real wage for the industrial sector. (FARINA 2001, 319–320.)

3.2.2 REGULATION, MARKET AND SUPPLY CHAIN AFTER THE LIBERALISATION OF THE COFFEE MARKET

The economic policy reform was concentrated from 1987 to 1992. Since 1988, trade liberalisation and deregulation required new strategies to foster competitiveness. Surprisingly, during the transition to a freer economy, agricultural production kept on growing. Food industry profit margins, however, squeezed by liberalisation and monetary stabilisation policies, with margins lower in 1990–1998 than in the second half of the 1980s. These changes had impacts on the value chain structures. Brazilian food retailing became more concentrated than the processing segment. Mergers and acquisitions were the main path for concentration and denationalisation. By 1999, of the 10 largest supermarkets, four were multinationals and one had formed a partnership with an international company; in 1994, there was only one multinational firm among the top 10. (FARINA 2001, 320–327⁷⁸.)

This concentration in the retail part of the value chain has had impacts on the process sector. Companies have put in place segmentation strategies based on quality and cost control, the food industry and food services have changed upstream relationships. Formal or informal contracts have been adopted between food industry and suppliers. Different prices have been established according to scale, quality requirements, and crop, harvest, and postharvest practices. Food service companies, mainly in fast food, have stimulated important changes in production and management practices in both the processing and the raw material segments, to meet standards (Farina and Machado 1999).

Market segmentation had become an important alternative for small and medium firms, which could not compete against the largest firms on the basis of price. SME companies could not survive in the competition alone. Substantial cooperative action was necessary to implement those strategies and to lobby for the needed legislation. For example, organic products had become an important though challenging alternative, mainly based on small producers' consortia. Geographical denominations like Café do Cerrado, and high quality prepared food represented important niches for survival in the high competition environment. (FARINA 2001, 326–329.)

In 1989, as already mentioned, the ICA regime collapsed changing completely the global and national coffee market structure. The collapse of the ICA system was also influenced by Brazil, which, due to internal political and economical changes, started to object to continuation of the approach based on a restrictive policy in respect of its export quota. The importance of the product for the Brazilian export rate had significantly decreased, and so did the government interest in maintaining such a costly policy in the sector. Furthermore, consumption patterns were changing and global economic ideology was also going through major modifications promoted by the advancement of neoliberal ideals, which were contrary to State interventionism and in favour of economic liberalisation (FISHLOW 2011, 68). In fact, the 90s in Brazil were marked by a liberalisation policy that determined the end of State intervention and the submission of several sectors of the economy to the rules of market. (CAFAGGI et al., IDB, 2012).

Following this new policy, the coffee market liberalisation process in Brazil, after the breaking-up of the ICA in 1989, was achieved through the abolition of the IBC in 1990 and the end of the price-fixing control in 1992. (NUNES & SAES 2001, 3).

After this period there have been significant changes in the Brazilian regulation and public policies regarding the coffee sector.

78. Farina, Elizabeth M.M.Q. (2001). Challenges for Brazil's Food Industry in the Context of Globalisation and Mercosur Consolidation. *International Food and Agribusiness Management Review*, 2(3/4): 315–330.

One of the main characteristics of this period is that the regulation of the sector became no longer centralised in a single institution (IBC) or coordinated by the Ministry of Development, Industry and Trade. Currently, among the main institutions in charge of the public policies of the sector there are:

a) The *Conselho Deliberativo da Política do Café – CDPC*:
(Deliberative Council of the Coffee Policy)

The CDPC was created in 1996 through the *Decreto Legislativo* n. 2.047. It was created as a collegiate and deliberative institute with the main function of policy making for the coffee sector in Brazil.

It is important to mention that currently the CDPC is linked to the Ministry of Agriculture and not to the Ministry of Development, Industry and Trade, as was the case for the IBC.⁷⁹

According to its Internal Rules, approved by the *Portaria* n. 20 in February 1997, the CDPC has the following tasks:

- approving the sectorial plan, which comprises the production, marketing, export and import of green, roasted, ground and soluble coffee;
- authorising the execution of programmes and projects, including those related to research, marketing and harvest estimate;
- approving annually the budget proposal for the *Funcafé*;
- regulating actions that aim at balancing the supply and demand of coffee for export and domestic consumption;
- **establishing** technical and financial cooperation, nationally and internationally, with official or private organisations in the coffee sector;
- approving policies of storage and administration of the coffee warehouses;
- approving the development plan of the coffee sector;
- approving institutional marketing programmes.

b) *Embrapa Café* (Brazilian Enterprise for Agricultural research in the coffee sector)

The Serviço de Apoio ao Programa Café - SAPC (Support Service Programme Café), named as “Embrapa café”, was created in 1999 with the aim of coordinating the research projects and plans in the coffee sector in Brazil.

Before the liberalisation of the market, it was, as already mentioned, the Brazilian Coffee Institute (IBC) in charge of the elaboration and coordination of policies for the coffee sector, including research, which was then mainly developed by the Instituto Agronômico de Campinas – IAC (Agronomic Institute of Campinas), the main institute for the development of public research in the coffee sector. Embrapa became also responsible for the administration of the resources of the FUNCAFÈ, the “*Fundo de Defesa da Economia Cafeeira*”, regarding the development of research in the sector.

Embrapa Café is a decentralised arm of the Brazilian Agricultural Research Corporation – Embrapa. It is important to mention that Embrapa café is not only responsible for coordinating and implementing the research in the coffee sector, but it also develops research activities and technology transfer.

There are several actions taken by Embrapa aimed at transferring knowledge and training the green-coffee producers. Embrapa technicians organise technological training courses, technical visits and field days, and organise lectures and events in general.

The written and audiovisual publications of Embrapa are also channels of technology transfer. Embrapa, in fact, transfers knowledge through scientific articles, Embrapa’s own publication series, videos, television and radio programmes, among others.

79. It is possible to affirm that among the main reasons for this change there is the decrease of the importance of the coffee sector for the Brazilian economy. In fact, while it has been responsible for around 60% of the country’s revenues, currently its economical importance is of around 2%.

Box n. 2 – The Technology Transfer of Embrapa.

The national research focused on coffee production is nowadays carried out by a network of educational, research and technology transfer institutions in the coffee sector spread over thirteen Brazilian coffee producer States, and coordinated by Embrapa Café (one of the 47 Embrapa units). This network is called Coffee Research Consortium (Consórcio Pesquisa Café), founded in 1997, constituting a model of systematic and collective research for the improvement of methods and technology generation for all green-coffee production stages.

There are already several results of the research projects carried out by the Consortium institutions. Some examples are:

- Development of cultivars by genetic improvement with high productivity and resistance to major coffee pests and diseases;
- Development of in vitro cloning techniques, aimed at multiplying Arabica coffee with favourable characteristics in a large scale;
- Development of an irrigation method that submits the plantation to water stress, promoting flowering and grain maturity uniformity, therefore maximising the production of quality coffee with higher added value;
- Development of a pruning method for the Robusta coffee, which reduces labour costs during harvest periods, promotes the plantation reinvigoration and increases up to 20% of the coffee crop productivity, among other benefits.
- Development of a wastewater cleaning system, leading to savings of up to 90% in water use and leading to solid waste reuse as fertiliser, which reduces fertilisation costs;
- Training producers in the installation and use of inexpensive equipment that promotes coffee grain quality preservation during preparation, drying and storage;
- Weather monitoring for frost forecast, in order to send alerts to registered producers for them to cover the plants and avoid losses.

The mentioned examples show that the research carried out and the products that derive from them are relevant to all stages of green coffee production: from seedlings production to planting, harvesting, drying, preparation, storage, and post-harvesting. Research and technologies developed under the Consortium activities mostly benefit coffee producers. However, other agents may also benefit, such as nursery owners, which produce coffee seedlings.

Embrapa implements knowledge and techniques transfer to farmers and other stakeholders through partnerships with institutions of the Consortium, or with other public or private entities interested in promoting coffee production. There are several mechanisms through which Embrapa and partner entities transfer knowledge to farmers. Responsibilities and costs allocation between Embrapa and other entities depend on the technical and financial capacity of each of these entities with which Embrapa performs partnerships, as well as the type of knowledge, techniques and products that will be transferred.

An example of partnership was established between Embrapa and the coffee cooperative Cooxupé. The purpose was to transfer knowledge about how to construct and install a system for wastewater cleaning. Cooxupé is a cooperative that has great financial potential and therefore is able to maintain a large staff to regularly attend to its members. Thus, in this case, Embrapa didn't need to grant Cooxupé resources to promote farmers' training. Embrapa's participation was restricted to freely training Cooxupé technicians in how to use the system for water cleaning, so Cooxupé technicians could take charge of transferring the technology to Cooxupé members through field days and courses offered in municipalities where there is a concentration of coffee producers. Cooxupé also gave Embrapa some space at events promoted to its cooperative members so that Embrapa technicians could give demonstrations of the wastewater cleaning technique and distribute explanatory material about the benefits of the technique usage.

Another partnership example was established between Embrapa and the Company of Technical Assistance and Rural Extension of Minas Gerais State - Emater MG. Emater MG is a public company, one of the main agents of the government of Minas Gerais State for action and operational planning in the agricultural sector, particularly to family farmers. In this case, Embrapa trained 170 Emater technicians on issues like rural property management and adoption of best social, economic and environmental sustainable practices. The programme's goal is to empower Emater employees so they can transfer

knowledge to Minas Gerais' small coffee growers, promoting the reduction of production costs, productivity increase and environmental sustainability by reducing the use of pesticides. In this case, besides freely training Emater technicians, Embrapa transferred financial funds for the project. The funds are used to pay for transportation, food and accommodation of Emater technicians in regions in which they conduct the training of farmers, as well as to fund the elaboration and production of teaching materials.

A third example relates to the introduction of a new coffee cultivar developed by Embrapa, called Conilon BRS Ouro Preto, in the coffee production market of Rondônia State. The cultivar is tolerant to major climatic problems observed at coffee production stage in Rondônia State: high temperature, high air humidity and water deficit. Embrapa does not perform large-scale manufacturing of coffee seedlings. The agents that reproduce the seedlings and sell them to farmers are called nursery owners. In order to introduce the new cultivar in the market, Embrapa has opened a public call for nurseries accreditation. The nursery owners had to demonstrate technical capacity for the production of the new cultivar. Once the nurseries are selected, they are registered and authorised to carry out large-scale seedlings production, and to sell them to farmers. There was, in this case, an initiative to control the prices of seedlings to be sold by nurseries to coffee growers. In this case, while promoting the protection of the new cultivar by intellectual property instruments, Embrapa does not charge royalties from nurserymen.

c) The Agência Brasileira de Promoção das Exportações e Investimentos – APEX (Brazilian Trade and Investment Promotion Agency)

APEX-Brasil is a public agency under the supervision of the Ministry of Development, Industry and Foreign Trade (MDIC), created to (1) promote exports of Brazilian products and services; (2) contribute to the internationalisation of Brazilian companies; and (3) attract foreign investment to Brazil (Apex website).

Apex-Brazil currently operates in more than 80 sectors of the Brazilian economy through the Projetos Setoriais Integrados – PSIs (Integrated Sector Projects). The PSIs are developed by APEX in cooperation with sectorial associations⁸⁰ and provide a large number of possible actions related to promoting export with the aim of strengthening Brazilian productive sectors in the international market. (Apex website).

Apex develops two Integrated Sectorial Projects for the coffee sector. The first is called “Cafés do Brasil”, and its objective is to promote the export of industrialised (roasted and instant) Brazilian coffee with a higher added value, as well as increase the Brazilian export basis⁸¹. The targets of the project are the Brazilian companies (roasters) that export industrialised coffee. The “Associação Brasileira da Indústria do Café – ABIC (Brazilian Association of the Coffee Industry) is the main civil entity partner of Apex in this project.

The second project is the “Cafés do Brasil – Grãos Especiais”, developed in partnership with BSCA, the Brazilian Specialty Coffee Association. The main objective of this programme is to improve the Brazilian coffee image in the international markets, as well as to promote the added value in the productive processes of the Brazilian green-coffee. The target of this project is the small and medium high-quality coffee producers (farmers) in Brazil (Apex website).

80. The structuring of the project has as its premises the existence of a sectorial strategic planning with specific objectives; the definition of actions in priority markets, according to the methodology developed by the Commercial Intelligence Unity of Apex Brasil; the segmentation and definition of actions that attend to the profile of the companies in the sector; the adequate structure to develop project management (Apex Website).

81. See Souza (2006), according to which the Brazilian coffee industry started to export roasted and ground coffee thanks to Apex’s program supporting exports.

It is important to mention that, other than the Federal State, also local and regional public institutions have started to develop new policies and regulate the coffee sector. One of the main examples of this new strategy is represented by the Minas Gerais State, especially as regards the **Instituto Mineiro de Agropecuária – IMA** (Agricultural Institute of Minas Gerais) and the **Empresa de Assistência Técnica e Extensão Rural do Estado de Minas Gerais – EMATER/MG** (The Minas Gerais State Enterprise of Technical Assistance and Rural Extension) - both within the Minas Gerais State Department of Agriculture, Livestock and Supply (see box n. 3 below on the Minas Gerais Programs).

Box n. 3 – The Minas Gerais state programmes for the promotion of differentiated coffee: the certification of origin programme (Certicafé) and the "Certifica Minas" programme⁸²

The Minas Gerais was established in 1996, through the Decree No. 38,559, a specific programme to create a regional certification of origin for the coffee growing regions of the Minas Gerais state.

The objective of "Certicafé" was, taking into account the importance of coffee for the Minas Gerais State economy, to facilitate the characterisation of the coffee produced in each of the ecological regions of the state, and to highlight and enhance the quality of the product of each of these regions.

According to the Decree No. 38,559 (Article 12, I), the Instituto Mineiro de Agropecuária – IMA (Agricultural Institute of Minas Gerais), was appointed responsible for the identification, classification and definition of each area of coffee production in Minas Gerais state. The Ordinance No. 397 of IMA, 21 July 2000, delineated four coffee growing regions, namely: South of Minas⁸³, the Cerrado region of Minas⁸⁴, the Mountain region of Minas⁸⁵, and the "Chapada" region of Minas⁸⁶.

The IMA was also indicated as being responsible for developing standards for the issuance and cancellation of the Coffee Certification of Origin, and standards for professional associations or cooperatives of the rural segment accreditation to issue the Coffee Certification of Origin (Decree No. 38,559, Article 12, III and IV).

The Caccer (Conselho das Associações de Cafeicultores do Cerrado) was accredited in 1998 by IMA as a third-party certifying body of the coffee produced in the Cerrado region⁸⁷. In fact, the creation of a certification of origin system was part of Caccer's goals to link the coffee quality characteristics to the geographical features of the place of production, a strategy that creates specific market niches with higher barriers to entry for competitors of high coffee quality production.

It is important to mention that some criticisms were raised to the coffee certification of origin programme created by the Minas Gerais state government. Normally, the differentiation by indication of origin is based on the definition of small farms or small producing regions with very specific production patterns and physical and geographic characteristics. The regions demarcated by the "Certificafé" programme are very extensive. We may find very different climatic conditions and soil characteristics in the same demarcated region, making it difficult to establish the relationship between product quality and origin of production. Besides the natural conditions heterogeneity, there are also, in each region, different structures of coffee production, making it difficult to homogenise the production conditions for the purposes of product identification by origin (GRADJEAN 2003, 86).

Another important initiative of Minas Gerais State is a programme for the dissemination of coffee-producing property certification for the maintenance of good agricultural practices (according to environmental and social sustainability and food safety criteria).

82. From Cafaggi et al., IDB, 2012.

83. "It is characterised by elevated areas, from 700 to 1,080 meters high, with mild temperatures, subject to frost, with moderate water deficit and the possibility of production of fine drink. When near dams, presents high humidity". Annex Unique of the Ordinance No. 397 of IMA.

84. "It is characterised by highland areas, at an altitude of 820 to 1,100m, with a mild climate subject to frost of low intensity." Annex Unique of the Ordinance No. 397 of IMA.

85. "It is characterised by mountainous areas, at an altitude of 400m to 700m, humid, subject to fog." Annex Unique of the Ordinance No. 397 of IMA.

86. "It is characterized by areas of high ridge, at an altitude of 1,099m, frost-free, with low rate of sunshine and high humidity." Annex Unique of the Ordinance No. 397 of IMA.

87. <http://www.expocaccer.com.br/cafecerrado.html>

The programme is run by the Instituto Mineiro de Agropecuária – IMA – and the Empresa de Assistência Técnica e Extensão Rural do Estado de Minas Gerais – EMATER/MG (the Minas Gerais State Enterprise of Technical Assistance and Rural Extension) – both within the Minas Gerais state Department of Agriculture, Livestock and Supply. One of the programme’s objectives is to increase the share of Minas Gerais state agricultural production in the national and international markets, since the project contributes to the overcoming of the existing zoophytosanitarian barriers, thanks to the monitoring of the quality of the agricultural production processes.

The programme is articulated as follows: Emater visits the producing properties selected to take part in the programme, instructing the producer in relation to the necessary adjustments in his property. IMA performs the preliminary audits to check the adjustments were made in accordance with international standards. An internationally-recognised certifying entity completes the process, performing a final audit and certifying the approved properties.

The cost of technical assistance, audits and certification itself are supported by Minas Gerais State. The producer has to bear only the cost of adapting the property in accordance with the standards required.

In 2011, Minas Gerais planned to have 1,500 coffee farms certified by the “Certifica Minas” programme.

One of the main results of the programme is the dissemination of best practices in production processes management and environmental and social sustainability. The programme meets one of the small and medium coffee producers’ needs, which is the high costs associated with technical assistance and the certification process itself.

3.2.3 THE IMPACT OF LIBERALISATION ON BRAZILIAN COFFEE SUPPLY CHAINS: COMMODITY V. DIFFERENTIATED COFFEE MARKETS

All the organisational and institutional changes described above yielded major transformations in the Brazilian coffee **market** and in the organisation of the **supply chain**.

Among their results there is price liberalisation and the elimination of the control of product. Liberalisation was also followed by an over-production crisis and the decrease in the price of green coffee to a price below its production costs.⁸⁸ According to Farina, the increasing competitive pressure in the Brazilian Economy led the food and agribusiness system to adopt quality management procedures to reduce costs of logistics, production, and distribution. The second target was consumer recognition and willingness to pay premium prices. Farina argues that the Brazilian government had lost reputation in these areas, which allowed the private sector to adopt mechanisms such as private quality certification and traceability. (FARINA 2001, 329).

All these changes, which under certain respects negatively affected green-coffee producers, created, however, a context for the development of new business models based upon product differentiation (see BARRA et al., 2007; DAVIRON & VAGNERON, 2010; FITTER, & KAPLINSKY, 2004, PONTE & GIBBON 2005 and PONTE, 2001 and also CAFAGGI & SWENSSON, 2012).

In fact, with market liberalisation, the possibility of differentiating the product (and adding value to it) emerged with the adoption of new quality standards, which, according to Ponte and Gibbon, can pertain both to the quality of the product itself (e.g., coffee appearance, taste, cleanliness, absence of taints) or to the production and process methods that may include aspects related to the authenticity of origin (geographic indication), safety, and sustainability (which includes economic, environmental and social) conditions (PONTE & GIBBON, 2005, 2)⁸⁹. They allow, as we may see, the development of what we can call a “differentiated” or “specialty” coffee market (CAFAGGI & SWENSSON, 2012, 6).

88. See M. Jayo & M.S. M. Saes, *op. cit.*, p. 5.

89. On the same opinion, ZYLBERSZTAJN & FARINA, 2001, 68–69, and SAES, 2008, 95–96.

Therefore it is possible to affirm that one significantly important consequence of the liberalisation of the coffee market in Brazil was that it created the economic incentive and the necessary institutional environment for the development of this differentiated coffee market (BARRA et al. 2007, 18). Part of this new institutional environment is the array of programmes and actions taken by the above described public institutions both at the national and local levels. Within this context, major changes heading to coffee differentiation have been enacted thanks to the initiative of businesses and private associations operating in the sector. Coffee can be differentiated in many different ways. The most important differentiation types, as we may see below, include product-related differentiation (which concerns physical quality properties of the product) and production process-related differentiation (which concerns the authenticity of origin and sustainability practices regarding environmental – organic, shade grow; and social-economical criteria – fair trade).

Differentiation emerges, therefore, as an alternative strategy for producers to add value to the product and to achieve a greater share of the final income generated in the production chain (LEWIN et al. 2004, 9).

In Brazil, the drop and volatility of prices, the overproduction crisis, and the concentration of most of the total income generated within the chain in the consuming countries constituted a stimulus for the producers to move towards differentiation.

On the other hand, liberalization also allowed roasters and traders to go to green-coffee producing countries like Brazil⁹⁰ and to adopt a new sourcing strategy based upon closer contact and direct interaction with the producers and other local players, which also included coordination, by roaster, of the tasks that were once performed and coordinated almost exclusively by public authorities, such as, the development and transfer of technological innovation (CAFAGGI & SWENSSON, 2012, 6).

90. As already mentioned, during the ICA regime (1962–1989) the Brazilian internal market was controlled and there was the prohibition of international roasting firms and exporters operating in Brazil without the government's permission. In fact, with the *Resolução n. 953/1975* and *Resolução n. 953/1975* the Brazilian government allowed the IBC to control the opening of new roasting companies in the country and forbade the entry of foreign companies in the coffee sector in the national market (SAES, 1995, 100).

As we will see, this was the case of Illy, which needed a high quality Brazilian coffee for its blend and was having difficulties in finding it after the crisis. For this reason Illy developed in Brazil a completely new sourcing strategy, characterised by a closer relationship with producers, establishing its own structure in Brazil in order to directly coordinate the tasks related to technological transfer, quality management and control, packing and transportation and to ensure that the quality would be guaranteed from the first to the final player in the chain. With Illy, Brazilian producers encountered for the first time concrete incentives to switch to a focus on quality. In fact, it can be affirmed that, initially, the differentiation in Brazil was a roaster-driven process, influenced mainly by Illy's action. Illy's initiative, however, was then followed also by other international roasters and traders and, as we may see, also fostered the development of producers' initiatives (mainly in the form of association and cooperatives) that actually play an important role in the development of differentiated market coffee in Brazil. The role of the Brazilian Special Coffee Association (BSCA, supported by the Brazilian government) was also pivotal for the development of the differentiated coffee market in Brazil.

Market liberalisation has, therefore, enabled the development of a differentiated coffee market as it made possible price differentiation and the establishment of increasingly closer forms of coordination between the buyer side (roasters and traders) and the seller side (producers and exporters), which in turn allowed for the definition and assurance of the characteristics of differentiated coffee.

Out of Brazil, the low growth of coffee consumption of the commodity type in the main consuming countries and the emergence of new patterns of consumption in relation to differentiated products constituted other factors that have triggered the search for differentiation in a more propitious institutional environment.

In fact, the characteristic of the coffee commodity market is related to the low and stable level of growth of consumption. The commodity coffee market is, in fact, considered to be mature. The new differentiated coffee market, however, represented a major opportunity, with increased growth. (CONSUMER INTERNATIONAL 2005, 29–30).

In the same way, the change in consumption pattern towards differentiated products is responsible for an important dynamisation of the sector. As affirmed by PONTE and GIBBON, in fact, *“Food consumption is increasingly characterised by food safety awareness, focus on health and diet, globalisation of consumer tastes, and social and environmental concerns. This, together with market saturation for goods with “commodity” traits, has led to product proliferation and differentiation.”* (PONTE and GIBBON, 2005, 2)

The analysis below aims to describe more precisely the characteristics of the two markets and, within each of them, the impact of regulation on market structure and supply chains. The analysis will be additionally developed in chapter II.

The Commodity Coffee Market: General aspects

As already mentioned, the coffee business has long been structured almost exclusively around the commodity model. It is, in fact, the first, and still remains the most traditional coffee market, accounting for around 90 per cent of the coffee trade in the world (“conventional coffee”).⁹¹

It is a market characterised by high concentration in the roasting and trading segments, with a few international players dominating the market. It is possible to affirm, in fact, that, in the commodity coffee market, the most powerful players of the GVC are the international traders and, in particular, the international roasters (see specific section on GVC structure below).⁹²

With regard to the production side, the market is fragmented with each of the producers having such an insignificant portion of the global-market share that they cannot individually affect prices by manipulating their offer. In the majority of green-coffee producing countries, most of the production comes from smallholdings of up to 2 hectares.⁹³ In Brazil, however, most of the production is developed in larger farms.

According to the Incaper (Institute of Research, Assistance and Rural Extension of the State of Espírito Santo) although there is not official data on record it is estimated that Brazil has around 300/350 thousand coffee farms. They are located in 11 Brazilian states and in 1,850 towns. Minas Gerais is the main State for green-coffee production, followed by Espírito Santo, São Paulo, Bahia and Paraná (Incaper website and CECAFÉ publication).

According to Incaper, only around 25% of the coffee produced in the country comes from small farms⁹⁴ and family enterprises⁹⁵. In fact, around 75% of the coffee produced in Brazil comes from large farms (Incaper website).

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91. Giovanucci, *op. cit.*, p. 33.
92. Currently five international traders can be appointed as the most major ones: Neumann Kaffee Gruppe from Germany; Volcafé and ECOM Agroindustrial Corp. from Switzerland; Groupe Louis Dreyfus from France and Mitsubishi Corporation from Japan/USA (Coffitalia Report 2011/2012). The three first ones were alone responsible already in the beginning of the 2000s for around 45% of the market share. Ponte & Daviron, *op. cit.*, p. 91. With regard to the roaster, an even higher level of concentration characterises the market. (Ponte & Daviron, *op. cit.*, p. 91). The most important players are Nestlé (the biggest green-coffee buyer and coffee producer in the world), *Kraft Foods* and *Sara Lee*. In this group of global players, *Starbucks* can also be included, which, although it is mainly oriented to the coffee-shop business, acquires and roasts its own coffee to be sold in its coffee shops worldwide. Coffitalia 2011–2012 directory, Beverfood, 2011, p.16.
93. Saes, *op. cit.*, 2008, p. 77.
94. Smallholders are generally defined in the **international literature** on the basis of farm size. Usually the term smallholders refers to farmers with a limited land area, but this may vary widely depending on the country context, the sector and over time (see the figure from E. Beall (ed.), Smallholders in Global Bioenergy Value Chains and Certification, BEFSCI project, FAO, 2012 p. 3).

According to the EU legislation (Commission Recommendation 2003/361/EC of 6 May 2003) the definition of micro, small and medium-sized enterprises refers to staff headcount and turnover or balance-sheet total. A small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million.

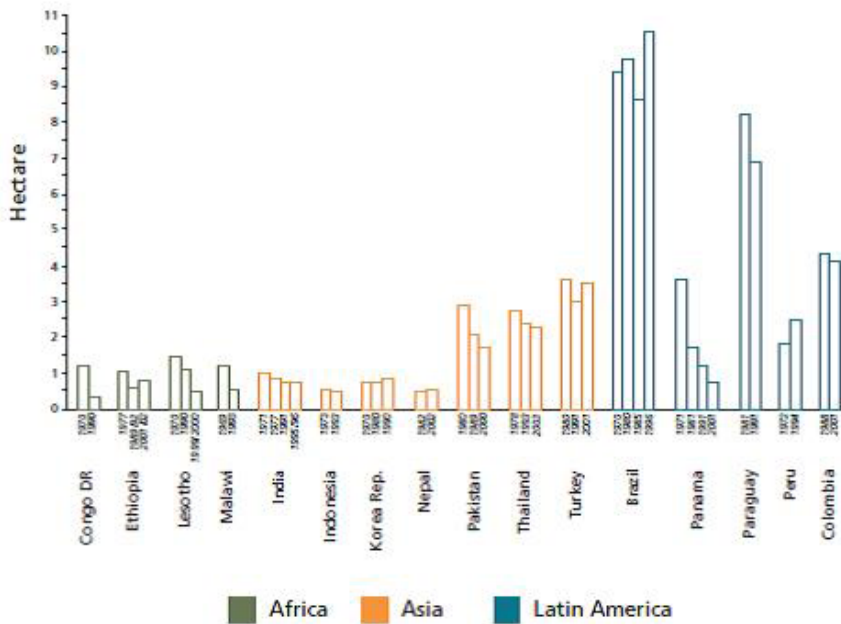
In the **Generic Fairtrade standards** for contract production, Jan 2010, “Small producers are understood as those that are not structurally dependent on permanent hired labour and that are managing their farm mainly with their own and their family’s labour”.

With specific regard to the Brazilian context, some statistical documents of the National Institute of Colonisation and Agrarian Reform classifies properties according to the following categories: smaller than 10 acres, between 10 and 100 hectares, 100 to 1000 hectares and those bigger than 1000 acres, although it does not refer to the concept of small, medium or large properties. Cooxupé, instead, in its annual report, uses the volume of annual production of coffee bags as a criterion to define the producers’ size. According to the report, mini-producing groups are those that produce up to 500 bags of coffee per year. Cooxupé has 7,327 mini-producing cooperative members who account for 79.4% of the cooperative’s members. The cooperative considers as smallholders those who produce between 501 and 2000 coffee bags per year. In 2012, 17.96% of the cooperative’s members were smallholders, totaling 1,574 producers.

95. Brazilian Law n. 11.326/2006 establishing guidelines for the policy of “family farming” considers a “family farmer” as someone who, among other criteria, does not hold an area greater than four (4) fiscal modules. The fiscal module is specifically calculated for each municipality in Brazil by the National Institute of Colonisation and Agrarian Reform. In Minas Gerais, the main coffee producing state of Brazil, the fiscal module ranges from 7 to 65 acres, according to the municipality.

Among the many reasons for this concentration there are the historical ones related to the land distribution system adopted by the Portuguese crown in the process of colonisation. In fact, the donation of large areas was, according to Caio Prado in Leite Marcondes, among the main reasons for this concentration that characterizes most of the agriculture sectors in Brazil (Leite Marcondes, 2011, 406).

Figure 1
Median farm sizes in the developing world



Source: FAO data from agricultural census.

FIGURE 13. Median farms sizes in the developing world. Source: E. Beall (ed.), *Smallholders in Global Bioenergy Value Chains and Certification*, BEFSCI project, FAO, 2012 p. 3

The commodity trading system is characterised by the standardisation of the product⁹⁶ through uniform and easily measurable quality standards. As affirmed by ANDRIANI & HERRMANN-PILLATH, in commodity coffee markets prices are set at the New York Futures Coffee Exchange (NYCE) and consequently transactions depend on the assessment of quality standards that pay no attention to coffee aroma, geographical origin or other subjective aspects (ANDRIANI & HERRMANN-PILLATH, 2011, 5. See also DAVIRON & PONTE, 2005, 70).⁹⁷

In fact, in the commodity market, coffee is classified by official grade standards, based on easily measurable properties that allow the creation of homogeneous batches of the product and permit market transactions (ANDRIANI & HERRMANN-PILLATH, 2011, 5; PONTE, 2001, 8).

The official standards are elaborated on by the producing countries and, although they may vary from country to country, they are prevalently based on similar criteria related to the size of the bean, its density, shape and the number of defects in a standard weight sample (PONTE, 2002, 8).

Country	Classification	Measure
Kenya, Tanzania, Peru, Papua New Guinea, etc.	Grades	AA, AB, PB...
Côte d'Ivoire, Cameroon, Cuba, Vietnam, etc.	Grades	I, II, III...
Brazil and Cuba	Types	1, 2, 3, 4...

CHART 20. *Some examples of official grade standards.*

96. This means, in THOMSEN'S words, "making uniform among buyers and sellers, and from place to place and time to time, the quality specifications of grades (THOMSEN in ANDRIANI & HERRMANN-PILLATH, 2011, 5).

97. The International Coffee Organization (ICO) for the purpose of simplifying the classification of the origin and the coffee species, and generating the prices of the product, distinguishes the green coffee produced in the world in four principal types:

- 1) Robusta
- 2) *Colombian Milds*: Arabica coffee produced in Colombia, Kenya and Tanzania.
- 3) *Brazilian Naturals*: Arabica coffee produced in Brazil, Ethiopia and Paraguay
- 4) *Other Mild coffees*: Arabica coffee produced in Bolivia, Burundi, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, India, Jamaica, Malawi, Mexico, Nicaragua, Panama, Papua, New Guinea, Peru, Rwanda, Venezuela, Zambia, Zimbabwe.

The price of the commodity coffee in the exchange market is still today based on these four groups.

This homogeneous form of trade limited the possibilities of product differentiation as it does not take in consideration the intrinsic attributes of the coffee beans that cannot be evaluated by the official grade standards (such as the coffee flavour, aroma, body, acidity and sweetness) that are important for the definition of a differentiated quality, or sustainable practices regarding the production process.

Evolutionary patterns in the commodity model: the role of intermediaries and the relevance of innovation-enhancing practices

In the commodity model, it is possible to observe that access to supply chains and to international markets is traditionally linked to the presence of intermediaries: trade associations and exporters.⁹⁸ These intermediaries can be economic (firms or professionals) or social (associations) actors, and they can perform different functions.

We can also distinguish between two main types of intermediaries: market intermediaries and chain intermediaries.

Chain intermediaries can be understood as the ones who are mainly involved with the mere trade of the product. If we look at the commodity market, in this category we can include: (i) agents; (ii) brokers⁹⁹; (iii) national and international traders, and (iv) the exporters.¹⁰⁰

Chain intermediaries facilitate the interaction among the leading buyers and the suppliers, enabling local SMEs to contact and engage with MNCs; however, they can also be the cause of a bottleneck which raises the costs of access to GVCs, extracting rents on their power to access economic and political knowledge. (CAFAGGI & SWENSSON, 2012).

Market intermediaries, on the other hand, are the actors that provide and support collectively (and not individually) the farmers in order to allow them to access the market. In fact, the range of services provided is not restricted to one farmer, but to several ones. As we see below, these play a major role in the differentiated-coffee market.

As regards the **supply chain**, in the Brazilian commodity market, a traditional supply chain can be illustrated by reference to producers or groups of producers selling their product to exporters through the intermediation of the domestic traders or agents, and the exporters, after making the quality analysis and classification of the product, selling it to international traders who will then sell it to international roasters.

Another important characteristic of the commodity market is that the largest roasters tend to rely upon intermediaries (traders) for their supply of coffee, leading, therefore, to a “long” supply chain (CAFAGGI & SWENSSON, 2012).¹⁰¹

In the commodity market, contractual practices along the chain seem to follow a general pattern.¹⁰² As we may see in detail, the acquisition of green coffee by roasters in the commodity model is characterised mostly by market-based relations, short-term on-the-spot contracts, and long chains of contractual relations established with a number of intermediaries rather than through a direct link between green-coffee producers and roasters.

In the commodity market, and especially during the period of market regulation, it is only the characteristics of the product, and not the parties, that count. The origin of the product and, more broadly, the production process do not play an important role. The competition among the suppliers is high, but it is price, rather than quality, based.

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98. For a general debate regarding the access of supply chains and the presence and nature of intermediaries, see J.E. Rauch, “Business and social networks in international trade”, (2001) 39 *Journal of Economic Literature*, pp. 1177–1203. In relation to agricultural commodities, see J. Lee, G. Gereffi & J. Beauvais, “Global value chains and agrifood standards: Challenges and possibilities for smallholders in developing countries”, (2010) 13 *Proceedings of the National Academy of Sciences*, pp. 1–6.
99. Brokers and agents have as their main function to bring buyers and sellers together. They declare the name of both the buyer and the seller, and receive a commission but do not represent a party. ITC, *op. cit.*, p. 69. In Brazil, agents also have an important function performing additional services, such as bringing the samples to the exporters, monitoring the transport of the product, and conferring the quality of the product with the samples approved, among others. Cecafé interview. Traders, on the other hand, buy and sell in their own name and for their own account. Their ability to carry stocks is of great importance, especially for large roasters who need homogeneity of the supply and coverage throughout the year (see below). ITC, *op. cit.*, pp. 69–70.
100. Jayo & Saes, *op. cit.*, p. 24. See, also, ITC, *op. cit.*, pp. 69–70.
101. Van Dingenen et al., *op. cit.*, p. 16 See, also, Lewin, Giovannucci & Varangis, *op. cit.*, p. 99.
102. This conclusion is based on limited empirical findings due to the difficulties to access contracts.

The nature of the product and price-based competition affects both the (low) degree and the nature of product and process **innovation**. *Lack of interaction among roasters and green-coffee producers and the presence of a large number of trading intermediaries may decrease, if not, hinder, the participation of roasters in the activities regarding the development and transfer of technology in the green-coffee production stage. In this type of supply chain, innovation is typically acquired in the market, already done and within the product, and through the sales contract.*

As we may see, in the past, and especially during the regulated-market period, innovation regarding this part of the supply chain was primarily driven by the public sector in the producing countries.¹⁰³

We will provide an in-depth analysis of all the aspects covered by this paragraph in the II chapter while examining the commodity model.

The Differentiated-Coffee Market: General aspects

As already mentioned, coffee can be differentiated in many different ways. The most important differentiation types are divided between (i) product-related differentiation, and (ii) production process-related differentiation (see PONTE & GIBBON, 2005, p. 2; SAES, 2008, 91; DAVIRON & PONTE, 2005, p. 127–198. Interviews).

Product differentiation concerns the quality of the physical characteristics of the product, which will determine the drink's flavour, aroma, acidity or sweetness, aspect, body and after-taste.

According to the ITC the coffee can be divided into three commercial categories regarding its quality (ITC, 2011, 39):

- a) Exemplary quality: coffees with a high intrinsic value with a fine or unique cup¹⁰⁴
- b) High quality or premium brands¹⁰⁵
- c) Mainstream quality or “average quality”¹⁰⁶

In the case of production process-related differentiation, the distinction concerns both environmental (Organic, Shade Grown) and social (Fair Trade) sustainability criteria. *No great differentiation exists in relation to product safety.* There is also differentiation based upon the origin of the coffee (estate coffee), which consists of identifying, registering and protecting coffee-producing regions, which are recognised for producing a particular special quality of coffee. Almost all forms of coffee differentiation, whether as a result of product or production-process characteristics, are accompanied by standardisation and certification mechanisms.

In both cases, the differentiation represents an added value to the product, and price differentiation translates into higher prices than those prevailing in the standard commodity market. However, how the added value is distributed along the chain and who bears the higher costs determined by quality standards is a more difficult question.

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103. In most green-coffee producing countries, especially before the mid-1980s, the national agricultural research systems (NARS) approach prevailed to promote agricultural innovation, with the aim of strengthening research at the national level and encouraging technological transfer and invention.
 104. Usually of quite limited availability. Mostly retailed under straight estate or origin names. Usually very well presented washed coffees, including some superior washed robustas, but also includes some naturals (Ethiopian Harar, Yemeni Mochas, some Indonesian arabicas) and top organic coffees, which are usually, but not always, roasted by comparatively small firms and marketed through fairly exclusive outlets, e.g. retail coffee shops or bars and upmarket delicatessens.” (ITC, 2011, 39)
 105. “Good cupping coffees, well presented, but not necessarily visually perfect. Retailed both as straight origins and as blends. Includes good quality, well prepared organic coffees, and washed as well as superior quality natural robustas. The market for this quality band is much broader and includes a good percentage of today’s specialty coffee. Also produced by leading multinational coffee companies and marketed through normal retail outlets such as supermarkets.” (ITC, 2011, 39)
 106. “Average quality, reasonably well presented, but certainly not visually perfect. Will offer a decent, clean but not necessarily impressive cup.” (ITC, 2011, 39)

In fact, the higher price will vary according to the type of differentiation, the certifications acquired, the structure of the GVC, and other factors. In the case of high quality, the differentiated price can reach, for example, around 35% more than the commodity price in *Illycaffè's* GVC. On the other hand, in competitions like the Cup of excellence, in 2009 for example, the opening bid was \$2.50/lb, the average sale price at auction was over \$6.00/lb and the top prices were often over \$20.00/lb. In the case of sustainable certified coffees, on the other hand, the price changes accordingly to the type of certification, being the best price paid by the fair trade one.¹⁰⁷ However, it may be taken in consideration, as affirmed by PONTE, that the overall income impact of sustainability standards on producers depends on the balance between the extra cost of matching these standards (including labour costs and the cost of certification) in comparison with the extra income earned from the premium plus/minus the impact of changing farming practices on yields and quality (PONTE, 2004, 30).

107. As affirmed by Ponte: "The fair trade premium for Mild Arabica coffee is almost four times what can be obtained for organic coffee and nine times larger than what would have been paid by Utz Kapeh had they applied their 2003 premium system. In the case of Robusta, the gap is even higher: the premium is seven times what is offered for organic." Ponte, *op. cit.*, 2004, p. 28.

Box n. 4 – Definition of Specialty Coffee

The literature recognises the difficulties of giving a definition of specialty coffee.

According to Ponte “*One of the characteristics of specialty coffee is that it means different things to different people.*” According to this author “*Nowadays, the term covers basically all coffees that are not traditional industrial blends, either because of their high quality and/or limited availability on the producing side, or because of flavouring and/or packaging and ‘consumption experience’ on the consumption side*” (PONTE, 20).

The ITC shares the same opinion on that regard. In the 2011 Coffee Report, it is affirmed that “*the term ‘specialty coffee’ originated in the United States. It was initially used to describe the range of coffee products sold in dedicated coffee shops, in order to differentiate these coffees from coffee generally available through supermarkets and other retail outlets. Specialty today refers both to whole bean sales and to coffee beverages sold in coffee bars and cafés, as opposed to restaurants and other catering establishments. The range includes higher quality coffees, both single origin and blends, unconventional coffees such as flavoured coffees and coffees with an unusual background or story behind them. However, with the rapid growth in the number of specialty coffee retail outlets and more particularly the expansion of the specialty coffee product range into more mainstream outlets such as supermarkets, the term has become much looser. It is fair to say that ‘specialty coffee’ has become a generic label covering a range of different coffees, which either command a premium price over other coffees or are perceived by consumers as being different from the widely available mainstream brands of coffee.*” The report concludes that “*the term has become so broad that there is no universally accepted definition of what constitutes ‘specialty coffee’, and it frequently means different things to different people*” (ITC, 2011, 38).

Also the Specialty Coffee Association of America (SCAA) illustrates in its website the difficulties in defining “specialty coffee”. According to an article published in their website, the term ‘specialty coffee’ was first coined by Erna Knutsen, of Knutsen Coffee Ltd., in a speech in 1978. “*In essence, the concept was quite simple: special geographic microclimates produce beans with unique flavor profiles, which she referred to as ‘specialty coffees.*” According to the SCAA “*Underlying this idea of coffee appellations was the fundamental premise that specialty coffee beans would always be well prepared, freshly roasted, and properly brewed. This was the craft of the specialty coffee industry that had been slowly*

evolving during the twenty-year period preceding her speech. The Specialty Coffee Association of America (SCAA) continues to define specialty in this context. This reference was the basis from which we have built the case for specialty coffee over the history of our organization.”

The SCAA, however, gives also their own definition of ‘specialty coffee’: “in the broadest sense we define it is as coffee that has met all the tests of survival encountered in the long journey from the coffee tree to the coffee cup. More specifically, we measure it against standards and with methods that allow us to identify coffee that has been properly cared for.” (SCAA website). Therefore, according to the association, “we define it (*specialty coffee*) in its green stage as a coffee that is free of primary defects, has no quakers, is properly sized and dried, presents in the cup free of faults and taints and has distinctive attributes. In practical terms this means that the coffee must be able to pass aspect grading and cupping tests.” According to the SCAA “The development and application of these standards, also furthered through the work of the Coffee Quality Institute, has helped to define specialty coffee in its raw form, but much work remains to be done in refining these standards and adding new ones to help preserve the potential that the coffee bean embodies.” Through the SCAA classification system, it is given a vote (from one to 100) for the green-coffee. The coffee is considered “specialty coffee” if the vote is higher than 80.

The SCAA definition of specialty coffee, therefore, is quite restrictive and takes into consideration basically only the characteristics of the **product** itself.

The Brazilian Specialty Coffee Association, however, adopts a different type of definition for specialty coffee. As regards the BSCA certification of the product, the association applies the same methodology as the SCAA with very similar standards that will measure the green-coffee aspect grading and cupping test. As in the case of the SCAA, after the evaluation, the green coffee will receive a vote (from one to 100) and will receive the specific certification of the association only if they achieve an 80-point vote (BSCA interview and website). It is interesting to note that in order to receive the certification of the product from the BSCA, the farmer must already have a third party certification regarding sustainability criteria of its production process.

It is important to mention also that, other than the specific product certification of the BSCA that is based on the point systems, the association gives in their website a definition of “specialty coffee” that is much broader than the one given by the SCAA. In fact, it includes under the category of “specialty coffee” not only the characteristics of the **product**, but also of the process method, including sustainability ones.

According to the BSCA “*The quality characteristics attributed to these (specialty) coffees depend on a wide array of factors, ranging from physical traits, origin, varieties, colour, and size, to environmental and social issues, such as farming systems and working conditions for labourers.*”

The current price of some specialty coffees is 30% to 40% above that of conventionally grown coffee and, in some cases, may be over 100% higher. Gourmet and certified coffees can be identified by their physical and sensorial traits, such as the cup quality, which must exceed the standard quality.” (BSCA website).

According to the association, the main categories of specialty coffees are (BSCA website):

- a) **Coffee with certificates of origin** (according to the BSCA “This certificate pertains to the region in which the coffee was grown, since some quality attributes are inherent to specific regions.”)
- b) **Gourmet coffee** (which, according to the BSCA “consists of high-quality beans of Arabica coffee with a screen size greater than 16. This product is set apart from others and is almost free of defects.)
- c) **Organic coffee**
- d) **Fair trade coffee**

Among Brazilian authors, SAES gives a very similar definition of specialty coffee to the one provided by the BSCA, including both the differentiation that regards the product itself and the production process. In this perspective, specialty coffee includes five different categories: exceptional quality, origin, organic, fair trade and shade grown. It includes, therefore, in the four previous categories, also the one of shade grown. (SAES, 2008, 91–103. See also ZYLBERSZTAJN & FARINA, 2001, 68–69.).

It is possible to conclude, therefore, that the definitions of specialty coffee provided both by the BSCA and by SAES are similar to the one of “differentiated coffee”, including, therefore, aspects that regard both characteristics of the product (quality) and characteristics of the production process, especially the ones regarding social and environmental sustainability criteria.

In the differentiated coffee market, the buyer side is composed both of smaller roasters and coffee-shop chains (especially as in the case of “exemplary quality”),¹⁰⁸ but also of medium/large roasters and large coffee-shop chains that are increasing their attention to this new market.

In fact, several traditional roasters from the commodity market have started to operate in both markets, with dual or multiple brand strategies. This is the case with Nestlé and Starbucks.

They serve what is still a small consumption market, which is, however, increasingly conscious of, and well informed about, the different types of coffee differentiation (CAFAGGI & SWENSSON, 2012, 16; BSCA interview). In fact, while the market for standard and commodity coffee is considered mature and static, the market of differentiated coffee is still in expansion (see GIOVANUCCI et al., 2008, 47).¹⁰⁹

In the segment of “exemplary quality” it is possible to affirm that the market is relatively fragmented, both at the farming and industry levels, where there is much lower concentration (BSCA interview). Indeed, this market is characterised by smaller farmers (production segment) and specialised coffee shops (retail segment) (BSCA interview). Larger companies do exist, however, in this segment and in fact they play a major role in the market.

Among the examples of medium/large roasters that can be found in the market, the Italian company Illycaffè operates exclusively in the high-quality segment. Other examples include Nespresso and the world largest coffee-shop chain Starbucks, which operates in both markets. These large companies, in fact, do not operate specifically in the “exemplary quality” market, but in the “high-quality” one, according to the definition elaborated by the ITC.

Evolutionary patterns in the differentiated-coffee model: the role of intermediaries and the relevance of innovation-enhancing practices

As we have just suggested, the global value chain of coffee as a commodity, in general, has the presence of a large number of intermediaries between the farmer and the roaster, which may allow us to say that it is, traditionally, a “long” supply chain.¹¹⁰

The differentiated-coffee global value chain presents significant differences in this respect. The differentiated-coffee market introduced new quality criteria and requirements that must be met by the producers. The content of these quality criteria are much more complex than the traditional ones, and require new coordination tasks in order to ensure and signal the compliance with them along the entire supply chain. (See CAFAGGI & SWENSSON, 2012).

According to Gibbon and Ponte, when quality content becomes more complex, it can be expected that firms will move towards “hands-on” forms of coordination, which are closer to vertical integration. We observe a wider variety of forms of coordination, including collaborative forms that translate into the creation of contractual networks or other cooperative contracts.¹¹¹ In the case of coffee, roasters may adopt new mechanisms, instead of choosing vertical integration, in order to embed the complex information about quality (such as private standards and certifications). These mechanisms may allow them to coordinate the chain with even more “hands-off” forms of coordination (PONTE & GIBBON, 3). This way, in fact, roasters need not

108. In this segment, it is possible to affirm that the market is a highly fragmented market, both in relation to the agricultural sector and the buyer sector, where there is much lower concentration. BSCA interview.

109. According to Giovanucci (2008 data) the global growth rate of conventional coffee was around 1–2%, while the ‘specialty coffee’ was 5–10%, organic 13–17%, Fairtrade 46%, Rain Forest 106% and UTZ certified 31%. GIOVANUCCI *et al.*, 2008, 47.

110. According to Gibbon and Ponte, in fact, as quality content becomes more complex, it is expectable that firms would move towards “hands-on” forms of co-ordination closer to vertical integration. In the coffee case, however, economic actors, in this case, the roasters, may also be able to adopt new mechanisms to embed the complex information about quality (such as private standards and certifications), that may allow them not necessarily to tend to vertical integration, but to operate with more “hands-off” forms of co-ordination closer to the arm’s-length relation. (PONTE & GIBBON, 3).

111. For a general overview, see F. Cafaggi “Contractual Networks, Vertical Disintegration and Inter-firm Cooperation”, in: idem (ed.), *Contractual Networks, Inter-Firm Cooperation and Economic Growth*, (Cheltenham, Edward Elgar Publishing, 2011).

closely monitor the production of coffee and need not take charge of the coffee quality evaluation; they can simply demand that reliable companies certify coffee, according to publicly known criteria. Thus, roasters ensure purchasing a quality product without the need to engage manpower and structure to deal with producers' training and coffee quality evaluation.

In this context, it can be observed that the GVCs in the differentiated-coffee market tend to be shorter than the commodity coffee chains, with the elimination of many of the traditional intermediaries (mainly chain intermediaries) and their contractual rent-seeking. (CAFAGGI & SWENSSON, 2012). In chapter II we will provide an in-depth analysis of this type of supply chain and some relevant models (see chapter II, par. 2.1).

The intermediaries are not absent in this model, however. They do play an important function along the supply chain. New ones have emerged and old ones have adapted. New and specialised intermediaries taking the form of associations or cooperatives currently play a key role, especially in promoting the access of the coffee producers into the differentiated international coffee market. (CAFAGGI & SWENSSON, 2012. See also SAES, 2008). They became what we have called "market intermediaries".

Among **associations**, both producers' associations (such as the BSCA) and exporters' associations (such as the CECAFE) play an important role (see chapter II, par. 1.2 for an in-depth analysis).

Box n. 5 – Association (From Cafaggi et al., IDB, 2012)

The Civil Code defines Associations as the union of persons that are organised for nonprofit purposes. Associations are regulated mainly by the Brazilian Federal Constitution in art.5º, XVII–XXI, art.174, § 2º, and by the Civil Code in art. 53 to art. 61. Brazilian law confers on this form of association legal personality so that it can represent and defend its members' interests, and promote their improvement in technical, professional and social fields set by the association. If properly authorised by its members, associations can even defend them judicially.

Its assets consist of fees paid by its members, funds, donations and own reserves since it does not have social capital. This can be an obstacle to Associations that are interested in obtaining credit from financial institutions. In case the association is terminated, any remaining assets in excess of what was contributed by each member have to be destined to another not-for-profit entity, and in case none is chosen either by the charter or the deliberation of the members, to some governmental institution with similar purposes.

As for its governance, each member of the Association has one vote in a general meeting and the Association's decisions are made with the participation of its members (if not provided otherwise in the charter). Furthermore, an Association cannot have profit purposes as its main goal. However, it can perform commercial activities as long as the objective is to implement its non-profit goals. Profits must be used solely to accomplish the Association's activities. In this sense, it can realise bank and financial operations and receive public funding as well. Finally, the associates are not directly liable for the Association's obligations.

In the case of **cooperatives**, as we may see below, they may play as either market or chain intermediaries, depending on the service they provide. If the cooperative is in charge of purchasing the produce from its members and selling it to a buyer, taking advantage of high volumes, while the farmer has no contact with the buyer, they may be considered as chain intermediaries (as in the example of Cooxupé mentioned or of other cooperatives that are composed of smaller farmers that would never reach the minimum production capacity to access global value chain). In other circumstances, cooperatives' members engage in a direct relationship with the buyer but they get from cooperatives technical assistance, including agronomic services or assurance related services, enhancing their capability to access GVCs: these cooperatives may be considered market intermediary and their role is particularly important in the differentiated market (more than in the commodity one, where their function as chain intermediaries is more relevant). It is important to underline that in any case farmer members are not obliged to sell all crops to the cooperative, an exclusivity requirement being absent.

Box n. 6 – Cooperatives in the Brazilian coffee sector and in the Brazilian Civil Code

Cooperativism is an important form of organisation of goods and services production in several economic sectors in Brazil. They are formed by individuals who mutually undertake to contribute with goods or services to the exercise of an economic activity for the common good. In 2012, according to a report issued by the Organisation of Brazilian Cooperatives, Brazil recorded 10.4 million members and 6,587 cooperatives in all branches of the cooperative movement.

In Brazil, cooperatives are divided into 13 economic branches, according to the classification of the Organization of Brazilian Cooperatives. They are: agricultural, consumer, credit, education, special housing, infrastructure, mineral production, health, labour, transportation and tourism and leisure. In terms of number of members, the credit branch was the one that stood out in 2012, accounting for almost 50%, or 4.9 million of all of the country's cooperative members. The consumption (2.7 million members) and agriculture (966,000 members) branches were the ones listed next. As for the number of cooperatives, the agricultural branch stands with 1,528 followed by the transportation branch (1097) and the credit branch (1049). In Brazil, according to the figures of the Brazilian Institute of Geography and Statistics, currently 50% of all Brazilian agricultural production passes through a cooperative.

In Brazil, the 1988 Constitution regulates some issues related to cooperatives, prohibiting state interference in their functioning, as well as dispensing government approval for their establishment. The Constitution also stipulates that the State has the duty to support the cooperative movement, as well as to provide special tax treatment for cooperatives. Cooperatives are primarily regulated by the Act n. 5. 674/1971. The Act n. 130/2009 regulates the National Cooperative Credit System.

Cooperatives differ from other companies in the fact that they have no profit motive, admit an unlimited number of associates (unless there is a technical impossibility to provide services), admit capital variability which is consisted of quotas, and inaccessibility of quotas to third parties. An important feature of cooperatives' governance is the "one man, one vote" rule. Thus voting rights are not proportional to the capital subscribed by each member.

Regarding members' qualification, cooperatives are formed by a minimum of 20 individuals. Legal entities that do not have profit orientation may also join cooperatives. Exceptions are made for agricultural cooperatives in which legal entities that are committed to the same economic activities of the individual members can join, even if they are profit oriented.

Cooperatives can provide more than one type of service. The general rule is that the provision of services should be restricted to members. However, the legislation provides for the possibility that cooperatives provide technical, educational and social assistance, not only to members but also to cooperatives' employees and their families. Cooperatives may also provide services to non-members as long as it meets the objectives of the cooperative. An explicit exception provided by law concerns the case of agricultural cooperatives. When they provide services of joint sales, they may also acquire products from non-members in order to complete lots allocated for compliance of contracts, or to meet the industrial plants spare capacity. The results arising from transactions with non-members must be incorporated into the Technical, Educational and Social Assistance Fund, and separately accounted to permit calculation for tax incidence. Transactions between cooperatives and their members are not considered as market transactions, nor are considered as acts of purchase and sale of goods, so that they are not taxed.

Cooperatives' members are not required to deliver their products to the cooperative to which they belong. But the delivery is considered as granting the cooperative powers to the free disposal of products.

Cooperatives in Brazil are politically represented and organised around a single entity, already mentioned, the Organisation of Brazilian Cooperatives. The sector also has the support of the National Cooperative Learning Service, a private entity that aims to organise, manage and implement professional training, and social development and promotion of the cooperatives' workers and members.

Regarding the agricultural sector, many cooperatives now turn to assist their members to enter into differentiated markets. This means providing services and training that can assist in the production and distribution of products with higher added value. This activity often helps the producer to obtain certifications for their products, contributing to the higher compliance of social and environmentally sustainable productive standards.

In addition, we want to underline the role of **certifiers**, who have become the new intermediaries in the supply chain, having an important role not only at the entry level, but also accompanying the entire participation cycle of the producer in the supply chain (CAFAGGI & SWENSSON, 2012. See CAFAGGI, 2012). They contribute to the production and implementation of standards and, in their monitoring activities, they ensure that technology transfers occur, thereby reducing opportunistic behaviour and, to a limited extent, the creation of bottlenecks. (CAFAGGI & SWENSSON, 2012. Cooxupé and BSCA interviews).

As we illustrate in chapters II and III, with the emergence and consolidation of the differentiated-coffee-market, new contractual practices have also been introduced, including elements of collaboration, technical assistance and, in particular, technological transfer. These contractual practices have replaced the typical market-based contract of the commodity coffee market with long-term relationships. The collaborative dimension does not transform the power relationship between the parties, which remains, even in a much smaller market, significantly asymmetrical in favour of the buyer.¹¹²

As we may see, the contractual practices adopted by *Illycaffè* in the case study reflect the differences of the coordination of its supply chain, which are characterised by closer interaction with the producers, by a shorter supply chain and the elimination of most of the traditional intermediaries, and the “internalisation” of the tasks related to the development and transfer of innovation. In fact, more than just the “sale” of coffee, the contractual relationship between *Illycaffè* and its suppliers includes a number of other elements that may characterise it as a long-term collaborative relationship with its suppliers.¹¹³

112. O. E. Williamson, op. cit.

113. O. E. Williamson, op. cit.

**II. COFFEE SUPPLY
CHAINS, CONTRACTUAL
GOVERNANCE AND
SYSTEM-LEVEL
INNOVATION: A GENERAL
FRAMEWORK**

I THE COFFEE SUPPLY CHAINS

Coffee's global value chain (GVC) can be divided generically into five stages: (i) production, (ii) processing¹ (that, together with production, can be considered as the farming stage), (iii) commercialisation, (iv) industrialisation (which includes roasting) and (v) distribution.

The **farming stage** can be formed by different tasks, which include planting, harvesting, (production); processing, sorting, and lastly storage and distribution; while the commercialisation can comprise the grading, sorting and packing ones.

Following, the **industrialisation stage** can include up to four different steps: roasting², milling, and, in the case of instant coffee, solubilising and lyophilisation, which will be followed by the packing and distribution (STANLEY 2010, 65, CACERES & ESCOBAR, 2006, 202).

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1. Processing includes the activity of separating the coffee bean from the skin and from the pulp of the cherry. It is done in the farming stage and the resulting product of the processing activity is **green coffee**. See *supra*, Chp. I, par. 1.
 2. Roasting is the process through which the green coffee beans are exposed to high temperatures transforming the green beans into dark, fragrant coffee with its tantalising aroma and flavour. (Illycaffè and Lavazza websites).

CHART 21. *The stages of coffee's global value chain and resulting products. Source: Elaborated from CACERES & ESCOBAR, 2006, 202.*

<i>Farming (Bean Production and Processing stages)</i>	<i>Green-coffee Commercialisation</i>	<i>Industrialisation</i>	<i>Roasted/Instant coffee Distribution</i>
Planting	Grading and Sorting	Roasting	Packing
Harvesting	Packing	Milling	Distribution
Processing	Commercialisation	Solubilising	
Sorting		Lyophilisation	
Storage and Distribution			

Resulting Product of each stage				
<i>Farming stage</i>				
Production stage	Processing stage	<i>Green-coffee Commercialisation</i>	<i>Industrialisation stage</i>	<i>Roasted/Instant coffee Distribution</i>
Coffee cherries	Green-coffee	Packed green-coffee	Roasted coffee Roasted and ground coffee Instant coffee	Packed roasted coffee Packed roasted and ground coffee Packed instant coffee

Our research will focus, with regard to the farming stage, on Brazil, being one of the most important developing countries where this phase is concentrated, and, with regard to the commercialisation, industrialisation and distribution stages, as well as final consumption, on Italy and Finland.

Within this general framework the structure of the supply chain may change significantly depending on the type of coffee, whether standard or differentiated. This distinction will be also considering while analysing the contractual practices, the emergence of networks, the production and transfer of innovation.

Therefore, the research will include two case studies (discussed in chp. III) that may allow us to make a comparative analysis of these different aspects between the commodity and the differentiated coffee market.

With regard to the **distribution stage** of roasted or instant coffee, the following analysis will encompass both models of “direct” and “indirect” distribution (supra Chapter I, parr. 2.3 and 2.4) and both market segments, the *retail market* and the *Ho.Re.Ca. market*.

While small roasters tend to specialise in one of these two segments, particularly in niche markets (FARINA 2001, 326–329.), larger roasters, like Lavazza and Illy, and multinationals (e.g. Nestlè) operate through both segments, offering differentiated products. An additional product differentiation regards the portioned coffee system, a relatively recent and growing system, which may be distributed through both these segments, since roasters tend to develop different types of product for the retail segment and for the Ho.Re.Ca. one³.

3. See, for example, the case of Nespresso, which has developed different pods. A. Creazza, *Servire il caffè in capsula*, *Logistica*, January, 2012.

2 THE STRUCTURE OF SUPPLY CHAINS FOR COFFEE PRODUCTION: ROLES AND ACTORS

2.1 THE ROLE OF INTERMEDIARIES AND THE DIFFERENT TYPES OF SUPPLY CHAINS: COMMODITY V. DIFFERENTIATED-COFFEE GVCs

In the coffee sector, between the green-coffee producer (farmer) and the roaster, there have always been different intermediaries playing an important role in the chain.

Access to supply chains, in fact, is linked to the presence and nature of the intermediaries (RAUSCH, 2001). The role of intermediaries increases when there is fragmentation on the supply side, while it decreases when both supply and demand are characterised by oligopolies (in relation to agricultural commodities, see LEE et al. 2010).

In chapter I, the distinction between chain intermediaries and market intermediaries has been introduced in relation to the evolutionary patterns connected with the regulatory changes occurring in both the global and Brazilian markets.

Indeed, in GVC accessibility, a strong role has been played by exporters as chain intermediaries who, for a long time, have legally and economically represented the key for local suppliers to gain access to international markets. Chain intermediaries have been described as the ones who are mainly involved with trade of the product.

However, market liberalisation and new forms of cooperation along the supply chain, driven by transnational regulatory changes, have modified both the scope and instruments of GVC access. These changes have assumed peculiar features, linked to the specificity of Brazilian market liberalisation, thereby modifying access to GVCs and to international markets. Therefore new intermediaries have emerged, in charge of promoting the access of Brazilian farms to GVCs, namely: market intermediaries, e.g. trade associations, cooperatives, assurance services providers (certifiers), given that certification for quality, safety and sustainability (especially in agriculture) has often become a prerequisite to accessing global markets and international supply chains. Examples include the Brazil Specialty Coffee Association, a new intermediary, the CECAFÉ, the exporter association, and the Cooperative Society Sin Fronteras International (CSF), a non-profit cooperative company supporting producers of Organic, Fairtrade and High Quality products in various countries of Latin America. These are the actors that collectively sustain the farmers in order to allow them to access new markets, shorten the food chain production, access new technologies, encourage alliances to strengthen them and to launch new development strategies etc.

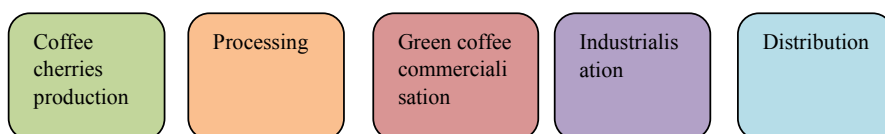
The developing role for chain intermediaries is not exclusive for the Brazilian market. A recent survey analyses the important function played by local coffee traders (so called “collectors”) in extending credit to smallholders and ensuring profit percentage maximization in Arabica coffee trade in Indonesia⁴.

The analysis developed in chapter I has shown that the development of the commodity model in Brazil (already before the liberalisation period) has emphasised the role of chain intermediaries, whereas the emergence of the differentiated-coffee model has called for a major role of market intermediaries as actors apt not only to enable exchange transactions between sellers and buyers but also, and more particularly, to provide qualified services and stimulate innovative changes in production processes with a view to helping Brazilian farmers to access GVCs targeting the new differentiated coffee market.

4. See C. de Wolf, *Successful Models of Value Chain Development for Smallholders Coffee, Cocoa and Tea in Indonesia. Lessons Learned and Opportunities for Scaling-up*, Report prepared for the World Bank, Draft Final Report, May 8th 2013, mimeo, where the risk for conflicts of interests is also examined, calling for specific action by Governments and NGOs in order to monitor over these conflicts and to ensure inclusivity towards local businesses.

This new approach has generated different types of supply chains, as is shown in the figures below.

Activities



Actors

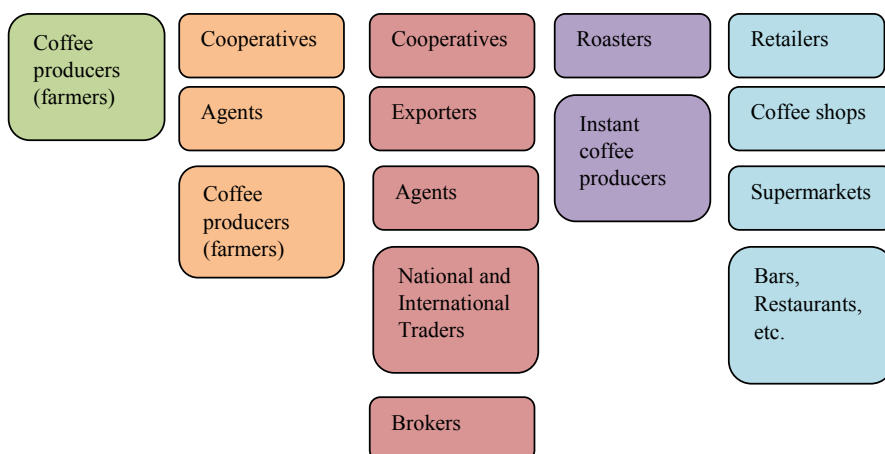
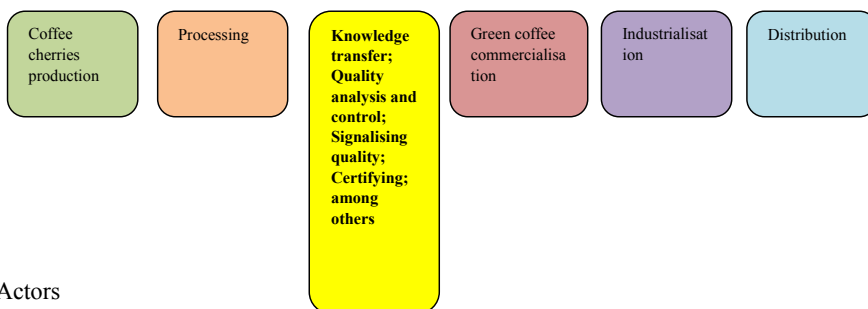


FIGURE 14. *Commodity Coffee GVC.*

Indeed, in the differentiated coffee value chains knowledge transfer and quality analysis and control get a specific slot and more direct relations between farmers and roasters find space.

Activities



Actors

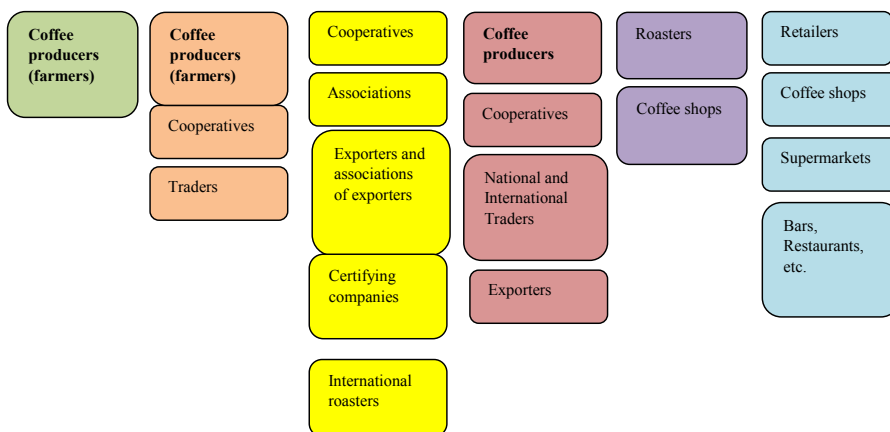


FIGURE 15. *Differentiated-coffee supply chain.*

Source: Our elaborations based on interviews.

Consequently, in the commodity market we observe a longer chain as regards the number of chain intermediaries and goods exchanges transactions, whereas in the differentiated-coffee market the role of market intermediaries reinforces the dimension of qualified service supply (so complementing the goods exchange dimension) while reducing the number of chain intermediaries.

More specifically in the Brazilian commodity market, a traditional supply chain can be illustrated by reference to producers or group of producers selling their product to exporters through the intermediation of the domestic traders or agents, and the exporters, after making the quality analysis and classification of the product, selling it to international traders who will then sell it to international roasters.



FIGURE 16. *The commodity coffee supply chain and the intermediaries involved.*
Source: our elaborations based on interviews.

Other channels can also be undertaken, as shown by the figure below:

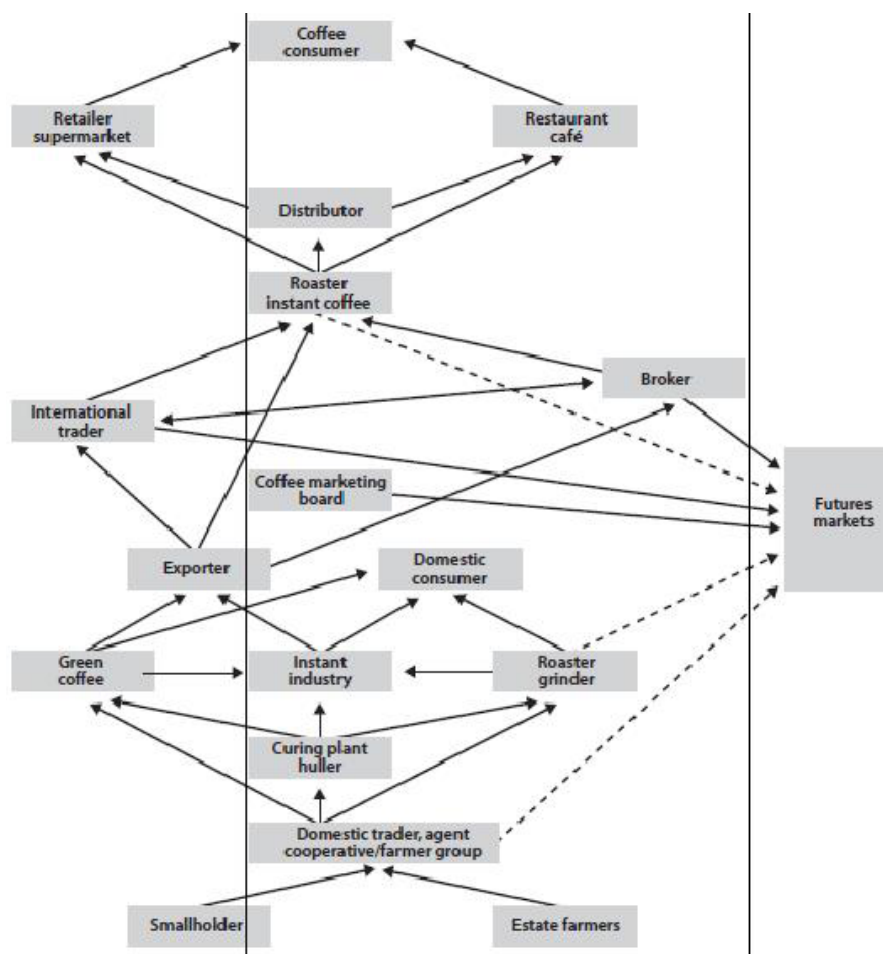


FIGURE 17. Source: J. Post, "Trading practices for a sustainable coffee sector context: strategies and recommendations for actions", 2007 in K. Van Dingene et al., *op. cit.* p. 3.

By contrast, the GVCs in the differentiated-coffee market tend to be shorter, with the elimination of many of the traditional intermediaries (mainly chain intermediaries) and their contractual rent-seeking (CAFAGGI & SWENSSON, 2012).

The chain usually includes farmers who sell their product directly to the exporter (eliminating the agent), who may sell the product either to a specialised international trader (see the figure here below) or directly to the roaster (see the figure below; interview. See, also, Van Dingenen, 16).

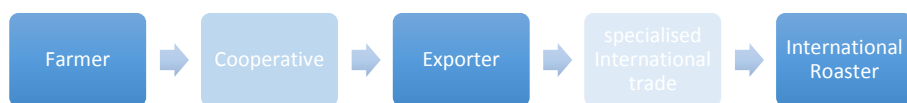


FIGURE 18. *The differentiated-coffee supply chain and the intermediaries involved – first model. Source: our elaborations based on interviews and literature.*

The lighter colour means that the actor is often also excluded from the supply chain.



FIGURE 19. *The differentiated-coffee supply chain and the intermediaries involved – second model (Illy case). Source: our elaborations based on interviews and literature.*

The former model (sale to an international specialised trader, first drawing) tends to emerge when the international roaster requires certification against internationally used standards (social, environmental and sustainable standards, including, among others, UTZ and Rainforest Alliance): here the exporter may provide specific services related to the certification process (see below). The second model (which will be described within the Illy case study, see chapter III) pictures a situation in which high quality parameters are provided by the roaster itself.

The number of chain intermediaries can be reduced also looking at the role played by exporters. In the example pictured below, Cooxupé (“Cooperativa Regional de Cafeicultores Guaxupé”)⁵, one of the Brazilian biggest cooperative and one of the main exporters in Brazil, acts also as an exporter and has a direct relationship with international roasters (interview). In fact, this cooperative directly sells differentiated coffee to some international roasters, such as Starbucks and Nespresso.

5. With 11,517 members, Cooxupé became in 2008 the biggest exporter of green-coffee in Brazil (Revista Cafeicultura, 2009).



FIGURE 20. *The differentiated-coffee supply chain and the intermediaries involved – third model (Cooxupé case). Source: our elaborations based on interviews and literature.*

2.2 DESCRIPTION OF THE DIFFERENT ACTORS IN THE COFFEE GVC

The illustration of the different models of supply chains in the paragraph above has dealt with a number of operators, whose role and structure should be examined more deeply in regard to the several stages of the supply chains and, again, to the distinction between the commodity model and the differentiated coffee model.

a) *The farming stage*

In the **farming stage**, the farmers (producers of the coffee cherries) represent the main players. In Brazil there are around 350,000 coffee farms that produced around 43,480,000 green-coffee bags in the 2011/2012 crop (BSCA and CECAFÉ website data). They are located mainly in the States of Minas Gerais, São Paulo, Espírito Santo, Paraná, Bahia and Rondonia (CECAFÉ website data).

b) *The processing stage*

As regards the **processing stage**, the actors of the supply chain used to be the (i) agents (“maquinistas”) that are service providers for the producers, performing the activity of processing the coffee cherries into green-coffee; (ii) the cooperatives and (iii) the green-coffee producers themselves. In this stage of the production the agents have decreased their role significantly (JAYO; SAES, 1998, 24). In fact, according to Jayo and Saes, in Brazil *coffee producers were in the last years increasingly choosing to process the product through the cooperatives and, more recently, directly by themselves. In fact, as informed by the CECAFÉ, with the more affordable costs of the machinery, the possibility of using the skin and the rest of the processing procedure as fertiliser and, especially, the possibility of adding value to the product through the processing procedure, almost 100% of the coffee produced in Brazil is processed directly by the farmers* (CECAFÉ interview).

This phase is very relevant for increasing the quality of the product and for guaranteeing its differentiation. In fact, in the production of standard quality coffee for the *commodity market*, the most used processing method in Brazil is the dry one, that is, the cheapest one. For the *high-quality market*, on the other hand, the most used processing methods are the wet and semi-washed ones that are more expensive, but produce a higher quality green-coffee. This is a case in which product differentiation calls for a different production process and therefore a different chain structure.

c) *The commercialisation stage*

On the other hand, in the **commercialisation stage** of green-coffee we can identify many different actors that play an important role in the coffee GVCs. Further to previously explained taxonomy, many of these may be seen as chain or market intermediaries (see Chapter I).

In Brazil, in the commodity market, around 25% of the green-coffee produced by the farmers is sold to the cooperatives by its members; 5% is sold directly to the national industry of roasted coffee (Brazilian roasters) and around 70% of green-coffee produced in Brazil is commercialised through different trading intermediaries that are responsible for selling the product to international buyers of green-coffee, i.e., international traders or international roasters. (CECAFÉ website data about 2011).

Among the players that act in the green-coffee commercialisation stage of production are (i) agents (ii) brokers, (iii) cooperatives (iv) national and international traders and (iv) exporters (see JAYO & SAES, 1998, 24; ITC, 2011, 69–70).

The main function of **brokers and agents** is to bring buyers and sellers together. They declare the name of both the buyer and the seller in the contract, and receive a commission but do not sign the contract in their own name. The contract, in fact, is signed between the seller (which can be the green coffee producer, the cooperative or the exporter) and the buyer (which can be the exporter or the trader that can buy from the farmer, from the cooperative or from an exporter). (ITC, 2011, 69).

Brokers, in general, work with international buyers, connecting them with the green-coffee producers (farmers) and exporters, while the agents generally link the green-coffee producers (farmers) and the cooperatives with local exporters (CECAFÉ interview).

In Brazil, especially the agents have also an important function performing additional services, such as bringing the samples to the exporters, monitoring the transport of the product, confronting the quality of the product with the samples approved, among others (CECAFÉ interview). According to CECAFÉ, due to these services provided by the agents and the difficulties and high costs for the exporters to have a representative in all the producing regions of Brazil, the great majority of the sale of green-coffee from farmers or cooperatives to the exporters occurs through the intermediation of the local agents (CECAFÉ interview).

Generally agents, like brokers (who usually operate in a given geographical area), do not represent a specific party but play the role of connecting local sellers and buyers, receiving a commission for this service. However, larger agency firms may represent specific exporters and, if they are given exclusivity (depending on the business volume the exporters are able to generate), they may be required not to provide their services to the exporter's direct competitors from the same origin⁶.

Traders, on the other hand, generally buy and sell in their own name and for their own account. As traders, they are not involved in the roasting activities but perform mainly the activity of buying and selling green-coffee being one of the most traditional chain intermediaries in the coffee sector.

Their ability to carry stocks is of great importance, especially for large roasters who need homogeneity of the supply and coverage throughout the year (ITC, 2011, 69–70). Traders can be *national* and operate in the green-coffee producing countries, or *international*, operating as importers and selling the green-coffee to the coffee roasters. However, European traders may also represent single estates or exporters from the country of origin, which decided to open in Europe a place of business. More often, unlike exporters, international traders are located in non-producing countries and source produce from several markets.

Large international roasters often buy a significant percentage of their coffee from international traders⁷, but they may also buy coffee in the origin country from local exporters or large local producers.

For large international roasters, there are still some advantages in buying coffee from traders instead of buying directly from the exporters; such as the geographical proximity, the high stocks and the major possibility of immediate delivery of the large quantity and variety of the product, among others (CECAFÉ and Cooxupé interviews).

The commercialisation stage is characterised by a high level of concentration, with five major international traders together dominating the market: Neumann Kaffee Gruppe from Germany; Volcafé⁸ and ECOM Agroindustrial Corp.⁹ from Switzerland; Groupe Louis Dreyfus from France and Mitsubishi Corporation from Japan/USA (Coffitalia Report 2011/2012). Already in the beginning of the 2000s the first three ones were alone responsible for around 45% of the market share. (DAVIRON, PONTE, 2005, 91).

Traders and roasters are indeed the most powerful players in the coffee GVC and the ones who receive the greatest part of the value within the chain (See PONTE, 2001,18).

Given their crucial role and power, traders in some cases are also a vehicle to promote and implement sustainability projects and knowledge transfer processes in the light of improving working and living conditions and opportunities of coffee farmers, while also protecting the environment¹⁰.

Large traders tend to engage in several commercial transactions in the coffee trade and store the goods in warehouses. In addition to that, they often carry out specific coffee-processing phases, also in the country of origin, such as, for example, the separation of the film from the beans, which is to be done just before the shipment, coffee drying, cleaning and selection of coffee beans according to their dimension.

6. ITC, Coffee Exporter's Guide, 2011, pp. 69 ff.

7. According to the CECAFÉ, at least 25% of the purchases of the large international roasters are done through international traders (CECAFÉ interview).

8. Volcafé merged with Ed & F. Man in the early 2000s.

9. ECON is the result of the merger between Esteve and Cargill.

10. For example, as we will see later (Chapter III, par. 4.2.1.1.), the Neumann Kaffee Gruppe has created in 2005 a not-for-profit structure in the form of a foundation, the Hanns R. Neumann Stiftung, with the specific purpose of promoting sustainable development through the creation of partnerships with other private sector partners, such as roasters, and public sector actors, such as governmental development organisations and other donors.

There seems to be no differentiation among traders depending on the type of coffee traded, certified vis-à-vis non-certified, premium vis-à-vis commodity coffee. The trader's offer will simply specify the type of coffee, the certification required and the corresponding price¹¹.

As regards the **cooperatives**, which are regulated in Brazil by the Civil Code, Law n. 5764/1971 and by the Federal Constitution, their presence in the coffee sector is quite significant (See box n. 6 in Chapter I). In fact, around 25% of the green coffee produced in Brazil is commercialised through cooperatives (CECAFÉ website data about 2011). According to Saes et al., around 40% of the Brazilian farmers are members of cooperatives (SAES et al., 2008, 11).

The green-coffee producer cooperatives in Brazil may perform a range of functions for their members. The most traditional ones are: (i) the sale, with advantageous conditions,¹² of the inputs necessary for the plantation (such as fertilisers, pesticides etc.); (ii) free technical assistance; (iii) storage of the green-coffee; (iv) green-coffee grading and sorting, identifying the different qualities of the product; and (v) the commercialisation of the product (see SAES et al., 2002, SAES, 2008, 105–112; Cooxupé interview).

In fact, the role for cooperatives changes depending on the number of farmers, and on the type of supply chain – commodity vs. differentiated coffee.

Indeed, within the commodity market, they tend to operate as chain intermediaries, able to rationalise and facilitate the sourcing of green coffee, being a “collector” of members’ produce. Their members are not usually bound by an exclusivity clause to sell their entire production to the cooperative, and sell it in their own name to different national and international buyers (Cooxupé interview). In most cases, other chain intermediaries operate in the same segments: indeed, most of the green-coffee acquired from the cooperatives in Brazil (around 80%) is exported through the intermediation of agents, traders and exporters whereas a significant part of their product is also sold to the national industry of roasted and instant coffee (CECAFÉ 2011/2012 data).

In addition or alternatively to this trading function, cooperatives also play as market intermediaries, by supporting farmers through assistance and services to increase their knowledge and skills, to improve the quality of their products, to facilitate the access to the market. This happens more particularly in the differentiated markets, here including both the specialty segment and the certified coffee segment. It is important to mention that the *cooperatives operating in this type of market tend also to operate in the commodity market and this explains the combination of multiple approach and functions in the same structure. It could be worthwhile investigating to what extent cooperatives operating in both markets are able to extend to the commodity market know-how and practices developed in the differentiated market.*

In terms of system level innovation, the impact of this type of cooperative may favour a direct relationship between producers and consumers and facilitate the small producers' access to international markets.

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11. Lavazza interview, August 2012.
 12. According to SAES, the intermediation of cooperatives in the purchase of the agricultural inputs for the cultivation of green-coffee has advantages for producers who can take advantage of lower prices, resulting from the economy of scale of the purchases. It is also common for cooperatives to facilitate the payment of the purchase allowing the green-coffee producers to repay the debt after the coffee harvest. (SAES et al., 1998, 24. Also in Cooxupé interview).

Box n. 7 – Examples of cooperatives operating in Brazil: the *Cooperative Society Sin Fronteras Internacional* and the *Cooperativa Regional de Cafeicultores Guaxupé*

The *Cooperative Society Sin Fronteras Internacional* (CSF) is a private non-profit cooperative company operating in the area of organic farming in various countries of Latin America (Brazil included), that promotes development, growth, and integration of agricultural enterprises which are organised in a collective form – as association or cooperative – and based on democratic participation, product quality, and organic production following the guidelines laid down by FLO, Slow Food, Ifoam, and the agroecology¹³. CSF is a non-profit civil corporation under Costa Rican Law, where it is registered and has its headquarters; however, it is defined as a “Cooperative Without Borders” as it is indeed operating in various countries of Latin America. This is a very interesting example of *transnational network in the form of a cooperative company*.

The governance structure of this organisation is characterised by a truly participative and democratic cooperativism, with a view to developing an entrepreneurial framework at the service of the growers, where members mutually share their experience and knowledge with each other in solidarity (website). Thus the cooperative, by offering training services, consultancy, management and communication, supports farmers to tackle the market in a jointly and comprehensive manner, allowing them to access international markets.

A different situation is the one in which, combining both functions (as traders and as service providers), cooperatives are also involved in the export of green-coffee as exporters, selling coffee for international traders and roasters, eliminating, therefore, some chain intermediaries. When the implementation of quality and/or sustainability standards calls for mechanisms of coordination along the chain, the dimension of service supply and assistance becomes crucial.

13. See <http://www.cooperativasinfronteras.net/> According to the Statute of the cooperative its main objectives are: to sustain the growth, development and strengthening of the entrepreneurial initiatives regarding organic farming and food production, to shorten the food chain production, favouring direct relationships with consumers, and to encourage alliance between farmers, food processors, distributors, consumers, with the support of NGOs, foundations and other organisations.

A significant example is the Cooxupé (“*Cooperativa Regional de Cafeicultores Guaxupé*”), the biggest Brazilian cooperative with 11,517 members: it became in 2008 the biggest exporter of green-coffee in Brazil (Revista Cafeicultura, 2009). The cooperative sells, in fact, differentiated coffee directly to some international roasters, such as Nespresso and Starbucks. In this case, the sale between green-coffee producers and the cooperative is done through a national sale contract, while the sale to the international buyers, when the cooperative acts also as an exporter, is done, most often, through international contracts based on the models proposed by the European Coffee Federation or by the American Green Coffee Association (see the topic regarding the contractual practices below).

As seen above, this is not the mainstream in the cooperative companies’ area, since in most cases cooperatives operate along longer chains in the commodity market.

The **exporters** are, in general, the last players in the coffee supply chain in Brazil. In fact, roasting companies operating in Brazil produce only for the internal market and utilise only a small part of the green-coffee produced in the country, the greater part of it being exported.

Their main function is to purchase the green-coffee from producers or cooperatives (in general, through the intermediation of agents) and sell it, in their own name, to international and, in smaller cases, also to national buyers who prefer to buy coffee directly from exporters due to the service they provide (logistics, delivery, payment conditions, quality analysis and classification of the coffee etc. – Interview.). The exporters are responsible for administrating all the tax, legal, and logistical issues to make sure that the coffee acquired arrives with the buyer. They will also do the quality analysis of the green-coffee beans and its classification.

This segment of the market is also quite concentrated, with the five biggest exporters being responsible in 2011 for around 26% of the entire market share (CECAFÉ website data).

As we may see in the next paragraph, in the same way as the cooperatives, in recent years the exporters have increased their range of activities, especially regarding the transfer of knowledge and activities directed to improve the capacity of green-coffee producers to acquire certification schemes and improve the quality of their product, especially as regards the specialty coffee market. Therefore, they play an important role in transferring innovation along the supply chain.

d) *The industrialisation stage*

As regards the **industrialisation stage**, the main players are, as already mentioned, the **roasters** and, in some cases, the **coffee-shop chains**. The role of the so called “private sector” (as distinguished from farmers and farmer cooperatives) in value chain development has been highlighted in recent surveys on the coffee sector in developing countries. Private companies may become drivers of medium- to long-term capability building programmes due to bring skills, resources and networks, providing access to market¹⁴.

Regarding **the roaster**, a very high level of concentration has characterised the Brazilian market, especially the commodity one (DAVIRON & PONTE, 2005, 91; see also chapt. I, par. 3.1.2). Internationally, the most important players are Nestlé (the biggest green-coffee buyer and coffee producer in the world), Kraft Foods and Sara Lee. In this group of global players also Starbucks, the **coffee-shop chain**, can be included. Indeed, it acquires and roasts its own coffee to be sold in its coffee shops worldwide. While being mainly oriented to the coffee shop business, Starbucks represents one of the biggest roasters in the world (Coffitalia Report, 2011,16).

In fact, the coffee-shops chains are actually one of the most important players in the coffee GVC, being in some cases the most powerful agents in the chain (STANLEY 2010, 65).

14. See C. de Wolf, *Successful Models of Value Chain Development for Smallholders Coffee, Cocoa and Tea in Indonesia. Lessons Learned and Opportunities for Scaling-up*, Report prepared for the World Bank, Draft Final Report, May 8th 2013, mimeo, where the risk for conflicts of interests is also examined, calling for specific action by Governments and NGOs in order to monitor over these conflicts and to ensure inclusivity towards local businesses.

After these four major global players, there are in the global market several medium–large groups of enterprises that are focusing on strengthening and expanding their role in the international market. Among these we can mention Smucker/Fogers from USA, Tchibo from Germany, Straus from Israel and the Lavazza and Segafredo Zanetti groups from Italy (Coffitalia Report, 2011, 16).

In Italy, Lavazza, Kraft Foods, Kimbo/Cafè do Brasil, Segafredo Zanetti, Illy and Nestlé are the main players. Among them, Lavazza, Illy and Segafredo are the ones who have the strongest presence in the external market. In Finland, Meira Oy and Oy Paulig Ab are the main players. In both countries the private labels of the retailers have a small but significant role (see chapt. I, par. 2.5).

e) Certification and auditing organisations as ‘system intermediaries’ connecting actors in the coffee value chains and society and connecting actors of different groups of stakeholders. Certification organisations create value for different parts of the chain by creating standards. Auditing organisations create value by auditing the compliance of standards. The certification organisations create value for the implementing company, for the coffee value chains and for the society by improving the the implementation of the international treaties and by further developing the standards beyond the legal minimum requirements. (SORSA 2011, 152–157; SORSA 2014d, 16–18). These organisations can be called ‘system intermediaries’ as they connect the market actors with the private regulation system on one hand, and with the public regulation system on the other hand. These organisations are also connecting links between different groups of stakeholders depending on their governance structure. Even though only one group was represented in the governance structure the beginning of the scheme many of them have moved to become multistakeholder initiatives in time. (SORSA 2011, 157–159).

During the last decade voluntary sustainability standards have moved from *niche innovation*, from an initial focus on providing a platform for product differentiation based on adoption of leading practices for sustainability, *toward a focus on largescale transition in mainstream supply*, with sustainability standards setting baselines for “sustainable” practice. (Potts et al. 2014, 32; Sorsa 2010, 91-95; 95-96).

Early standards were largely inspired by movements *regarded as alternatives to mainstream markets*. The vast majority of *newer initiatives focus directly on mainstream integration* at the outset of the standards-development process, a feature that is having significant impacts on the way systems are being designed and implemented today. Before the Rio Earth Summit only two of the initiatives were launched focused basically on niche markets but not later than 2000 thousand all initiatives were focusing on mainstream markets. (Potts et al. 2014, 32). These trends indicate that the TPRs have potential to become real changemakers in the global economy and system intermediaries between public and private sphere.

What is the role of each certification scheme's added value in the different phases of the value chain depends on the schemes' main focus. What is the role of added value for the society depends of the number of companies who decide to implement them and their market shares.

2.3 MARKET AND CHAIN INTERMEDIARIES: NEW ACTORS AND PECULIAR CHARACTERISTICS OF THE DIFFERENTIATED COFFEE GVC

As seen above, the coffee value chain is characterised by the presence of several actors, including a number of intermediaries with the function of enabling goods and service exchanges along the chain and, in some cases, favouring the access of small producers to GVCs.

The previous analysis already provides some elements to distinguish between different types of GVCs depending on the type of coffee market, namely: commodity or differentiated coffee markets. Indeed, as already introduced in the first chapter (see par. 3.2.3), the global value chain of coffee as a commodity, in general, has the presence of a large number of players and intermediaries between the final buyer and the farmer, which may allow us to say that it is, traditionally, a "long" supply chain (See CAFAGGI and SWENSSON, 2012, 13; VAN DINGENEN et al., 2010, 16, LEWIN, GIOVANNUCCI & VARANGIS, 2004, 99). The difference between commodity and the differentiated GVC arises from the fact that commodity related characteristics can be evaluated by tasting and smelling but the sustainability related credence

attributes need other tools (SORSA 2011, 86–89). The consumers' trust to eco-labels need to be guaranteed in order to benefit the competitive advantage expectations for the GVC actors. (SORSA 2011, 153–157; SORSA & JOLKKONEN 2014a and 2014b).

The differentiated-coffee global value chain presents significant differences in this respect.

In the differentiated market, the access to and the continued presence in the GVC is dependent on the compliance of new private quality standards and requirements, specifically intended to signal and assure the differentiated attributes of the product or of the process along the entire supply chain (CAFAGGI & SWENSSON, 2012, 9. See PONTE & GIBBON, 2005, 2; and also NADVI & WALTRING, 2002).

These new standards, which are much more complex and specific than those of the commodity market, require new coordination tasks in order to ensure and signal the compliance with them along the entire supply chain (See PONTE & GIBBON, 2005). In the specific area of certified coffee as the number of the coffee related certification schemes has grown during the last fifteen years, the new schemes have taken care of the co-ordination task by positioning their scheme in relation to the existing schemes. This means that the scheme owners need to make decisions which dimensions of the sustainability to emphasise (environmental aspects, social aspects or economical aspects). (SORSA 2014d, 7–14).

In the differentiated-coffee GVC the higher necessity of coordination has led to a closer relationship between the green-coffee producers and, in particular, the international roasters, who started, on their own or with partners, to coordinate new tasks directly in order to guarantee the new quality requirements from the farming stage to the processing and exporting stages (CAFAGGI & SWENSSON, 2012, 9; See SAES, 2008, 97 and 113–120).

It may occur both when the company imposes new quality parameters through certification schemes, and, in particular, when the company decides to set and co-ordinate the application of its own quality parameters (CAFAGGI & SWENSSON, 2012, 9).

By promoting the access of the coffee producers into the differentiated international coffee market and in the transfer of innovation along the supply chain (See SAES, 2008), they mostly operate as “market intermediaries”.

Their role has been particularly important in allowing producers to meet the new standards imposed by the differentiated-coffee market and performing a number of tasks which are not traditionally performed within the commodity market, such as specific quality analysis and control of the green-coffee beans, the implementation of traceability systems, of instruments to signal quality and sustainability attributes and enable the transfer of technological innovation. Examples of these new intermediaries include the new associations (such as the Brazilian Special Coffee Association (BSCA)¹⁵, the “Council of Coffee Growers’ Associations of the Cerrado Region” (CAACER) and also cooperatives, such as the *Cooperativa Regional de Cafeicultores Guaxupé* (Cooxupé)¹⁶ or the Cooperative Society Sin Fronteras Internacional. (For more details, see the topic on the transfer of innovation below).

These new market intermediaries may play different functions. They cannot only fill cognitive and informational gaps by helping multinationals to select local partners and enabling local SMEs to contact and engage with MNCs, but also provide direct services, training, financial and administrative support, and technical expertise to small farmers. In some cases, they even contribute to the creation of regional quality brands by becoming private regulators and setting up certification schemes and implementing them.

The system intermediaries may play different functions as well. The development of the standards is their main function, but many of them offer marketing and labelling services, certification services, verification services or accreditation services. (POTTS et al. 2014, 36).

15. Another important association in the sector is the *Conselho das Associações de Cafeicultores do Cerrado* (CACCCER). For an overview of its activities in the literature, see JAYO & SAES, 1997.

16. See SAES, 2008, 105–112 for an analysis of the Cooxupé activities. A brief overview of the activities of the BSCA can be seen in ZYLBERSZTAJN & FARINA, 2001, 52–53.

3 THE STRUCTURE OF THE DISTRIBUTION SUPPLY CHAIN

We hereby describe the structure of the coffee distribution chains distinctively focusing on the two European markets investigated in this research: the Italian and the Finnish ones.

3.1 COFFEE DISTRIBUTION IN THE ITALIAN MARKET

When it is not sold directly by the roasters, the distribution of roasted coffee to final consumers may occur through the retail or the Ho.Re.Ca. (so-called out-of-home) channels.

As mentioned before (see Ch. I, par. 2.6.1), approximately two-thirds of the total volume of coffee consumed in Italy is distributed through the retail channel, mainly in hypermarkets and supermarkets. Despite the large number of coffee roasting companies in Italy, the retail market is characterised by a significant concentration on the sellers' side, so that in the Moka segment (by far the most important in the retail market) the top three producers together covered in 2010 more than 70% of total sales in both value and volume¹⁷. The leader in the Italian retail market is Lavazza, also in the new and growing segment of coffee capsules¹⁸.

17. S. Urso, *Il mercato del caffè: canali di vendita, consumi e scenario competitivo*, Co.ind website.

18. *Il Sole24Ore*, 10 February 2013, p. 12.

It should be also noted, however, that in the last two years private coffee labels have gained growing importance, reaching today a market share higher than 8% (considering the main segments: moka, espresso, coffee pods and coffee capsules¹⁹), determining to some extent a further fragmentation of the market. Moreover, particularly in relation to private labels, Italian retailers are showing an increasing attention towards high quality and/or sustainable coffees.

Finally, with regard to sales location in the retail segment, total packaged coffee (not including instant coffee) has been evenly sold in 2011 to large distributors and to volunteer unions and purchasing groups. Supermarkets and hypermarkets represent the most common sales outlet (66%), while a smaller percentage of coffee is sold to final consumers through self services and groceries (22%) and an even smaller percentage through discounts (12%)²⁰.

Type of Client	%	Type of Sales Outlet	%
Large Distributors	50	Supermarkets & Hypermarkets	66
Volunteer Union and Purchasing Groups	50	Self Services & Groceries	22
		Discount	12

FIGURE 21. Total packaged coffee (total market without the instant segment): sales location in percentage by type of client and point of sale (year 2011).

Source: ECF, *European Coffee Report 2011–12*, p. 40.

While distribution in local markets through traditional retail outlets is mostly used by small companies, specialised grocery stores and large-scale distribution (supermarkets and hypermarkets) are the exclusive channels of larger roasters, who have the structure and the bargaining power to ensure frequent and timely delivery over the national territory, appropriate logistical services, promotional initiatives and/or other merchandising activities²¹.

Although the Ho.Re.Ca. channel represents a smaller share in terms of volumes of coffee sold, if we consider the sale value, it is much more profitable than the retail one (it counts for approximately 70% of the total value of the sales). The type of product and services offered to the Ho.Re.Ca. operators tend to have higher prices, which are also not affected by discount agreements, commonly used in the retail sector.

Distribution through the Ho.Re.Ca. channel requires a sales force distributed throughout the territory, able to visit operators on a weekly basis, and the supply of specific services ranging from free installation of coffee machinery, repair services within a few hours, cups with the logo of the roaster, to a form of subsidised loans. Thus, this channel is mainly dominated at the national level by larger roasters, which are able to afford these types of investment. However, smaller roasters have generally a good coverage at the local level²².

Within the Ho.Re.Ca. channel, especially international food service chains tend to pay increasing attention to quality and/or sustainability certifications and among those mostly required in their tenders are Utz certified, Rainforest Alliance and fair trade²³.

As we will see later, the contractual relationships between roasters and retailers and those between roasters and enterprises operating in the Ho.Re.Ca. channel are very different.

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19. Il Sole24Ore, 10 February 2013, p. 12. If we consider grinded coffee plus coffee beans the share of private labels in the first part of 2012 is 14.2% (Nielsen data, AT 26 August 2012).
 20. ECF, European Coffee Report, cit., p. 40.
 21. P. Campitelli, Il mercato del caffè in Italia, Commercio internazionale e nuove forme di intervento, dossier a cura dell'Associazione Ricerche Sette Nani - promosso dal CTM di Bolzano 1992.
 22. P. Campitelli, cit..
 23. Lavazza interview, August 2012.

3.1.1 Coffee private label in the retail sector in Italy: the case of Coop

The leading large scale distributor in Italy is Coop Italia, originally founded more than 150 years ago as a collective buying centre in the form of an association of consumer cooperatives and later transformed, firstly in 1967, to the national purchasing consortium of Italian consumer cooperatives and finally, in 1999, to a marketing centre, which is the current structure. Coop private label coffee accounts for 19% of the total private label market for coffee in Italy and for 25.2% of the total market for Coop's coffee itself. Coop offers some differentiated private label coffees to its customers: i) *fair-trade coffees*, which are generally identified with the product name "Solidal" and have the Fairtrade certification, and ii) *high quality, specialty coffees* under the product line "Fior Fiore", which may or may not have the Fairtrade and/or organic certification. Coop Solidal coffees are of two types, classic coffee from Central America and Africa, and 100% Arabica coffee from Nicaragua, and they account for 4.84% of the total private label of Coop by volume.

i) *Coop fair-trade coffees* within the product line "**Solidal**"



The product line Fior Fiore Coop includes 100% Arabica coffee from Brazil and 100% Arabica coffee from Ethiopia, but they only account for 0.85% of the volume of the Coop private label in 2012. Other relatively new Fior Fiore labelled coffee products, which are showing a growing trend, are the coffee pods (9 different types) to be used with the Coop espresso coffee machine. It should be noted that one type of these Fior Fiore coffee pods, the 100% Arabica coffee pod, has both the Fairtrade certification and the organic one.

ii) *Coop high quality, specialty coffees* within the product line “**Fior Fiore**”



For its private label ground coffees, Coop has commercial relationships *with just one supplier, Co.ind*, which is a company in which the nine main cooperatives members of Coop Italia participate. Initially Co.ind was an independent supplier of Coop but the need and the opportunity to establish a continuous supply led Coop Italia and, in particular, its member cooperatives to establish a proprietary relationship with this company.

Among the Italian roasting firms operating in the production of private label coffee, Co.ind is, indeed, one of the major players, operating since 1961²⁴. With a turnover of 180 million euros, five production plants all over Italy and four hundred employees, Co.ind is *one of the top 8 Italian producers of “espresso” coffee, sold as whole beans, in pods and ground*. With 10,000 tons of green coffee roasted every year, Co.ind *sells in the retail and food service channels*. Its main customers in the first channel are Coop, Conad, Dico, LIDL, Crai, Sigma, Sidis, while its most important customers in the food service channel are Camst, Cir, Marr, Doreca, Nestlé, Caffè Nero (UK).

3.2 DISTRIBUTION IN THE FINNISH COFFEE MARKETS

3.2.1 General structure of the distribution

Coffee in Finland is sold to consumers through grocery chains like Kesko Group²⁵ and S-Group²⁶, but there are also a lot of different sales channels of coffee in Finland. Those sales channels of coffee are presented in picture 2.

A few central wholesalers (S-Group, K-Group, Suomen Lähikauppa) together dominate the food industry with an aggregate market share of nearly 90%. These chains have closely-knit wholesale and retail arrangements comprising a compact and efficient goods delivery system and a nationwide network of retail shops as well as department stores and supermarkets. They also have hotel and restaurant chains and catering services. The centralised system makes distribution economical; purchases from abroad can be made in viable quantities considering the relatively small size of the market. Almost one-third of the total wholesale trade in Finland is transacted through these wholesale organisations. (GAIN Report FII201, 9.6.2012, 2).²⁷

The distribution of coffee is very concentrated and is normally taken care of by Finnish grocery chains like Kesko²⁸ for different K-markets: K-Citymarket, K-supermarket and K-market; and INEX Partners Ltd. for S-Group's markets: Prisma, S-markets, Sale, Alepa and ABC-shops. Inex Partners Oy is S-Group's sourcing and logistics company, a subsidiary of SOK.²⁹

TUKO Logistics Ltd. wholesale company, the third biggest retail chain, delivers coffee to Suomen Lähikaupat Oy, whose markets are Euromarket, Siwa and Valintatalo. TUKO Logistics Oy also delivers coffee to the Stockmann chain³⁰.

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24. Another important player in the coffee private label market is Moka Sir's SpA, a roaster established in 1954 and specialised in the roasting and sale of coffee blends to bars, restaurants and other sectors of the catering industry.

With regard to private label, Moka Sir's has gained over the last few years experience in the design, manufacture and supply of an entire range of customised coffee accessories for companies who own a well-established brand name and want to merchandise a comprehensive line of products with their brand name on them.

The company is equipped with an ISO 9001:2008 Certified Quality System for the "Research, Development and Production of blended coffee beans", and has recently developed a new line of products made of coffee beans certified from Organic Farming and Fairtrade.

The company has a distributor in Finland (Ppl Media Oy / Crema, Hämeentie 155 A, 7th Floor, 00560 Helsinki, Email: samuli.seppavuori@pplmedia.fi, Contact: Samuli Seppävuori).

25. Kesko is a listed trading sector company domiciled in Helsinki, where the main office is also located. Kesko operates in the food trade, the home and specialty goods trade, the building and home improvement trade, and the car and machinery trade. Kesko manages retail chains and provides services for the retail chains' purchasing, logistics, network development and information management. Its division parent companies and chains act in close cooperation with retailer entrepreneurs and other partners. Kesko was formed in 1940 when four regional wholesaling companies that had been founded by retailers merged. It started operating in 1941. The need to purchase goods for the shareholder-retailers and to support their business operations and start cooperation among them resulted in the forming of the K-retailer group. In 2013, Kesko had about 2,000 stores engaged in chain operations in Finland, Sweden, Norway, Estonia, Latvia, Lithuania, Russia and Belarus. Kesko and K-retailers form K-Group, whose retail sales totalled about €12 billion (VAT 0%) in 2012. K-Group employs around 45,000 people. (www.kesko.fi/en/Company/Keskos-history/)
26. S-Group is a national retail group in Finland. S-Group is a Finnish retailing cooperative organisation with its head office in Helsinki. Founded in 1904, it consists of 22 regional cooperatives operating all around Finland in the markets for groceries, consumer durables, service stations, hotel and restaurant services, agricultural supplies, and car sales. The full formal name of the nationwide cooperative organisation is *Suomen Osuuskauppojen Keskuskuunta* (SOK).
- It is the market leader in the Finnish grocery market, with a 45.6 per cent market share. In addition to Finland, S-Group has operations in the Baltic countries and the St. Petersburg area. In 2012, S-Group's retail sales totalled EUR 12,037 million and it operated in almost 1,700 locations. In addition to the grocery supplies trade, S-Group engages in the service station store and fuel trade, department store and specialty store trade, banking, hotel and restaurant business, automotive trade and accessories, and agricultural trade.
27. http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Retail%20Food%20Sector%20Report%20for%20Sweden%20and%20Finland_Stockholm_Finland_9-6-2012.pdf
28. Kesko has its main distribution centre in the capital area. All Kesko's markets have the possibility to buy also local coffee directly from coffee roasters.
29. INEX Partners Oy has its main distribution centre in Espoo in the capital area and all standard and special coffees will be delivered to S-Groups' markets from this main distribution centre.
30. TUKO Logistics Oy delivers coffee to the Stockman chain, Siwa, Euromarket and Valintatalo from its main distribution centre situated in Kerava near the capital area.

Delivery-chain of coffee in Finland

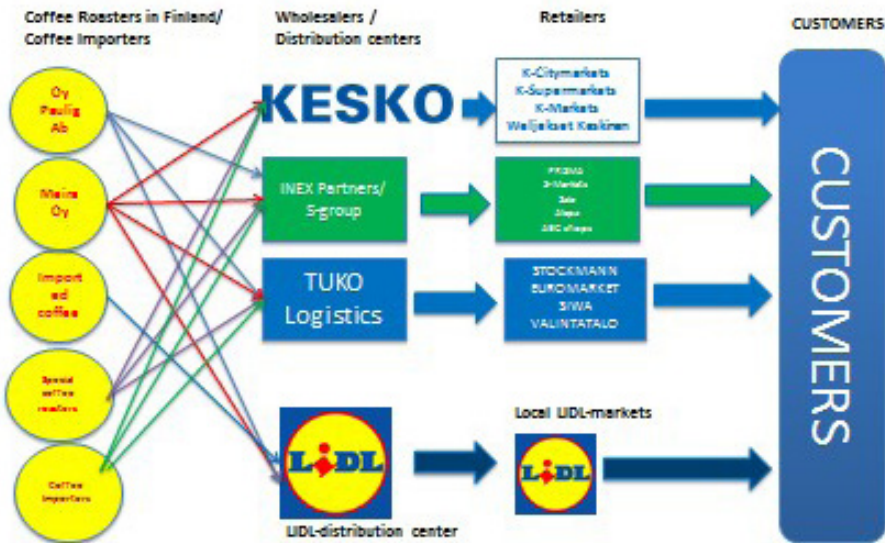


FIGURE 22. *The delivery chains of coffee in Finland.*

The Lidl chain has its own delivery-chain for the local Lidl supermarkets³¹. The delivery chains are represented in the figure n. 22. All Lidl's coffees from Germany and from Finnish coffee roasters will be delivered from this distribution centre. Lidl has improved its position in the Finnish retail business. It is continuously improving its market shares selling cheaper food than Kesko and S-Group stores. This is due to its many times huger sourcing power compared to e.g. that of Kesko. Lidl's sales are annually around 61 million euros compared to Kesko's 10 million euros. (Saario Kauppalehti 13.9.2013). The entry of Lidl has undoubtedly changed the dynamics of food retailing and is putting pressure on the previously unthreatened Finnish grocery conglomerates. Finnish retailers are responding by refocusing their stores to a more price-oriented basis and introducing new private label items to match Lidl's low prices. Also, many retailers have opened up their own discount stores. The general trend remains unchanged in Finland, with hypermarkets and supermarkets increasing sales volumes, while small and medium-sized stores lag behind. The number of retail outlets continues to decline, although at a somewhat slower pace. (GAIN Report FII201,9.6.2012, 2).

The market share of specialty coffees in Finland is about 1..2% of total coffee consumption. The market leader of this segment is *Robert's Coffee*³². Some professional *coffee machine maker importers* and dealers offer different kind of coffees mainly to restaurants and offices. Such companies are, e.g., Vendor, Autobar Finland Oy, Selecta and Depro Oy Ab.

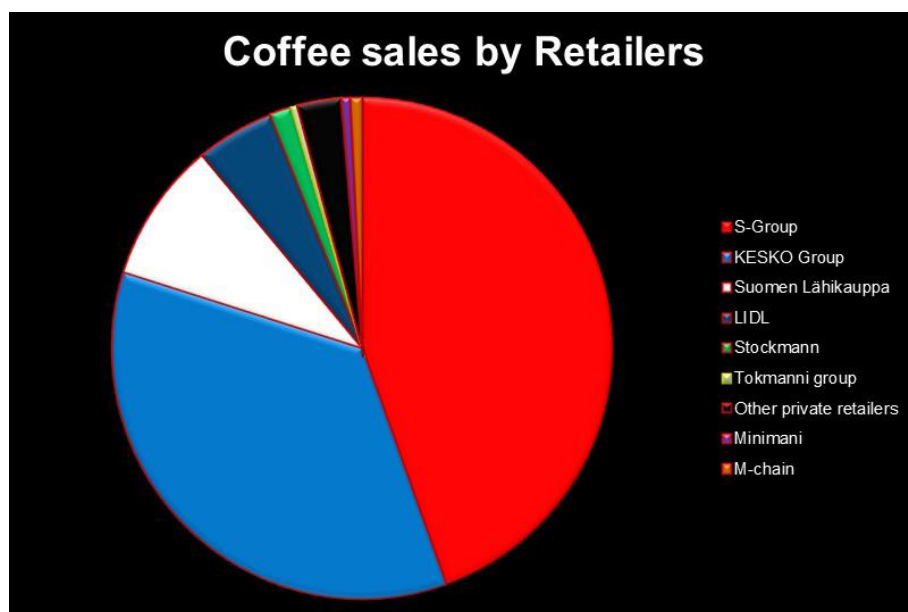


FIGURE 23. Coffee sales in Finland by different retailers. (*Kilpailuviraston päivittäistavarakauppaa koskeva selvitys, 2010, 2*).

In the *Ho.Re.Ca. business*, restaurants and hotel chains like Scandic Hotels Oy, Sokos hotels etc. normally buy their coffee from wholesalers like Kesko or from Inex Partners Oy or occasionally from special coffee roasters/importers in Finland. Hotel chains have a very careful procedure in how they choose certain coffee trademarks for their use. Mainly the taste of coffee, logistical ability to deliver coffee to hotels around Finland and price are the most common selection criteria.

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31. The Lidl chain has its distribution centre in Janakkala in Southern Finland.
 32. Other trademarks are Nescafe, Mokkaestari Oy's organic and Fair Trade coffees, Segafredo Espresso, Swedish Johan & Nyström-coffee, Caffi coffees, Kaffecentralen's coffees.

Some smaller coffee roasters may sell local specialty coffee directly to supermarkets, coffee shops or cafes.

In summary, the Finnish coffee markets are very concentrated both in the roasting and in the retail phase of the value chain. In both cases two actors, companies in roasting and retail chains in distribution, are competing with each other in the main market segments (commodity segment and differentiated segments) and several small actors are trying to find their place in very narrow niche markets.

3.2.2 Branding typology

According to Docherty’s report “Branding Agricultural Commodities: The development case for adding value through branding” (2012), we can see four common product brand types: producer’s brands, varietal brands, geographical brands and certification brands in the agricultural products categories. This categorisation is used here in order to clarify the Finnish coffee markets value chains. In the coffee consuming country’s perspective, the branding of coffee plays a crucial role in distinguishing the coffee products to the final customer.

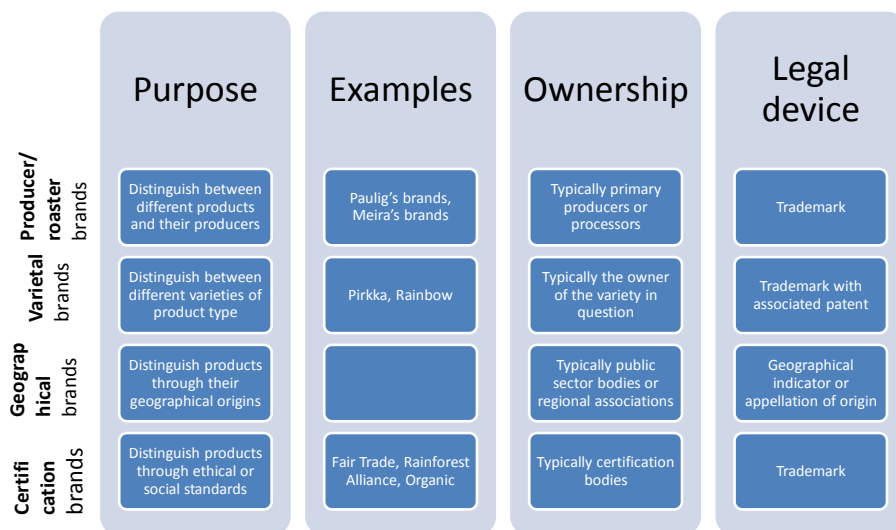


FIGURE 24. Four common product brand types by Docherty (Docherty 2012, 13). Applied to the Finnish coffee markets.

When the branding strategy and product differentiation was only based on the product quality, the sourcing of the raw material was also based on the taste and the quality of the product. During the last ten years the differentiation between products has also been based on private label brands, which basically aim at differentiating with low price. Afterwards other criteria like sustainability and food safety issues have become important to the final customers of the coffee (both business customers and consumers) and the product brand is also reflecting these criteria, the sourcing strategies have changed. The brand owners need to take into account also the traceability and availability of the coffee, in addition to the taste and physical quality of the raw material.

Analysing the coffee brands in the Finnish markets will reveal that the branding strategies of the companies are often combinations of these different branding categories.

3.2.3 Main roasters' brands and private labels with market shares

The roles of different roasters, brands and private label brands are illustrated in chart 22 below. The long history of the Paulig company may explain its important role in the Finnish coffee markets – it has been and it will be the one attacked by competitors. During the first decades of the 20th century Paulig brought technological innovations into the Finnish coffee business, which changed the number of coffee players in Finland. Later Paulig has been working towards differentiating its products with sustainability elements.

Chart 22 illustrates only the main brands produced by the main roasters Paulig and Meira as well as their role in comparison to the private label coffees of the three main retail value chains in Finland. The most popular coffee brands are the light roast coffees (*Paulig's* Presidentti and Juhla Mokka and *Meira's* Kulta Katriina and Saludo), although a wide selection of medium to dark roast coffees, both Finnish and foreign brands, are also available at practically every supermarket or grocery store.

The most popular Finnish coffee, Juhla Mokka, has been roasted with the same recipe since 1929. The second most popular Finnish coffee is Kulta Katriina and it has been roasted with the same recipe since 1937. Kesko and S-Group have their own private label coffees. Kesko's trademark is Pirkka and S-Group's trademarks are X-tra and Rainbow.

Consumption trends have changed slowly in Finland. Nowadays also *darker roasted coffees* (scale 3 to 5) are sold in Finland³³. The market share of dark roasted coffee is between 2 and 3%. *Each main player has brought the CSR standardised coffee brand* on to the Finnish markets after 2006 and the growth rate seems to continue from the niche market to mainstream. (Seuri 2012).

In the two main *coffee roasters' category* there are two differentiated coffee brands based on CSR standards: 'Paulig Mundo' (Kesko: doublecertification: Fairtrade and organic) and 'Meiran Reilukahvi'³⁴ (S-Group, Fair Trade certified). K-Group has also expanded the certifications into their geographical brand categories: Paulig Brazil and Paulig Kenya are Utz certified and Paulig Colombia and Paulig Mexico brands instead are both Fairtrade and Organic certified.

The core differentiating criteria for the private label products is the price and quality of the product. In this product category, the owners of the private label brands are the Kesko wholesale company (Pirkka brand) and the Inex Partners wholesale company (Rainbow brand). Kesko as a private label brand owner has also added certified coffees into the private label product category. Nowadays all Pirkka private label coffees are CSR certified (Interview with Kesko purchaser).

Inex commissions the manufacture of private label products for S-Group's grocery stores. They are reasonably priced products of reliable quality and offer customers additional choice and products that are not available elsewhere. (<http://inexpartners.eu/>)

Familiar among food products, *Rainbow* is the biggest of the labels. It is equivalent to the leading brands in terms of quality but 20–40% less expensive. The *Nordic X-tra* label is an even more inexpensive option. X-tra-products are of discount quality with simplified packaging. (<http://inexpartners.eu/>)

33. Paulig's Café Parisien and Presidentti Dark, Nordqvist's Classic Reko (Fair Trade Coffee) and imported Swedish coffees like Löfberg Lila and Lindvalls Kaffe represent this product category.

34. 2007 was said to be a breakthrough year in Finland for the Fairtrade certified coffee brand. This was because many of the hotel and restaurant value chains made a strategic decision to change their coffee to certified Fairtrade labelled coffee. Meira's Fairtrade coffee was used in Naantali's Moomin World, the restaurant chain Rosso in Finland, Holiday Club Spa Hotels, the fast food chain Rolls, Coffee House coffee chain, Chico's restaurant chain and Matkahuolto Ab (a private service and marketing company specialising in bus and coach services). Also the ABC Group's service station stores and fuel trade operated by a network consisting of 108 ABC service stations started to use Meira's Fairtrade coffee. (Suurtaloussuutiset 2007, 9 and 34).

Trademark	Coffee roaster	Marketshare	Certified
Kulta Katriina	MEIRA Oy	17%	N/A
Saludo	MEIRA Oy	6%	N/A
Meiran Reilu Kahvi(fair trade)	MEIRA Oy	N/A	FAIRTRADE
Cafe Hieno	MEIRA Oy	N/A	N/A
Segafredo	MEIRA Oy /Massim	N/A	N/A
Juhla Mokka	Oy Paulig Ab	43%	N/A
Presidentti	Oy Paulig Ab	12%	N/A
Costa Rica	Oy Paulig Ab	9%	
Brazil	Oy Paulig Ab	N/A	UTZ certified
Paulig Mundo. Kenya, Colombia and Paulig Papua New Guinea	Oy Paulig Ab	N/A	Paulig Mundo, Paulig Espresso Originale are UTZ certified
Bellarom	LIDL	N/A	N/A
X-tra	S-Group / MEIRA	N/A	N/A
Rainbow	S-Group / MEIRA	4%	N/A
Pirkka	K-Group / Paulig	N/A	UTZ certified
Special Coffees		1%	
Nescafe	Nestle	N/A	Rainforest Alliance
Private label coffees		S-Group	
		LIDL	
		Kesko	

Sources: Kauppalehti 10.5.2004, Talouselämä 29.7.2011, Interview Niklas Kling 24.1.2012

CHART 22. *Main coffee trademarks and their market shares in Finland (Kauppalehti 10.5.2011 and Talouselämä 29.7.2011, 3).*

Instead, K-Group's private label category Pirkka has altogether four different sustainability-labelled certified coffee brands: Pirkka Kahvi (Utz certified), Pirkka Reilun kaupan kahvi (Fairtrade certified), Pirkka Luomu (doublecertified: Organic and Utz certified) and Pirkka Costa Rica (Utz certified). In 2009, Kesko informed that the market share of private label Pirkka coffee was already 10 per cent of the coffee sales.

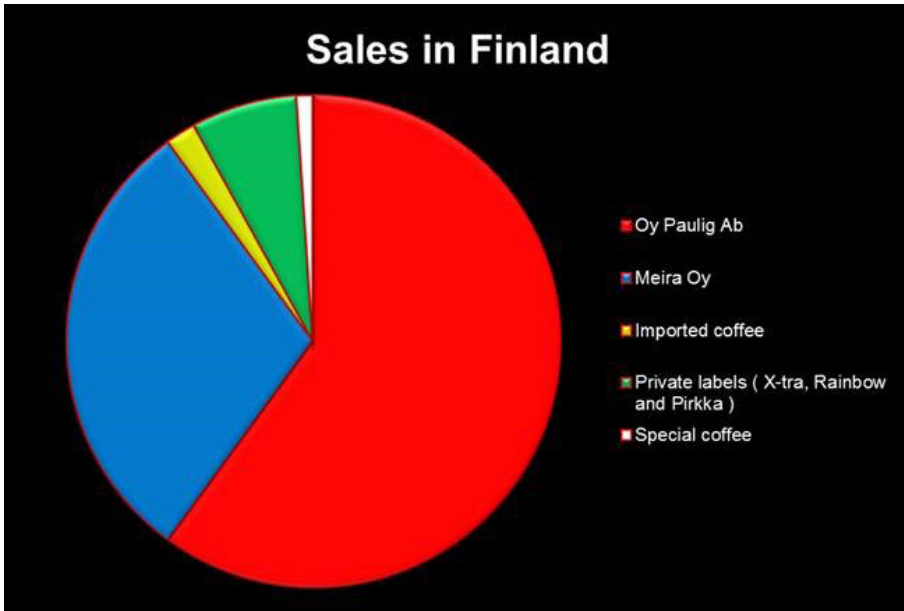


FIGURE 25. *Coffee sales in Finland by coffee roasters and private labels (interview with Marleena Tanhuanpää, 1).*

In conclusion, there are differences in the private label coffee brand-categories between K-Group and S-Group. *K-group seems to be much more focused on sustainability-labelled coffee brands and combines different certifications with its major brands.* Fairtrade and organic, organic and UTZ certified go hand-in-hand with the roaster’s brand and private label brands.

3.2.4 Private label value chains: Kesko and S-Group

Kesko's private label coffee brands' value chains

Kesko's private label coffee brands are either UTZ or Fairtrade certified or they carry double certification. Kesko's Pirkka coffees are partly produced by Paulig and partly in a Dutch roaster which uses only UTZ certified coffee. After Paulig was able to guarantee availability of certified raw materials for the Pirkka blending, Kesko changed one of the Pirkka coffee's production to Paulig. (Kesko interview 2012).



UTZ certified coffee can be traced to their sources using the code in the coffee pack. As we can see, the value chain of Kesko's Pirkka coffee blendings has at least one roaster in Finland or one in Holland. The length of the upstream value chain depends of the blendings.

It has not been possible to ascertain where Pirkka Fairtrade coffee and organic coffee come from. However, their purchasing is guided by Kesko's quality and blending requirements as well as Fairtrade standards and organic standards requirements. K-Group is responsible for ensuring that the products it sells meet all the requirements of both Finnish and EU legislation. Kesko's ethical purchasing principles guide Kesko's responsible purchasing. Various policy statements have also been prepared to support its operations.

Kesko Food Ltd., which is responsible for developing private label products, belongs to the international retail alliance AMS. AMS was founded by the leading retailers of five European countries to create synergy in commodity buying. Since 1987, AMS has been initiating, managing, and coordinating joint buying activities for its members, European retailers. AMS creates economies of scale, pooling the expertise and volumes of 13 major European retailers.

By sourcing commodities on a European/Global scale, AMS delivers its members the best possible quality at the lowest price. With AMS, retailers are now able to give shoppers greater value for money, which improves their bottom line, and gives them a clear competitive edge in today's fast-moving retail market.

S-Group's private label value chains

In S-Group's Rainbow coffee category, neither Rainbow nor X-tra brands are certified. Rainbow is produced under Inex Partners' order by Viking Coffee Ltd. and X-tra is produced under Inex Partners' order in Denmark by Coop Ltd. Viking Coffee Ltd. belongs to the Paulig Group and it is the auxiliary firm name of Gustav Paulig Ltd. (www.yjt.fi). This means that Paulig produces both private label coffees for Kesko and S-Group as well as Paulig's own brands. In this way it has a broad segment of different customers.

Coop Trading develops and sources Private Label products for its Private Brands X-tra, Coop and Änglamark. Nationwide, the Coop organisation covers more than 4000 retail shops in the Nordic countries. Coop Trading develops and source products for the following retail chains (among others): *Prisma* in Finland and SuperBrugsen, Irma, Kvickly, Fakta, Coop Närä, Coop Konsum, Coop Extra, Coop Mega in other Nordic countries.

Coop/Rainbow is the master brand that contains quality products that offer consumers value for money. X-tra brands are in the pricefighter position, which holds strategically selected volume products with focus on low prices and qualities benchmarking the discount sector.³⁵

35. Coop also has a brand focusing on sustainability issues: Änglamark is the brand under which products are characterised by being allergy and environmentally friendly and also organically produced.

4 CONTRACTUAL GOVERNANCE

4.1 UPSTREAM AND DOWNSTREAM SUPPLY CHAIN

As a preliminary remark, contractual relationships in the coffee sector generally create North–South linkages between producers in developing countries and consumers in developed countries. The contractual practices developed in the coffee supply chain may be analysed along the supply chain, distinguishing between those concerning the upstream supply chain and those regarding the downstream one. In the first case, the contractual relationships concern the purchase and delivery of an amount of coffee cherries or green coffee against the payment of an amount of money. As we see below (par. 3.2), depending on cases, these contracts may include services provision and different forms of collaboration between seller and buyer, including financial allowances in particular circumstances. When the focus is on the delivery of green coffee rather than on the production process, these contracts generally follow the scheme of domestic or international contracts for the sale of commodities and raw materials. They may either be stipulated, though more rarely, between roasters and coffee producers or they may include, more often, additional actors playing as intermediaries, such as brokers, agents, traders, exporters or importers.

In the downstream part of the supply chain, the contractual relationships focus on the distribution (B2B contracts) and on the sale of roasted coffee to ultimate consumers (B2C contracts). These relationships may vary according to the different type of distribution channels they refer to (e.g. large-scale distribution – LSD – or out-of-home distribution channels, such as the Ho.Re.Ca. channel).

All these contractual relationships, depending on the participation of a foreign party or on the presence of other international elements within the contractual relationship, may be qualified as either domestic or international. Depending on the private international law – conflict of law rules applicable to the case – they may be subject to a different national law (Brazilian, Italian or other foreign legal systems).

The following table aims to map the main steps/phases which characterise the coffee global value chain, identifying the type of contract used in each step and the parties involved.

CHART 23. *Contracts used and parties involved in each stage of the coffee global value chain.*

Main phases of the coffee GVC supply chain	Production/farming stage		Trading	Industrialisation	Distribution
Geographical localisation	Brazil	Brazil	Brazil and EU countries	EU countries	EU countries
Specific supply chain stages/steps	Coffee Cherries Production	Coffee Cherries Processing - dry method - wet method - semi-washed method	Green coffee Commercialisation - green coffee exportation	Roasting Milling Solubilising Lyophilisation	Roasted coffee Distribution
Product obtained or exchanged in each stage	Coffee cherries	Green coffee	Green coffee	- Roasted coffee - Roasted and ground coffee - Instant coffee	- Roasted coffee - Roasted and ground coffee - Instant coffee
Actors	- farmers or coffee producers (only farmers produce coffee cherries; but they are also increasingly performing the first processing of coffee cherries ³⁶) - agents. - cooperatives (in general with the intermediation of the “corretor” – broker -)		- local traders or exporters (green coffee sellers) - cooperatives (but their role as exporters is decreasing). - farmers or coffee producers (very rarely) - international traders or importers or foreign roasters (large green coffee buyers) - Brokers and agents	- roasters - instant coffee industry - coffee shop-chain	- retailers - coffee shops - bar and restaurants - vending machines - final customers
Main characteristics of the actors	Mainly large farmers. (significant number of SMEs in the differentiated-coffee production, especially for exceptional quality)		High concentration, very powerful actors (5 major traders)	High concentration, very powerful actors (3–4 major roasters plus several medium-large groups of enterprises with a multinational production and commercial relevance)	Tendency toward concentration at the retailers' level
Contracts	- Sales of raw goods - Sales of services - Contract farming		- Domestic sales of raw goods - International sales of raw goods (models contracts European Coffee Federation or the American Green Coffee Association) - possible service contracts (e.g. brokerage, certification) - Contract farming	International sales of goods	- Distribution contracts - Loan for use contracts - B2C sale contracts

36. Among the reasons for this change are the decrease of the price of the machinery to process the coffee, the possibility of adding value to the product through the process (one of the most important steps in producing a high quality product) and the possibility of using the skin and the rest of the coffee as fertiliser.

4.2 FARMING STAGE – CONTRACTS FOR THE SALE OF RAW GOODS, FOR THE PROVISION OF SERVICES AND CONTRACT FARMING

At this very first stage, different actors may enter into contractual relationships with farmers and different contractual arrangements may be used. The most frequent and simple contractual scheme is the *sale of raw goods* (i.e. *coffee cherries or green coffee*), which is characterised by a mere exchange of goods against price; however, *service provisions* are also increasingly relevant, and they may range from most traditional services such as those related to processing techniques or the selection of coffee beans, to most innovative ones in particular with regard to the specific needs of the specialty or the differentiated markets.

Thus, these two dimensions, the exchange of goods and the service supply, may be articulated in different ways:

- they may be either combined within the same contract for the sale of goods, for example when services are provided by the buyer itself, so that the contract is not anymore just a pure sale contract but a more complex legal arrangement; or
- there may be specific contracts for service supply which are entered into in addition to and separately from the simple sale scheme.

As regards the latter option, this is the case in the specialty and in the differentiated markets where specialised intermediaries have emerged to provide specific services and with whom farmers and/or traders/importers enter into *ad hoc* contractual relationships. Moreover, when coordination and integration of the production phase is at stake, specific contractual schemes such as **agricultural production contract (or contract farming)**³⁷ or, with regard to the Brazilian law, **integrated agricultural production partnership contracts**, may be used³⁸. Here is a case in which contractual governance becomes a vehicle for knowledge transfer possibly leading to system level innovation. Agricultural production contracts differ from mere sale contracts. They are forward agreements between the buyer and the farmer, according to which the farmer agrees to provide agreed quantities of a specific agricultural product at a future time and the buyer commits to purchase it. Moreover, the farmer usually agrees to follow the quality standards required by the buyer.

On the other side, the buyer, in some cases, commits to support production through, for example, the supply of farm inputs, land preparation and the provision of technical advice³⁹. These contractual arrangements, thus, depending on their concrete articulation, may include provision of services and financing, besides the mere exchange of goods, thus modifying the allocation of risks and investments required to the parties⁴⁰. Third parties, mainly input providers, may be part of a multi-party contractual schemes in some instances⁴¹.

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37. Pultrone, An overview of contract farming: Legal Issues and Challenges, *Uniform Law Review*, 2012; Eaton – Shepherd, *Contract farming*, FAO, 2001; C.A. B. da Silva, *The Growing Role of Contract Farming in Agri-food Systems Development: Drivers, Theory and Practice*, FAO, Rome, 2005.
38. Contract farming schemes in the coffee sector have been studied in the literature mainly with regard to African countries (see, for example, S. Bolwig, *Poverty and Gender Effects of Smallholder Organic Contract Farming in Uganda* USSP Working Paper No. 8, June 2012; S. Bolwig, P. Gibbon, S. Jones, *The Economics of Smallholder Organic Contract Farming in Tropical Africa*, *World Development* Vol. 37, No. 6, 2009, pp. 1094–1104), but there are applications also in South America (see M. Warning, N. Key, W. Soo Hoo, *Small Farmer Participation in Contract Farming*, Draft version, pp. 12 ss., where specific reference is made to the Fairtrade system in the coffee sector in Mexico). In Brazil, as we will see in the case studies, concrete applications of contract farming schemes emerge in the coffee sector, although the literature only refers to contractual models in poultry and biodiesel production (see Aziz Galvão da Silva Júnior et al., *Contract Farming: Inclusion of Small Scale Farmers in the Brazilian Biodiesel Production Chain*, Draft Version of a Chapter to be published in the Book: “Contract Farming For Market Access”, FAO/IAAE).
39. Contract farming See FAO Contract Farming Resource Centre, <http://www.fao.org/ag/ags/contract-farming/faq/en/>
40. These three main functions or contractual dimensions (exchange of goods, service provision and funding) may combine in various ways within the same contract or even in several connected contracts and they have different implications on the applicable regulatory regimes with regard to parties’ obligations, in particular with regard to standard of performance (i.e. best effort vs. actual results), risk allocation, content of liability and related warranties, and remedies for non performance (i.e. withholding performance, specific performance, termination of contract, damages, price reduction).
41. See Unidroit – FAO, *Legal Guide on Agricultural production contracts*, part. chapter IV on Remedies against breach (by F. Cafaggi and P. Iamiceli), forthcoming.

Looking at the relevant actors in this phase of the value chain, we need to consider that farmers may be organised as a **cooperative** company, which constitutes a partnership of individuals (and not capital), also under Brazilian law. In this case, *farmers deliver the coffee to the cooperative within the frame of their membership relationship*⁴². Playing generally the role of chain intermediaries, cooperatives help secure the mass of supply and usually have strategic relationships with exporters; they may also perform specific services related to production management, first processing, and storage of coffee. As we have seen, especially in differentiated markets, cooperatives may also offer to farmers additional or alternative services with a view to supporting farmers' development, assisting them in the implementation of quality or sustainability standards⁴³. At a more complex level, cooperatives may also be structured as second order cooperatives being composed of first order cooperatives of coffee growers or of other cooperatives.

Thus, at this stage, farmers may, individually or through the cooperative, enter into a contractual relationship with national traders or exporters. The type of contract in use between these actors is usually the **sale of raw goods**, a simple scheme of *sale contract* that is normally subject to Brazilian law, being generally among Brazilian firms.

It should be noted that, even when a foreign party enters the contract⁴⁴, Brazilian international private law rules will identify Brazilian law as the applicable law to the contract, whenever Brazil is the place of conclusion of the contract ("lex loci celebrationis")⁴⁵. In fact, according to the 1981 decision of the Brazilian Supreme Court, *international contracts celebrated in Brazil should be subject to Brazilian law* and the parties are not allowed to freely choose the applicable law, except for the procedural law applicable to arbitration, which is however an aspect not very frequently regulated in these contractual relationships (see below, box n. 8). However, although the Brazilian legal tradition has strictly and formally upheld these legal constraints against the application of foreign and international law, the recent ratification of the United Nations Convention on Contracts for the International Sales of Goods (CISG) legally recognises a broader and more flexible approach (already adopted in practice), by providing more coherent and less uncertain rules in case contractual disputes arise.

With regard to the **provision of services** in this preliminary stage of the production phase, the role of agents (“*maquinistas*”) as actors performing traditional services such as the processing of coffee beans (the wet or dry processing, which is relevant in determining the price differentials for green coffee) is nowadays quite limited, given that farmers tend to perform it by themselves. However, in the past, a specific domestic contract for service provision was generally entered into between the coffee growers and agents for this purpose. Besides processing, agents currently provide additional services concerning the selection of coffee growers and in particular the coordination and management of the sampling activity, for which they may work together with specific laboratories in charge of making the analysis. In such a case, the agent clearly provides crucial services for the buyer and the service contract will be probably entered into between the agent and the exporter or the local trader. However, agents also play the role of facilitating the meeting of buyers and sellers.

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42. This type of relationship is regulated by a specific legislation applicable to cooperatives (lei 5.764, 16 december 1971; in 1988 the constitutional reform set forth the transition from State-led and controlled cooperatives to autonomous and self-managed cooperatives), according to which cooperative members are not generally bound by an exclusivity constraint to deliver their entire production to the cooperative (see Box n. 8 in Chapter I) so that they may also sell their coffee to other local intermediaries. See “Brazilian Cooperativism: The Conquest of Autonomy”; see also the recent Brazilian Bill on integrated agricultural production partnerships, according to which the relationship between agricultural cooperatives and their members or between cooperatives among themselves associated is regulated by specific legislation applicable to cooperative societies.
 43. For the role played by cooperatives in the coffee sector in Nicaragua see A. Kiemen – T. Beuchelt, Certification as an upgrading strategy for smallscale farmers and their cooperatives: A value chain analysis for Nicaraguan coffee, Discussion paper 2/2010.
 44. For example a foreign firm (e.g. an European roaster) interested in a particular premium-quality coffee, who prefers to go to the country of origin in order to directly select the best quality coffee producers.
 45. See also art. 9o, §2o, of the Brazilian Civil Code introductory Law, according to which the applicable law to contractual obligations is the law of the place of residence of the proposing party.

It is not uncommon, in fact, for coffee growers or cooperatives, on the one side, and exporters/traders, on the other, to refer to local intermediaries, such as brokers (also called *corretor*) or agents, who perform the function of bringing parties together without formally taking part in the contract for the sale of green coffee, nor acting in the name of the parties, nor gaining ownership of the coffee at any time. As mentioned above, they may also perform additional services of “support” to the transaction (e.g. sample collection and confrontation)⁴⁶. The *corretor* (or broker) usually does not represent a specific party and his compensation is included within the contract for the sale of raw goods as a percentage of the sale price⁴⁷.

Once the relation between mere sales of goods, sales of services, agricultural production contracts and the like is considered, contractual practices should be correlated with different types of market and supply chains, as above introduced, namely: commodity and differentiated coffee markets. In the **commodity** coffee supply chain the contractual relationships in the very first stages of the chain tend to take the form of **pure exchange contracts** and agricultural production contracts seems not to be used to govern these relationships beyond the exchange dimension. By contrast, in the **specialty** coffee supply chain some contractual relationships directly established between green coffee growers or cooperatives and European coffee roasters or international traders/importers (sometimes through the intermediation of local exporters/traders) present the characteristics of **agricultural production contracts**.

The literature indeed has identified a specific type of agricultural production contracts particularly suited for products requiring substantial processing prior to retail and a higher degree of coordination, such as coffee: the “centralised model”, used by large firms to contract with large farmers or a large amount of farmers (following the so-called outgrower scheme) and characterised by strict quality requirements and quantity targets, generally monitored by in-house technical staff³⁸. In general, contracts entered into between farmers or cooperatives, on the one side, and local traders/exporters, on the other, *tend to be in writing but they are standardised and very short* (one page long), looking similar to a mere confirmation of orders. They usually stipulate: the parties to the contract; the quantity of coffee (in bags of 60 kilos); the quality, with a brief description which refers to the official classification or to the conformity to the sample; the price; the place of delivery; the delivery period and method,

and the method of payment. The payment of the price is usually conditioned to the approval of the coffee by the buyer or to the conformity to the offer sample. Finally, the contract may provide the percentage to be paid to the corretor for his intermediation services (generally divided equally between the buyer and the seller⁴⁹).

Depending on the contracting model (this being closer to a pure exchange sale contract, as it mostly occurs in the commodity value chain, or closer to the model of agricultural production contracts and other relational types, as emerging in the differentiated coffee markets), liability issues are differently addressed. In the latter case, when contracting involves a more intense cooperation between the parties and more strategic role for market intermediaries, non compliances with standards and any other contractual duty call for mutual cooperation aimed at overcoming errors rather than compensating the victim through monetary allowances or sanctioning the party in breach through contract termination⁵⁰.

46. Mainly the agent (CECAFE' interview).

47. CECAFE' interview.

48. See M. Prowse, *Contract Farming in Developing Countries – A Review*, Agence française de développement, 2012; Eaton and Shepherd, *Contract farming*, FAO, 2001. According to IFAD – TechnoServe, *Outgrower schemes – Enhancing profitability*, September 2011, p. 7, in outgrower schemes grower management is of crucial importance in order to foster their commitment and mechanisms of farmers' reward for their compliance with the quality standards and their improved performance through price premiums, other benefits and more in general loyalty programmes are at the basis of the Nespresso' AAA Sustainable Quality Programme.

49. Interview with a Brazilian corretor (or broker).

50. See F. Cafaggi, *The regulatory functions of transnational commercial contracts. New architectures*, *Fordham Journal of international law*, 36, 1557–1618; F. Cafaggi – P. Iamiceli, *Supply chains, contractual governance and certification regimes*, *Eur J Law Econ* (2014) 37:131–173; F. Cafaggi – P. Iamiceli, *Remedies against non performance*, in *Unidroit – Fao, Legal Guide on Agricultural Production Contracts*, forthcoming.

Box n. 8 – Applicable Law to International Contracts according to the Brazilian Legal System

Brazilian Law takes into account several elements to determine whether a contract is domestic or international such as the place where the contract was celebrated, that the parties can freely choose; the parties' nationality, residency, domicile, or the place where their headquarters are located; and the place of performance of the contract. Whenever some elements of a contract, like the ones mentioned above, are related to more than one jurisdiction, a contract is deemed international under Brazilian law.

The choice of law in international contracts is determined by Article 9 of the Law of Introduction to the Civil Code (Decree-Law No. 4.657, of September 4, 1942), which provides that:

Article 9. The Law of the country where obligations are established shall apply to characterise and govern such obligations.

Paragraph 1. If an obligation that depends on an essential form is intended to be performed, such form shall be observed. In this case, peculiarities of foreign Law shall be admitted with respect to the extrinsic requirements of the act.

Paragraph 2. Obligations resulting from a contract are deemed to have been established in the place where the proponent resides. (Free translation)

Before the approval of the Law of Introduction to the Civil Code, the rule related to the applicable law in international contracts was established in the Civil Code (Decree-Law No. 3.725, of January 10, 1919). In that period, the provision of Article 9 was contained in Article 13 of the Civil Code, with the complementary expression “save a stipulation to the contrary”, which expressly established the parties' right to choose the applicable law. However, since 1942, the content of the article was modified and it no longer established anything in that respect.

For that reason, the majority of commentators⁵¹ believe that parties involved in a contractual relationship no longer have freedom to choose the law applicable to their agreement and, therefore, the law should be identified according to the criterion set forth in the Law of Introduction to the Civil Code. The provision of article 9 of the Law of Introduction to the Civil Code explicitly identifies the *lex loci celebrationis* as the rule to determine the applicable law. However, the Federal Supreme Court ruled that the law of the place where the contract is celebrated is not separable from the law of the place where the contract is executed, therefore including the *lex loci executionis* within the rule to determine the applicable law to international contracts⁵². In other words, it means that Brazilian law is the law applicable to international contracts either celebrated or executed in Brazil and in these circumstances the parties do not have the freedom to choose a foreign law.

In the opinion of some scholars⁵³, the freedom to choose the applicable law could be accepted under the Brazilian legal system through the Inter-American Convention on the Law Applicable to International Contracts (CIDIP V), not yet ratified, or through the Vienna Convention, which has been indeed recently ratified by the National Congress.

Despite the provisions of the Law of Introduction to the Civil Code and the Federal Supreme Court decision, it is worthy to highlight one exception in the Brazilian legal system with regard to the choice of applicable law. In 1996, Brazil adopted an arbitration act (Law No. 9.307, September 26, 1996), following the guidelines of the 1958 United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York Convention) and of the widely-adopted UNCITRAL Model Law on International Commercial Arbitration (Model Law).

51. Among the most prestigious international private law professors in Brazil who share this opinion, we can mention: Oscar Tenório (TENÓRIO, Oscar. *Direito Internacional Privado*, vol. I and II, 9th ed., Rio de Janeiro: Ed. Freitas Barros, 1970, pp. 181–182); Almicar de Castro (CASTRO, Almicar. *Direito Internacional Privado*, 4th ed., Rio de Janeiro: Ed. Forense, 1987, pp. 437); Osiris Rocha (ROCHA, Osiris. *Curso de Direito Internacional Privado*. 4th ed., Rio de Janeiro: Ed. Forense, 1986, pp. 141); Wilson de Souza Campos Batalha (BATALHA, Wilson de Souza Campos. *Tratado de Direito Internacional Privado*, 2nd ed., São Paulo: Revista do Tribunais, 1977, pp. 228–279); and most recently, Grandino Rodas (RODAS, Gradino. *Elementos de conexão do Direito Internacional Privado Brasileiro, relativamente às obrigações contratuais*, in *Contratos Internacionais*, São Paulo: RT, 1993, pp. 1–36); and Nadia de Araujo (ARAUJO, Nadia. *Contratos Internacionais: Autonomia da Vontade, Mercosul e Convenções Internacionais*, Rio de Janeiro: Renovar, 2004, pp. 118).

52. *Recurso Extraordinário* No. 93.131-MG (December 17, 1981).

53. ARAUJO, Nadia. *Op. cit.*, pp. .

Despite the similarities with the Model Law, the Brazilian Arbitration Law has two significant peculiarities. The first one concerns the criteria adopted by the Brazilian Arbitration Law regarding foreign and domestic arbitrations, since it distinguishes arbitrations based only on the place where the award has been rendered. The second one is the large degree of autonomy granted by the Law to the parties of an arbitration agreement, allowing them to choose the seat of the arbitration and the applicable law.

Article 2 of the Brazilian Arbitration Law provides that:

Art. 2. At the parties' discretion, arbitration may be based on rules of law or be ex aequo et bono.

Paragraph 1. The parties may freely choose the rules of law applicable to the arbitration, provided that their choice does not violate the good morals and public policy.

Paragraph 2. The parties may also set forth that the arbitration be conducted under general principles of law, customs, usages, and on the international trade rules. (Free translation)

Due to the provision of article two, Brazilian Arbitration Law therefore created a different legal framework for contracts with arbitration clauses: under Brazilian Law, contracts with arbitration clauses are subject to whatever law the parties have chosen. This is one of the reasons why the majority of international contracts related to Brazil contain an arbitration clause, being it an alternative mechanism to choose the applicable law to the contract.

4.3 TRADING STAGE – CONTRACTS FOR THE PURCHASE OF GREEN COFFEE

Contracts for the purchase of green coffee at the trading stage are usually a spot, market-type transaction of a mere exchange of goods. These contractual transactions are generally entered into by Brazilian exporters, on the one side, and international traders/importers or European roasters, on the other; otherwise, they may also be entered into between international importers/traders and European roasters. Thus, they usually are international transactions. These contracts differ from contracts concerning the farming stage (described in the previous chapter) since they do not involve farmers and they generally do not imply any direct intervention of the buyer in the production phase. Indeed the buyer tends to delegate such intervention to chain intermediaries providing these with instructions, mostly by means of references to product quality standards and other specifications.

There are two standard form contracts that are most frequently used for the purchase of green coffee when a foreign party is involved, such as an international trader or importer or a foreign roaster. These model contracts have been developed within the international coffee trade. One is the **European Contract for Coffee (ECC)**, which has been adopted by the European Coffee Federation (ECF, representing both roasters and traders) and is used by European traders or roasters. The second one is the **standard coffee contract designed by the US Green Coffee Association (GCA)**, which is used in the American market⁵⁴. More precisely, the European Coffee Federation has elaborated four model contracts. The European Contract for Coffee (ECC) and the European Free Carrier Contract for Coffee (EFCACC) concern coffee to be shipped from the country of origin and are mainly used by exporters and by traders/roasters acquiring large quantities of coffee. Instead, the European Contract for Spot Coffee (ECSC) and the European Delivery Contract for Coffee (EDCC), regard coffee trading within the import market and are generally used for purchasing smaller quantities of coffee. Moreover, all these standard model contracts make reference to the “ECF Code of Practice – Enhancement of coffee quality through prevention of mould formation”,

54. International Trade Center, *The Coffee Exporter's Guide*, 2011, pp. 73 ff.

which offers guidance not only to each link in the chain, in order to minimise the risk of mould formation, but also to arbitrators in the case of dispute, in order to correctly interpret model contracts' provisions.

Both the ECF and the GCA models contain *very detailed general conditions*, so that the individual contract which is generally negotiated between distant parties and concluded orally (mainly via telephone) consists simply of a one-page written confirmation summarising the main aspects of the contract: the parties to the contract, the type of coffee purchased (quality), the time and conditions for the shipment and the price and payment method. For the definition of other aspects the parties then refer to the general conditions stated in the above-mentioned models⁵⁵.

The *basic conditions of sale* defined within these models are so incorporated into the international contracts as contract clauses; the parties, however, may agree to change some conditions of these standard forms of contract. They shall agree any possible modification in writing and clearly provide in their contract for the amendment introduced to the general condition⁵⁶. Furthermore, the applicable law should then be identified as law of the contract in order to interpret the contract and to manage any possible issue and dispute arising between the parties.

In this respect the two models contain similar provisions as the *applicable law to the contract*, which is identified as the law of the place of arbitration. While the GCA model contract automatically places arbitration in New York, unless a different GCA-approved location has been specified in the contract, the ECC model does not state it, allowing arbitration to be held in different countries⁵⁷ and referring to the determination of the ECF Contract Committee if a location is not specified. Similarly, both model contracts state that uniform law and conventions on international sales of goods do not apply to the contract (precisely the GCA mentions the U.N. Convention on Contracts for the International Sale of Goods, and the ECC provides that the following laws and conventions shall not apply: United Nations Convention on Contracts for the International Sale of Goods of 1980, the U.N. Convention on Prescription (Limitation) in the International Sale of Goods Act 1974 and the amending protocol of 1980, the Uniform Law on Sales and the Uniform Law on Formation to which effects are given by the Uniform Laws on International Sales Act 1967)⁵⁸.

This approach is due to the fact that the specialised operators of the sector who may deal with contract disputes as specialised arbiters are laypersons, not lawyers, and lack legal background: they may be more willing to apply a national law, which they may be more familiar with, than an international convention⁵⁹. Influences coming from the British legal culture may offer an additional explanation for this exclusion, given that it is one of the major stock exchanges for the international sale of commodities, whereas the UK is not a signatory to the CISG. For similar reasons Unidroit principles and *lex mercatoria* do not apply to these contracts⁶⁰.

With regard to the *quality of the coffee* purchased, the ECC refers to the contract where the type of coffee should be accurately defined with reference to the origin of the coffee, the number of defects, the dimension of the coffee beans (c.d. crivello) and possible certification required. The GCA contract further clarifies that coffee quality should be indicated as “commercial or specialty quality coffee”, the coffee being considered “commercial quality” if no indication is made⁶¹.

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55. Valentina Maglio, European Coffee Federation - European Contract for Coffee (E.C.C.) 2002 Edition, *Contratto e impresa*. Europa, 2002, fasc. 1, pp. 706–721.
 56. ITC, *The Coffee Exporter's Guide*, cit. p. 64. The Guide also suggest in this case to use the formula “without prejudice to the original terms and conditions of the contract” so that the modification does not affect the rest of the contract.
 57. The most important arbitration centres in Europe are: London, Hamburg and Le Havre; other centres are Amsterdam, Antwerp, Genoa, Rome and Trieste. ITC, *Coffee Exporter's Guide*, p. 120.
 58. ITC, *The Coffee Exporter's Guide*, cit. p. 80.
 59. Valentina Maglio, cit..
 60. Lavazza interview.
 61. ITC, cit., p. 75.

The quality of the coffee must be in accordance with the contract description and the ECC makes also reference to the “sound and merchantable quality” (art.7), which is to be defined according to the legal standards of the country where the coffee is to be delivered. In the case of *non-conformity*, specific remedies may be price reduction and, only in the case of a most serious breach (“radical difference in quality” or coffee “unsound” for the ECC; negligence or fraud for the GCA), the discharge of the contract. So the buyer’s right to specific performance, to goods replacement or to repair (e.g.in the packaging) is not contemplated under these model contracts, while it would be available under art. 46 of the CISG. As for the submission of claims concerning quality, the ECC provides that it must be made no later than 21 calendar days from the final date of discharge at the port of destination, while under the GCA a demand for arbitration must be filed with the GCA within 15 calendar days of the date of discharge or after all governance clearance have been received. For all other claims the submission must be made no later than 45 calendar days from the final date of discharge at the port of destination, if coffee has been shipped, and from the last day of contractual shipping period if it has not been shipped, under the ECC; and under the GCA a demand for arbitration must be filled with the GCA no later than one year from the date the dispute arose⁶².

Coffee is sold by its *weight*, which may be established at shipment or upon arrival. Both general conditions provide for a tolerance to ship 3% more or less than the contracted weight.

Usually the shipment of green coffee occurs some months after the conclusion of the contract. In international contracts for the sale of goods, the shipment may be complex and require preparatory acts (such as authorisations for exportation, the conclusion of the transportation contract), calling for cooperation between buyer and seller. Both contract models refer to the following *shipment terms*, which are the basic contract conditions in the coffee trade: Free On Board (FOB), Free Carrier (FCA) and Cost Insurance Freight - CIF (or Cost & Freight - CFR); the most common conditions in international coffee transactions are the FOB and the FCA ones⁶³. It should be noted that Incoterms, which are standard international trade definitions used in both domestic and international transactions, do not apply to standard model contracts for green coffee shipment, given their specificities. The ECC explicitly excludes any reference to the Incoterms, being these terms interpreted in the coffee sector slightly differently than in international commerce⁶⁴.

Depending on these contract conditions, a different distribution of responsibilities and allocation of risks concerning transport, insurance and delivery may be realised between the parties. In particular, under a FOB contract the risk passes from the seller to the buyer once the goods have passed over the ship's rail at the port of shipment. This means that, under the GCA, the seller has to deal with the packaging, the pre-transport and export formalities, while the buyer has to arrange the international transport and the international insurance of the goods, from the time of the crossing of the ship's rail. Under the ECC, this risk passes to the buyer even before, when the goods leave the place of storage at the port of shipment according to the specification contained in the contract, thus making it very similar to the cost and freight condition (CFR)⁶⁵. This model contract, in fact, provides that "As agreed in 1955 at the CECA General Meeting in Genoa, in the coffee trade, even if the price is expressed "Free on Board port of shipment", the contract is in fact to be considered as an ill-defined Cost & Freight contract, the freight being for account of the buyers. Consequently, Free on Board sellers will not only have to reserve space but are equally responsible for the actual shipment of the coffee. They must also establish all necessary shipping documents. Therefore, their responsibility ends only at the moment the coffee is placed on board the vessel, precisely as in a Cost & Freight contract. However, in view of the fact that this constitutes a deviation from general trade practice, this obligation has to be clearly stipulated in the contract. If buyers wish to buy on effective Free on Board conditions, they will have to state this prior to the conclusion of the contract and give the necessary instructions to the sellers in due time." The free carrier contract (FCA) provides that risk of loss passes at the point when goods are handed over to the carrier. Thus, compared to the previous condition, here the buyer must cover also the inland transportation costs and the total handling and loading costs.

62. ITC, cit., p. 79.

63. ITC, cit., p. 87.

64. Valentina Maglio, cit.

65. ITC., cit., p. 87.

CHART 24. *Costs distribution between sellers (S) and buyers (B).*

Source: ITC, *Coffee exporter's guide*, 2011, p. 89.

	FOB	CIF/ CFR	FCA
Loading at sellers' premises	S	S	S
Inland transport (from the named place)	S	S	B
Trade documentation at origin	S	S	S
Customs clearance at origin	S	S	S
Export charges	S	S	S
Loading terminal handling charges (THC)	S	S	B
Ocean freight	B	S	B
Unloading terminal handling charges (THC)	B	B	B

Under the ECC model contract, the *payment of the price* for coffee is generally made “cash against document”, and until the coffee has been paid for in full it remains the property of the seller⁶⁶.

In case of *default* of one party who does not execute their part of the contract, the aggrieved party can claim to have the contract discharged with or without damages, but excluding any consequential damages⁶⁷.

Finally, both general model conditions establish that arbitration is the *dispute resolution mechanism*. Under the ECC, the specialised arbitration has to take place at the Chamber of Arbitration for Coffee of the place stated by the contract (the most important being London, Hamburg, Le Havre, Trieste, Antwerp, Amsterdam) or decided by the EFC Contracts Committee, if no place is stipulated. Arbitration proceedings should be initiated and notified to the other party within 28 days of the day of formulation of quality claims and within 90 calendar days for other claims. Under the GCA contract, arbitration shall be held in accordance with the laws of New York State, in the location of Arbitration Hearings chosen at the time of the contract from the list of approved GCA locations, otherwise it is automatically placed in New York. Quality arbitration must be filed within 30 days of the date of the sealed samples being received by the association, while other technical arbitration must be filed within one year of the date the controversy arose.⁶⁸

As for the recognition and enforcement of arbitral awards, it is generally not problematic in roasting/buying countries since European countries are signatories of the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards. By contrast, it may be more difficult in some coffee producing countries, not all of them being signatories of the Convention⁶⁹. However, there are two deterrents that foster recognition: the high probability that the parties will meet again and the risk of being included in the blacklist created by the ECF with actors not executing awards⁷⁰. This type of sanctions administered by private organizations, like the ECF, may turn to be very relevant in defining the farmers' access (or the exit) to (or from) supply chains⁷¹.

This upstream part of the coffee supply chain has been described as being buyer-driven, more precisely roaster-driven⁷², given the stronger position of roasters who are able to make strategic decisions and rise barriers to entry not only in the roasters segment but also upstream. This governance structure of the coffee value chain inevitably affects the value added and income distribution along the chain, which is clearly in favour of operators from consuming countries.

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66. ITC, cit., p. 79 ff. See ECC model contract art. 19, (a) "Payment shall be made at the time stipulated and buyers shall always take up documents which conform with the conditions of the contract". and (e), "The coffee remains the property of the sellers until it has been paid for in full, even if the sellers have already parted with the coffee or with the documents which represent it."
67. See ECC art. 23:" (a) Where a party declares the other party to be in default he shall, after having given notice when and as stipulated, have the right to claim discharge of the contract with or without damages. (b) The defaulting party shall pay on demand any damages. Consequential damages are excluded. If he fails to pay or should be dissatisfied with the amount of damages, the matter shall be determined by arbitration. (c) The date of the default shall, failing amicable settlement, be decided by arbitration. (d) Damages are to be computed on the mean contract quantity."
68. ITC, cit. p. 80.
69. Brazil has been among the contracting States since 2002.
70. Valentina Maglio, cit.
71. See F. Cafaggi – P. Iamiceli, *Remedies against non performance*, in Unidroit – Fao, *Legal Guide on Agricultural Production Contracts*, forthcoming.
72. Ponte, 2004, p. 3.

The emergence of a dual-value chain⁷³, one for commodity coffee, characterised by increasing homogenisation, and one for specialty coffee, seems to be reflected to some extent in different contractual arrangements, even though there is not a clear diversification as to the contractual models used or proposed/imposed by the buyers depending on the quality of coffee. The difference is more in the practice and in the concrete approach followed by the parties with special regard to knowledge transfer, error prevention, measures taken to address non compliance, dispute resolution mechanisms⁷⁴.

4.3.1 Price determination mechanisms in green coffee sale contracts

Coffee may be traded in the **physicals** and in the futures markets (or in the options market, where, differently from the futures market, the buyer or the seller has the option, not the obligation to buy or sell). In the former, real physical market transactions take place between a buyer and a seller who agree upon quantity and quality of coffee, delivery location, time frame of delivery (which may be either immediate or for the future, through the so-called forward contracts) and price (previously fixed or to be fixed later).

In the **futures market**, negotiations occur in **commodities exchanges**, where buyers and sellers buy and sell a specific quantity of coffee of a standard quality to be delivered in a determined locality on a future date, at a predetermined price. The Arabica coffee futures are traded through the New York Intercontinental Exchange (formerly the NY Board of Trade), the world's leading futures exchange, and the Robusta type in London at NYSE Euronext. Both coffee futures are priced in United States dollars, but they differ in the size of the contract (the size of the Arabica, coffee "C", futures contract is 37,500 pounds and the size of the Robusta coffee futures contract is 10 metric tons), price quotation (in cents per pound in the first case and in U.S. dollars per metric ton in the second one) and delivery months (the Arabica coffee futures contract months are March, May, July, September and December, while the Robusta delivery months are January, March, May, July, September and November). Futures contracts are standardised contracts, defined as "a standardised legal commitment to deliver or receive a specific quantity and grade of a commodity or its cash equivalent on a specified date and a specified delivery point" (P.H. May, G.C.C. Mascarenhas, J. Potts, Sustainable Coffee Trade, The role of coffee contracts, IISD, May, 2004, citing ITC, coffee; an exporter's guide, 2002).

The volume of transactions occurring on the futures market is three times the volume of those in the physicals market (www.procafe.ch); so, the futures market gives a real representation of the supply and demand for coffee, allowing to fix and signal the price and to establish quality standards. Thus, average prices are determined for different types of coffee depending on the species or type of coffee, type of processing (wet or dry) and country of origin (the International Coffee Organization in London, for example, published daily the price for the four main types of coffee, with price declining from the first to the last: Colombian Milds Arabicas, Other Milds Arabicas, Brazilian and Other Natural Arabicas, Robustas). Then price differentials (premiums or discounts) are established depending on the number of imperfections according to the “official grade standard”, together with the origin and the port of destination.

It should be noted, however, that, contrary to other commodities, demand for coffee tends to be not so prone to price changes, therefore it does not proportionally decrease or increase when coffee prices rise or fall, although it is affected by changes in real-income levels, especially in low-income countries⁷⁵.

Transactions on the physicals market very often do not specify the price at the time of contract formation but provide for the price to be fixed at a later date by referring to the quotation of the standard quality coffee on the commodity exchange at a specific contract delivery month, plus a differential which is negotiated by the parties and takes into account the specific quality of the parcel of coffee under the contract, including its possible certification (see the two following figures), and the specific terms and conditions of the sale. Moreover, contracts may also grant to one of the parties the right to unilaterally determine when the price will be fixed (through the formula “seller’s call” or “buyer’s call”)⁷⁶.

73. Ponte 2004

74. See F. Cafaggi, The regulatory functions of transnational commercial contracts. New architectures. *Fordham Journal of international law*, 36, 1557–1618; F. Cafaggi – P. Iamiceli, Supply chains, contractual governance and certification regimes, *Eur J Law Econ* (2014) 37:131–173; F. Cafaggi – P. Iamiceli, Remedies against non performance, in *Unidroit – Fao, Legal Guide on Agricultural Production Contracts*, forthcoming.

75. ITC, *The Coffee Exporter’s Guide*, 2011, p. 28.

76. P.H. May, G.C.C. Mascarenhas, J. Potts, *Sustainable Coffee Trade*, cit., p. 24; ITC, *The Coffee Exporters’ Guide*, 2012, p. 10. Typically the contract simply provides that the price is to be fixed, for example, “NY Coffee March 2006 Buyer’s Option Plus 10.5 US cts/lb”, where port of destination is open.

CHART 25. Example of FOB price differentials according to quality of the coffee.
Source: Brazilian Trading Company, February 2012.

GROUP I				
Quality	Shipment	Price	Shipment (New Crop)	Price
Semi Washed, NY 2/3, 17/18, SS, Fine Cup	Apr-Jun	+12	Aug-Dec	+2
Semi-Washed, NY 2/3, 14/16, SS, Fine Cup	Apr-Jun	+10	Aug-Dec	+1
Cerrado, NY 2/3, 17/18, SS, Fine Cup	Apr-Jun	+15	Aug-Dec	Level
NY 2/3, 17/18, SS, Fine Cup	Apr-Jun	+13	Aug-Dec	-2
Dunkin Donuts Quality	Apr-Jun	+12	Aug-Dec	-3
NY 3/4, 14/16, SS, Fine Cup	Apr-Jun	+9	Aug-Dec	-5
Peaberries, NY 2/3, 9/10/11, SS, Fine Cup	Apr-Jun	+9	Aug-Dec	-5
NY 2/3, 17/18, SS, Good Cup	Apr-Jun	+6	Aug-Dec	-6
Swedish, NY 3/4, 14/16, SS, Good Cup	Apr-Jun	-4	Aug-Dec	-10
Washed Grinders, NY 5/6, 13 up, SS, Fine Cup	Apr-Jun	-18	Aug-Dec	-20
Grinders, NY 5/6, 12 up, SS, Good Cup	Apr-Jun	-33	Aug-Dec	-34
Conillon, NY 5/6, 13up	-	-	May-June	+28

CHART 26. Example of FOB price differentials according to coffee certification (RainForest Alliance or Utz). Source: Brazilian Trading Company, February 2012.

CERTIFIED COFFEE				
RFA	Shipment	Price	Shipment (New Crop)	Price
NY 2/3, 17/18, SS, Fine Cup	Mar-Jun	+34	Aug-Dec	+18
NY 3/4, 14/16, SS, Fine Cup	Mar-Jun	+29	Aug-Dec	+15
NY 2/3, 17/18, SS, Good Cup	Mar-Jun	+29	Aug-Dec	+14
NY 3/4, 14/16, SS, Good Cup	Mar-Jun	+25	Aug-Dec	+11
Grinders, NY 5/6, 12 up, SS, Good Cup	Mar-Jun	-9	Aug-Dec	-14
UTZ				
NY 2/3, 17/18, SS, Fine Cup	Mar-Jun	+26	Aug-Dec	+13
NY 3/4, 14/16, SS, Fine Cup	Mar-Jun	+21	Aug-Dec	+10
NY 2/3, 17/18, SS, Good Cup	Mar-Jun	+21	Aug-Dec	+9
NY 3/4, 14/16, SS, Good Cup	Mar-Jun	+16	Aug-Dec	+6
Grinders, NY 5/6, 12 up, SS, Good Cup	Mar-Jun	-14	Aug-Dec	-19

In case of **sustainable coffees**, such as Utz certified and Rainforest Alliance, and also for organic coffee the premium is usually negotiated by the parties on conventional markets, according to the rules of demand and supply⁷⁷. Fair-trade minimum price and the additional fair-trade premium, instead, are established by the International Fair-trade Labelling Organization (FLO) and, according to the update valid from April 2011, they are established at US\$ 0.20 per pound and US\$ 0.30 per pound, respectively⁷⁸.

CHART 27. *Fairtrade minimum prices and premiums, FOB, USD / lb.*

Source: CBI, *Prices and price developments for coffee, 2011.*

Table 1: Fairtrade minimum prices and premiums, FOB, USD / lb

Product	Product variety	Fairtrade minimum price	Fairtrade premium
Coffee Arabica	Conventional, washed	1.40	0.20
	Organic, washed	Organic differential: +0.30	
	Conventional, natural	1.35	0.20
	Organic, natural	Organic differential: +0.30	
Coffee Robusta	Conventional, washed	1.05	0.20
	Organic, washed	Organic differential: +0.30	
	Conventional, natural	1.01	0.20
	Organic, natural	Organic differential: +0.30	

Source: FLO, 2011

Futures contracts very rarely give rise to actual physical transactions, more often they are rescinded (reselling or re-buying futures contracts on the exchange) when the transaction may be performed with more advantages on the physicals market or they are substituted with other futures contracts. *Besides signalling prices, the main function of futures market is indeed to allow parties to manage risk concerning price volatility on the physicals market through hedging operations.* Parties operating in the coffee trade, in fact, enter into contracts on the futures markets in order to protect themselves against price risks within a specific period of time (for example, when transactions concern coffee which is not yet available at source, because the harvest is not forthcoming). For this reason, physicals and futures markets have been said⁷⁹ to be “complimentary rather than substitutes for each other”. However, *access to the futures market is limited to more structured operators, such as importers, exporters or traders, very rarely from developing countries and often operating through specialised intermediaries and mediators provided with a specific authorisation* – besides speculators and pension and investment funds. Specific guarantees, in fact, are required in order to operate on the commodity exchange: more precisely, parties need to deposit 10% of the value of each transaction to be held in escrow to assure that obligations will be fulfilled.

77. The premium for organic coffee is considered to be generally 15–35% above the price of commodity coffee, see CBI, *Prices and price developments for coffee, 2011.*

78. CBI, *Prices and price developments for coffee, 2011.*

79. P.H. May, G.C.C. Mascarenhas, J. Potts, *Sustainable Coffee Trade*, cit., p. 19.

Recent price movements

According to the ICO Monthly Coffee Market Report (August 2012), over the last 12 months a downward trend has been recorded in average coffee prices and in August the ICO composite indicator (an overall benchmark for the price of green coffee of all major origins and types) fell by 6.6% compared to July (when an upward correction was observed). These decreases were much more significant for the Arabicas than for the Robustas, with the New York exchange losing 7.3% compared to July.

CHART 28. *ICO indicator prices and futures prices (US cents/lb) – August 2012.*

Source: ICO Monthly Coffee Market Report, August 2012 <http://www.ico.org/documents/cmr-0812-e.pdf>

Table 1: ICO indicator prices and futures prices (US cents/lb) – August 2012

	ICO Composite	Colombian Milds	Other Milds	Brazilian Naturals	Robustas	New York*	London*
Monthly averages							
2011							
August	212.19	286.97	270.44	249.83	112.07	260.39	102.71
September	213.04	287.54	274.88	255.64	106.06	261.39	96.10
October	193.90	257.66	247.82	234.28	98.10	236.74	88.64
November	193.66	256.99	245.09	236.75	97.24	235.25	85.78
December	189.02	251.60	236.71	228.79	98.41	227.23	87.65
2012							
January	188.90	255.91	237.21	228.21	96.72	227.50	84.19
February	182.29	244.14	224.16	215.40	101.93	212.09	88.69
March	167.77	222.84	201.26	192.03	103.57	188.78	91.37
April	160.46	214.46	191.45	180.90	101.80	181.75	91.81
May	157.68	207.32	184.65	174.17	106.88	176.50	96.82
June	145.31	184.67	168.69	156.17	105.70	159.93	94.75
July	159.07	202.56	190.45	175.98	107.06	183.20	96.14
August	148.50	187.14	174.82	160.05	106.52	169.77	96.12

Graph 2: Group indicator prices
Daily: 1 August 2011 – 3 September 2012

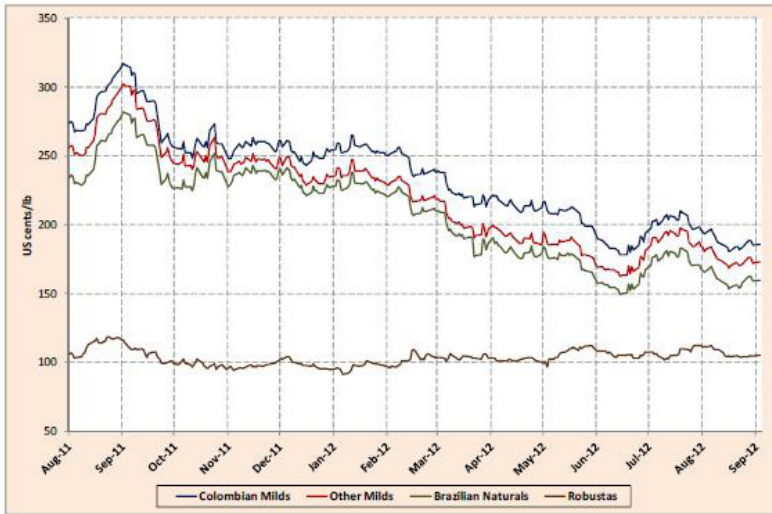


FIGURE 26. *Group indicator prices.* Source: *ICO Monthly Coffee Market Report, August 2012* <http://www.ico.org/documents/cmr-0812-e.pdf>, group indicator prices include the four main types of coffee, Colombian Milds Arabicas, Other Milds Arabicas, Brazilian and Other Natural Arabicas, Robustas.

In Europe, the average retail price of coffee shows a great variability, which may be explained in the case of low prices, by high consumption and competition, which characterise especially Northern European countries, in addition to quality differentials explanations and, in the case of high prices, as in Italy, by limited competition, wide variety of qualities and types of coffee consumed (e.g. instant coffee is generally more expensive)⁸⁰.

80. CBI, Prices and price developments for coffee, 2011.

CHART 29. *Average retail price of coffee.*

Source: CBI, Prices and price developments for coffee, 2011.

Country	Retail Prices €/kg (2009)
Finland	5,51
Sweden	5,57
France	5,94
Bulgaria	6,02
Spain	6,53
Germany	7,45
Belgium	8,25
Denmark	8,29
Cyprus	9,17
Latvia	9,57
Austria	10,90
United Kingdom	11,40
Luxembourg	11,44
Italy	12,04

4.4 PRIVATE LABEL SUPPLY CHAIN AND CONTRACTUAL GOVERNANCE

4.4.1 Italian case

Interesting forms of coordination between production and distribution and interesting contractual governance solutions can be observed in the case of private labelled coffee.

A clear example is the one of Coop, the leading Italian retail chain.

Despite the proprietary relationship between Coop and its sole supplier for coffee, Co.ind (in which the 9 main cooperative members of Coop Italia participate), the commercial relationship is not characterised by any exclusivity clause in favour of Coop, therefore Co.ind is also supplying coffee to other main competitors of Coop Italia. Generally, with regard to both private label and branded products, Coop tends to have relationships with several suppliers. The process of selection of private label suppliers occurs through tenders announced by Coop, in which all potential suppliers are invited to participate. Participation in these tenders is based on the market benchmark identified by Coop, given the product-related standard (e.g. same blend and organoleptic quality of a specific branded coffee), and on the related preliminary information furnished by Coop concerning the specific type of product. *Firms that are already suppliers of Coop may have a preferential position; however the selection is made according to the best quality–price ratio.* Once the private label supplier has been selected and the supply relationship has been entered into by the parties, Coop precisely defines the type and percentage of the blend, the main characteristics of the green coffee, specific indicators for the sensory and cup tasting of the final product, leaving to the supplier full discretion for the residuary. Then Coop together with the supplier usually plans the production, defines the strategies to manage the peak of the demand and the supply of packaging materials⁸¹.

81. Interview with Coop Italia and with Co.ind.

With specific regard to quality and quality controls, all Coop suppliers are subject to an audit, which may be performed by Coop itself and/or through external third parties, concerning the supplier's plant and the warehouse. Coop moreover has several collaborations with laboratories and other organisations through which controls on standards implementation and certifications may be performed. These quality controls regard both private label and brand suppliers, but they are stricter for the former. For example, Coop requires all its suppliers and their sub-suppliers to comply with the international standard SA8000 and provides rewards for suppliers who reduce the environmental impact of their production. In addition, Coop also promotes compliance with a list of "values" defined by Coop, which may be implemented on a voluntary basis. Additional requirements and very detailed rules apply to private label suppliers: they must be IFS, BRC, ISO 22000 or FSCC certified and they must have a reliable quality system together with a hygienic and sanitary risk prevention system; some ingredients and substances are prohibited while others are subject to limitations; specific operative rules are provided for suppliers to prevent the presence of microtoxins, microbiological or chemical risks, etc. Moreover, for private label products, Fair-trade, organic certifications and/or certification of origins are often required. In such cases there are external certifiers who collaborate with the Coop quality control system. Today all Coop private label products are covered by an external certification concerning service control, which verifies and certifies the reliability of the Coop method of control of its own brand products, as well as by a product certification concerning NO-GMO. The transparency of Coop's activity and its attention to sustainability and quality issues are further enhanced through the publication of a sustainability report. In general, Coop is recognised as a large-scale distributor requiring higher quality and safety standards, and in particular in the context of the private label production it is also able to promote social and economical sustainability standards. *Although these sustainability standards cannot be imposed on brand suppliers, it must be recognised that Coop through its private label products may perform a moral suasion stimulating other producers to follow its good practices*⁸².

82. Coop Italia interview.

83. Co.ind interview.

84. <http://www.kesko.fi/en/Responsibility/Responsibility-management/Purchasing-principles/>

It is interesting to note that Co.ind itself has implemented a strict control process, from the raw beans to the finished product, in order to guarantee the quality of coffee. Co.ind controls begin at the moment of cultivation in the countries of origin, where the firm's experts carefully select the best raw coffee and verify its adherence to pre-established standards. Upon arrival in Italy, the coffee is subjected to further controls at the company in-house laboratory, where specific taste tests and chemical and physical analyses are performed.

The Co.ind integrated quality and food safety management has been certified by the most important organisations for standardisation, among which are UNI EN ISO 9001 certification, UNI EN ISO 22000, BRC, IFS vers. 5, Fairtrade/Transfair, CCPB (Control consortium for organic products), INEI (Istituto Nazionale Espresso Italiano), and Kosher⁸³.

4.4.2 Finnish case – Kesko's private label contract governance

Kesko has developed their purchasing principles towards ethical trading since 1999. Kesko's Board of Directors accepted the ethical principles for purchasing on 30 April 1999. The principles are based on the fundamental rights at work accepted by the International Labour Organisation (ILO), the UN Declaration of Human Rights and the UN Convention on the Rights of the Child. The principles are applied to purchases from such developing countries where legislation and/or its supervision do not guarantee that international minimum standards are met by companies⁸⁴.

These principles are part of Kesko's corporate responsibility. Kesko wants to make sure that its suppliers comply with international minimum labour standards, applicable national laws and regulations and other statutory requirements, whichever are the most stringent. These basic requirements are listed in the Code of Conduct. Kesko Food's buyers have close contacts with their suppliers, but monitoring working conditions in a credible way is out of their domain. The most reliable and cost-efficient way to proceed is that each supplier proves its required compliance by turning to an independent auditing body and requesting a social audit against a common, standardised auditing model. Having passed this process, the supplier can then use the audit report as evidence of social compliance, not just with Kesko but with other clients as well.

In its operations, Kesko pays special attention to human rights issues and working conditions across its sourcing chain. Monitoring focuses mainly on countries where the risks that these rights will be violated are the greatest (such as in many Asian, Central American and African countries). International assessment systems, BSCI auditing and SA8000 certification, are used for supplier audits in high-risk countries.

”We buy certified ingredients whenever possible and sensible,” says the Product Group Manager responsible for hot beverages in Kesko Food. The K-food stores have Finland’s largest selection of Fair Trade products. In 2011, Kesko Food had 222 Fair Trade products in its selection, of which 38 were Pirkka (private label) products. The most popular Pirkka Fair Trade products are flowers, bananas, coffee, juices, cocoa and chocolate. In 2011, Kesko had 1,073 organic products in its selection. These selections are being continuously developed and expanded on the basis of customers’ preferences. In 2011, there were 2,072 Pirkka products of which 70 were organic and 40 Fair Trade products. (GAIN Report 2012, 9).

By August 2012, all Pirkka coffees and Pirkka instant coffees had either Fairtrade or UTZ certification. UTZ certified coffee producer farms are monitored regularly in issues related to the use of fertilisers, consumption of water and working conditions, for example (Kesko interview).

The conditions of UTZ certification include, for example, farmers being trained to cultivate coffee more profitably and professionally than before, while at the same time reducing the environmental impacts of coffee production. Kesko launched traceable Pirkka coffees to the market, because it wanted to offer consumers an opportunity to see where the coffee they buy comes from. (Kesko interview).

Consumers can trace the origins of their UTZ certified Pirkka coffee with the help of a tracking service at the Pirkka.fi website (in Finnish). Tracking takes place on the basis of the manufacturing date or the ’best before’ date on the pack of coffee. The results open to the UTZ Certified site, which provides background information on the producers of the batch of coffee in question.

As most of the farms producing UTZ certified coffee are small producers, coffee is bought from many farms and combined to make one batch. Factors contributing to the taste of coffee include the variety, harvest season and the country of origin, and therefore coffee is made on purpose from ingredients coming from different countries of origin and from several producers. This is a way to ensure the reliability of deliveries and as uniform a quality of taste as possible throughout the year.

Kesko's purchasing principles are only one example of the company's long-running efforts to promote sustainability in all areas of its activities. The long list of different sustainability indices and excellent positions on them show commitment and a proactive management style towards it.⁸⁵

The quality of Pirkka products is assured by Kesko Food's own Pirkka Product Research Unit, which carefully analyses all new Pirkka products. The research unit's laboratory has ISO 17025 accreditation, an international recognition of competence. The laboratory is the only ISO 17025 accredited unit in Finland responsible for the quality assurance of own-brand products in the trading sector.⁸⁶

At the retail store level, we need to keep in mind that K-retailers are independent retail entrepreneurs who own and manage their retail businesses, and who invest considerable personal and financial resources in these enterprises.⁸⁷ The K-food stores are privately owned and buy most of their products from the Kesko wholesale organisation. Centralised purchasing provides a competitive advantage by creating volume and synergy benefits.

85. <http://www.kesko.fi/en/Responsibility/Responsibility-management/Sustainability-indexes/>

86. http://www.kesko.fi/static/vuosikertomus2011/en/divisions/food_trade.html

87. Arto Lindblom, (2008) "Information sources used by contractually integrated retail entrepreneurs: A preliminary study", *Journal of Small Business and Enterprise Development*, Vol. 15 Iss: 3, pp.527–539.

They are contractually integrated retailers. The term 'contractually integrated' refers to an interorganisational, contractual-based, governance arrangement. According to the literature, contractually integrated entrepreneurs operate fairly independently and are often responsible for primary investments in their enterprise (Gassenheimer et al. 1996). However, they are expected to follow closely the shared norms and standards in their network (e.g., Kaufmann and Dant 1998) (for example, joint marketing and common product selection). Even though there is a certain level of uniformity among contractually integrated entrepreneurs, each retailer has still wide latitude to develop unique ways of marketing their product and services in their particular location. In other words, contractually integrated entrepreneurs are expected to be active in taking advantage of local opportunities (Kaufmann and Dant 1998; Sen 1998; Tuunanen and Hyrsky 2001).

K-alliance is a retailing organisation that differs fundamentally from other large international retailing organisations such as Wal-Mart and Tesco. The latter own all of their retail outlets and manage them centrally; they do not have retail entrepreneurs making independent decisions at the store level. In contrast, K-alliance is a contractually integrated strategic network (Powell 1990). This network consists of *Kesko* and its subsidiaries and personnel operating in Finland and abroad, together with legally independent K-retailers and their personnel. In a broad sense, the relationships between Kesko and K-retailers have some features of the relationship between franchisee and franchisor even though K-alliance is not considered as a franchising system by the parties to the relationships. In Europe, ICA AB in Sweden and Edeka in Germany have similar structures to that of K-alliance in Finland.⁸⁸

In the Nordic countries, especially in Finland and Sweden, there exist large cooperative chains that consist of a central unit and a large body of contractually united individual retailers. In this kind of organisation a crucial managerial issue is how to balance the hierarchical control that is required for the efficiency of operation and the autonomy of individual retailers that provides strong entrepreneurial incentive and adaptability for the local environment.

Kesko Corporation, one of the leading Nordic retailers, is formed by the wholesale company Kesko and Finnish K-retailers and K-store chains. The K-Alliance is often seen as a homogeneous group hierarchically led by Kesko. In reality, the K-Alliance is a network formed of independent businesses and entrepreneurs. Kesko is in charge of the strategic corporate planning of the K-alliance. The central unit develops business concepts and is also involved in creating store concepts and operating models. Its profit divisions develop store types and the store network. The K-retailers are independent entrepreneurs who are entitled to use the K-logo or other marketing symbols of the K-Alliance. In their entrepreneurial capacity, the K-retailers are responsible for customer satisfaction and the profitable performance of their stores. The K-retailers are Kesko's shareholders and members of the K-Retailers' Association. There are also several daughter companies, which are producing services for K-Alliance and its customers and also competing in open markets, for example Kesped (transportation company) and K-institute (training company). In brief, K-Group is a very complex 'megaorganisation' including aspects of a traditional hierarchical organisation, network relationships, and even internal markets.⁸⁹

Retailers want to buy their merchandise with as good terms and prices as possible and to realise that they oppose centralised purchasing and want to compare Kesko's centralised prices against suppliers' direct offers.

88. <http://www.informationr.net/ir/13-4/paper384.html>

89. Network management in retailing. A quest for hybrid.

4.5 DISTRIBUTION CONTRACTS IN THE RETAIL MARKET SEGMENT

Contractual relationships between coffee roasters and large-scale distributors may take the form of “distribution contracts”, a type of contract developed in practice especially at the international level and well widespread in the Italian market (despite not being contemplated among the categories of contracts specifically defined by the Italian Civil Code) or normal sale contracts, mainly used in the Finnish market. Rules applicable to distribution contracts should be found by making reference to the general law on contracts as well as to rules concerning contracts of similar nature, by way of analogy. Distribution contracts and sale contracts may be negotiated at different levels. There are three main levels of negotiations: the first and apical level occurs with the purchase alliance (e.g. in Italy, Centrale Italiana, representing Coop, Despar, Sigma etc.; in Finland Kesko Food in K-Group)⁹⁰, which is an organisation created by several independent retailers in order to improve their bargaining power vis à vis large manufacturers and so-called “key suppliers”, with a prevalent transactional function; the second “intermediate” level concerns negotiations between the producer and single large-scale distributors (e.g. in Italy, Coop Italia); and the third one refers to negotiations occurring at the local level with specific retail outlets. While large multinationals and bigger suppliers (e.g. Nestlè, Kraft Foods) negotiate directly with purchase alliances, the most important Italian coffee roasters (e.g. Lavazza, Illy, Kimbo, Caffè Vergnano, Segafredo), among which are also the two Italian roasters selected for the case studies, usually negotiate with the second level, that is with single large-scale distributors, such as Coop Italia. Usually at the local level, distribution or sale contracts are negotiated with local coffee roasters operating at the regional level (e.g. Meseta in Emilia Romagna, in the area of Bologna).

In Finland the Kesko Food in K-Group negotiates with the coffee roasters which seem in Kesko private label case be the Finnish Paulig company as it has managed to offer for Kesko certified coffee blendings needed. There used to be one-year-long contracts, but Kesko seem to have moved towards long-term relationships with its suppliers.

90. See *supra*, Ch. I, par. 2.3.

These contractual relationships are usually one-year-long with the possibility of automatic renewal, but contracts signed with purchase alliances tend to be two-year contracts in order to allow better business planning for both suppliers and retailers. Despite being formally relatively short-term contracts, these contractual relationships tend to be long-term, so contracts are either renewed or new contracts are entered into by the same parties.

In both cases of distribution – contracts negotiated at the first or second level – it is possible to identify two types of contracts. The first of these is a framework contract or a framework agreement, entered into by coffee roasters and purchase alliances (e.g. Centrale Italiana) or by coffee roasters directly with single retailers (e.g. Coop Italia), in which the contracting parties only define the general conditions and the main contractual provisions together with the discounts system of future distribution contracts due to be signed between the supplier and the distributor (e.g. range of prices of the distribution contracts, available products, minimum purchase amounts, discounts, fees due to be paid by the supplier for promotional and/or intermediation services performed by the distributor). Secondly are executive contracts, often in the form of product orders, through which the single distributor or the local retail outlet (depending whether the framework contract is entered with the buying alliance or the single distributor), on the basis and within the boundaries of the framework contract, define and enter into concrete distribution contracts with the supplier, somehow “giving execution” to the normative provisions of the framework contract.

With regard to private label coffees, the contractual relationships are usually between the supplier and the single distributor operating at the national level (e.g. Coop Italia). In this case, contracts are also a vehicle to promote the implementation of specific sustainability and/or quality standards by suppliers.

Distribution relationships, when they do not involve large multinational manufacturers, are characterised by an unbalanced contractual and economic power in favour of the distributors who tend to impose low purchasing prices and long payment terms. In order to analyse the role of large-scale retail distributors in the Italian food sector, on October 27, 2010 the Italian Competition Authority launched an investigation, the results of which have been recently published. The investigation assesses potential antitrust issues in this sector, and focuses on the agreements and strategic negotiations between suppliers and large-scale distributors, the role of centralised purchasing, the use of private-label brands, and their likely effects on the final prices of food products (see Italian Competition Authority, IC43 – Settore della grande distribuzione organizzata, 24 July 2013).

In this regard it is important to note that in Italy there have been introduced recently specific rules concerning contracts for the sale of agricultural products and foodstuffs, the delivery of which occurs in the territory of the Italian Republic, and entered into between operators of the supply chain characterised by a significant imbalance in their respective commercial power. In particular, pursuant to these rules contained in art. 62 Italian law decree 24 January 2012, n. 1 (converted by law 24 March 2012, n. 27) these contracts must be in writing and must expressly contain, under penalty of nullity, the duration of the contract, the quantities and characteristics of the product sold, the price, the mode of delivery and payment. In the opinion of several firms operating in this sector, the compliance with these requirements could be problematic for framework contracts. Moreover, according to the same provision, the payment of the products purchased must occur within a maximum of 30 days (for perishable agricultural products and foodstuffs) and a maximum of 60 days (for all other goods) from the last day of the month of receipt of the invoice.

4.6 DISTRIBUTION CONTRACT AND LOAN FOR USE CONTRACT IN THE HO.RE.CA MARKET SEGMENT

Different contractual relationships characterise the Ho.Re.Ca. segment. First of all, in this context, the relationships with Ho.Re.Ca. operators, such as bars, restaurants and hotels, are usually governed through the extensive use by final producers and coffee roasters of intermediaries, mainly agents. This segment, in fact, is very fragmented and largely influenced by the local customer's taste; therefore agents play the key role of transaction intermediaries, promoting the conclusion of contracts between coffee roasters and Ho.Re.Ca. operators and reducing the transaction costs for coffee roasters to deal with a large number of operators. Thus, distribution in this segment includes a contractual relationship between coffee roasters and several agents acting in different geographical zones, and then a contractual relationship between coffee roasters and Ho.Re.Ca. operators. The first one is a contract for personal services, usually an agency contract, specifically regulated under the Italian Civil Code, while the second one is a distribution contract which has some specificity vis à vis distribution contracts used in the retail segment. Distribution contracts, in fact, here are usually coupled with a loan-for-use contract regarding the coffee machine and the coffee grinder, which are provided by the coffee roaster. Moreover, these contracts include the supply by coffee roasters of specific assistance and training services concerning the use and functioning of the machine. According to some coffee roasters⁹¹, the roasters may also play the crucial role of offering financing to the Ho.Re.Ca. operator, with regard to the start-up of the business or the renovation of its premises.

91. Interview with Lavazza.

4.7 INTER-FIRM NETWORKS AS MODES OF GOVERNING GVCS

By network we may intend a set of stable relationships, created either via contract and/or via membership of an organisation, by which enterprises, although retaining their legal and economic autonomy, coordinate their activity, share critical resources (e.g. innovative knowledge), and cooperate in specific projects in order to pursue common interest objectives affecting their business strategy. Networks may be contractual if enterprises use merely contracts to govern their collaboration: this is the case of multiparty contracts (like joint ventures) or linked contracts (like chains or nets of supply or distribution contracts). Alternatively, parties may establish new entities, like companies (e.g. cooperative companies), associations or foundations in order to develop their collaborative projects (we call these organisational networks). Or they can mix these instruments.

Networks can either coordinate collaboration among firms operating at the same level of the supply chain (we consider these horizontal networks) or along the chain, sometimes governing the system of goods and services exchanges within a so-called vertical network.

As seen in other parts of this report, networks can play a very important role in advancing innovative projects and enabling knowledge transfer along the chain, not only within localised and territory-based environments (like within clusters and districts) but also in transnational and global perspectives. As mentioned above (see par. 4.6), they may also play an important role in implementing private regulatory schemes addressing sustainability issues in the global market.

In the following paragraph attention is paid to the emergence of networks in the coffee market and, specifically, within the global supply chains examined in this Report (namely in Brazil, Italy and Finland).

In the *farming stage* of the supply chain, it is possible to affirm that the presence of networks among green-coffee producers or between green-coffee producers and roasters are, in some sense, quite a recent thing in the coffee market. As affirmed by Andriani and Herrmann-Pillath, in fact, the commodity business models create atomistic markets. Farmers usually compete on price and have little incentive to cooperate and, therefore, tend to live in a highly local knowledge space (ANDRIANI & HERRMANN-PILLATH, 2011, 21).

In the **commodity market**, in fact, the main form of network that can be found is the organisational one, in the form of cooperatives. In their traditional form, these horizontal networks have as their main function: (i) to allow producers to acquire the inputs necessary for the production (pesticides, fertilisers, machinery) with better conditions benefiting from economies of scale, (ii) to store the green-coffee beans, and (iii) to commercialise the green-coffee acquired from the cooperative members (see above). While especially during the ICA regime there were very few elements of knowledge transfer, cooperatives have gradually played a more relevant role as regards the provision of technical assistance and services also in the production, processing and marketing of commodity coffee, from the crisis of the state in the 80s (culminating in the extinction of the Brazilian Coffee Institute in 1990 and deregulation in the domestic sphere).

The 2013 Activity Report of Cooxupé, which is the largest coffee cooperative in Brazil, informs that the cooperative has 160 technicians to provide free technical assistance to their members⁹². The cooperative registered 69,585 visits made by its technicians in its members' properties in 2012. One of the technical assistance programmes consists of the "Demonstration Units". These are events in which Cooxupé offers short courses to its members. In 2012, according to the report, the lectures covered the following topics: cost reduction, coffee property rational management, storage and disposal of pesticide containers, proper use of personal protective equipment, property planning and control, and rural sanitation. All these issues are relevant for the production of commodity coffee, so that the provision of technical services most likely encompasses the commodity coffee production.

In addition to that, Cooxupé also has a laboratory for soil and plant analysis. The services are useful for rationalising fertilisation, promoting productivity and avoiding waste. It is a useful service, in principle, for the production of commodity coffee. Minas Sul Cooperative, from the Varginha region in southern Minas Gerais, informs in its website that it offers the following services for its members: diagnosis and suggestions in property management, characterisation of the coffee plantations, soil sampling and interpretation of data, fertilisation, pruning and renewal planning, and financial management, among others. All of these services, in principle, are useful for increasing productivity and profitability with the production and marketing of commodity coffee.

92. See 2013 Activity Report of Cooxupé.

According to Andrade (1994), cooperatives were very important in the south of Minas Gerais (the main coffee producing state in Brazil), performing the function of integrating the production, processing and marketing of coffee from the 80s, when the Brazilian government was facing agricultural crisis, without budgetary conditions to invest in research activities or in technical support to the farmers. This seems to indicate a process of increasing the importance of Brazilian cooperatives in providing technical services to their members. Moreover, it should be considered that in the 80s, this support must have focused almost exclusively on the production of commodity coffee, given that the production of differentiated coffee was almost nonexistent in Brazil.

This reality has, however, significantly changed after the development of the **differentiated coffee market**. With the new requirements of this new market and with the necessity to signal and assure the differentiated attributes of the product or of the process along the entire supply chain, new forms of networks have emerged (such as green-coffee producers associations, clubs, etc.).⁹³ Also the cooperatives have improved their role, as described above.

93. As affirmed by Andriani & Herrmann-Pillath, "Associations emerged to break the location-independence of commodity markets, stopped the mixing practice and invested in the establishment of TETs necessary to transact location-specific produce ('geography of food'), such as geographic brands (regional, sub-regional, local, farm-based), trademarks and quality certifications. At the same time, the rise of geography required a new logistic TET: traceability. This caused the emergence of a new type of cooperative, based on location-sensitive warehousing in order to keep track of the geographic origins of beans." (ANDRIANI & HERRMANN-PILLATH, 2011, 21).

Box n. 9 – The role of networks in the differentiated market and the rise of system level innovation

Some evidence has been collected concerning the role of networks in the form of cooperatives as a vehicle for system level innovation.

The first concerns the introduction by Cooxupé of a different coffee transportation and packaging method that allows the sale of coffee in bulk. The method, called "granelização", dispenses the jute bag for packing and storage of coffee, which improves the logistics of coffee delivering at the cooperative. The investment required for the producer to adopt the new method, according to the report, is minimal, generating immediate consequences on cost reduction, due to greater savings of manpower, the dispensation of the jute bag and savings with freight, electricity, loading and unloading.

This innovation may be associated with greater cooperative involvement in research and innovation stimulated by the cooperative insertion in the quality coffee market. This relation, however, would need further evidence.

The second piece of evidence concerns a study by Pereira (2008) that was sought to compare the risks and returns involved in coffee production in two regions of Minas Gerais state: the Cerrado region, focused on the production of quality coffee, and the southern region of Minas Gerais, that produces large amounts of commodity coffee. The conclusion was that the producers of the Cerrado region achieved higher returns on coffee production and were subject to less risks not only because of the fact that they produce a differentiated quality coffee, but because they have lower production costs, which is associated with the adoption of good management practices. This is because at various times coffee producers in the Cerrado and those in the South of Minas Gerais obtained very similar prices for their coffees, despite the difference in quality. But still, the Cerrado producers obtained higher returns with their coffee. This may indicate that the adoption of improved management methods and greater production rationalisation required in the differentiated coffee market may lead to an overall reduction in production costs, which is also beneficial for the production of commodity coffee.

With special regard to the differentiated coffee market, most suppliers are currently part of associations, clubs, and other network forms (ANDRIANI & HERRMANN-PILLATH, 2011, 21).

It is important to mention, as we may see below, the existence of networks with the direct participation of roasters, such as the ones provided by the Italian roaster Illycaffè and Lavazza. These play a major role in the perspective of innovation transfer through GVCs and will be described below in the “system level innovation” section.

Other types of networks may be considered as vehicles of system level innovation, namely in the area of *implementation of quality and sustainable standards* (chain certification networks, group certification networks, etc.) and in the one of *technological innovation* (e.g. R&D joint ventures or strategic agreements). Chapter III will provide some relevant evidence of their existence with reference to examined case studies. In this chapter, some general introduction on the role of regulatory networks may, however, offer useful guidance for the case study analysis.

Regulatory networks are deployed in supply chains both for standard-setting and for the implementation of regulatory regimes (CAFAGGI – IAMICELI, forthcoming, 2015). In the latter case, they aim to manage compliance mechanisms with transnational standards (mainly private standards). Examples include vertical contractual networks coordinated by a chain leader who exercises control over the whole supply chain taking responsibility towards the certifier and the standard setter; or organisational networks (often in the form of cooperatives), managing a group control system and holding a group certification in the interest of all participants of the group. In this framework, certification schemes and network-type structures supporting their scope may help enable compliance with regulatory standards in several ways. Among these, they do so by (i) providing technical services aimed at enhancing producers’ capability to deal with risk management and regulatory compliance and (ii) ensuring enforcement of standards through the administration of measures and sanctions reacting to violation by network participants (CAFAGGI – IAMICELI, forthcoming, 2015).

All these functions are very relevant in favouring producers' access to global supply chains. Indeed, those producers who have the (financial and organisational) capacity to engage with the certification process gain commercial opportunities and benefit from efficient organisational and technological changes as induced by compliance with standards. By contrast, for smaller enterprises and, more critically, for developing countries, certification costs for enterprises are often prohibitive. For them, the support provided by NGOs to upgrade their business structure and methods might play an important role and turn into a significant opportunity for their development (Cafaggi – Iamiceli, forthcoming, 2015).

5 INNOVATION AND SYSTEM-LEVEL INNOVATION IN THE COFFEE SECTOR

5.1 INTRODUCTION

In order to achieve sustainability, or other major, radical changes in our society, we need societal transformation, which requires institutional, social/cultural, organisational as well as technological change. This type of massive societal transformation in which all aspects of society are expected to co-evolve towards and align with sustainability goals is defined as sustainability transition or system innovation for sustainability. Innovations on the macro-level (i.e. institutional and social-cultural innovation) and micro-level (i.e. product/service and technology innovation) need to be analysed at the same time in order to understand how the transition takes place and what kind of governance system could lead to the right or desired direction. (Sorsa 2011c⁹⁴; Sorsa 2011b⁹⁵.)

We are going to develop the subject within two areas: (i) transnational private regulation, which represents the macro-level phenomenon and (ii) research and development work conducted on the company and value chain levels⁹⁶, which illustrates micro-level innovation. After describing these aspects, the role of contractual governance and networks will be analysed under both respects.

The global coffee sector is an excellent context for system-level innovations analysis as the evolution of the transnational private regulation schemes through the pre-development, take-off, acceleration and stabilisation phases can be followed in coffee producing and coffee consuming countries (Sorsa 2012⁹⁷). The role of contractual governance as well as networks, are parts of the co-evolution that may lead to system level transition.

5.2 INNOVATION, SYSTEM-LEVEL INNOVATION AND TRANSNATIONAL PRIVATE REGULATION

The analysis below shows that the coffee sector is today highly regulated. Public legislation, private regulation and mixed forms of public and private regulation emerge as often applicable to the food sector as such (either in the pre-farming phase or at the industrialisation level) and, sometimes, to the coffee sector particularly (POTTS et al. 2014, 34). In some cases, public legislation has incorporated pre-existing private regulation. The international dimension of standards, especially as regards private regulation, has become more and more prominent, often influencing public legislation at the domestic level.

Several aspects have attracted high attention in this perspective and will be considered here: safety; quality; environment; economic fairness; labour and community rights protection. Both public and private regulations play a role in all these fields. However, the analysis below will show that, *whereas in the area of quality standards firm-specific (or supply chain-specific⁹⁸) and industry specific standards tend to emerge, in the field of sustainability, non-profit and multi-stakeholder organisations (IFOAM, Fairtrade, Rainforest Alliance) have played a major role both as standard setters and as assurance services providers.*

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94. SORSA, K. (2011a). Yhteiskuntavastuu, yksityinen sääntely ja systeemiset innovaatiot. Edilex refereeartikkel, 2011/26, (Corporate Social Responsibility, Private Regulation and System Level Innovations).
 95. SORSA, K. (2011b). Standardit sääntelyinnovaatioina, 151–162 (Standards as regulatory innovations). In: Pakarinen, Auri & Hyvärinen, Anna & Ervasti, Kaius (toim.) (2011). Lainvalmistelu, tutkimus, yhteiskunta. Jyrki Talan juhla-kirja. Turun yliopisto, oikeustieteellinen tiedekunta 2011.
 96. The implementation of private regulation like CSR standards on company level can produce micro-level innovations. When many companies of food industry implement same standards in different value chains, the socio/cultural transition is possible. The evolution of different private regulation schemes are analysed from the Finnish industry sectors' perspective in SORSA, K. (2011a). Kansainvälisen kaupan arvoketjujen sääntely. Yhteiskuntavastuun ja ennakoivan oikeuden tarkastelu. Turun yliopiston julkaisuja. Sarja C Osa 320. 2011. Artikkeliväitöskirja. ISBN 9789512947775. (Regulation of global value chains: Examining corporate social responsibility and proactive law).
 97. See e.g. SORSA (2012). The Evolution of CSR Standards in the Coffee Value Chains – Transition Pathways to Sustainability (September 12, 2012). Available at SSRN: <http://ssrn.com/abstract=2145307> or <http://dx.doi.org/10.2139/ssrn.2145307>
 98. In case the firm imposes its firm-specific standards to its entire supply chain.

Early standards like organic and Fairtrade were largely inspired by movements regarded as alternatives to mainstream markets. The last majority of newer initiatives (UTZ Certified, 4C Association, GLOBALGAP), however, focus directly on mainstream integration at the outset of the standards–development process. The trend seems to be towards firm specific standards, as the most important in terms of volumes certified include Nespresso AAA Sustainable Quality, 4C, Starbucks Coffee And Farmer Equity (C.A.F.E.) Practices and UTZ Certified in 2012. (POTTS et al. 2014, 158).

5.2.1 Quality and safety standards

Food safety could be considered as a sub-set of quality, broadly understood. Indeed, also in agricultural production, more and more quality incorporates attributes calling for safer and healthier products. Moving from this consideration, the specificity of safety issues and standards should be acknowledged within the broader area of product quality⁹⁹.

Both quality (as broadly intended) and safety standards may consist in product-related standards (e.g. colour, dryness, chemical features, etc.) or process-related standards (e.g. standards concerning preservation, testing and the like). Compared with product standards, process standards have gained higher and higher attention in the current debate on food safety, influencing the relations between producers and contractors and the structure of the supply chains¹⁰⁰. Certification and in particular third party certification has become a paramount component in the implementation of these standards, introducing new important intermediaries along the chain¹⁰¹.

Several sets of standards exist in food quality and safety. Many of these start to incorporate also sustainability-, environmental- and social-related elements, as we see later in this section. Some attempts to reconcile or benchmark the different sources have been done to ease producers' compliance and access to certified supply chains.

The following section will provide an outline of the main standards and certification scheme, specifically dealing with those relevant to coffee and coffee products.

European Regulation

Council Directive 99/4/EC (OJ L66, p26, 13/03/1999) of 22 February 1999 regulates coffee extracts and chicory extracts, harmonising within the EU and sets out rules of composition and labelling of coffee extracts and chicory extracts, including descriptions, definitions and characteristics of the terms 'coffee extract', 'soluble coffee extract', 'soluble coffee' and 'instant coffee'. *The means and methods of testing and analysing these products have been developed by ISO, the Directive thus repealing prior Community legislation on methods of analysis.*

For consideration of the way in which the European legislation has been implemented in the European Member States, reference can be made to the CBI, 'Member States Overview: Implementation of EU Legislation on Coffee Extracts'¹⁰².

International Coffee Organisation

The ICO has attempted to introduce regulation to establish minimum mandatory standards in respect of coffee quality through its Coffee Quality-Improvement programme. The first resolution introduced (resolution n. 407 in 2002) proved to be unenforceable. The second (resolution n. 420 in 2004) provides for voluntary minimum export standards. The broad intention is to raise prices by tightening supply chains, by virtue of removing the lowest quality beans, that is, restricting the export of arabica coffee with more than 86 defects per 300 g sample or robusta coffee with more than 150 defects per 300 g¹⁰³ and endeavouring to limit the export of any grade of coffee with a moisture content below 8% and above 12.5%¹⁰⁴.

99. See F. Cafaggi, The regulatory functions of transnational commercial contracts. New architectures. *Fordham Journal of international law*, 36, 1557–1618; F. Cafaggi – P. Iamiceli, Supply chains, contractual governance and certification regimes, *Eur J Law Econ* (2014) 37:131–173.

100. See F. Cafaggi, The regulatory functions of transnational commercial contracts. New architectures, *cit.*

101. See F. Cafaggi, The regulatory functions of transnational commercial contracts. New architectures, *cit.*; F. Cafaggi, P. Iamiceli, Private Regulation and Industrial Organisation: Contractual Ggovernance and the Network Approach, forthcoming, 2015

102. <http://www.cbi.eu/marketinfo/cbi/?action=showDetails&tid=5707>. See more about the use of GLOBALG.A.P and different standards' role as a source of competitive advantage SORSA 2010, 76–86 and SORSA 2011a, 104–108).

103. Coffee Guide, 12.2

104. <http://dev.ico.org/documents/eb3941e.pdf>.

Globalgap

The GlobalGap Green Coffee Standard covers the standard up until the green coffee is put into sacks. Thereafter, for example, in respect of the roasting process, the GlobalGap Chain of Custody¹⁰⁵ standard applies. The most recent Standard applicable to Green Coffee is Version 4¹⁰⁶.

ISO

ISO 9001 provides a standard for the quality of a product. It is a process-based system. In respect of green coffee, it is considered that there are too many factors (including weather, diseases, pests etc.) that cannot be controlled by the producer. As such, the ISO system is applicable from the time at which the cherry is picked; the 'process' ends when the container is delivered to the ship for transportation.

This application of the ISO standards is more difficult in respect of smallholder coffee production, where various small deliveries might be made to different washing stations or collection points, as a result of which the various batches lose their identity. Similarly, where blended coffee is shipped in bulk, an identity is only provided at the time of loading for delivery. Notwithstanding, it is recognised that it is necessary to regulate harvesting and processing to ensure a certain standard of quality. *ISO 9001 provides identification and traceability for all the coffee produced by estate growers.*¹⁰⁷ The batch number should indicate the date of picking, where on the farm, the weather conditions on that day, the length of time to dry the coffee, how well it was dried, and a number of other factors. This can provide vital information if any quality problems have to be identified.

ISO 22000 provides for a process-based food safety standard, setting out the requirements for a management system, including communication along the chain, system management and the establishment of an HAACP system. Communication is deemed to be necessary to ensure that hazards are identified and dealt with at various stages along the chain, both upstream and downstream and with suppliers and consumers. The notion of a management system is intended to provide a structure in the organisation of the chain able to ensure compliance across each of its segments¹⁰⁸. In respect of hazards, ISO 22000 provides for the establishment of an HAACP system, and the

identification and assessment of all hazards that may be reasonably expected to occur in the food chain. ISO 22000 is aligned with ISO 9001 in order to ensure compatibility and coordination.¹⁰⁹

Council Directive 93/43/EEC on the hygiene of foodstuffs similarly incorporates the HACCP system. HACCP has become mandatory in a number of countries in recent years, and especially in respect of non-farm food businesses in the EU since January 2006. ISO 22000 is an auditable standard and as such, certified parties can show HACCP compliance through ISO certification.

This evolution indicates that the private regulation schemes have power to change the public regulation system. In this way they pave the way for the regulatory change and broader transition in their focus area. Even though these regulatory innovations start as a niche innovation, they might become a mainstream and be incorporated into state made law system. This transition indicates that the private actors have capability to be proactive and therefore they are important players of the proactive law (SORSA 2011a, 134–187).

ISO and HACCP Food Safety Management Systems

HACCP concerns not only quality but also food safety. In order to establish a control management system, it provides an analysis of biological and chemical hazards resulting from the production, manufacturing and consumption of foodstuffs. The HACCP system provides for the establishment of a flowchart or plan, where hazard points are identified. The measures to be adopted to deal with these points must be registered on the plan.

105. http://www.globalgap.org/cms/front_content.php?idcat=244.

106. http://www.globalgap.org/cms/front_content.php?idart=1459.

107. <http://www.intracen.org/123-Quality-control-issues-ISO-9001/>

108. See F. Cafaggi, The regulatory functions of transnational commercial contracts. New architectures. *Fordham Journal of international law*, 36, 1557–1618.

109. http://www.iso.org/iso/iso_and_food.pdf. See also: ISO 22000 Food Safety Management Systems – An easy-to-use checklist for small business – Are you ready? <http://www.iso.org/iso/news.htm?refid=Ref1056>

Council Directive 93/43/EEC on the hygiene of foodstuffs requires a HACCP system. As it has developed, a HACCP system now demands detailed descriptions that food safety authorities can verify. HACCP and GAP are established as programmes providing for quality assurance systems. HACCP aims to identify and deal with a limited number of critical points; on the other hand, GAP aims to identify where broad improvements can be made.

It is intended that HACCP and GAP be coordinated, i.e., while GAP should promote general improvements in coffee quality, HACCP should provide for a specific system of monitoring and control.

Food Safety Hazards

Mycotoxins

Mycotoxins are produced by mould. In respect of coffee, there are particular concerns surrounding the presence of ochratoxin A (OTA), a carcinogenic mycotoxin that is understood to cause kidney damage¹¹⁰. It is considered that there are a number of factors relating to the existence of OTA, including those related to environmental, harvesting, processing, storage, and distribution. The key concern is the drying process. It is considered that inadequate sun-drying can lead to OTA production within the pods of coffee and husks¹¹¹.

The EU has established limits¹¹² for the existence of OTA in various foods; roasted coffee (5 ppb), soluble coffee (10 ppb)¹¹³. The HACCP process is intended to provide a means of determining the existence of mycotoxins in general and, more specifically, to establish where OTA and OTA-causing fungi exist in the system. The threat of OTA highlights the importance of moisture control in the production and processing of coffee. Prevention is understood to be the best method of control.

Analysis and testing of coffee include sensory testing, that is, smell and sight. In addition, there can be defect counting on the basis of ISO 10470. The quality control system should provide for checking at various stages – ‘buying, monitoring of market supply/suppliers, checking upon arrival of delivery’¹¹⁴.

Pesticides

Another concern relates to pesticides. Coffee growers must keep a list of all chemicals, including type and quantity, used on particular coffee; these chemicals must be approved for such use. Cross-contamination in respect of pesticides should be avoided by the use of clean containers¹¹⁵. Where coffee is transported in jute bags, concerns arise in relation to possible contamination of the coffee with hydrocarbons (deriving from certain types of oil used to soften jute fibres used in the bags). The International Jute Organization has established certain standards for the manufacture of bags, providing specific criteria in IJO Standard 98/01. European Union Regulation (EC) No 396/2005, which came into force in 2008, provides for a harmonised approach in respect of maximum residue levels of pesticides for a number of foodstuffs, including green coffee¹¹⁶. It has been noted that green coffee that exceeds the levels set out in the regulation cannot be considered to be merchantable and therefore is deemed to be non-compliant with the coffee contract¹¹⁷.

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110. <http://www.ecf-coffee.org/images/stories/temporary/Quality%20Control%20for%20OTA%20in%20coffee.pdf>
 111. See FAO publication: Guidelines for the Prevention of Mould Formation in Coffee. http://www.fao.org/fileadmin/user_upload/agms/pdf/coffee/guidelines_final_en.pdf
 112. Commission Regulation, (EC) No. 123/2005 – <http://dev.ico.org/documents/ed1940e.pdf>.
 113. <http://www.ecf-coffee.org/images/stories/temporary/Quality%20Control%20for%20OTA%20in%20coffee.pdf>
 114. <http://www.ecf-coffee.org/images/stories/temporary/Quality%20Control%20for%20OTA%20in%20coffee.pdf>
 115. Draft Code of Hygienic Practice for the Transport of Foodstuffs in Bulk and Semi-packed Foodstuffs of the Codex Alimentarius Commission.
 116. See http://ec.europa.eu/food/plant/protection/pesticides/database_pesticide_en.htm, under product reference 0620000 for the list of MRLs currently applicable to coffee beans.
 117. The Coffee Guide, 12.7.2.

5.2.2 Sustainability standards

The focus on sustainability has increased as general public concern for quality, safety and the means of the manner in which foodstuffs are produced has increased. There are various reasons for this increased focus on standards. These include the nature of the consumer, and the environment in which the consumer exists (in particular, an interest in health and safety), the environment in which the business operates (an environment of a concentration of suppliers, traders and retailers, leading to desires for differentiation) and the regulatory environment (private, public and hybrid regulation)¹¹⁸. According to the State of the Sustainability Standards Report, the pervasiveness of coffee-related sustainability standards throughout the sector can, in large part, be attributed to the maturity of the market, to the 2001 coffee crisis and corresponding consumer and private sector awareness, and to the high concentration in manufacturing. Also the limited processing between production and consumption, and retail products with one single or very few ingredients. These two last factors allow easier consumer recognition of certified ingredients. (POTTS et al. 2014, 160). Sustainability regimes may concern social, environmental and economic standards, and may diverge based on their content, their organisation and their impact. The key regulatory regimes encompassing sustainability standards are set out here, including organic, Fairtrade, Rainforest Alliance, and coffee-specific standards of the Common Code for the Coffee Community (4C), UTZ-Certified and Bird Friendly. Organic and fairtrade schemes have been started by local actors loosely organising their activities around a common topic. These were organic associations in different countries and co-operative movements of fair trade (SORSA 2012, 6).

Sustainability standards outside public regulation

Sustainable coffee now accounts for 8% of coffee consumed globally. On the other hand, standard-compliant coffee reached a 40 per cent market share of global production in 2012 (up from 15 per cent in 2008) (POTTS et al. 2014, 8¹¹⁹). Demand for sustainable coffee has increased alongside an increased interest in sustainability concerns and food safety in the production of coffee. In Brazil, the most important certifications adopted by green-coffee producers are the UTZ-certified and Rainforest (Brazil Specialty Coffee Association (BSCA) and CECAFÉ association). In this country, the adoption of certification schemes has significantly increased in the last years. In fact, as observed by the Brazil Specialty Coffee Association (BSCA), the number of green-coffee producers certified in Brazil jumped from 400 farms in 2002 to around 350,000, including also “verification” systems, such as the one of 4C and of Origin Denomination (BSCA interview. Also in *Revista Valor*, 2012). It should be noted, however, that this high concentration of sustainable coffee production in Brazil, as well as in other producing regions considered to be “more organised” (Colombia, Peru, in Latin America, and Vietnam), has been regarded as showing that sustainability standards create technical barriers to trade, with costs of compliance being too high for less-developed producers¹²⁰.

Coffees that adhere to various combinations of social, environmental, and economic standards, and that are independently certified by an accredited third party, have been collectively termed “sustainable coffees”. As noted above, the Common Code for the Coffee Community is an exception and uses a ‘verification’ system instead of ‘certification’.

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118. D. Giovannucci and T. Purcell, ‘Standards and Agricultural Trade in Asia’, ADBI Discussion Paper 107, (Asian Development Bank Institute, Tokyo; 2008).
 119. POTTS, J. & LYNCH, M. & WILKINGS, A. & HUPPÉ, G. & CUNNINGHAM, M. & VOORA, V.: The State of sustainability initiatives review 2014. www.iied.org
 120. J. Potts – M. Sanctuary, Sustainable Markets are Growing – Is Sustainability Keeping Pace?, Entwined Issue Brief, 2010, p. 4.

Fairtrade

Fairtrade first emerged from the interaction of national Alternative Trade Organisations (ATO – usually an NGO or a business driven by Fairtrade principles, for example, Oxfam Trading¹²¹), including Twin Trading, Oxfam Trading, Equal Exchange, SOS Werehandel in Germany; and Fairtrade Organisatie in the Netherlands. In 1988, the Max Havelaar label¹²² was launched in the Netherlands, which provided for the involvement of a larger number of more ‘mainstream’ participants. It is defined as “an alternative approach to conventional trade that aims to improve the livelihoods and well-being of small producers by improving their market access, strengthening their organisations, paying them a fair price with a fixed minimum, and providing continuity in trading relationships”¹²³. Moving beyond specialist retailers to mainstream participants was intended to promote the market spread and allow for the development of the supply chain¹²⁴. National-level initiatives that issue Fairtrade labels to importers provide for the verification of Fairtrade standards for specific products. Within the system, products are certified, and Fairtrade coffee producers are selected, monitored and verified. Fairtrade products are supported by retailers and consumers. It can therefore be classified as a ‘business to consumer’ standard.

The Fairtrade Finland was created in 1998 and after that the sales of the Fairtrade labelled products has started to grow first moderately but after 2006 heavily. Coffee was one of the first fairtrade-labelled products in Finland. Fairtrade brand continues to be one of the most well known brands in Finland. (SORSA 2014b, 12–15; 35–40) and consumers trust the label more if they know the key message the logo is communicating. (SORSA & JOLKKONEN 2014b).

Fairtrade is used both by conventional companies and ATOs that are registered with one of the national initiatives. Labelling of Fairtrade products is undertaken through Fairtrade Labelling Organizations and is intended to guarantee that the product has been produced and traded according to pre-defined social, contractual and sometimes environmental standards. Fairtrade is also intended to ensure the payment of a minimum FLO price (providing for a better return to consumer and includes social premium).

In 1997, the Fairtrade Labelling Organizations International (FLO) brought together various national initiatives. The purpose of the establishment of the FLO as an umbrella organisation was to ensure and promote consistency in standards and certification¹²⁵. FLO monitors producers and traders and de-certifies those that do not meet standards despite continuous warnings for the adoption of corrective measures (see below). For a product to carry the Fairtrade mark, all traders along the chain must be certified; that is, to all “operators” within the supply chain¹²⁶. So, for example, products must be sourced only from organisations certified as Fairtrade; reliance can be made on the basis of the supplier’s warranty. *Group certification* is possible. A group of producers, which might constitute cooperatives and farmers, can gain registration in respect of FLO on the condition that (a) membership is made up of and governed by smallholders and members, and (b) the group of producers is democratically governed and has a politically independent status. Producer organisations will be regularly assessed on the basis of FLO standards by FLO inspectors.

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121. *European Fair Trade Association, Fair Trade Yearbook: Towards 2000* (1998), p.23 & 25
122. Max Havelaar was established by the Unión de Comunidades Indígenas de la Región del Istmo (UCIRI), a coffee co-operative in Mexico and the SOLIDARIDAD organisation. Generally, it is considered to be the first Fairtrade labelling organisation (FLO).
123. D. Giovannucci and F.J. Koekoek, *The State of Sustainable Coffee: A Study of Twelve Major Markets* (Feriva S.A., Colombia; 2003), p.38.
124. D. Reed, ‘What do Corporations have to do with Fairtrade? Positive and Normative Analysis from a Value Chain perspective’ (2009) 86 *Journal of Business Ethics* 3, p.5.
125. L. Segerlund, *Making Corporate Social Responsibility a Global Concern: Norm Construction in a Globalising World*, (Ashgate Publishing, London; 2010); D. Reed, ‘What do Corporations Have to do with Fairtrade? Positive and Normative Analysis from a Value Chain Perspective’ (2009) 86 *Journal of Business Ethics* 3, p.6.
126. An operator being ‘any company, such as an importer, processor, manufacturer, buyer, seller, or conveyer registered with the Foundation and responsible for ensuring that registered enterprises and products meet the requirements of the standards.’

In relation to imports, Fairtrade provides that these importers must ensure that they directly purchase from an FLO-registered producer association on the basis of multi-annual contracts. *The standard therefore affects the length of the contract and its cooperative nature.* Further, it must ensure that there is payment of a minimum price, determined by the FLO, and a social premium to the producer organisation, with an additional payment in respect of organic produce. In addition, pre-financing must be offered in respect of 60% of the value of the contract, where pre-financing is requested by the producer association. *Fairtrade importers tend to adopt an advocacy role, and provide technical support to producer organisations.* Certification is for one year. Fairtrade licenses companies to use the Fairtrade mark on goods certified as complying with the relevant standards. Successful participants receive a registration, licensing and certification agreement.

If there is non-compliance with Fairtrade standards, they are not automatically decertified. Rather, producers are given time to meet the standards and are advised of appropriate action. A **cooperative approach** is then adopted in order to ensure compliance¹²⁷. If the producer fails to take this action within the time framework, they are suspended from operating under Fairtrade for a certain period within which they must undertake corrective actions. Only persistent non-compliance will result in decertification from the scheme¹²⁸.

A key criticism has been advanced in respect of FLO on the basis that FLO constitutes both the standard-setter and certifier. This critique is now less relevant. The FLO Certification Unit (FLO-CERT) was established as a limited company, FLO-Cert Ltd., in 2004. The intention was to promote legitimacy by providing for the separation of standard-setting, certification and auditing, by rendering operations more transparent. In order to guarantee its independency and the consistency of certification, FLO-CERT operates within the ISO 65 system. ISO 65 is the leading, internationally-recognised quality norm for bodies operating a product certification system; it should provide for independence, transparency, quality and equality in respect of the putatively-certified producer groups. FLO-CERT follows the ISO 65 norm in all its certification operations, providing for a quality management system, transparency and independence.

In respect of the influence of the regime on coffee supply, FLO is understood to be an example of certification affecting value distribution along the chain. According to Ponte¹²⁹, Fairtrade certification “is meant to guarantee that the product has been produced and traded according to pre-defined social, contractual and sometimes environmental standards, including the payment of the agreed FLO-determined minimum price” (Ponte, 2004, 21)¹³⁰. The minimum price includes a value that should be allocated by groups and associations of producers in activities of social development¹³¹. The key aim is to challenge existing power relations and empower small producers; small producers should therefore be the parties who benefit to the greatest extent. Fairtrade is often understood as being a Northern response to a Southern plight.

It can be categorised as a pre-farmgate standard regime. Standards are mainly social and economic, but they are also environmental. The Fairtrade system has emerged as an alternative system for the marketing of products from developing countries developed with the general aim of addressing power relations in trading and changing the rules of the trading system¹³² by (a) improving the quality of life of small farmers, (b) helping them to better fit within the international market, (c) guaranteeing the payment of a minimum price for their products, (d) promoting their institutional organisation and (d) striving for continuity of direct trade relations with buyers¹³³.

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127. See F. Cafaggi, The regulatory functions of transnational commercial contracts. New architectures. *Fordham Journal of international law*, 36, 1557–1618; F. Cafaggi – P. Iamiceli, Supply chains, contractual governance and certification regimes, *Eur J Law Econ* (2014) 37:131–173; F. Cafaggi – P. Iamiceli, *Remedies against non-performance*, cit..
128. Annex, 5.1.01, Fairtrade Standards for UK Operators.
129. S. Ponte, ‘Standards and Sustainability in the Coffee Sector: A Global Value Chain Approach’ United Nations Conference on Trade and Development and the International Institute for Sustainable Development, 2004.
130. Small Coffee Producer Organizations and Contract Coffee Production Organizations received a total of 17,491 million Euros in Fairtrade premiums in the period comprised of 2009–2010 (FLO, 2011). Fairtrade minimum price is, since 1 June 2008, of 125 cents/lb + 10 cents/lb of Fairtrade premium. When the New York price is 125 cents or above, the Fairtrade price = New York price + 10 cents. http://www.fairtrade.org.uk/includes/documents/cm_docs/2010/a/arabica_pricechart_89_10_aug10.pdf.
131. For more information about Fairtrade Standards: http://www.fairtrade.net/our_standards.html.
132. D. Reed, ‘What do Corporations have to do with Fairtrade? Positive and Normative Analysis from a Value Chain perspective’ (2009) 86 *Journal of Business Ethics* 3, p.5.
133. D. Giovannucci and F.J. Koekoek, *The State of Sustainable Coffee: A Study of Twelve Major Markets* (Feriva S.A., Colombia; 2003).

Raynolds makes the distinction between mission-driven firms and market-driven firms, in respect of their effect on the operation of fairtrade¹³⁴. She understands mission-driven firms as being committed to fair trade principles and, in doing so, establishing long-term relationships with financial institutions to provide producers with pre-financing, and committing to long-term contracts with producers¹³⁵. On the other hand, market-driven firms make little distinction between fairtrade operations and conventional trade, being less likely to offer the benefits of mission-driven firms. Rather, they often engage with fairtrade for reputation purposes only¹³⁶.

From the system level transition perspective it seems that the mainstreaming of the sustainability standards is needed in order to achieve large scale impacts in different parts of the global economy. The mainstreaming takes long time, in Finland it has taken ten years but nowadays it is the leading brand of the sustainable labels in food industry. (SORSA 2014b, 13–15).

Costs of Fair Trade Certification

Until 2003, producer groups did not pay costs associated with inspections and certifications. Fees were introduced in 2004, with the aim of adding a greater degree of professionalism and improving services. The inspection and certification process is managed and organised by FLO Cert. Where possible, local inspection bodies are used in order to ensure costs are kept low. The first inspection fees range from 2000€ to 5200€¹³⁷, depending on the size and nature of the producer group. A 500€ fee applies for the renewal of certification; an additional fee is also charged depending on Fairtrade sales (between 0.005 and 0.01 € per kg)¹³⁸.

Having regard to price premium, there is a minimum price of 140 cents a pound for Fairtrade certified arabica coffee beans, or the market price if higher; a minimum price of 101 cents a pound for Fairtrade certified robusta coffee beans, or the market price if higher and an extra 30 cents per pound for Fairtrade certified organic coffee.

In 2012, 430,000 metric tons of Fairtrade certified coffee were produced, making it the third-largest supplier of sustainable coffee on the global market. Latin American countries have been the most important sources of Fairtrade coffees with 77 per cent of Fairtrade coffee production coming from Latin America. The three most important producer countries in Latin America are Colombia (28 per cent), Peru (16 per cent) and Brazil (13 per cent). In terms of sales in 2012, Fairtrade sales were the lowest among the other four competing global initiatives. Per-annum growth of Fairtrade production and sales were identical between 2008 and 2012, growing 13 per cent per year. (POTTS 2014, 167).

Figure 10: Fairtrade coffee producer organisations by country 2011

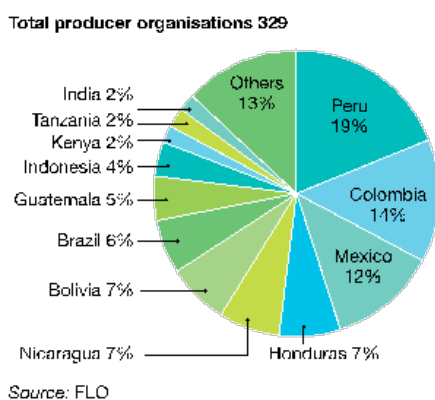


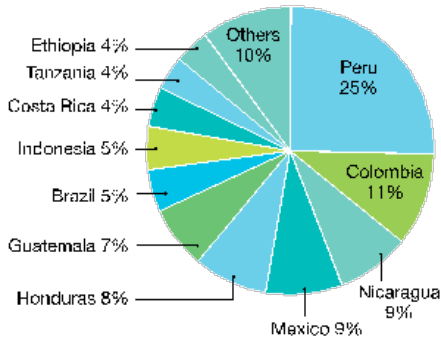
FIGURE 20. *Fairtrade coffee producer organisations by country 2011.*

Source: *Fairtrade Coffee Report, May 2012, p.21.*

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134. L.T. Reynolds, 'Mainstreaming Fair Trade Coffee: from Partnership to Traceability', (2009) *World Development* 1083, pp.1086-7.
 135. L.T. Reynolds, 'Mainstreaming Fair Trade Coffee: from Partnership to Traceability', cit.
 136. L.T. Reynolds, 'Mainstreaming Fair Trade Coffee: from Partnership to Traceability', cit.
 137. S. Courville, 'Organic and Social Certifications' in C.M. Bacon et al., *Confronting the Coffee Crisis* (MIT Press, Cambridge; 2008), pp.289-310, p.294.
 138. Fairtrade Coffee Report, May 2012; http://www.fairtrade.org.uk/includes/documents/cm_docs/2012/F/FT_Coffee_Report_May2012.pdf.

Figure 12: Fairtrade coffee exports by country 2009/10

Total 103,000 tonnes



Source: FLO

FIGURE 21. Fairtrade coffee exporters by country 2009/10.

Source: Fairtrade Coffee Report, May 2012, p.22.

The number of Fairtrade certified coffee producer organisations has increased from 175 in 2002 to 329 in 2011, covering over 500,000 farmers in 28 countries¹³⁹. In Brazil, around 6000 farmers are covered by the Fair Trade certification. (BSCA interview. Also in Revista Valor, 2012)

Fairtrade remains a major player in both production and sales of sustainable coffee, despite its relatively lower growth rates. The potential importance of sales versus production is, however, greater within the context of Fairtrade, than within the other certification schemes. This is due to the fact that many of the criteria relate to the trading relationship itself and therefore depend upon actual sales for their fulfillment. In order to get the minimum Fairtrade price, farmers must be able to sell their Fairtrade-compliant coffee as certified. Without actual sales they will not be able to benefit from this element of the system. (POTTS et al. 2014, 167).

Rainforest Alliance

General

Rainforest Alliance has various dimensions – sustainable forestry, carbon verification, sustainable tourism and sustainable agriculture. It was the first scheme in the coffee sector concerned primarily with environmental issues and, in particular, initially with the protection of the rainforest. It is broadly conservation-driven and was established in 1987 as an NGO. The intention of the Rainforest Alliance was to promote a conservation-aimed programme that would still allow for production within the concerned areas. By following the standards designed for pre-farm-gate activities, farmers can reduce costs, save natural resources, ensure that environmental impact can be controlled, protect wildlife, ensure the protection of labour rights, improve the harvest quality, and earn the Rainforest Alliance Certified approval. Certification guarantees that the farm is managed according to the relevant social and environmental standards.¹⁴⁰

On this basis, the Rainforest Alliance has partnered with different organisations¹⁴¹ in order to promote sustainable partnerships and has developed certain types of programmes for different agricultural crops. It has developed, on the basis of multi-crop farm management, guidelines since 1992 and has provided its label to various types of product.¹⁴²

The Sustainable Agriculture Network or SAN, a coalition of independent NGOs with grant funding from the United Nations Development Programme, was established in 1998. This allowed for the coordination of various groups in different countries. SAN has promoted the certification of farms, with the different participants engaging in the development and implementation of standards that can be applicable in relation to a number of different types of farm. Significantly, it has provided a means for various different participants to communicate and coordinate their actions and better work together in a way that might not previously have been possible.¹⁴³

139. Fairtrade Coffee Report, May 2012; http://www.fairtrade.org.uk/includes/documents/cm_docs/2012/F/FT_Coffee_Report_May2012.pdf, p.21.

140. <http://www.rainforest-alliance.org/about/history>. See also SORSA 2012, 18–19.

141. For example, Fundacion Ambio in Costa Rica in relation to banana cultivation and Fundación Interamericana de Investigación Tropical in Guatemala in relation to coffee.

142. <http://www.rainforest-alliance.org/about/history>. See also SORSA 2012, 18–19.

143. <http://www.rainforest-alliance.org/about/history>. See also SORSA 2012, 19–20.

In terms of coffee production, the Rainforest Alliance standards incorporate the ten Social and Environmental Principles of the Sustainable Agricultural Network, which include:

- Social and Environmental Management System
- Ecosystem Conservation
- Wildlife Conservation
- Water Conservation
- Fair Treatment and Good Conditions for Workers
- Occupational Health and Safety
- Community Relations
- Integrated Crop Management
- Soil Conservation
- Integrated Waste Management

SAN standards are based on an internationally-recognised integrated pest management (IPM) model, allowing for the use of certain agrochemicals. Products that are Rainforest Alliance certified do not use those agrochemicals, which are prohibited by the US Environmental Protection Agency and the European Union. Further, they do not use chemicals recorded on the Pesticide Action Network's "Dirty Dozen" list.¹⁴⁴

The Rainforest Alliance concerns the certification of the farm that produces the crop. The standards encompass certain critical dimensions, which must be satisfied. In general, 50% of criteria under a certain principle (group of criteria) must be achieved, and 80% overall must be satisfied. The Rainforest Alliance seal can only be placed on products that meet these standards¹⁴⁵. Where different ingredients make up the final product, it will be necessary to establish a sustainable sourcing plan. It is the responsibility of the manufacturer of the final product bearing the seal to undertake this; however, this does not need to be submitted to the Rainforest Alliance. This should include information about the supply chain, and provide for evidence of certification¹⁴⁶. Therefore, though specifically applied to the final manufacturer only, certification triggers chain coordination (Cafaggi – Iamiceli, forthcoming, 2015).

Group certification – of producer groups, such as associations, cooperatives and federations – is possible¹⁴⁷, allowing for certification of producers who cannot enter the certification process alone, or who will gain substantial economic benefit from group certification. The process of group certification is based on the ISEAL Alliance’s Common Requirements for the Certification of Producer Groups.

The certification process is undertaken with ISO 65, using local independent auditors, and includes a visit to the relevant site by SAN technicians, who suggest the changes necessary for certification. The operations are then audited (certification audit). An evaluation report is provided, on the basis of which the certification committee determines whether the farm merits certification. The Rainforest Alliance is a member of the International Social and Environmental Accreditation and Labelling Alliance (ISEAL). In 2001, it was agreed to use the Rainforest Alliance Certified seal in the management of certified products and promotion of such products within the market. It was then agreed that the auditing of farms should be undertaken by independent parties, and not by the Alliance itself. The International Standards Committee was established in 2007 to provide for this.

Decertification can occur where there is non-compliance with the SAN standards, or with the Rainforest Alliance Certification Agreement¹⁴⁸. Decertification means the Rainforest Alliance seal cannot be used on products (including leftover products) after the date of cancellation. Normally, decertification is not final; that is to say, there will be a possibility to reapply after three months¹⁴⁹.

144. Rainforest Alliance (2006). Sustainable Agriculture Standards.

145. Rainforest Alliance (2006). Sustainable Agriculture Standards.

146. Rainforest Alliance (2006). Sustainable Sourcing Policy.

147. SAN Group Certification Standard, (2011).

148. SAN Farm Certification Policy, (2011), part VI.

149. SAN Farm Certification Policy, (2011), part VIII.

Since mid-2012, the Rainforest Alliance and SAN have also provided for a Chain of Custody Standard and Certification, based on ISO 65¹⁵⁰. The Standards do not contain critical criteria. This applies throughout the chain, aiming to establish best practices and traceability and the promotion of knowledge and information through the chain. All participants in the chain who operate so as to have an effect on the product ('participating operators'), have to be certified especially so when the chain encompasses producers, exporters, importers and other traders dealing with a mix of certified and uncertified goods using the Rainforest Alliance seal. The certification is valid for three years, with annual audits. As regards non-compliance with the standards, the non-conformity, if major, must be corrected within 4 months of the certification audit or before the annual audit, and if minor within 12 months.

Costs of RA Certification

Auditing to the standards is managed by SAN and is undertaken by Sustainable Farm Certification, International or RA-Cert (part of Rainforest Alliance); it is organised in each country and costs differ depending on the relevant country. Sustainable Farm Certification, International can authorise other bodies, e.g. NGOs to undertake certification. In general, the costs can vary from between 150-200\$US per day, with additional expenses. An annual fee is also charged based on the number of hectares of certified production¹⁵¹.

In relation to coffee, Rainforest Alliance has largely focused on "shade-grown" coffee. Currently, 1.3% of the world's coffee is Rainforest Alliance-certified¹⁵². It has been considered to be the third largest sustainability regime¹⁵³. In Brazil UTZ certified, together with Rainforest Alliance, represents the most important third-party international certification scheme adopted in the coffee sector (BSCA and CECAFÉ interview).

150. Rainforest Alliance and SAN Chain of Custody Policy (2012).

151. S. Courville, 'Organic and Social Certifications' in C.M. Bacon *et al.*, *Confronting the Coffee Crisis* (MIT Press, Cambridge; 2008), pp. 289–310, p.295.

152. <http://www.rainforest-alliance.org/agriculture/crops/coffee>.

153. L.T. Reynolds, 'Regulating Sustainability in the Coffee Sector – A Comparative Analysis of Third-party Environmental and Social Certification Initiatives' (2007) *24 Agriculture and Human Values* 147, p.158.

UTZ Certified

The UTZ certified coffee (until early 2007 known as UTZ Kapeh) scheme was originally set up by the Dutch coffee company Ahold and the Guatemalan coffee producers as a producer–industry initiative. According to UTZ, their central aim is to ‘establish a good production system and practices which lead to improvements and a higher price’ (Blackmore et al. 2012, 52). It aims *to improve the terms of trade for producers* but it does not intervene in price negotiations or set a premium as Fairtrade does. However, giving producers detailed market information enables them to negotiate better prices and allows a premium to be negotiated between buyers and sellers. (Sorsa 2012, 22). *The idea behind UTZ certified was to create recognition for responsible coffee producers, tools for roasters, and brands to respond to a growing demand for assurance of responsibly produced coffee.* (Sorsa 2012 ,21).

Giving producers detailed market information enables negotiation for better prices and a premium to be negotiated between buyers and sellers. (Blackmore et al. 2012, 54). The concrete tool was the UTZ Certified’s Track and Trace¹⁵⁴ system, which was designed to improve marketing opportunities through the use of web-based tools. (Sorsa 2012, 21). *Again this is a clear sign of the correlation between the use of certification and the effects on intermediaries that Cafaggi and Swennson have explored* (see Cafaggi – Swennson, 2012).

UTZ is not well known in the market because it wants to be a guaranteed, independent brand for retailers, roasters, and traders – not a marketing tool. (Blackmore et al. 2010, 54).

The founders created an organisation that could stand independently from the producers and the roasters¹⁵⁵. UTZ is now an independent organisation. UTZ certified was a market-based certification scheme from the very beginning. (Sorsa 2012, 21).

154. According to the UTZ Certified website: ‘an UTZ certified coffee producer sells his coffee to a registered UTZ Certified buyer. They negotiate the contract details and explicitly agree upon the premium that is paid for the UTZ certification. The producer informs UTZ Certified of this sale and the contract information by issuing a Sales Announcement in the UTZ Certified Matching System. Upon receiving the Sales Announcement, UTZ Certified assigns a unique tracking number to the contract. This number is sent back to the producer, who sends it onwards to the first buyer of the coffee. The unique UTZ certified identification number travels with the coffee through the whole coffee chain.’ (UTZ Certified, 2009).

155. UTZ Kapeh Foundation began with the mission of making people more aware of the need to improve the social and environmental situation in Guatemalan coffee plantations, by working towards the establishment of the planning, implementation and development of a system to support farmers’ integrated development.

In the year 2002, the foundation started with the “UTZ Kapeh – Certified Responsible Coffee” Programme. It was a product certification tool, with the objective of helping producers and coffee roasters to implement a new and integrated system of production that could allow them to have a certification in responsible coffee production. (Sorsa 2012, 22).

UTZ certification is based on the idea of Good Agricultural Practices as specified by EurepGAP¹⁵⁶ (and later by GLOBALGAP) and the guidelines outlined in the SA8000 global social accountability standard developed by Social Accountability International. UTZ Kapeh translated the EUREPGAP Protocol to the specific conditions of coffee production in 1997. The result is the UTZ Kapeh Code of Conduct: an internationally-accepted code for responsible coffee production. (Sorsa 2012, 22).

UTZ Certified is intended to be a ‘mainstream programme’ dealing with a large amount of coffee¹⁵⁷. It constitutes one of the largest sustainability programmes for responsible coffee production and sourcing in the world. In 2008, UTZ became the largest certification programme in terms of certified coffee available. The expansion has been remarkable since 2002, when the programme started. At the beginning of 2011, companies in 42 different countries were registered as UTZ Certified buyers. At the end of 2010, 164 individual producers (in groups, constituting mostly smallholders) and 476 other parties (estates and others) had been UTZ Certified in 23 origin countries. As already mentioned, in Brazil UTZ certified is one of the most important third-party international certification schemes adopted in the coffee sector (BSCA and CECAFÉ interview).

The latest edition of the UTZ scheme, issued in 2014, comprises a so called Core Code of Conduct, which is applicable to all UTZ certified commodities, and Modules that contain specific requirements for each commodity. This structure supersedes the former commodity-based approach, in which all relevant standards and control points were established separately for coffee, tea, rooibos, cocoa. It also opens to the possibility to extend the scheme to other commodities in the near future.

156. The UTZ Kapeh Code of Conduct was originally based on the EUREPGAP Protocol for Fruits and Vegetables. That Protocol was developed by leading European retailers and provides assurance of food safety and appropriate growing practices in fruits and vegetables.

157. E. Blackmore *et al.*, ‘Pro-Poor Certification – Assessing the Benefits of Sustainability Certification for Small-Scale Farmers in Asia’, (IIED, London; 2012), p. 54.

The Core Code includes four blocks of control points, concerning: management, farming practices, working conditions, environment. Two types of control points are provided: mandatory control points and additional control points, subject to the express choice by the certified entity. A certification period of 4 years is foreseen, during which some control points become mandatory only at the second, third or fourth year. Compliance is conceived as a progressively learning process.

Compared with the Code of Conduct (and its commodity-related Modules), the UTZ Certified Chain of Custody includes rules designed to provide high level of confidence that the UTZ Certified products *originate from or relate to and UTZ Certified source*. The Chain of Custody is product specific and all control points therein stated are mandatory.

The supply chain approach

UTZ certification is available to any interested parties, roasters and growers, who also receive technical assistance to help them implement the changes necessary to achieve certification. The determination of whether the producers meet the code requirements is assessed by independent third-party auditors. In respect of the traceability system, the UTZ Certified coffee is monitored throughout the coffee chain, allowing roasters and brands to always trace back the product. The UTZ Certified scheme is then based on the value chain approach; it aims at achieving sustainability from the participation of the various parties on the market (from the farmer to the final consumer), and ensuring the establishment of social, environmental and ecological sustainable market processes. Here is where the above mentioned Chain of Custody is particularly relevant. Either product-specific chain of custody standards and codes of conduct or both might be applicable to the relevant participants in the chain.

To be certified – by independent, UTZ-trained and accredited certifiers – producers must comply with the standards set out in the Code and/or Chain of Custody. The regime also encompasses continuous development and improvement, by imposing more detailed requirements on producers in the years subsequent to initial certification. Producer compliance with the standards is assessed every year. Where the ‘core criteria’ of the code of conduct is not satisfied and the producer is unable or not willing to adopt corrective measures despite the warnings, there is a risk that the producer will be decertified.

Implementation of the code of conduct along the supply chain is deemed necessary to achieve the UTZ aim of sustainability across the chain. UTZ has initiated and is continuing to develop a monitoring and evaluation process to assess compliance.

Producers may apply as individuals or as member of a group, disposing of an Internal Control System (ICS). In the case of group certification the ICS is in charge of recording and administering non-compliance by members. An escalating system of measures is provided within the group, including warning, membership suspension and membership cancellation. This internal monitoring system contributes to effective compliance, complementing the role of certification bodies and scheme owner (see Cafaggi – Iamiceli, forthcoming, 2015).

Costs of UTZ Certification

UTZ-accredited certification bodies undertake certification; where possible, this is done at the local level. On average, the inspection fees amount to 250\$US per day. Certification fees are around 0.15\$ per bag for large farms (coffee plantation constitutes individual certification) and around 0.45\$ per day for cooperatives (cooperative constitutes group certification)¹⁵⁸.

Common Code for the Coffee Community (4C)

The most recent coffee sector initiative is the Common Code for the Coffee Community (4C). According to Manning and Hagen (2010, 400) the 4C Association was born as a result of a project-based multi-stakeholder process in which the involvement of industry stakeholders in local and global development projects and the formation of a global project network linked projects and stakeholders together over time.

4C is an international, inclusive and membership-driven organisation of coffee farmers, trade and industry, and civil society members, representing the key dimensions of producers, trade and industry, and civil society. Membership is open to coffee farmers (regardless of size), traders (both importers and exporters), participants in the industry (coffee roasters and retailers) and civil society groups (non-governmental organisations, standard-setting initiatives and trade unions). Annual membership fees are determined by the amount of green coffee that the member produces, trades or roasts¹⁵⁹. Civil society groups also pay a membership fee.

The supply chain approach

The Common Code for the Coffee Community introduces baseline criteria for the sustainable production, processing and trading of green coffee and eliminates unacceptable practices. The intention is to promote sustainability on a mass scale, engaging with small-scale producers as well as larger producers in providing training in respect of standards concerning sustainability. There are four key aspects of the 4C Standards, which include the Code of Conduct and Rules of Participation for trade and industry, Support Services for coffee farmers, a Verification System and the participatory Governance Structure. The 4C is intended to be a multi-stakeholder initiative. The aim is to provide for developed organisational structures, reduce the costs involved in growing sustainable coffee and provide guidance on improving production processes.

Verification is performed at the 4C Unit level and a 4C Unit may be established at any stage of the coffee chain, from the producer groups to the roaster. As noted above, 4C is intended to provide for a whole value chain approach and all participants in the chain should be 4C member associations. *The 4C Unit constitutes a 'producing group'*, broadly understood. Thus, the verification scheme essentially amounts to group verification. According to the 4C website, a "4C Unit can be a group of small-scale farmers who agree to register jointly, an already organised group such as a cooperative or a farmers' association, a collecting station, a mill, a local trader, an export organisation, or even a roaster (as long as it is based in a country where coffee is produced)"¹⁶⁰. There are certain requirements that must be met before a 4C Unit can be established. The participants must firstly be registered as a 4C Association member and in total they must be capable of supplying at least 20 tons (one container) of green coffee.

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158. S. Courville, 'Organic and Social Certifications' in C.M. Bacon et al., *Confronting the Coffee Crisis* (MIT Press, Cambridge; 2008), pp.289–310, p.295 citing a personal communication (Van Hoeren, 2005); http://www.utzcertified-trainingcenter.com/home/index.php?option=com_content&view=article&id=46.
 159. For example, a group that produces between 500,000 and 750,000 bags amounts to 12,000 Euros. Groups producing between 2,500 and 5,000 bags pay 150 Euros. <http://www.4c-coffeeassociation.org/document-library/documents/4c-code-and-verification-documents/step-by-step.html> and <http://www.4c-coffeeassociation.org/en/registration.php>.
 160. <http://www.4c-coffeeassociation.org/about-us/faqs/how-does-it-work.html>

In respect of the effect on the supply chain, and the monitoring and compliance process, the 4C Unit must identify one of its participants as the 'managing entity'. The managing entity is responsible for the contact with the 4C Secretariat and must therefore provide the documentation required for initial verification and subsequent re-verification. The managing entity must provide a list of all coffee producers and other suppliers, such as pesticide-spraying companies, which are Business Partners of the 4C Unit. Any party that has 'direct contact' with the coffee is deemed to be a 'business partner' and should be included in the initial documentation provided by the 4C Unit. The Business Partner Mapping report should provide for various information such as the size of the coffee farm, the amount of coffee produced and the number of employees in the entire 4C Unit. Following verification, the managing entity of the 4C Unit also assumes responsibility for ensuring the monitoring and implementation of the 4C Code within the Unit, and ensuring that there are mechanisms to ensure that all Business Partners in the Unit are compliant with the Code. Considering 4C and the entire chain, coffee can only be deemed to be compliant where it is produced and traded by 4C 'association members'. Essentially, all members along the supply chain should be part of the 4C system¹⁶¹. All business partners should be working in accordance with the 4C Code of Conduct.

As discussed above, 4C differs from the other sustainability process standards applicable to coffee to the extent that 4C provides for a verification system, while Fair-trade, UTZ and Rainforest Alliance provide for certification. 4C verification ensures compliance in respect of the baseline standards of 4C, which is made up of 28 parameters that represent a mix of environmental, social and economic dimensions. All 10 defined Unacceptable Practices must be excluded and at least a minimum level of compliance (called 'average yellow') is required within each dimension of sustainability for verification. The 4C process firstly requires that a producer becomes a 4C member and joins or establishes a putative 4C Unit (which would be a producer group). The 4C Unit must then determine the extent to which it complies with the 4C Code of Conduct and excludes the 10 Unacceptable Practices¹⁶², with the aim of achieving an 'average yellow' level, aggregated for the entire unit. The process then requires that the putative '4C unit' completes certain documents (1) a self-assessment form; (2) a 'business partner mapping' of the participants in the 4C Unit and (3) an organisational chart. Following this, they are visited by an independent, third-party verification body (that have successfully participated in 4C Verifier Training and are accredited to ISO/

Guide 65 standards), which confirms the information provided in the initial forms. Following a 'positive' result from the visit (that is a confirmation from the verification body that the 4C unit satisfies at least the 'average yellow' level in respect of the 4C Code of Conduct), the actor receives a license allowing it to sell '4C Compliant Coffee'. Following receipt, the 4C unit must provide an improvement plan within a six-week period. Thereafter, a self-assessment should be undertaken within the unit annually. Re-verification takes place every three years.

It should be noted that while 4C operates as a business-to-business standard and not as a consumer label, where there has been verification, the membership of and commitment to 4C can be communicated by use of 4C membership identification on packages of coffee sold. It should be noted that, while the 4C Association considers 4C compliant coffee to be of added value in the sense that it "has been produced, processed and traded applying baseline sustainability criteria"¹⁶³ (avoiding the 10 unacceptable practices outlined above), there is no fixed price premium attached to the coffee. Producers and suppliers should nevertheless be able to negotiate for better prices because of this added value. The 4C system is understood to be a business-to-business system. Final buyers are deemed to be roasters, soluble and instant coffee manufacturers or retailers selling private label coffee¹⁶⁴.

In providing a baseline standard for the mainstream sector, it is therefore intended to be *complementary to more demanding standards*, requiring certification. It is particularly relevant to mention cooperation between standards in relation to 4C because it provides for a verification system, which differs from the other certification systems. In Brazil, around 13,000 farmers are part of the 4C (BSCA interview). In Brazil, this significant number regards also the fact that the standards provided by the 4C are not very different from the public ones provided by the public legislation, regarding both the environmental and social dimensions. Therefore, Brazilian producers practically do not have to face any substantial additional cost in their farms to comply with the 4C, facilitating the participation in the programme (BSCA and CECAFÉ interviews).

161. <http://www.4c-coffeeassociation.org/about-us/faqs/how-does-it-work.html>.

162. <http://www.4c-coffeeassociation.org/about-us/faqs/how-does-it-work.html>.

163. <http://www.4c-coffeeassociation.org/about-us/faqs/how-does-it-work.html>.

164. <http://www.4c-coffeeassociation.org/about-us/faqs/checks-and-balances.html>.

Bird Friendly and Shade Grown

General

Shade grown is a term used to describe coffee grown under a canopy. It is a generic term; there is no third-party certification specifically for shade grown. It is interrelated with bird friendly. Shade grown coffee aims to ensure environmental protection and conservation, conserving water, biodiversity and soil. Bird friendly is generally the smallest sustainability regime¹⁶⁵. The certification was created in 1997 by the Smithsonian Migratory Bird Center in the US. It is a subcategory of organic coffee; the SMBC requires that the coffee producers satisfy the organic certification standards. Much of the coffee is also Fairtrade¹⁶⁶. There seems to be complementarity as is the case for 4C. *It is very important to examine how different certification regimes interplay and how their joint operation affects the structure of the supply chain.* Coffee producers must satisfy a number of standards in order to become certified¹⁶⁷.

Firstly, the coffee produced must satisfy organic standards and be certified as such by a USDA-accredited agency. Therefore, as noted above, bird friendly and organic certification are interrelated and coordinated. In addition, the producers must satisfy the standards relating to the bird friendly aspect. The standards are obviously environmental and conservation-based. These relate to aspects of shade and coverage in coffee plantations. Generally, it is required that there is a minimum of 40% shade coverage; the standards also provide for the diversity and size of trees that make up the forest canopy; plant coverage must be made of different strata, and the lower stratum must constitute 20 per cent of the total volume of shade foliage; “backbone” species must be at minimum 12 meters high and the shade must have some clearly visible strata, of which the upper stratum must be composed of native trees; predominant species of the backbone must occupy no more than 60 per cent of all shade trees; the remaining must belong to a minimum of 10 different species; each of these species must constitute at least one per cent of the total shade trees present. Certified coffees can bear the SMBC seal.

Currently, there are 1767 producers (including farmers and cooperatives) across 8 countries. There are 529 Bird Friendly certification organisations¹⁶⁸. 10,987,155 pounds of coffee has been produced as Bird Friendly¹⁶⁹. SBMC engages with a number of inspection organisations in different countries. It also provides training for coffee technicians and organic inspectors. The costs of certification are borne by the producer.

Coordination of Standards and Benchmarking in Coffee

4C is intended to be complementary to other standards. UTZ and the Rainforest Alliance are members of the 4C Association¹⁷⁰. 4C provides for baseline standards, coordinated and benchmarked with other standards bodies, intended to reduce the burden on farmers (in terms of costs and number of audits), where standards are complementary. Both the standards and systems of 4C and the Rainforest Alliance were benchmarked in 2008, in accordance with ISEAL.

The coordination of standards may be facilitated by the benchmarking of different standards. With regard to benchmarking generally, there might be a reciprocal or non-reciprocal relationship between the standards. For example, in relation to the benchmarking between the 4C and Rainforest Alliance systems, the relationship is non-reciprocal. The reason is that the 4C provides a set of baseline standards. Thus, parties who are certified under Rainforest Alliance can apply for a 4C license without additional cost. However, parties who hold a 4C license must satisfy the relevant SAN standards to be certified under the Rainforest Alliance scheme. There is coordination between 4C and other standards, based on the nature of the 4C system. As it provides for baseline standards, the intention is that the 4C units improve over time, having undertaken their self-assessment and identified areas in which they need to improve. For example, a project involving the 4C Association, working with SalvaNatura (an ecological foundation providing technical support to coffee farmers) in El Salvador, resulted in a group of 132 farmers, 'stepping up' from the 4C baseline standards to the Rainforest Alliance standards¹⁷¹. A similar project is underway in Colombia¹⁷².

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165. L.T. Reynolds, 'Regulating Sustainability in the Coffee Sector – A Comparative Analysis of Third-party Environmental and Social Certification Initiatives' (2007) 24 *Agriculture and Human Values* 147, p.158.
 166. <http://nationalzoo.si.edu/scbi/MigratoryBirds/Coffee/history.cfm>.
 167. http://nationalzoo.si.edu/scbi/migratorybirds/coffee/quick_reference_guide.cfm
 168. <http://nationalzoo.si.edu/scbi/MigratoryBirds/Coffee/history.cfm>.
 169. <http://nationalzoo.si.edu/scbi/MigratoryBirds/Coffee/history.cfm>.
 170. <http://www.4c-coffeeassociation.org/our-services/cooperation-with-other-standards.html>.
 171. http://www.4c-coffeeassociation.org/uploads/media/Report_Stepping_Up_4C-RainforestAlliance.pdf.
 172. <http://www.4c-coffeeassociation.org/our-services/cooperation-with-other-standards.html>.

The interplay of different regulatory regimes and their operation might affect the structure of the supply chain. Complementarity between regulatory regimes will amount to the multiplicity of standards; in most cases, the public standards will be minimal and mandatory while the private are voluntary and stricter. Cafaggi has made reference to horizontal and vertical complementarity, which generates different modes of coordination and consequences on supply chains¹⁷³.

5.2.3 Organic coffee

Introduction

Certified organic coffee adheres to globally accepted principles, which are implemented within local climatic and cultural settings, and which can result in variations between different areas. To a certain extent, this principle also applies to how inspection and certification should be carried out (e.g. individual grower vs. group certification). (Giovannucci & Koekoek 2003, 45). The first certified organic coffee was produced by Finca Irlanda in Chiapas Mexico and certified through Demeter Bund, the German association for biodynamic agriculture. By the 1980s, the concept was spreading to other parts of Mexico. In the beginning of the 21st century, Latin American producer countries provided most of the world's supply. (Giovannucci & Koekoek 2003, 45).

Organic coffee found its way to consumers via *special retail shops*. It was first introduced to its most receptive niche audience (health food shoppers), and after that it has expanded to cause-conscious consumers, whose buying habits are motivated by personal health concerns, concern for the environment, and/or the welfare of the farmer. By the mid-1990s, it had also reached some of the specialty and gourmet segments. *This first phase can be described as the pre-development phase* in which there is very little visible change at the systems level but a great deal of experimentation at the individual level. This phase is estimated to have continued until 1972 when the organic coffee markets were only in a niche-market, price-skimming phase. After the take-off phase (establishment of IFOAM), a long-term acceleration phase started and continued throughout much of the 1990s. The demand for certified organic coffees far outstripped the supply and resulted in some receiving premiums as high as 100 percent and in the marketing of many poor and mediocre coffees simply because they had organic certifications. The resulting price-to-quality ratio put off many buyers. (Giovannucci & Koekoek 2003, 46).

The desire of organic farmers was to progress towards a more *mainstream consumer base*. The *acceleration phase* is characterised by structural changes in a visible way through an accumulation and implementation of socio-cultural, economic, ecological, and institutional changes (Loorbach & Rotmans 2001, 4). The growth phase in trade is typically characterised by increasing product variations and competition that begins to stress competitive differences. The indicative world sales of selected sustainability coffee standards show that the *acceleration phase speeded up in 2000*. (See Figure 4 and Manning et al. 2011.) From the distribution perspective, this acceleration means that organic coffee has been brought to consumers via grocery stores and special stores. It also means that the price premium is not as high in grocery stores as it is in special stores, as the organic coffee is competing in the mainstream quality segment of their market.

Fair trade coffee represented the clear majority of all sustainable coffees sold in Europe during the first year of the 2000s but the sales of organic coffee were seen to be growing at a faster rate. (See more Giovannucci & Koekoek 2003, 66–69). According to the statistics of Manning et al., the sales of organic coffee in the world market exceeded the sales of fair trade coffee (Figure 4).

Background to Organic Agriculture on Regulation

Initially, no legal definition of organic agriculture was provided; rather the development of standards¹⁷⁴ and issuing of certificates and seals was undertaken by farmers' organisations as consumer guarantees.

Organic is understood to reflect “holistic production management systems that promote and enhance agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity (holistic means handling or dealing with an entity or activity in its entirety or wholeness rather than with emphasis on its parts or various aspects)”; “Advocates of organic agriculture believe that conventional agriculture, with its use of chemical inputs, will not be sustainable in the long run as it leads to soil degradation and pollution of the environment, and poses health risks for both consumers and producers. Therefore, organic agriculture replaces manufactured inputs (fertilisers, pesticides, herbicides, etc.) by natural compost and vermiculture biological

173. E. Cafaggi, 'New Foundations in TPR' (2011) 38 *J.Law.Soc.* 20, part 4.

174. See the life-cycle analysis of organic scheme SORSA 2012, 12–17.

pest controls and the growing of legumes and shade trees. (Vermiculture is the raising of earthworms to aerate soil and/or produce vermicast: the nutrient-rich by-product of earthworms, used as a soil conditioner)¹⁷⁵. The use of organic methods is a process-based feature of the agricultural process.

In relation to organic regulation, there is a certain degree of governmental influence, which might have both positive (credibility; professionalism) and negative (relating to access) impacts. IFOAM has generally developed alongside governmental regimes. Often, the interrelation is complicated where there is no coordination within governmental regimes and between governmental and private regimes¹⁷⁶. There is a need for a better understanding of these interactions.

In 1972, IFOAM was established. The regulation of 'organic' products imported into France, Denmark and selected states in the US began in the 1980s. The European Regulation (EEC) 2092/91 was introduced in 1991 while in terms of US regulation, the Organic Foods Production Act (OFPA) 1990 and the National Organic Program (NOP). Organic standards are developed by government authorities, international organisations (FAO/WHO Codex Alimentarius) and the International Federation of Organic Agriculture Movements (IFOAM).

According to the Tropical Agricultural Research and Higher Education in Costa Rica (CATIE), 75% of the world's organic coffee is produced in Latin America.

Features of Organic Approaches

The Coffee Guide (2011) identifies three bases for choosing organic coffee – health considerations, market demand for specialty coffee and environmental concerns¹⁷⁷.

It is generally considered that “Organic coffee is grown as part of an intensive, holistic agricultural production management system that includes the composting of organic materials, mulching, shade regulation and biological pest control.”¹⁷⁸ Organic processes encompass a production management system, which covers not only coffee cultivation but all other steps in the production chain – including on-farm processing, storage, transport, export processing, shipping, export, import, roasting, packaging, distribution and retailing. These standards cover production, processing and handling, and compliance with these standards is monitored by accredited certification agencies, which may be a public or private certification company.

Organic standards also concern environmental protection, with a focus on strengthening the natural environment’s immunity to disease and the minimisation of soil erosion. In respect of the scope of organic standards, the former vice-chair of the U.S. National Organic Standards Board has stated that “Organic labels are not statements regarding the healthiness, nutritional value, or overall safety of consuming such products”¹⁷⁹.

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175. Section 3.2.2 *What are organic products?* The Coffee Guide (2011) (<http://www.thecoffeeguide.org/coffee-guide/niche-markets-environment-and-social-aspects/introduction---organic-coffee/>).
176. S. Courville, ‘Organic and Social Certifications’ in C.M. Bacon et al., *Confronting the Coffee Crisis* (MIT Press, Cambridge; 2008), pp. 289–310, p.301.
177. The Coffee Guide (2011), (<http://www.thecoffeeguide.org/coffee-guide/niche-markets-environment-and-social-aspects/introduction---organic-coffee/>); section 3.2.3.
178. Section 3.2.3 *What is organic coffee and why grow and where buy it?*
179. (Liu 333) (Liu, Chenglin. “Is ‘USDA Organic’ a Seal of Deceit?: The Pitfalls of USDA Certified Organics Produced in the United States, China, and Beyond.” *Stanford Journal of International Law*. 47.333 (2011): 333–378).

The relationship between organic and the notion of sustainability is difficult; organic production is often considered to be non-sustainable production because, over time, the soil becomes depleted by natural production. Thus, for organic, sustainable production in the EU, the following considerations are suggested¹⁸⁰:

- Incorporation in the soil of organic material, organic livestock manure and vermicompost.
- The cultivation of legumes, green manures, or deep-rooting plants in an appropriate multi-annual rotation programme.
- Pests, diseases and weeds to be controlled by using appropriate varieties, rotation programmes, biological pest control, mechanical practices and flame weeding.
- Seeds and propagation materials organically produced.
- Use of non-organic fertilisers, pesticides and biological pest control methods is limited.

CERTIMEX, a leading organic certifying organisation from Mexico, has formulated standards specifically for coffee¹⁸¹

- Biodiversity should be promoted; therefore cultivation must be done under diversified shade.
- Varieties should be adapted to the local climate and be resistant to local plagues and diseases.
- Nurseries should be organic and seeds should come from organic coffee fields.
- Coffee bushes may not be planted too densely.
- Erosion should be controlled by: mulching and growing of soil covers; planting on contours and/or terraces; shade trees with a lot of foliage leaf; and construction of barriers.
- Techniques to promote organic content of the soil should be used: growing of legumes, incorporation of organic fertilisers and other organic material such as leaves and branches of shade trees.

- Corrections of pH-value with permitted inputs, e.g. lime, is allowed.
- Coffee pulp is recycled.
- Processing is done only with mechanical and physical means; attention should be given to reduction of energy use and cleaning of water that has been used to wash the coffee.

The development of Organic Coffee market

The first certified organic coffee was produced in Chiapas, Mexico by Finca Irlanda and certified through Demeter Bund. The first organic coffee imported into Europe from a small farmers' cooperative came from the UCIRI cooperative in Oaxaca, Mexico (1985). Today, organic coffee is still predominantly produced in Latin American countries (Giovannucci & Koekoek 2003, 45).

Giovannucci and Koekoek¹⁸² make reference to different stages of development in the organic coffee market, with organic coffee initially reaching specialist retail shops (gourmet and health) in the 1990s, with demand increasing alongside the development of IFOAM, where demand exceeded supply (a situation which resulted in premiums being paid to poor quality coffees simply because they were certified to be organic).

The development of the organic market is significant. It has become more mainstream, with less of a premium on organic coffee and establishment of a higher quality, alongside certain structural developments, including the implementation of socio-cultural, economic, ecological and institutional changes (Loorbach & Rotmans 2001, 4).

180. Minimum standards according to and adapted from EU-2092/91. See Annex II of EU-2092/91.

181. CERTIMEX: Normas para la producción de café orgánico/01.2001.

182. Giovannucci & Koekoek, 2003, 45 et seq.

It has been considered that “private regulatory systems are often characterised as being “market-driven,” meaning that participation is promoted via higher prices, market access, and positive publicity rather than legal requirements (Cashore et al., 2004)”¹⁸³.

It is difficult to obtain up-to-date and clear data on the organic coffee market. There are a number of reasons for this. Predominantly, few importing countries register organic coffee separately from other types of coffee. In addition, there would appear to be a number of different approaches towards the understanding of the size of the organic coffee market and different reports provide different sets of data. Even the “official” figures for organic coffee are often incomplete and imprecise¹⁸⁴. Notwithstanding, it has been considered that “organic certification has the broadest global production and market network and largest coffee volume”¹⁸⁵. CBI¹⁸⁶ estimates that organic coffee accounts for 2% of coffee consumption within the EU, while it has been considered that organic coffee accounts for around 2% of the coffee market in Europe in 2008¹⁸⁷.

It would appear that the organic coffee market is growing each year. The consumption of certified organic coffee seems to have grown on average 5% to 10% annually since 2005 in North America and Europe. However, in very recent years the growth of the organic coffee market has slowed slightly. In the 2000s, there has apparently been an increase in sales of organic coffee, reflective of development in this period (Manning et al. 2011). However, the organic coffee market is difficult to determine¹⁸⁸. The world market for organic coffee is similarly difficult to determine – especially to identify facts in relation to organic coffee¹⁸⁹.

It has been estimated that global imports of organic coffee amounted to 67,000 tonnes in 2006, in comparison with 52,000 tonnes in 2005 and 42,000 tonnes in 2003¹⁹⁰. Other surveys have estimated the total sales of organic coffee (including coffee with other certifications) at 65 million lbs or 490,482 bags in 2006, in comparison to 11.8 million lbs in 2001¹⁹¹. More recently, between 2007 and 2008, global imports of organic coffee were estimated to average 36,821 tonnes, increasing by 41% since 2003¹⁹². A 2010 study by the ITC¹⁹³ provides that in the year 2009, the import of organic coffee was approximately 1.7 million bags (1.4% of 126 million bags accounted for in world gross imports (excluding re-exports) in 2009). Almost half of these 1.7 million bags (45%) were imported in Europe, 41% in North America and 14% in Asia and other countries.

The United States remains the largest single market for organic products, followed by Germany. Consumption growth rates are high in most European Union countries with some levels slowing in recent years. The Coffee Guide provides that “consumption of certified organic coffee in North America and Europe has been growing fairly strongly, since 2005, in general with growth figures of 5–10% annually through 2008. For example, in the North American market, volume growth was reportedly around 12% in 2008 compared to 2007”¹⁹⁴. It is generally large roasters that evaluate the market potential for organic coffee; nevertheless it is understood that ‘organic coffee still lies mostly within the domain of specialised, smaller roasters and a number of large supermarket chains’.

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183. L.T. Reynolds, ‘Regulating sustainability in the coffee sector – A comparative analysis of third-party environmental and social certification initiatives’ (2007) 24 *Agriculture and Human Values* 147, p.157 citing B. Cashore, G. Auld, and D. Newsom, *Governing through Markets: Forest Certification and the Emergence of Non-State Authority* (Yale University Press, New Haven, Conn.; 2004)
184. J. Pierrot, D. Giovannucci and A. Kasterine, ‘Trends in the Trade of Certified Coffees’ (Intracen; 2011). See www.intracen.org/exporters/organic-products. Information and Technical Papers.
185. L.T. Reynolds, ‘Regulating sustainability in the coffee sector – A comparative analysis of third-party environmental and social certification initiatives’ (2007) 24 *Agriculture and Human Values* 147, p.157.
186. CBI, ‘The (Organic) Coffee, Tea and Cocoa Market in the EU’ (CBI, The Hague; 2008), p.2 (including fair trade).
187. Bakker and Bunte, 2009.
188. See Giovannucci (2001), Lewin and Giovannucci (2003), Rice and McLean (1999), ITC (2002), FIBL (2002).
189. Section 3.2.1 - *Introduction* to Organic Coffee in The Coffee Guide (2011) (<http://www.thecoffeeguide.org/coffee-guide/niche-markets-environment-and-social-aspects/introduction---organic-coffee/>).
190. P. Lui (ed.), *Value-adding standards in the North-American food market. Trade opportunities in certified products for developing countries* (FAO, Rome; 2008). Available at: <http://www.fao.org/docrep/010/a1585e/a1585e00.htm>.
191. D. Giovannucci, ‘The State of Organic Coffee - 2007 US Update’ (CIMS, San Jose, Costa Rica; 2007), p.3 and D. Giovannucci, ‘Sustainable Coffee Survey of the North American Specialty Coffee Industry’ (CEC, Montreal; 2001). Available at: <http://www.dgiovannucci.net/publications.htm> (item 28).
192. ICO, *Organic coffee export statistics. Coffee year 2007/2008*. (ICO, London; 2009).
193. J. Pierrot, D. Giovannucci and A. Kasterine, ‘Trends in the Trade of Certified Coffees’ (Intracen; 2011). See www.intracen.org/exporters/organic-products. Information and Technical Papers.
194. Section 3.2.11, The Coffee Guide (2011) (<http://www.thecoffeeguide.org/coffee-guide/niche-markets-environment-and-social-aspects/introduction---organic-coffee/>).

CHART 25. Imports of organic coffee by importing country, 2003/2004–2007/2008. Source: FAO, 'The Market for Organic and Fair Trade Coffee' (FAO, Rome; 2009), p.8.

		2003/2004	2004/2005	2005/2006	2006/2007	2007/2008
Europe	Austria	60	0	26	44	38
	Belgium	0	0	900	1252	1965
	Belgium / Lux	117	1450	144	0	0
	Denmark	347	265	155	411	709
	Finland	0	127	96	76	39
	France	46	874	585	889	405
	Germany	699	4565	2800	4330	6783
	Ireland	0	0	0	0	19
	Italy	138	282	283	299	283
	Netherlands	465	821	999	1168	713
	Norway	0	108	36	37	77
	Poland	0	0	0	0	20
	Portugal	0	0	0	0	39
	Slovenia	0	0	19	0	0
	Spain	1	274	557	406	629
	Sweden	358	822	1006	1793	2705
Switzerland	40	160	30	99	13	
UK	24	676	810	1428	1710	
USA		2511	7734	10327	11015	14483
Canada		175	451	1016	1124	1471
Japan		461	3104	3050	3614	2693
TOTAL		5498	22143	23900	28971	36821

Generally, it has been considered that the entire organic food market worldwide is \$37 billion (US\$)¹⁹⁵, while the ICO has estimated the organic coffee market at US\$45.1 million in 2007/2008¹⁹⁶.

The vast majority of organic coffee is produced in South and Latin America.

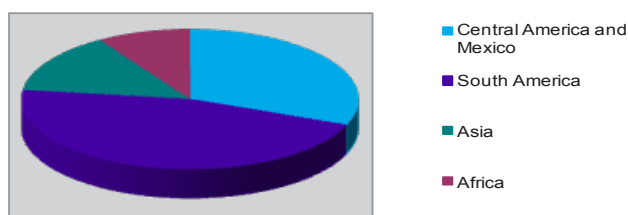


FIGURE 22.

Source: Giovannucci D., Pierrot J. & Kasterine A., 'Trends in the Trade of Certified Coffees', (MPRA Paper 27551, University Library of Munich; 2010), p.9.

Peru is the biggest exporter of organic coffee, having exported 406,000 bags in 2009 and 423,000 bags in 2010. Organic coffee is also produced in countries including Colombia, El Salvador, Ethiopia, Guatemala, Honduras, Indonesia and Mexico (the larger exporters are Ethiopia, Honduras and Mexico, with each exporting approximately 100,000 bags each year).

The Structure of the Chain

The supply structure for organic ingredients in Europe has been described as the following:

Chart 1 Assessment of the Organic Ingredients Market Distribution Structure for Europe, 2009

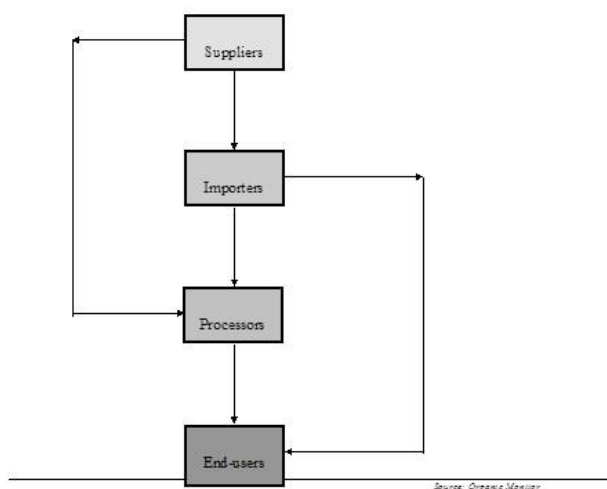


FIGURE 23. *Organic ingredients market distribution structure for Europe, 2009.*
 Source: FAO, 'Assessment of the European and North American Market for Organic Cacao, Coffee and Vanilla' (FAO, Rome; 2009), p.4.

195. D. Giovannucci, 'The State of Organic Coffee – 2007 US Update' (CIMS, San Jose, Costa Rica; 2007), p.2.
196. ICO, Organic coffee export statistics. Coffee year 2007/2008. (ICO, London; 2009).
197. FAO, 'Assessment of the European and North American Market for Organic Cacao, Coffee and Vanilla' (FAO, Rome; 2009), p.3.

Organic coffee is generally imported as green beans¹⁹⁷, which is then processed within the importing area. The companies importing organic coffee might be traders, roasters or producers of other types of drinks.

Generally, importers of organic products have not been specialised in one particular type of product but import a large number of food products. These organic commodity importers include, for example, Tradin (<http://www.tradinorganic.com>), Do-it (<http://www.organic.nl>) and Doens (<http://www.doensfood.com>) in The Netherlands; Rapunzel (<http://www.rapunzel.de>), Gepa (organic/fair-trade <http://www.gepa.de>), and Care Naturkost (<http://www.care-natur.de>) in Germany; and Claro Fair Trade (<http://www.claro.ch>) in Switzerland. It has been noted that the leading companies are Torrefazione Caffè Salomoni, Malonga, J.Th.Douqué's Koffie, Hamburg Coffee Company, Suiker Export and Matthew Algie¹⁹⁸.

It has been noted that, as many coffee importers are not involved in processing and roasting, “some leading organic and fair trade food companies are involved in setting up supply chains for their finished products. For instance, *Alter Eco has secured the supply of organic coffee from grower co-operatives in Rwanda and Laos. It arranges for the import of organic coffee beans, roasting by a third party, and then distribution of the finished products*¹⁹⁹.”

Minot²⁰⁰ has suggested that **contract farming is mainly used for organic product**, as crops evidencing a high degree of variation in quality, which might be more difficult to grow and which might demand a higher price, with nucleus-estate models best suit for organic agriculture²⁰¹.

The Significance of Quality and Organic Coffee Certification – Premiums in Respect of Organic Coffee

It has often been considered – including by producers – that organic coffee does not need to be quality coffee²⁰². Where this is the case, it is often difficult for producers to sell their organic coffee to buyers looking for premium coffee; *often, organic coffee has been sold uncertified as commodity coffee*. It has been estimated that around 25% of organic coffee was sold as conventional coffee in 2007²⁰³.

However, in recent years, the growth in the exports of organic coffee has been very much linked to quality. As such, there is little scope for growth in respect of “average” organic coffee. This is true in relation to North America.

Generally, it might be assumed there is a higher profit margin attached to products certified as organic. This recognition has opened the organic coffee market to more mainstream roasters and retailers, where previously the interest came predominantly from specialist coffee companies and retailers.

Further, premiums for organic coffee are difficult to determine and are uncertain. In one case study on Ugandan coffee certification (Ponte and Kawuma 2003), it has been estimated that the premium range is between 17–35% in respect of regular coffee; it is estimated that this premium is also related to improvements in quality (Rice and McLean 1999). Another study has estimated that the premium on organic coffee ranges generally from \$0.10 per lb to \$0.20 per lb²⁰⁴. It has been estimated that the premiums of organic coffee have decreased; however, according to a recent CBI Report, consumption of organic coffee in northern European countries has not reflected or responded to decreasing premiums on organic product²⁰⁵.

The premium attached to the coffee ultimately depends on a number of factors, including the quality of the coffee being sold²⁰⁶. As such, producers who want to produce organic coffee need to produce not only a product that will satisfy organic certification standards but a product which is also of a high quality. It is not clear that the premiums attached to organic coffee are sufficiently high to cover the costs. In a paper published in 2007, it has been considered that a premium of \$1.30 to \$1.80 on organic coffee “barely compensates” the farmer²⁰⁷.

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198. FAO, 'Assessment of the European and North American Market for Organic Cacao, Coffee and Vanilla' (FAO, Rome; 2009), p.6.
 199. FAO, 'Assessment of the European and North American Market for Organic Cacao, Coffee and Vanilla' (FAO, Rome; 2009), p.5.
 200. N. Minot, 'Contract farming in developing countries: patterns, impact, and policy implications', Case Study 6-3 of the Program, Food Policy for Developing Countries: the Role of Government in the Global Food System, (Cornell University, Ithaca, NY; 2007).
 201. M. Prowse, 'Contract Farming in Developing Countries – A Review' (A Savoir, Paris; 2012), p.59.
 202. International Trade Centre, 'The Coffee Exporter's Guide' (International Trade Centre, Geneva; 3rd ed., 2011) www.intracen.org/publications, p.47.
 203. CBI, 'The (Organic) Coffee, Tea and Cocoa Market in the EU' (CBI, The Hague; 2008).
 204. International Trade Centre, 'The Coffee Exporter's Guide' (International Trade Centre, Geneva; 3rd ed., 2011) www.intracen.org/publications, p.60.
 205. CBI, 'The (Organic) Coffee, Tea and Cocoa Market in the EU' (CBI, The Hague; 2008), p.6.
 206. FAO, 'The Market for Organic and Fair Trade Coffee' (FAO, Rome; 2009), p.9.
 207. D. Giovannucci, 'The State of Organic Coffee – 2007 US Update' (CIMS, San Jose, Costa Rica; 2007), p.4.

The following prices are provided in a 2009 FAO report²⁰⁸:

a) Organic Coffee

Central American coffee, FOB: US \$0.35 to \$0.45 per pound

Peru coffee, from shipment: US \$0.20 to \$0.27 per pound in the NY market exchange

Brazil coffee from shipment: US \$0.22 per pound

Arabica Coffee from Uganda: US \$0.10 per pound and 700 FOT in Hamburg

These data can be compared with the ones concerning fair trade. The following are provided in the Coffee Exporter Guide:

CHART 26. Fair-trade premiums. Source: International Trade Centre, 'The Coffee Exporter's Guide' (International Trade Centre, Geneva; 3rd ed., 2011), p.55.

Type of coffee	Fairtrade minimum price regular or conventional cts/lb	Fairtrade premium cts/lb	Organic premium cts/lb
Washed arabica	1.40	20	30
Natural arabica	1.35	20	30
Washed robusta	1.05	20	30
Natural robusta	1.01	20	30

As a result, entering into the production of organic coffee is often considered to be very difficult. The costs of producing and exporting organic coffee are high, including, for example, the know-how required for such production. It has been estimated that the labour required in land producing organic coffee can be three times as much as that required for conventional coffee²⁰⁹. Additional costs for producing the organic coffee are incurred during the transition period, when the coffee cannot be sold as organic-certified coffee.

Organic Regulation and Certification and Interaction with Other Certifications

There is a considerable overlap with organic certification and other sustainability certifications. Initially, organic coffee was considered to be less important than other sustainability certifications, with Fairtrade and Utz Kapeh or Utz Certified leading.

Increasing volumes of other sustainability certifications including Utz Certified and Rainforest Alliance are certified as organic. Approximately 50% of coffee certified as Fairtrade is also certified as organic. In 2008, organic and Fairtrade together was understood to account for 2% of the total coffee market²¹⁰.

The conversion period for producers growing non-organic and organic is normally a period of three years and three years of inspection; however, the length of this period depends on previous use of agro-chemicals.

European and US Organic Standards

Standards for organic farming are both voluntary and provided by legislation. Private regulation is supplemented by national regulations in certain countries and by EU regulation (EEC) 2092/91 while IFOAM standards have influenced the development of national laws regulating organic farming, the EC Reg. 2092/92 and the *Codex Alimentarius* guidelines. (Lampkin et al. 1999, 9–20, 80)

208. FAO, 'The Market for Organic and Fair Trade Coffee' (FAO, Rome; 2009), p.8.

209. M. Calo and T.A. Wise, 'Revaluing Peasant Coffee Production- Organic and Fair Trade Markets in Mexico' (Global Development and Environment Institute, Tufts University, Medford, MA; 2005), p.10.

210. CBI, 'The (Organic) Coffee, Tea and Cocoa Market in the EU' (CBI, The Hague; 2008), p.8.

European Regulation: Organic Standards in the EU. EU organic standards provide that 'organic goods' must comply with the EU regulations (EEC 2092/91) and be certified by an independent body and labelled accordingly. The special requirements to exports of organic products from developing countries are laid down in Council Regulation EC1788/2001. Council Regulation (EEC) 2092/91 and amendments (Reg. 1804/99) cover the marketing of all products labelled as 'organic' and also cover production standards and inspection measures in respect of the production process by setting out the inputs that can be used in organic agriculture and identifying the production methods which are allowed and prohibited. Further, Regulation EC 834/2007 provides that the EU organic production logo is obligatory for all organic pre-packaged food produced within the Union – "EU organic production logo. Most certifying bodies have their own quality labels and as a result many different labels exist in the European Union for the designation of organic products. Increasing trade within the European Union in roasted coffee therefore forces roasters to display several labels on their retail packets, an arrangement that does not provide the clarity one would expect. Regulation EC 834/2007 now stipulates that the EU organic production logo shall be obligatory for all organic pre-packaged food produced within the Community." (Section 3.2.8 Import – Europe)

Organic products imported into the EU need to be produced following standards equivalent to those applicable within the EU - Article 33 of EC 834/2007.

With regards to imported goods, there are three different systems for approval: approval of country, importer derogation, and approval of a certification organisation. The importer derogation system is the most common in practice, however its implementation is not harmonised. Once within the EU borders, goods can be circulated freely; while the system is based on the notion of approval of individual bundles of goods, this approval is generally linked to the certification organisation (assessed within national systems).

Organic products and regulations for their certification are based on the notion of equivalence or 'equal values', that is, in respect of standards that are equivalent to those applicable within the EU. Certification is on the basis of European standard known as EN 45011, as well as the corresponding ISO 65 guide; certification organisations should be accredited by a recognised accreditation body. So, for example, exporters of organic coffee to the EU must

verify that the certifying organisation has an EN 45011/ISO 65 accreditation (the European Union does not recognise certifiers who certify clients against organic standards that do not conform to EU specifications) and that the proposed certifier can certify directly against EU regulations.

EU regulation defines the manner in which products considered as “ecological products” have to be grown. In 1999, the initial regulation was supplemented by regulation EC 1804/1999, which regulates the raising, labelling and inspection of the most relevant animal species (i.e. cattle, sheep, goats, horses and poultry). This regulation covers the marketing of all products labelled as “organic” and is applicable in relation to all organic producers, establishing production standards and inspection measures to *all suppliers marketing their products as organic in Europe*.

Regulation 834/2007 replaced the previous 2092/91 regulation; regulation 889/2008 supplements the previous regulation on the breeding of animal species and regulation 1235/2008 also regulates the import of ecological products from third countries. Furthermore, a new organic certification label was chosen to replace the earlier national labels re. the usage of organic food that meet the criteria of the EU ecological regulation.

US Public Regulation. US regulation encompasses the Organic Foods Production Act (OFPA) 1990 and the National Organic Program (NOP). “Organic” in the US must be certified and labeled according to US rules on the basis of: direct accreditation by USDA, accreditation by a foreign government, and equivalency; focusing on production of coffee after harvest, it regulates use of chemicals.

Brazilian law

In Brazil, Law no. 10831 of 2003 regulates organic agriculture. The Brazilian law, in line with the recommendations of the IFOAM, as well as the regulation of several countries, requires the organic third party certification for a product to be traded as organic in the market (Article 3 of the Law n. 10831).

The production of organic-coffee in Brazil, however, is not significant. As affirmed by the BSCA, the Brazilian territory does not have the optimal natural conditions (such as the proper climate and soil) for a profitable production of organic green-coffee (interview).

Organic Standards of International Organisations – FAO and WHO

The FAO and WHO developed the Food Standards Program. In 1991, it began to develop guidelines for the production; processing, labelling and marketing of organically-produced food.

Organic Food and the Codex Alimentarius

With respect to organic standards in the context of the Codex, the guidelines for the production, processing, labelling and marketing of organically produced food were developed in the 1990s. The Codex guidelines on organic food are generally in line with IFOAM Basic Standards (see below) and the EU regulation for organic food (Reg. n. 2092/91 and amendments, 1804/99). Thus, generally for example with regard to coffee, organic coffee certification is relevant in respect of the following standards: Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91 that came into force on January 1, 2009 for the European Union; NOP or National Organic Program for the United States; and the Japan Agricultural Standard.

International Federation of Organic Agriculture Movements (IFOAM)

Initially, no legal definition of organic food was provided. As such, farmers' organisations and others formulated their own standards, and issued certificates and seals in respect of consumer guarantees. The key actors in relation to IFOAM are organic farmers, consumers and other stakeholders are key (Lampkin et al. 1999, 1).

IFOAM provides for the development and coordination of worldwide, organic agriculture, creating a framework for an international standard for organic farming. Organic farming is predominantly distinguished from non-organic farming on the basis of use of the market to support environmental, social and animal welfare concerns. IFOAM now provides a definition of organic agriculture as “a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects”²¹¹.

IFOAM has developed standards in respect of organic agriculture and united these different standards into its 'Basic standards for organic production and processing'. It aims to harmonise standards and certification, and also to provide a universal quality seal for organic products and provides framework standards for certification. The framework standards cannot be used for certification on their own but provide a framework for certification to develop national or regional standards.

IFOAM also has a programme for accrediting certification organisations, through the International Organic Accreditation Services (IOAS), which has since offered accreditation services. The accreditation standards were established in 1992, based on Basic Standards and applicable in respect of the provision of international equivalency of organic quality claims.

In 2005, IFOAM created the Principles of Organic Agriculture, an international guideline for certification and has established "Common Objectives and Requirements of Organic Standards" (COROS), as an equivalence measure.

These are intended to provide for the recognition of certification organisations in exporting countries. Notwithstanding, there has been no general acceptance of IFOAM accreditation so far – "In theory, the IFOAM Accreditation Program (IAP) should provide a mechanism for regulatory acceptance of certification organisations in exporting countries. However, so far the efforts of IFOAM to get a formal recognition for this program have not been successful. For the time being, IFOAM accreditation is most helpful for imports to the EU under the "importer derogation" system and to achieve market recognition" (A Global Value Chain Approach, by Stefano Ponte, Senior Researcher, Danish Institute for International Studies May 2004, p.18).

Organic standards are not only concerned with the prohibition of the use of agrochemicals but also concern environmental standards²¹².

211. It is an international organisation, established in 1972, which globally promotes the practice of organic agriculture, establishing general principles and requirements of sustainability and bringing together organisations from all around the world facing the same cause of promoting, stimulating and certifying organic agriculture. For more information on IFOAM: <http://www.ifoam.org/index.html>.

212. IFOAM, IFOAM Basic Standards (IFOAM, Bonn ; 2004).

Organic Certification

In relation to IFOAM, accreditation is organised by the International Organic Accreditation Service. Compliance with the relevant legal regulation normally has to be verified by a third party. Various steps of organic certification, i.e. certification of coffee producer, certification of exported product as organic, and accreditation of certification bodies are relevant.

There are various stages of certification and import, which include²¹³

- **“Registration.** The producer selects a certification organisation (certifier for short) and signs a contract. The producer provides information on their farm/processing facilities and is registered.
- **Inspection.** At least once a year the certifier inspects the production and processing facilities.
- **Certification.** The inspection report is the basis for deciding whether a master certificate can be granted or not.
- **Control certificate** (formerly called transaction certificate). This must be issued for every export shipment to the European Union, the United States and Japan, indicating the exact quantity and organic origin, after which the goods may be exported/imported as organic.”

The European standard – EN 45011 – as well as the corresponding ISO 65 guide both stipulate that certification organisations should be accredited by a recognised accreditation body. On this basis, exporters of organic coffee to the European Union should verify that:

- the proposed certifying organisation has an EN 45011/ISO 65 accreditation which they should be able to submit on request. It is important to note that the European Union does not recognise certifiers who certify clients against organic standards that do not conform to EU specifications. For example, the use of sodium nitrate is permitted by some non-EU certifiers but is prohibited under EU regulations.
- the proposed certifier can certify directly against EU regulations (because a certifier may certify against a number of different standards)²¹⁴.

Financial Challenges of Organic Certification

The initial stages of growing organic coffee can be expensive. The costs of setting up an external certification system tend to be higher in the initial phase. The conversion period can also be expensive, while the costs of registration to a third party body might differ in different countries.

In general, the costs of certification have been borne by producer groups. The costs of certification can vary depending on the certification body. Local certifications are generally cheaper but local certificates are not necessarily or easily recognised by importing countries (in some cases international certifiers use a recognised local inspection body with which they have a cooperation agreement). There might also be membership and annual costs associated with the certification body²¹⁵. Inspection costs of certification bodies that have been accredited by IFOAM generally cost between 100 and 300€ per day²¹⁶. The Coffee Guidelines provide that the cost of inspection and certification should not exceed 3%–4% of the sales value of the green coffee²¹⁷.

It has been noted that “The green coffee importer and the coffee roaster also have to be inspected and certified. Inspection costs in the European Union vary from US\$ 500 to US\$ 900 per year per import/production location. In addition, the importer (who does not process the coffee, but only trades it) pays a licence fee of 0.1%–0.7% of the sales value or US\$ 0.20–0.50 per kilogram, depending on turnover. Roasters pay a licence fee of 0.1%–1.5% of the sales value of the roasted coffee, depending on turnover. In addition, as already mentioned, every European Union importer of organic coffee must apply for an individual import permit for each of their suppliers and for each consignment”²¹⁸.

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213. Section 3.2.6 *Certification and Import*, The Coffee Guide (2011) (<http://www.thecoffeeguide.org/coffee-guide/niche-markets-environment-and-social-aspects/introduction---organic-coffee/>).
 214. Section 3.2.8 *Import – Europe*, The Coffee Guide (2011) (<http://www.thecoffeeguide.org/coffee-guide/niche-markets-environment-and-social-aspects/introduction---organic-coffee/>).
 215. S. Courville, 'Organic and Social Certifications' in C.M. Bacon et al, *Confronting the Coffee Crisis* (MIT Press, Cambridge; 2008), pp.289–310, p.294.
 216. S. Courville, 'Organic and Social Certifications' in C.M. Bacon et al, *Confronting the Coffee Crisis* (MIT Press, Cambridge; 2008), pp.289–310, p.294.
 217. Section 3.2.13 *Certification Costs – Exports*, The Coffee Guide (2011) (<http://www.thecoffeeguide.org/coffee-guide/niche-markets-environment-and-social-aspects/introduction---organic-coffee/>).
 218. Section 3.2.14 *Certification Costs – Import*, The Coffee Guide (2011) (<http://www.thecoffeeguide.org/coffee-guide/niche-markets-environment-and-social-aspects/introduction---organic-coffee/>).

As a result of the costs of third-party certification, alternatives have been developed, including the participatory guarantee system and group certification.

The participatory guarantee system (PGS) plays as alternative to the high costs of third party certification. PGS has a social control aspect amongst farmers, i.e. training and development, with a high significance attributed to knowledge and capacity building and to sharing and capacity building. As such, it requires identifying/defining the group (farmers and consumers) that will work together. PGS is used in Latin America, including Brazil, and also in the USA and New Zealand. In Africa, it has developed in Uganda and Kenya. IFOAM is leading in the development of the PGS system (see www.ifoam.org). IFOAM has studied the local markets in Africa, finding only a few certified operators operating in the markets there; rather, organic producers selling in local markets are “certified” by NGOs, or through a NOAM (National Organic Agriculture Movement) or uncertified.

Group certification aims to reduce the costs of certification via competition between certifiers. The Internal Control System is used for certification; the inspection is undertaken by local inspectors and certification bodies. Within the organic sector, an internal control system (ICS) that provides a practical and cost-effective inspection option has developed. The ICS characteristics can be said to reflect internal standards, including sanctions; personnel; infrastructure; training and information; a 100% internal farm control at least once a year; monitoring of product flow.

ICS differs from PGS and can be used for third-party certification, not only for local markets but also for export. The EU and US allow certification for groups of smallholders in developing countries when an Internal Control System exists. ICS provides for an internal audit (ISO 53) managed by the project operator, external certification body evaluates the ICS – a group process in which the farmer group takes responsibility. *Where there are a number of farmers (if a grower group has more than 30 members then it qualifies for an ICS) producing the same crop and using the same or similar practices, group certification might be an option.*

5.2.4 Other standards and certification schemes developed in the Brazilian coffee market: geographical indications and specialty coffee

Geographic indication

In recent years there has been a significant movement in Brazil in order to use the denomination of origin as an instrument to attach value to the quality of the green-coffee produced associated to the localisation of the production.

In Brazil, the Law n. 9.279/96 establishes two modalities of geographic indication: the *Indicação de Provedência* and the *Denominação de Origem*.

According to the art. 177 of the mentioned Law, the “indication of origin” is considered as the geographical name of a country, city, region or locality of its territory, which has become known as a centre of extraction, production or manufacture of any product or service delivery.

According to the art. 188 of the same Law, the “denomination of origin” is considered as the geographical name of a country, city, region or locality of its territory that designates a product or service whose qualities or characteristics are exclusively or essentially linked to the geographical environment, including the natural and human factors present there (art. 178, Law n. 9.279/96).

The first formal geographical indication for Brazilian coffee production was conceded in June 2005 for the Cerrado Region, after a six-year process initiated by the CACCER.

The register of geographical indications of INPI (the Brazilian National Institute of Industrial Property) that is connected with the MDIC (the Brazilian Ministry of Development, Industry and Foreign Trade), gave in June 2005 to CACCER the official recognition of the “Indicação de procedência” for the Cerrado Mineiro Region regarding the high quality of coffee produced there.

In fact, the Cerrado Region in the Minas Gerais State in Brazil was the first one to be largely recognised for its high-quality coffee. As we may see in an appropriate chapter, the development and recognition of the production of the high-quality coffee in this region is intrinsically connected with the action of Illycaffè in the region and with the important role played by the coffee-producers association there: the CACCER. In fact, this can be considered as one of the most important spillover effects of the presence of Illycaffè in Brazil.

The Minas Gerais State has, furthermore, developed other instruments, also with the direct support of the region's government and of the CACCER, to benefit from the region's high-quality production.

Currently, Brazil has four recognised indications of origin concerning coffee production. They are (i) the *Cerrado* region, (ii) the *Zona da Mata* region, (iii) the *Norte Pioneiro* region and the (iv) *Cerra da Mantiqueira* region.

The BSCA certification schemes

As already mentioned, certification schemes can be based on different types of standards. The main distinction in the coffee sector is among production process certifications (especially regarding social and economical sustainability conditions) and product certification, which will be based mainly in the high quality and intrinsic characteristics of the product.

Third-party product certification and standards are rarer in the coffee sector than production-process ones. Brazil has one main third-party product certification which is the one developed by the Brazil Specialty Coffee Association (BSCA).

The certification scheme created by the BSCA is applied to individual lots of coffee. It is developed in two phases and is executed by four graders of the association. The first phase regards the analysis of the green-coffee and will evaluate the type, colour, roasting degree and screen size of the coffee. After the sample is approved in this first analysis, the green-coffee will be roasted and a new analysis will be done (cup analysis). This second analysis will be based on criteria such as the cleanliness of the cup, sweetness, acidity, body, taste, aftertaste and overall quality (BSCA interview and website).

The analyses are based on a punctuation scale. In order to be certified, the coffee has to obtain a score equal to or higher than 80 points and not score zero (0) in any of the parameters evaluated. The approved samples receive the BSCA certification. The costs of the certification are held by the green-coffee producer (BSCA interview and website).

Only members of the association can have the BSCA certification.

It is important to mention that the BSCA certification scheme also includes, as already mentioned, some standards regarding the production process of the green-coffee. To require the certification, in fact the producer must have its farm certified with a production-process certification scheme based on sustainability criteria. The BSCA recognises all the international certification schemes for this purpose and also the certification provided by the state of Minas Gerais, the “Certifica Minas”.

As regards the production-process certifications, Brazil, other than the regional certification schemes developed by Minas Gerais State has also a national-range production-process certification scheme developed by the BSCA.

The BSCA developed a second certification scheme, independent of the first mentioned one, which does not certify the product but, rather, the property (farm) according to the production-process adopted and the constancy of the farmer in producing specialty coffee.

According to the BSCA, the standards required for the certification schemes are basically the ones adopted by UTZ certified. The peculiarity is that for acquiring and keeping the BSCA certification schemes the farm must produce an established percentage of specialty coffee each year. If the farm does not produce this percentage of specialty coffee, it loses the certification (BSCA interview).

5.2.5 TPR, implementation models and certification mechanisms

The previous analysis shows that, in the coffee sector as in other sectors, compliance with quality, safety and sustainable standards requests the implementation of control management systems. In many cases these are complemented by a formal certification. This certification is aimed at assuring compliance in B2B and/or B2C relations.

The examples provided in the previous section cover different types of monitoring and certification schemes, including publicly and privately managed systems, and, within the latter, first, second and third party assurance mechanisms.

More particularly (i) internal control management systems are generally requested as a first mode of compliance with the standard: whereas medium and large-sized enterprises normally dispose of their own internal control system, the role of horizontal networks (mainly cooperative) as a means to manage a collective control system in favour of smallholdings is becoming more and more important (see par. 5.2.6.2 below).

(ii) Second party control mechanisms are also normally provided: this is especially the case, among the ones seen above, in which the certified party is the buyer and its certification agreement requests a full compliance monitoring system along the chain upward from the buyer himself (see GlobalGap prescriptions or UTZ certified as examples).

(iii) Whereas first and second party assurance continue to play an important role, third party assurance is becoming the rule for most schemes assuring compliance with standards. *In the third chapter we shall see how specialty coffee roasters might opt for a second party assurance mechanism as regards quality, but opt for a third party as regards sustainable standards.*

The implementation of a third party assurance mechanism of control implies a net of contractual relations adding new complexity to the contractual governance of the supply chain. The certified party assumes obligations towards the certifier in terms of its own compliance with standards and monitoring over the supply chain upwards. Similar obligations might be assumed vis à vis the standard setter through the licensing agreement when certification implies the use of a trademark or a logo (see the cases of Fair Trade, Global Gap, UTZ, etc.; see for a more extended analysis Cafaggi – Iamiceli, 2014).

The analysis below will show the main forms of impact determined by these mechanisms over the contractual governance of the supply chain and the emergence of networks.

5.2.6 The role of contracts and networks in the implementation of TPR

The role of coffee contracts in promoting the implementation of sustainability standards

As already highlighted, sustainability in agri-food chains is nowadays one of the main concerns and sustainability initiatives in the coffee sector have been continuously growing at an average annual rate between 19% (for organic coffee) and 69% (for Rainforest alliance) in the period 2007–2010, compared to about 2% for conventional coffee (see figure 24)²¹⁹. According to the latest reports concerning standard-compliant production and sales, 40 per cent (3.3 million metric tons) were standard-compliant in 2012. Standard-compliant sales amounted to 0.8 million metric tons which means 25 per cent of compliant production, 10 per cent of global production and 12 per cent of global exports. (POTTS et al. 2014, 156).

219. Source: J. Potts – M. Sanctuary, Sustainable Markets are Growing – Is Sustainability Keeping Pace?, *Entwined Issue Brief*, 2010, p. 3.

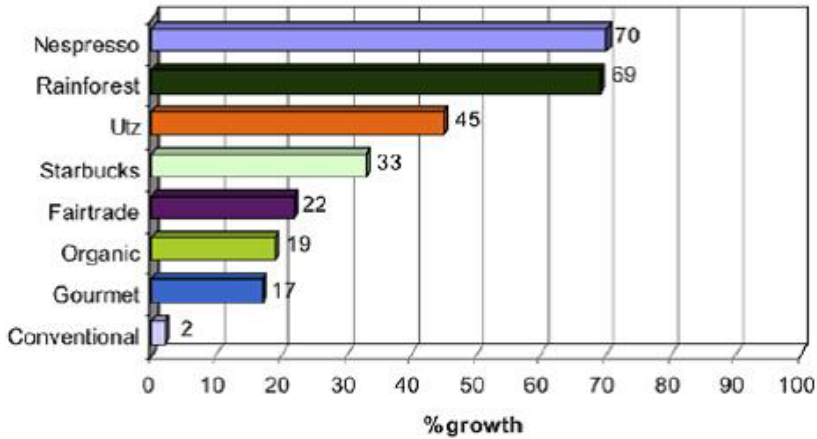


Figure 1: Average Annual Growth Rates of Major Coffee Sustainability Initiatives Over the Past Four Years Compared with Growth in Conventional Coffee Markets. (Source: Daniele Giovannucci, 2010)

FIGURE 24. Average annual growth rates of major coffee sustainability initiatives over the past four years compared with growth in conventional coffee markets. Source: J. Potts – M. Sanctuary, *Sustainable Markets are Growing – Is Sustainability Keeping Pace?*, *Entwined Issue Brief*, 2010, p. 3.

Sustainability voluntary standards include both private company standards (the most important are Starbucks and Nespresso standards) and publicly managed standards including Fairtrade, Organic, UTZ certified and Rainforest Alliance. Very often Fairtrade and Organic are combined (in 2009 it was so in 42% of all Fairtrade sales)²²⁰; as we will see later, this is the case in many private label coffee products of both Italian and Finnish retailers (the Finnish retailer K-group has also a private label coffee with dual certification UTZ certified and organic), and in some coffees of the Finnish roaster Paulig. With specific regard to the firms selected for the case-studies, Italian firms (in particular Lavazza, since Illy has its own private company standards) mainly use UTZ Certified and Rainforest Alliance standards and Finnish roasters (mainly Paulig) UTZ Certified, Fairtrade and Organic.

The implementation of sustainability initiatives may impact on the governance of the supply chain and in this perspective it is interesting to investigate how contracts, as primary governance tools, can enhance or even promote these voluntary initiatives.

As highlighted in the literature, among the key aspects through which contractual practices may facilitate and foster the implementation of sustainability standards are: the formation of written contracts, the standardised definition of the economic benefits recognised to producers as a consequence of the adoption of sustainable production practices, the establishment of long-term relations, the incorporation of mechanisms to ensure financing, to facilitate transfer of knowledge and traceability, and cooperative business arrangements (such as price-sharing agreements, preferential sourcing arrangements, cooperative marketing arrangements)²²¹.

All these contractual mechanisms function as tools for distributing risks among the parties, securing a fairer deal for the farmer.

Among the standards mostly used by the selected firms of the case-studies, Fairtrade seems to be the most comprehensive one, being aimed at fulfilling different functions that go beyond the mere promotion of sustainable production towards the creation of a more stable environment for producers, including building producer capacity and creating market access²²². In particular, fairtrade promotes the creation of a stable relationship with the producers and provides for a pricing system enhancing producers' economic stability: namely a minimum price floor and obligatory premiums for fairtrade and organic production.

220. ITC, cit., p. 5.

221. J. Potts, G. Fernandez, C. Wunderlich, *Trading Practices for a Sustainable Coffee Sector. Context, Strategies and Recommendations for Action*, IISD, 2007.

222. V. Bitzer, M. Francken, P. Glasbergen, *Intersectoral partnerships for sustainable coffee chain: Really addressing sustainability or just picking (coffee) cherries?*, *Global environmental change*, 2008, p. 276.

It has been highlighted that voluntary sustainability standards may represent technical barriers to trade, in particular, for less-developed producers who lack the scale, the technical know-how and financing to cover costs of compliance, and who are indeed those most in need of safeguards to improve their livelihoods and sustainability²²³. It is therefore clear that, in order to be effective, sustainability initiatives require major business actors, such as roasters or traders, to participate more actively in developing and implementing them, providing financial support and technical advice to small producers.

Moreover, contracts may be combined with other governance tools, such as organisational ones. Also in this aspect the Fairtrade system may be recalled among others, given that it allows for group certification, provided that producer organisations are democratically controlled by their members, with profits equally distributed among the producers and members having a voice and vote in the decision-making process of the organisation, and their membership is made of a majority of smallholders, intended as those that are not structurally dependent on permanent hired labour and who manage their farm mainly with their own and their family's labour²²⁴. The next paragraph will devote further attention to this and other types of structures aimed at enforcing sustainability standards.

The role of networks in TPR implementation

As we will see in Chapter III, sustainability initiatives may also evolve toward more complex collaborative practices giving rise to real partnerships or networks which actively involve relevant players of the supply chain as well as other stakeholders, such as NGOs, public partners, local communities.

223. See I. Maher, 'Competition Law and Transnational Private Regulatory Regimes: Marking the Cartel Boundary', in Scott, Cafaggi and Senden (eds.), *The Challenge of Transnational Private Regulation: Conceptual and Constitutional Debates* (Berlin: Wiley Blackwell, 2011) 119–137. See also, in a legal perspective, Cafaggi and Iamiceli, *Private Regulation and Industrial Organisation: Contractual governance and the Network Approach*, forthcoming.

224. See Fairtrade standards for coffee for Small Producer Organisations, 01.04.2011. Although not referring to the coffee sector (their scope of application regards basmati rice and cotton in India; cotton and dried fruits in Pakistan) Generic Fairtrade standards for contract production of January 2011 even require that producers create a partnership with an intermediary organisation, called Promoting Body, which will then support them to organise into producers organisations.

Networks may play a very relevant role in signalling to farmers the needs and opportunities linked with the adoption and implementation of quality, safety and sustainable standards; transferring knowledge concerning the modes of implementation; ensuring an adequate monitoring and sometimes sanctioning system for such compliance.

As exemplified above throughout the analysis of several schemes, two main models of networks exist in order to accomplish these functions:

- *horizontal networks*: these are mainly represented by producers' "groups" (mostly growers' cooperatives, sometimes associations), in charge of a comprehensive control management system aimed at obtaining a group certification (see above the cases of Global Gap, UTZ Certified, 4C association, Rainforest);
- *vertical networks*: these generally develop along the net of contractual relations along the supply chain structure and are coordinated by a leading enterprise (normally the final producer) searching for certification on the basis of the assurance of compliance along its whole supply chain (see again Global Gap and UTZ among others).

The two approaches are quite different and may be combined (see Cafaggi – Iamiceli, 2012).

In terms of structure and legal forms, whereas horizontal networks are mainly organisational, vertical networks are most often contractual. In the latter case, a stricter link between supply contracts and certification assurance services is established, with a direct incorporation of duties of compliance with standards into the supply contractual relation (see Cafaggi, 2010; Cafaggi, 2012; Cafaggi – Iamiceli, 2015, forthcoming).

In terms of functions, knowledge transfer and technical assistance are ensured in different ways in both models: in the horizontal network one, by providing services which are tailored on the basis of "similar needs" of participants, these being operated at the same levels of the supply chain. The case of UTZ multi-group certification is quite meaningful in this respect, calling for sub-management systems whenever the "group" should be divided into sub-groups with internal similar needs. By contrast, in the vertical network model it is the leader enterprise that provides for tailored services at different levels of the supply chain, possibly through the cooperation with other intermediaries, such as cooperatives or associations (see the case of Illy, in chapter 3).

The control management system is also different in the two cases.

In the case of horizontal networks and group certification, it is the network as an entity to be certified. In order to accomplish the monitoring duties assumed through its certification and licensing agreements with the certifier (and, as regards the licensing agreement, indirectly with the standard setter), the network organisation is in charge of monitoring and sanctioning powers vis à vis its members. Sanctions may vary from warnings to suspension and cancellation of membership of the organisation, whereas any possible impact on the supply contract with the buyer is not directly determined through the network. The network can anticipate this and give preference to remedies and sanctions able to ensure correction rather than expulsion from the system²²⁵.

In the case of vertical networks, with chain of custody certification, a stricter link emerges between the supply contract and the control management system (both being coordinated by the same leader possibly through the same net of contracts, incorporating duties concerning compliance with standards). This implies that sanctions applied within the chain of custody mechanism also result in supply contract termination or damages, depending on the case²²⁶.

The case of 4C association is interesting in this respect since it adopts the organisational network model (with a set of monitoring and sanctioning measures ranging from warning to expulsion from the association) in a typical multi-stakeholder context embracing different actors along the supply chain (farmers, industry, traders) together with civil society. Without managing a certification system (the main purpose being verification only), we cannot consider this as a case of chain certification. However, it is an interesting example of expansion of the organisational network model beyond the “homogeneous interests” approach taken, for example, by the UTZ (for an in-depth analysis, see Cafaggi – Iamiceli, 2015, forthcoming).

225. F. Cafaggi, The regulatory functions of transnational commercial contracts. New architectures. *Fordham Journal of international law*, 36, 1557–1618; F. Cafaggi – P. Iamiceli, Supply chains, contractual governance and certification regimes, *Eur J Law Econ* (2014) 37:131–173.

226. F. Cafaggi, The regulatory functions of transnational commercial contracts. New architectures. *Fordham Journal of international law*, 36, 1557–1618; F. Cafaggi – P. Iamiceli, Supply chains, contractual governance and certification regimes, *Eur J Law Econ* (2014) 37:131–173.

5.3 INNOVATION, SYSTEM LEVEL INNOVATION AND THE R&D CHALLENGES IN THE COFFEE SECTOR

5.3.1 Recent innovations in the coffee sector

In the coffee sector, several innovations have been developed in the last decades and their roles have been significant, especially regarding the development of the differentiated coffee market.

Within the literature, we can distinguish, as already mentioned, among different types of innovation, based on the area affected by it or where innovation is primarily located in a company: product innovation; process innovation, marketing methods innovation, organisational innovation and business model innovation (see paragraph above). If we compare technical innovation with organisational innovation, we can observe that public institutions have been quite active in promoting the former, leaving the enterprise with the task of innovating the set of contractual and organisational tools due to design and implement innovative projects in BtoB relations.

In the coffee sector, we can classify the main innovations developed recently (see ANDRIANI & HERRMANN-PILLATH, 2011, 38) as:

product innovations: such as new coffee genetic varieties;

process innovations: such as new green-coffee processing techniques; new growing techniques (e.g. irrigation, disposition of coffee trees etc.); new storage techniques; the development of new machineries (e.g. spectrophotometer); traceability of coffee beans/batches;

business model innovations: such as the one developed by Illycaffè, which includes new/improved knowledge sharing system (i.e. the Illyclub) as we may analyse in the case study (chapter III);

organisational innovations: e.g. concerning new sourcing methodologies and contracting that combine goods sales with services supply or the emergence of networks and collaboration practices with NGOs due to improve the ability of suppliers to implement sustainable standards and access to GVCs.

Most of them collaborated to develop system level innovation in the coffee sector, that is the main object of analysis of this project.

system level innovations: private regulation is an example of system level innovation as these regulatory instruments have emerged within collaboration among different actors from the supply side, demand side and non-governmental organisations. Some of these schemes have changed the structures of the value chains and have had major transitions in the agricultural and economical sectors on which they have been implemented.

Box n. 10 – An example of process innovation in the coffee sector

One very important innovation in the coffee sector regards a new processing technique: the semi-washed or pulped natural. This new processing method combines techniques from the dry and wet processes. The outer skin of the coffee bean is removed with a machine but the pulpy mucilage is left to dry on the bean.

This process, although being cheaper than the wet process, allows the production of high quality beans, with a fruitier taste and stronger, heavier body, and it is particularly adapted to the Brazilian plantation conditions (CECAFÉ, BSCA, Cooxupè, Escritório Carvalhaes interviews).

The adoption of this processing method in the 1990s allowed the Brazilian producers to significantly improve the quality of their product with a lower cost and enable them to access the differentiated coffee market.

In Brazil, the private company Pinhalense, a Brazilian company that produces machinery for agriculture, has played an important role for the expansion of the utilisation of this method in this country (Escritório Carvalhaes interview. See also, Revista Cafeicultura, 2012). The company pioneered the design of special processing machines for the production of semi-washed beans. According to Adélcio Piagentini, technical director of Pinhalense, "the Pinhalense supported the establishment of the semi-washed processing method in the late 80s, and developed the technology and the machines that enabled its implementation and expansion in Brazil since the 90s."²²⁷ (Revista Cafeicultura). Brazil currently produces around 5 million bags of coffee beans processed through the semi-washed method.

It is important to mention that innovation in the coffee sector can be developed by different actors: public actors; private actors as well as through collaboration among public and private actors.

As regards the coffee sector in Brazil during the regulated-market period, most of the technical innovations produced in the sector were developed almost exclusively by the public sector. This was, in fact, the tendency in most agricultural cultures. In that period innovation in agriculture was primarily driven by the public sector in the producing countries (see WORLD BANK, 2012; WORLD BANK, 2006).

In Brazil, the role for innovation development was played, as already mentioned, by the IBC, which was also responsible for the coordination of the research in the sector and free transfer of innovation for the Brazilian green-coffee producers.

During this period research and innovation policies were aimed at improving mainly the productivity and the quantity of green-coffee to be exported according to the commodity standards, rather than the quality of the product or other characteristics regarding its differentiation.

This prevalent approach of National Research Systems (NRS) in promoting agricultural innovation has, however, evolved, both internationally (see WORLD BANK, 2012; WORLD BANK, 2006), and in Brazil.

In fact, since the 1990s, within the new “Agriculture Innovation System” approach²²⁸, the importance of the interaction among a multitude of actors (such as universities, firms, associations, public research systems, etc.) as a key factor for the development of innovation in the agricultural sector has grown (see WORLD BANK, 2006; MARTÍNEZ-PIVA, 2009).

227. Translation by Luana Swennson.

228. An “innovation system” can be defined as a network of organisations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organisation into economic use, together with the institutions and policies that affect their behaviour and performance. WORLD BANK, 2012, 2.

As observed by the World Bank, currently agricultural innovation may occur mainly through dynamic interaction among the multitude of actors involved in growing, processing, packaging, distributing, and consuming, or otherwise using, agricultural products. It will also be related to the incentives and resources available to form partnerships and develop businesses, and conditions that enable farmers or entrepreneurs to use these innovations (WORLD BANK, 2012, 3. See CAFAGGI & SWENSSON, 2012, 15).

In Brazil, this new approach has also been followed. In fact, after the liberalisation of the market, we can observe two main changes regarding the production of innovation in the coffee sector in the country:

- During the IBC period, innovation and research policies were coordinated and developed mainly by the public sector. Currently the public research is coordinated by *Embrapa* (the Brazilian Agricultural Research Corporation) but it is executed mainly through collaborative projects with a multiplicity of actors, such as different research institutes, universities, etc., that are developed under the coordination and finance of Embrapa (which, as already mentioned, coordinates the funds of Funcafé regarding the research in the sector).
- During the IBC period, the focus of public research was exclusively on increasing the productivity and the quantity of the coffee exported by Brazil, based on the commodity standards (see JAYO & SAES, 4). The focus of Embrapa's research, by contrast, is no longer focused exclusively on the needs of the commodity business model, but is also increasingly including the needs of the differentiated coffee market (interviews, Embrapa website).

Regarding especially the differentiated coffee market, we can observe also increased participation and importance of private actors in the development and transfer of innovation.

For example, as we may see in chapter three, Illycaffè is involved directly in projects of research and development of new coffee varieties, in the traceability of the coffee beans acquired, and in new knowledge-sharing systems. Datterra, a Brazilian green-coffee producer, is also involved, both alone or in partnership with public and private actors, in the development of some of these innovations, such as the development of new coffee varieties, traceability of coffee beans, producing, processing and storage techniques.

We can observe currently in Brazil different models regarding the source and transfer innovation in the coffee sector:

- Research and innovation are developed and transferred freely by the public sector as public goods. This was the model adopted during the ICA regime in Brazil, and still has a significant importance, especially regarding the commodity market.
- Innovation is developed and transferred mainly by the MNC, within its own supply chain as a semi-private good. It is, as we may see, the model developed by Illycaffè.
- Innovation is developed and transferred through CSR networks as public goods. This type of network often involves NGOs and, in a different way, MNCs, contributing not only financially but also in the development programme initiatives. The impact on the supply chains is here ensured through the increased capability of smallholders in complying with innovative and sustainable standards. Lavazza and Paulig are illustrations of this model.

We will have more details of these different models within the case-study analysis.

5.3.2 The transfer of knowledge and innovation along the GVCs and the role for contracts and networks

As just mentioned, with the development of the differentiated coffee market, new players have emerged and old ones have adapted their roles, participating in fundamental activities for the agribusiness system coordination, seeking to guarantee products' quality improvement, their maintenance along the chain and the implementation of differentiation strategies (See CAFAGGI et al., IDB working paper, 2012).

Among the new functions performed by these new players, or “new intermediaries”, there is the transfer of knowledge and innovation along the supply chain, fundamental, as already mentioned, for the development of this new market and for allowing the access of green-coffee producers to it. *They have, therefore, been playing a key role for a system level innovation in the differentiated coffee market especially in the case where the MNC is not directly involved in these functions.*

These new players can be, for example, cooperatives, associations and also exporters.

1) Cooperatives and innovation transfers.

Regarding cooperatives, a significant example in Brazil is “*Cooperativa Regional de Cafeicultores Guaxupé*” (Cooxupé).

Focusing on the differentiated coffee market they have elaborated programmes for technical training, knowledge transfer and consciousness of the benefits of the production of differentiated-coffee for their members. Cooxupé has its own team of agronomists that organises “*dias de campos*” (field days), such as the “*Jornada de excelência Cooxupé*” (Journey of excellence Cooxupé) in which innovation and knowledge is demonstrated and transferred to the member producers (Cooxupé interview; see SAES, 2008, 110). The cooperative has also programmes to orient the farmers for the benefit of the acquisition of certifications and to develop an important work in helping them, with orientation, to acquire and maintain the certification schemes (Cooxupé interview).

The cooperative has also its own classification system based on their own quality standards through which they acquired the green-coffee produced from their members (see SAES, 2008, 105). They perform the quality analysis of their member's product, selecting the best ones to participate in high-quality coffee competitions, such as the ones developed by Illycaffè (Illy award) and the *Cup of Excellence* (See SAES, 2008, 110). They do not organise competitions among their members.

Furthermore, they export directly their members' differentiated coffee, eliminating other intermediaries, and make partnerships with multinationals, such as Nestlé, for the supply of high quality coffee for its brand "Nespresso", and Starbucks. All these activities are developed with the aim of allowing their members to have access to a differentiated coffee market.

2) Associations and technology transfers.

Regarding associations, one remarkable example is the Brazilian Specialty Coffee Association (BSCA) that has the APEX-Brasil as its development partner (see IDB working paper, 2012; ZYLBERSZTAJN & FARINA, 2001, 52–53). Unlike cooperatives, which operate either in the commodity market or in both commodity and differentiated markets, sometimes combining a trading function and a service provision role, associations focus on service provision and tend to operate as market intermediaries rather than chain intermediaries.

BSCA represents the outcome of one of the eighty "Integrated Sector Projects - *Projetos Setoriais Integrados* – PSIs)" developed by APEX in cooperation with sectorial associations.²²⁹

229. Apex develops two Integrated Sectorial Projects to the coffee sector. See chapt. I, par. 3.2.2.

The BSCA was created in 1991 with the specific aim of supporting and promoting the specialty coffee production in Brazil. Although it was formed, initially, as a green-coffee producers association, currently it has as its members and represents most of the actors that operate in the high quality coffee market in Brazil, including the green-coffee producers, cooperative, roasters, exporters and other associations (BSCA interview). Most of its members, however, are still green-coffee producers (BSCA website).

The BSCA carries out many activities, which include the technical training and knowledge transfer to its members regarding: (i) the production of specialty coffee, (ii) the commercialisation of specialty coffee²³⁰ and also (iii) the improvement of the knowledge of its members regarding the product itself (specialty coffee) (BSCA interview). The association also has a team of agronomists that make a diagnosis of the necessity of each member and, therefore gives the necessary assistance for the insertion and improvement of their performance in the differentiated-coffee market.

The BSCA was also responsible for the creation and organisation in Brazil of an important high quality coffee competition, the “Cups of excellence” award, as part of its international marketing programme for the promotion of Brazilian special coffees.²³¹

It is important to mention that the BSCA has also developed (i) its own quality standards and a quality control laboratory, (ii) a special classification system, largely adopted and recognised²³²; and, as we may see in the topic below, (iii) its own certification scheme, which is the only product certification for high quality coffee existent in Brazil (CAFAGGI et al., IDB working paper, 2012).

Another important example is the CACCER, the *Conselho das Associações de Cafeicultores do Cerrado* founded in 1992 (See JAYO & SAES, 1997, 7). Influenced by the action of Illycaffè in the region, and the success of the green-coffee produced in the region in several high-quality coffee competitions, the farmers of the Cerrado region of Minas Gerais State in Brazil have decided to organise themselves and develop instruments to support the switch to a differentiated coffee production by the farmers of the region and to explore and protect their comparative advantages (ANDRIANI & HERRMANN-PILLATH, 2011, 23. See also JAYO & SAES, 1997).²³³

Among the main activities performed by CACCER there is the transfer of knowledge and innovation, both regarding the production and the commercialisation of differentiated coffee as a way to help its members to be able to produce and commercialise a high quality product and, therefore, benefit from the added value provided by this new market (See JAYO & SAES, 1997, 5). They have, in fact, specific projects of technical training and commercial advice for their members.

The CACCER started also developing scientific research in the coffee sector together with research institutes, universities and private companies. As affirmed by JAYO and SAES, *the end of the IBC, and their financial and coordination of official research projects in the coffee sector, has stimulated the CACCER to develop their own research projects in collaboration with different actors.*

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230. The BSCA develops activities of joint advertising with its members and the promotion of commercial channels between international traders and roasters and Brazilian producers through, among others, participation in international fairs
 231. The organisation of the competition has the support of the Ministério da Agricultura, Pecuária e Abastecimento (MAPA), APEX-Brasil and of the ONG "Alliance for Coffee Excellence" (ACE). Currently the BSCA organises the competition only in Brazil, but through a partnership it has allowed ACE to use the brand "Cups of Excellence" and organise the competition at the global level.
 232. A classification methodology for high quality coffee was developed around 1999 within a project called "Gourmet Project" financed by the International Coffee Organisation, the International Trade Centre and the UN Common Fund for Commodities with the aim of helping 5 selected countries, among them Brazil, to receive better prices for their specialty coffee. The methodology consists of analysing the coffee drink's proprieties such as flavour, aroma, acidity, sweetness, aspect, body and after-taste. A grade between 1 and 100 is given to the coffee. Coffee is considered special when it reaches a grade equal to or higher than 80 points. (CAFAGGI et al., IDB working paper 2012, BSCA Interview, Cup of Excellence website).
 233. As reported by Andriani & Herrmann-Pillath, the CACCER website used to declare that "The (Illycaffè) award proved beyond doubt the superiority of the Cerrado coffee. Exploiting this fact, the Caccer started to make use of the award as a marketing tool to promote the coffee from the region. As the Illycaffè award was widely known and impacted heavily on the coffee market, we built our strategy on this. Given the magic presence of Cerrado growers among the award winners, in a short time the image of the Cerrado coffee and of the award spread all over and the quality of the region started to be recognised on the global scale." ANDRIANI & HERRMANN-PILLATH, 2011, 23).

With the aim of protecting and exploring the comparative advantages of the region, CACCER has created the “*Café do Cerrado*” trademark (registered in Brazil, Argentina, the United States and many European countries)²³⁴ and has fostered the recognition of the indication of origin of the coffee produced in the Cerrado region and the indication of origin.²³⁵

The *Cerrado* region, in fact, is the first indication of origin in the coffee sector created in Brazil. Currently, three other regions in Brazil have it: the *Zona da Mata*, the *Norte Pioneiro* and the *Cerra da Mantiqueira*.

Other activities performed by the CACCER are: (i) to help the design and implementation of financing mechanisms for the coffee sector; (ii) to politically represent the cooperatives and associations of the Cerrado region before the Minas Gerais State and the Federal government; (iii) to store and directly export the high quality coffee produced in the Cerrado region, eliminating other intermediaries.

234. CACCER also manages and promotes the marketing of the coffee produced in the Cerrado region, being present in international coffee fairs and through national and international publications in the coffee sector

235. The CACCER also help the public entities of Minas Gerais state to implement the institutional framework required.

3) Exporters and innovation transfers.

Another important player in the chain regarding the transfer of knowledge and innovation is the exporter that has extended his role to foster the production of differentiated coffee.

This change was triggered by the increasing demand from roasters and international traders for differentiated coffee (CECAFÈ interview).

Indeed, many exporters started to develop projects to transfer knowledge and innovation to producers, such as in “field days” and to orient and promote the acquisition of certifications schemes by green-coffee producers (CECAFÈ interview).

4) While listing the relevant actors in the area of innovation transfer through contractual governance and networks, **international roasters** should be specifically considered. The case studies will show that, particularly in the specialty coffee segment, innovation is both produced and transferred through joint initiatives and programmes between the roaster (that sometimes plays as leader, other times as participant) and other market intermediaries: some of these initiatives (particularly in the specialty segment) are aimed at supporting innovation strategies along the supply chains as a whole, whereas others are more prone to support farmers in accessing GVCs in general.

**III. COFFEE SUPPLY
CHAINS, CONTRACTUAL
GOVERNANCE AND
SYSTEM-LEVEL
INNOVATION:
A CASE STUDIES
APPROACH**

This chapter presents the results of an in-depth analysis developed through a case study methodology of the models of global supply chain governance in the Brazilian and European coffee sectors, and in particular about the occurrence, obstacles, and modes of system level innovation. With reference to system level innovation, regard will be given to both the development and implementation of advanced quality, safety and sustainable standards and to the production and transfer along the GVCs of innovative solutions in products, processes and organisational structures.

The case studies look at two different parts of the GVCs: the upstream side, as located in some regions of Brazil; the downstream side, as located in Europe, mainly in Italy and Finland. Three main final producers, all family owned companies, have been selected, two ones based in Italy (Lavazza and Illycaffè) and one in Finland (Paulig). Indeed, *not only are these among the most relevant coffee producers (if not the most relevant ones) in the mentioned countries in economic terms, but they also show different approaches to system level innovations depending on the type of market they operate in (commodity v. differentiated coffee) and the type of standards applied to production along the supply chain.*

More particularly, whereas Illycaffè represents a case focussed on the differentiated/specialty coffee market, Lavazza and Paulig stand for operating mainly in the commodity market segment, though targeting at some level of product differentiation through the use, with different intensity and in different ways, of sustainable standards widely recognised in the market for a part of their products. Two models emerge (although roasters do not necessarily adopt a single one), distinguished by different intensity of the relationship with coffee growers and/or intermediaries: one model is characterized by some degree of vertical integration and closer relationships with suppliers, the other is based on stronger role of intermediaries reducing transactions costs by facilitating the relationships between producers and processors. In the first instance access to GVC by farmers is direct, in the second one it is mostly, though not exclusively, mediated by intermediaries like exporters and traders. In addition to this, in the latter model (the commodity market model) suppliers' capability building to access GVCs is supported by other market intermediaries, e.g. multi-stakeholder non profit organisations, aimed at producing and transferring knowledge as a public good along the chains: within these institutions the final producers themselves (Lavazza and Paulig in our cases) contribute as members or promoters.

The three cases suggest that access to GVC and power relationships within the chain determine contractual practices and dispute resolution mechanisms. They show that the nature of the commodity (mono-origin or a blend), its quality (high premium, premium, standard) and market destination (domestic or international) contribute to define the role of farmers in the chain. They highlight the growing relevance of sustainability standards to define the shape and the internal relationships within the chain. Private global standards influence the features of the global chain and the distribution of value within. Sustainability standards for certified coffee are changing the relationship between roasters and farmers increasing the intensity of the relationship and the transfer of knowledge and technology: in some instances mediated by certifiers and other intermediaries, in other instances established directly with groups of farmers and their associations.

I THE THREE CASES

1.1 LAVAZZA

The “Luigi Lavazza s.p.a” is one of the biggest coffee roasters in the world (in seventh place in the ranking of world’s coffee roasters), founded in Torino (Italy) in 1895 by the Lavazza family. It is the leader in Italy in the retail and portioned coffee market and has a significant position also in the Ho.Re.Ca. one, with a large range of products and different blends that comprise not only standard coffee but also high quality and certified sustainable products (Rainforest Alliance and UTZ certified).

The still family-owned enterprise is present in more than 90 countries through 30 directly or indirectly controlled companies, several distributors and own productive plants in India and Brazil, as well as in Italy. It is also present in the coffee-shop-segment, with establishments in different countries. It has a significant share in the American GMCR (Green Mountain Coffee Roasters Inc.) and also controls the Ercon company, the Italian leader in hot chocolate and other preparations for bars and coffee shops. The company, which has around four thousand employees, in 2013 had revenues of more than 1.3 million euros, of which around 46% come from the external market (Lavazza website, last visited November 2014; Coffitalia, 2014-2015, 18).

Lavazza, as most of the biggest roasters in the world, buys coffee in the commodity market from all the top ten coffee-producing countries including Brazil. The company also purchases from the differentiated coffee markets for particular blends (DAVIRON; PONTE, 2005, 145; interviews). This might determine some “spillover effects” generated by the more innovative chain e.g. that of differentiated market on the traditional one.

The company is also highly involved in research and innovation, focussing mainly on the industrialisation (roasting) and commercial phase (e.g. in the area of coffee machines) In 2010, Lavazza inaugurated in the region of Torino its “Innovation Centre”, dedicated to research and innovation in the coffee sector. As we shall see, the company participates through the Giuseppe and Pericle Lavazza Foundation also in social and sustainable projects, which include know-how transfer along the supply chain in developing countries, especially within joint projects with other European roasters (see below)¹.

1.2 PAULIG

Oy Paulig Ltd is a family owned company. The Group operates in 15 countries and its largest markets consist of the Nordic countries, Central Europe, the United Kingdom, Russia and the Baltic countries. The Paulig Group’s net sales were 849 million euros in 2013 and it employed 2000 1881 persons (Paulig’s Annual Report 2013). The notable part of net sales is related to international food concepts, of which the major proportion constitutes the Tex Mex product group. The company’s production facilities are modern and in 2010 a brand new roaster facility opened near Vuosaari Harbour in Helsinki. Paulig is also *the biggest coffee exporting company* and its share is nearly 80% of total Finnish coffee export volume.

The Paulig Group’s business is divided into *four divisions*: Coffee, World Foods & Flavouring, Snack Food and Industrial Flavouring. The Industrial Flavourings Division has food industry customers in approximately 10 countries and is the market leader in the Nordic countries.

According to the recent news from Paulig, it acquired the small coffee roastery Robert Paulig’s business operation and all its coffee brands (Paulig press release 14 May 2014). As the small batches of specialty coffee have become a distinct trend in the coffee business over the past few years in Finland, Paulig will expand its offering also into this segment with the acquisition of the Robert Paulig small (small in size) roaster’s business operations and the Robert Paulig coffee brands. Robert Paulig started a small coffee roaster in the Katajanokka district of Helsinki in 1987. Today the roastery operates in Tolkkinen, Porvoo, where it moved into new premises in 2011. The roaster will continue to operate in the same premises after the transaction.

1.3 ILLYCAFFÈ²

“Illycaffè SpA” is among the large size Italian roasters, founded in Trieste (Italy) in 1933 and it is the leader brand in the production of high quality coffee (Coffitalia 2014-15, 20). Illycaffè has just one high quality and homogenised branded coffee blend that is traditionally formed by a high percentage (around 50%) of Brazilian coffee and is sold in around 140 countries in the world on five continents. (Illycaffè website, last visited November 2014). Illycaffè also adopts national and international standards regarding its production system and it has third-party certifications concerning the sustainability and the quality of its supply chain (see *infra*, par. 4.1.3.)³.

Illycaffè’s corporate strategy has been described as being based on the following three pillars: “the creation and development of a global identity for Illy’s brand as a synonym for quality and excellence; a focus on the premium market segment; and product differentiation based above all on the qualitative excellence of the coffee in every respect, which allows the consumer a unique experience”⁴.

The group, still family-owned, controls directly and indirectly 11 companies and, at global level, has approximately 990 employees (Coffitalia 2014-15, 20). In 2013, their consolidated revenues reached EUR 373,9 million, with more than half coming from export. In terms of volume, in fact, exports represent around 56% of Illycaffè’s production (with 38% of net sales in the area of Europe, Middle East and Africa)⁵. Italy however, remains the main market for Illycaffè, with 40% of net sales. The Illy Group controls the chocolate manufacturer Domori, the French tea producer Dammann Frères and the winery in Montalcino (Italy) Mastrojanni; it has also a stake in Agrimontana, producer of high quality pastry and jam (Coffitalia 2014-15).

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1. Lavazza Sustainability Report, 2012, published in April 2014, pp. 128 ff., available at http://www.lavazza.com/default/.content/document/pdf/Sustainability_Report_16_10_2014.pdf
 2. Illy Sustainable Value Report, 2013, pp. 18-19, available at <http://valuereport.illy.com/it/?page=download>
 3. Biotto, De Toni, Nonino, Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement: The illycaffè case study, *International Journal of Logistics Management*, 2012, 2, pp. 221.
 4. Illycaffè website, last visited November 2014; Illy Sustainable Value Report, 2013, p. 41.
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Illycaffè acquires the high quality green-coffee necessary for its production directly from the farmers within a particular sourcing strategy that was implemented initially in Brazil, and then replicated in other countries. The experience of the Italian enterprise in Brazil had a key role in the development of a high quality market for coffee in some regions of this country.

As we may see below, the enterprise is also strongly committed to innovation, research, training and transferring of know-how and innovation along the supply chain through different types of partnership both in Italy and in the supplying countries like Brazil.

2 THE STRUCTURE OF THE SUPPLY CHAINS IN THE THREE SELECTED CASES

2.1 LAVAZZA'S SUPPLY CHAIN

2.1.1 Product mapping and supply chain

Product mapping

In Italy, Lavazza is one of the main producers of commodity coffee.

Within both the segments, at-home and out-of-home consumption, Lavazza supplies *a wide range of different products and product lines (Lavazza website and interviews)*.

For the at-home consumption Lavazza offers the Classical products (Lavazza Qualità Oro, Qualità Rossa and Lavazza Club), the Crema e Gusto (Cream and taste) coffees, decaffeinated coffees, a filter-coffee blend (Lavazza XLong), a low-price coffee (Lavazza Suerte) and one sustainable coffee (Lavazza *¡Tierra!*). These coffees are characterised by different roasts (from medium to dark) and different intensities of aroma. Some of them, such as Lavazza Qualità Oro, Lavazza Club and Lavazza *¡Tierra!* are 100% Arabica coffees.



FIGURE 1. *Lavazza's "Classical" coffee brands: Lavazza Qualità Oro, Lavazza Club and Lavazza Qualità Rossa.*

Lavazza Qualità Oro has been produced since 1956 with coffee beans from Central and South America (Brazil, Honduras, Panama, Mexico, Colombia and Peru), while Lavazza Club is produced with coffee beans from selected small plantations, located at specific altitudes, and with coffee beans from Central America. Lavazza Qualità Rossa is the most famous coffee in Italy and it is also a medium roast coffee produced with coffee beans from South America and Central Africa.

*Until 2013 Lavazza produced only one **mono-origin coffee**, Lavazza Paulista, which is the first coffee commercialised by Lavazza since 1956 and is made of 100% coffee beans coming only from Brazil. Originally it was sold in a tin under high vacuum.*



FIGURE 2. *Lavazza mono-origin coffee brand Café Paulista.*

In 2014 Lavazza has launched a new series of mono-origin coffees. However, most of coffees produced by Lavazza are still made from coffee beans of different origins, mainly from Central and South America (Brazil, Honduras, Panama, Mexico, Colombia and Peru), but also from Africa and South-east Asia.

*Lavazza produces also one **sustainable coffee**, Lavazza ;Tierra!, a blend of premium 100% washed Arabica beans grown by certified small-scale South American producers, as a result of the social responsibility project ;Tierra!, realised by the Lavazza Foundation. This is a Rainforest Alliance certified coffee.*



FIGURE 3. *Lavazza sustainable coffee ;Tierra!*

In the last years, Lavazza has also developed ten different types of **capsules**, including the *sustainable* Lavazza ;Tierra!, for making coffee with the Lavazza machine “A modo mio”. Most of them are 100% Arabica, made of coffee beans coming from Brazil and from Africa, India or Central America, as well as the traditional ground coffees seen above.



FIGURE 4. *Lavazza capsules.*

For the *out-of-home consumption* (e.g. bars, restaurants, hotels), also called “foodservice”, Lavazza has four different product lines. Within the *whole beans coffee blends* product-line, Lavazza offers twelve different blends, *one of which is Utz “good inside” certified* and is produced with beans from Brazil other Latin America countries and Southeast Asia. The **sustainable coffee**, Lavazza ;Tierra!, is available in this segment as well. Then, Lavazza produces twelve types of **capsules** for the specific *Lavazza Blue System*, the professional espresso system, and four types of *filter-coffee blends* for making American coffees.

Finally, for the *consumption of coffee in the office*, Lavazza offers two different types of coffee machines systems (Lavazza Espresso Point OCS and Lavazza Blue vending and OCS) and a variety of coffee capsules (twelve for each system).

Lavazza sourcing supply chain

Since Lavazza has several blends ranging from low-price to higher quality and certified ones, its supply chain represents both the traditional model of the commodity system and one example within the market of sustainable certified coffee. It is important to mention that, according to the company, the supply chain for the production of the normally packed coffee is the same as the one for portioned coffee (which includes roasted coffee capsules and pods). There may be some changes in technical aspects, but not in the origin of the product or in its supply chain (Lavazza interview).

Each year the Lavazza Group buys over two million bags of green coffee, including Arabica and Robusta varieties, from over 50 countries (Lavazza website and interview).

The company purchases its coffee mainly through the commodity market, within market- based relations and spot contracts that are based upon a description of the reference-quality profile determined by Lavazza at the beginning of the supply season⁶ (See CAFAGGI & SWENSSON, 2012).

The company buys green coffee from international traders from large cooperatives or large green coffee producers which have created fully-owned companies operating as exporters also for other green coffee producers.

5. According to Lavazza, although its purchases concern the commodity market, they do not regard “generic” coffee, but coffee with specific and determinate characteristics. In fact, the product must be of a certain variety and comply with the different quality standards established by the company. (Lavazza interview). Brazil is one of the first countries in which Lavazza has defined its quality standard, through a description of its physical and organoleptic characteristics. Given that coffee is subject to climatic differences, including the amount of rains and solar irradiation, quality standards may be redefined each year, through visits by Lavazza technicians in the countries of origin during coffee harvest Lavazza Sustainability Report, 2012, p. 66).

In Brazil, Lavazza buys coffee, among others, from *Exportadora Guaxupè*, which is the exporting company of a large green coffee family-owned producer, as well as from *Cooperative Guaxupè*, which is the largest cooperative of green coffee producers in Brazil (and the second largest cooperative of coffee producer in the world), with 6.500 members⁷. It is important to emphasise that **cooperatives themselves operate as chain intermediaries more than as market intermediaries**: here the main function of cooperatives is buying the green coffee from members in order to place high volumes of produce on the market. Although, on average, Brazilian farms' size is bigger than in other producing countries of the world, many producers cannot reach a minimum production capacity enabling them to access the international market autonomously. Whereas these cooperatives also provide technical assistance and services for farmer members, including logistics and exporting activities, other types of cooperatives in Brazil have an exclusive or prominent focus on technical assistance. In any case, farmers remain free to sell their produce on the market even when the cooperative plays as a buyer of members' products: no exclusivity constraint applies to Brazilian cooperatives.

On the other hand, with regard to Lavazza special blends of differentiated coffee, with the sustainability certification of Rainforest Alliance and/or UTZ certified, the company buys the coffee mainly *from specialised international traders*.

As we will see in these cases, the company has also developed some specific projects within its Corporate Social Responsibility (CSR) programme, which include a closer contact with green-coffee producers and the transfer of knowledge and innovation along the supply chain. Although these CSR projects do not usually have a direct interaction with Lavazza procurement strategies, they always have an indirect impact on them enabling farmers to improve the value of their offer in terms of quality and sustainability thanks to the support received by NGOs and other organisations providing specific services.

Once the coffee purchased from international traders/exporters/cooperatives arrives in Italy, it is roasted at Lavazza's industrial plants. The Lavazza industrial system is composed of four plants located in Italy: the Turin and Verrès, both dedicated to the roasting and packaging of roast and ground products; the Gattinara plant dedicated to products for the Lavazza Espresso Point, Lavazza BLUE and Lavazza A Modo Mio (capsules) espresso systems, and the Pozzilli plant, dedicated to decaffeination (Lavazza website). It has also two small plants in Brazil and India but they produce roasted coffee only for domestic consumption.

After roasting, the coffee passes to a **quality selection** and then is grinded. Lavazza has developed a *high-tech procedure* that allows the company to grind between 4,409 and 6,613 lbs of roasted coffee per hour, with the necessary micrometric adjustments based on how the coffee is brewed (Lavazza website).

After this stage the coffee is packed for distribution. Lavazza monitors in-house the packaging process by taking statistical samples in order to verify the perfect performance of the operations. The coffee is packaged according to the final characteristics of the product: ground products in flexible packets or cans; ground products in pods; and whole-bean products (Lavazza website).⁸ Coffee destined for supermarkets is vacuum-packed in a modified atmosphere.

The structure of the distributive chain

Following the packing stage, the palletised product is sent to the automated finished-product warehouse, which is the logistical heart of the company. The finished-product warehouse is managed entirely by the company's Information Technology system.⁹ Product distribution is handled by Lavazza through its logistics centres in Turin, Milan and Rome (Lavazza website).¹⁰

6. Lavazza interview, November 2014.

7. The line consists of packaging machines, cartooning machines and palletisers (Lavazza website).

8. As described by Lavazza, the Turin logistic centre "is equipped with an automated computerised warehouse with an overall storage capacity of 11,000 slots for two-metre-high pallets. Handling is managed by a central data processor using an unmanned roller and four transelevators" (Lavazza website).

9. According to the company "Lavazza directly manages product distribution and uses its own warehouses as well as warehouses on a contract basis. In Italy, Lavazza's logistics centers are in Turin, Milan and Rome. The logistics centre in Turin carries out both distribution and procurement for the other logistics centres in Italy and abroad" (Lavazza website).

Lavazza, indeed, has a wide variety of coffee products that are sold either through the retail market segment or through the Ho.Re.Ca. segment in Italy and abroad. Around 40% of Lavazza coffee is destined to foreign markets (80 countries), while 60% is distributed in the internal market. In the Italian market, 65% of Lavazza coffee is sold in the retail market for at-home consumption, where Lavazza has a market share in terms of value of 48,8%¹¹, and 35% is sold for out-of-home consumption (however, the value of sales in the these two segments have opposite numbers – the value of coffee sales through the Ho.Re.Ca channel being greater than that in the retail one, even if the volume is lower). Moreover, Lavazza is also developing direct forms of distribution through fully-owned single-brand coffee shops in Italy and abroad. In 1999, with the aim to foster the export of the perfect Italian espresso, Lavazza acquired the traditional Italian-style coffee chain “Il caffè di Roma”, which offers a range of customised and Lavazza branded products (Lavazza website), joined later by the chain Barista Lavazza in India (Coffitalia 2014-15, 19). Moreover, in 2007 Lavazza established the Lavazza Espression chain, which is defined as “the landmark for aficionados of authentic Italian coffee”, a place where consumers can find a large selection of coffee specialties and top quality foods, with a special attention to design and furnishings (Lavazza website). Both these coffee shops operate through franchising agreements.

The differences between these two channels are also reflected on the structure of the relationships with the distributors or operators of the Ho.Re.Ca channel. While with the large-scale distribution (LSD) the negotiations take place with the centralised purchasing area/staff of the distributor and less frequently with the single local LSD outlet, in the Ho.Re.Ca. channel the relationship is directly managed through the sale network of Lavazza, which negotiates and enters a distribution contract for the supply of roasted coffee and assistance services with, for example, the owner of the individual shop (bar). It should be noted, however, that the hotel chain is more centralised than the other out-of-home segments and has a similar structure to the LSD. Within the Ho.Re.Ca. channel, agents may play a role in connecting the parties, roaster/supplier and the Ho.re.ca operator, although their relevance is decreasing. Intermediary distributors are very rarely involved in this channel. As already highlighted, this implies that only larger and more structured roasters are able to distribute through this channel throughout Italy, while smaller ones may have access to it only within local range.

10. Lavazza Sustainability Report, 2012, p. 22.

2.2 PAULIG'S SUPPLY CHAIN

2.2.1 Product mapping and supply chains

Product mapping

96% of Paulig coffees are Arabica coffees. Paulig's value chain analysis focuses on the sustainability-labelled coffee brands even though it is the main producer of the commodity coffee via retail stores, private label coffee for Kesko and S-Group and commodity and certified coffee for the Ho.Re.Ca sector. Paulig indeed offers coffee products for almost every segment of the market. It needs to be kept in mind that within Paulig's coffee chains we can distinguish between (i) *commodity value chains* without any certifications and (ii) CSR differentiated coffee value chains which use CSR certification - *single or double certifications*.

Each year Paulig buys roughly 0.7 per cent of the global green coffee output, in all some 60 million kilos. For the most part, green coffee *is purchased directly from coffee exporters operating in 10–15 different countries of origin*. The bulk of Paulig's procurements consists of green coffee and Paulig invests in *strategic partnerships* with suppliers, who are selected on the basis of more detailed criteria than before. (interview in Paulig). 90 per cent of the green coffee beans can be traced to the cooperative level and almost half to the farm level, according to Paulig's sustainability manager Miettinen (Sitra 2013, 29).

Paulig's most well-known brands, Juhla Mokka, Presidentti and Papua New Guinea are bought from spot markets. *Brands which do not use certified coffee can be bought e.g. from spot markets*. The Juhla Mokka brand was introduced in 1929. The coffee contains Santos beans from Brazil but the proportion is not known. The packaging looks much like it did 75 years ago. Presidentti coffee has been on the market in similar packaging for 75 years. During the war, coffee consumption was controlled by ration cards until 1954 which may explain why coffee became a symbol of the rebuilding of Finland. The coffee business has managed to retain a sense of nostalgia over coffee drinking. (CONSUMERS INTERNATIONAL 2005, 40).



FIGURE 5. *Paulig's coffee brands which do not use certified raw coffee.*

In the commodity coffee segment, only the Papua New Guinea brand needs to be bought from one single country as the brand is based on geographical differentiation.

Adding corporate social responsibility characteristics to the final product requires generally the whole value chain to be taken into account and CSR criteria need to be managed along the whole value chain. From the Finnish roaster's perspective this means that not only the own company's CSR issues are managed but also the sourcing of raw materials and communicating the differentiated image to the final customer needs to be managed. (SORSA 2009, 25–34).

Other Paulig products are based on certified coffee (mainly: UTZ certified organic and fair trade certified) (see below, par. 4.2).

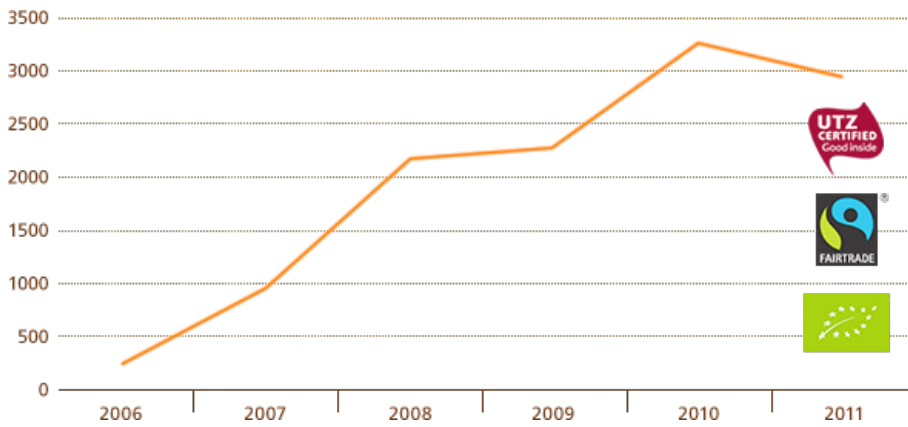


FIGURE 6. *The growth of responsibility-labelled green coffee in Paulig (www.paulig.fi).*

Responsibility-labelled green coffee accounts for some 10 per cent of global output and demand is growing. Of the coffee purchased by Paulig in 2011, roughly 5 per cent was certified against CSR standards. (www.paulig.fi).

Paulig produces CSR certified coffee brands under several of Paulig’s brands. The number of certified brands has grown remarkably since 2005. Paulig Mundo is double certified as it has both Fairtrade and organic labels. Paulig Brazil and Paulig Kenya brands are UTZ certified and Paulig Colombia and Paulig Mexico are double certified. They carry both Fairtrade and organic labels. The category Paulig Professional is also double certified (Fairtrade and organic).



**Differentiated coffee markets:
CSR certified brands:**
Paulig Mundo, Fairtrade and organic

CSR certified and geographical brands:

Paulig Brazil, Utz certified
Paulig Kenya, Utz certified

Paulig Colombia, Fairtrade and organic
Paulig Mexico, Fairtrade and organic

FIGURE 7. *Examples of certified Paulig brands.*

Paulig is also the producer of Pirkka labelled coffee for Kesko. UTZ certified Pirkka brands are produced by Paulig. In the beginning of the 21st century there was not enough UTZ certified coffee available from Paulig and at that time Kesko bought UTZ Certified Pirkka coffee from the Netherlands. After Paulig was able to source UTZ certified coffee according to Kesko’s blending criteria, Kesko changed the production of Pirkka UTZ certified coffee to Paulig (Kesko buyer interview.)

Paulig also produces certified coffee for the two main fast-food chains in Finland and the publicly-owned railway organisation AVECRA. McDonald’s UTZ certified coffee is produced by Paulig as well as Hesburger’s Fairtrade and organic certified Paulig Mundo coffee. Hesburger changed its coffee to sustainably labelled in 2011.

In summary, Paulig is the main coffee roaster in Finland and its major coffee business is in the commodity coffee business. Here we are focusing on the differentiated coffee value chains of Paulig.

After roasting, the transport of the coffee products to retail chain warehouses is handled mainly by customers' transport partners. The products are packed for transport on pallets dimensioned for optimal space use in the vehicles. Paulig's delivery service carefully plans load packing and the routes to minimise the number of transports. The logistic company Itella takes care of Paulig's coffee transportation. (www.paulig.fi; www.itella.fi).

Differentiated value chains – sourcing from Brazil

Paulig does not have direct relationships with farmers, but relies on intermediaries such as trading companies in Europe, exporters and/or cooperatives in countries of origin. As we will see, these intermediaries play a crucial role and are carefully selected by Paulig with a particular attention to their capability to promote quality, safety, productivity in the coffee production, in a sustainable way. Sustainability is the specific focus of Paulig procurement strategy. Whereas Paulig's blendings are mostly not subject to third-party certification, due monitoring on compliance with sustainability standards is carried on by specialised intermediaries as well as by Paulig during its visits at the farmer's site¹². Whereas the production of commodity coffee has been done through fairly long chains until recently, the focus on sustainability has induced Paulig to shorten the chain and select intermediaries also based on their ability to contribute to proper monitoring over quality as well as sustainability. More particularly, with regard to special blends of differentiated coffee, Paulig has aimed to focus more and more on strategic partnerships with market and chain intermediaries which are able to trace their raw coffee to the farm level. (CSR Report 2008, 11-12). Among these Exportadora Guaxupé organization has been Paulig's partner long time, Nucoffee represents a more recent market intermediary. (Paulig CSR reports and Annual Reports). Sara Lee is a representative of an intermediary in the commodity value chain. In 2014 roughly 6 per cent of the coffee purchased by Paulig was certified for sustainability. (www.paulig.com).

11. Paulig interview, November 2014.

Paulig's procurement in Brazil includes different key suppliers depending on type of product and area of interest. Indeed, compared with other roasters, Paulig also offers a menu of mono-origin brands.

One of Paulig's brands is Paulig Brazil which represents branding based on geographical location of coffee beans with the CSR certification. Paulig Brazil is mainly roasted from Santos coffee beans.



FIGURE 8. *Paulig's Brazil coffee pack.*

Santos beans were imported to Brazil from French Guiana in the early 18th century in the region of São Paulo. Nowadays the three main coffee-growing areas in Brazil are Sul de Minas in the southern part of Minas Gerais; Mogiana; and an area called the Cerrado, several hundred miles north of Minas Gerais. In contrast to other Latin American countries, the vast majority of coffee farms in Brazil are large estate farms (see, more extensively, chapter I).

About half of the Brazilian coffee harvest comes from the state of *Minas Gerais* in the southern part of the country. The climate of this region is ideal for cultivating coffee and there is plenty of labour in the area, particularly necessary at harvest time¹³. Paulig buys coffee from Minas Gerais, among others, *through the Exportadora Guaxupe*, which supplies 700,000 bags of coffee a year to buyers around the world. The UTZ certified farms in Brazil which Paulig coffee beans come from are among others Faz Brejao e Outras and the Fazendas Sao Jose e Serra Nova¹⁴. Both these estates are owned by the Exportadora Guaxupé. The Exportadora Guaxupé sells coffees grown on the estates belonging to the Group or acquired from growers-partners that follow strict environmental, social and economic standards. In the last-mentioned case the farmers sell their coffee beans via the *Exportadora Guaxupé exporting company*, which exports both UTZ certified coffee as well as 4c certified coffees¹⁵.

Guaxupe regularly sends Paulig a traceability report on the coffee sold to it. Of the coffee exported by the company, 80% can be traced back to the plantation and the remaining 20% to the cooperative level. Monitoring reveals much more than just the location of the plantation – for instance, the amount of the harvest, the harvesting date, and action carried out on the plantations (www.paulig.fi).

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12. Brazil is also becoming a significant player in the specialty coffee industry. Bourbon, Typica, Caturra, and Mundo Novo coffee varieties are grown in the states of Paraná, Espírito Santos, São Paulo, Minas Gerais, and Bahia. Within Brazil, Minas Gerais is the largest coffee-producing state. With over one million hectares planted, the state is responsible for approximately 50% of the Brazilian harvest.
 13. Information based on the coffee bag produced by Paulig and the UTZ certified traceability system.
 14. Exportadora Guaxupé is an exporting company, family-owned with a long tradition in the Brazilian coffee business. Guaxupe was the fourth coffee plantation in Brazil to receive UTZ CERTIFIED -certification, and its entire in-house output (some 80,000 bags a year) is UTZ certified. It has been a 4C member for over three years but it was only last year that it began setting up a 4C Unit. Guaxupé exports between 600,000 and 800,000 bags per year. As per 4C Compliant Coffee, they have around one million bags.
 15. Rubinstein, Alexis 2010: NuCoffee, new initiative: Brazil is the powerhouse of coffee, home to some of the largest estates and highest export figures. Tea & Coffee Trade Journal, April 2010.

According to Paulig’s ‘From Bean to Cup report’ 2010, Paulig started cooperation with a new supplier partner, Nucoffee/Syngenta, in Brazil. Nucoffee Limited liability organization, a branch of the Swiss chemicals and bio-research company Syngenta¹⁶. In the framework of a programme created by Syngenta, Nucoffee operates in all parts of the coffee chain, promoting the integration between producers, cooperatives, and roasters through the commercialisation of distinguished-quality coffees. NUCOFFEE was created by Syngenta in order to increase the value of Brazilian coffee, stimulate quality, implement good agricultural practices and transparency in business relations, and form links between growers and the external market. It offers to producers and cooperatives a series of services to support them in the improvement of quality and in best practices for cultivation, at the same time helping create closer relationships between the demand and the origins of coffee. Roasters have access to an ethical product, reflecting Nucoffee’s commitment with the acknowledgement of the source and producer, creating a true cycle of evolution that is strengthened by each partnership they create. (www.nucoffee.com). The Nucoffee initiative has further evolved to become a training program for small coffee farmers in Brazil. UTZ Certified and Nucoffee have started a training program for small coffee farmers in Brazil. The programme is called the Caminho Sustentia Initiative, a multi-stakeholder program which is supported by Nucoffee/Syngenta, UTZ and 20 cooperatives in the state of Minas Gerais. (www.utzcertified.org).

The volume of UTZ certified coffee in Brazil has grown remarkably during the past four years which can be seen in figure 9. The other important coffee producing countries from the Finnish perspective, Columbia and Honduras, have also grown their UTZ certified raw coffee volumes.

Country	2009/2010	2010/2011	2011/2012	2012/2013
Global UTZ Certified Coffee Volume	365.972	394.003	476.903	715.648
Latin America	226.484	267.339	338.449	473.580
Brazil	108.615	136.444	166.274	232.336
Colombia	48.348	50.649	62.127	78.171
Honduras	36.774	33.548	42.405	64.408

FIGURE 9. *UTZ certified impact report January 2014, 49.*

According to Paulig's internet pages, it buys UTZ certified coffee from several exporters in Brazil. If the coffee seller is Sara Lee, in that case in the upstream part of the value chain there is an additional link in the value chain, the Quota Mille company. It is the partner company for Sara Lee and is responsible for evaluating and executing the coffee purchase activity almost exclusively for Sara Lee. (GONCALVES & MITTESTAINER 2010, 32).

Sara Lee is the largest coffee buyer in Brazil and the only buyer for certified coffee in the Mogiana Region in 2002–2010, according to the Decisão Consultores Coffee Quality Project – Mogiana Region – report (Decisão 2010). Sara Lee has also conducted UTZ certification projects in Serra Negra, in the Sao Paulo region, in 2002–2010.¹⁷

Even though there are actors like Exportadora Guaxupé between Paulig and the coffee farm, the Paulig coffee purchasing personnel and coffee manager visit the coffee farms every now and then. But as there are dozen thousands farms producing coffee for Paulig blendings, it is impossible for Paulig to supervise all of them. Paulig needs to trust its subcontractors using the personal relationships with intermediaries as a management tool. (Sitra 2013, 28).

In conclusion, we can find out that Paulig's upstream value chain is based on the partnership with the exporting companies and cooperatives which know better than Paulig the local conditions in Brazil and take care of the necessary tasks and operations in order to guarantee the delivery of quality coffee for Paulig.

16. <http://www.defoundation.org/brazil-sera-negra-ended/>

The structure of the distributive chain

Paulig's distribution chains in Finland are described in figure 10. As Paulig has reached the market leader role on the Finnish coffee markets, it distributes its own branded commodity products and CSR certified products through all retail chains. It has also gained a solid place in the Ho.Re.Ca sector's fast food chains Hesburger and McDonald's. Together these cover approximately 70 per cent of the market share in Finland. The Hesburger and McDonald's chains both buy exclusively certified coffee produced by Paulig. Avekra takes care of the railway Ho.Re.Ca. sector and, after the newest acquisition, Robert's Coffee, Paulig will also focus more on the specialised small roaster's segment. This will make Paulig an even stronger player in the Finnish coffee market. Robert's Coffee was founded by Robert Paulig in the Finnish capital, Helsinki, in 1987. Now the chain has almost 80 coffee shops in Finland, Sweden, Estonia, Denmark, Singapore and – since 2010 – Turkey, where Paulig supplies 24 outlets.

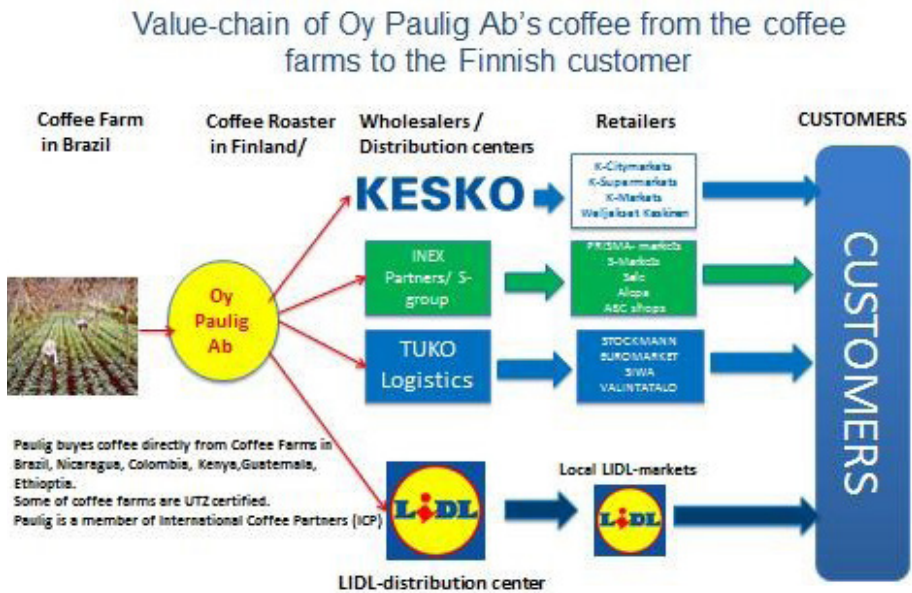


FIGURE 10. Paulig's distribution channels in Finland through retail businesses.

When the coffee is sold to retail stores, the wholesale companies of the chains are the buyers. Kesko wholesale company buys coffee for the K-chain retail companies and Kespro Ltd., a Kesko Food subsidiary, for the Ho.Re.Ca sector. Inex partners buys coffee for the S-Group chain.

The market shares of the main players in the Finnish food markets in 2013 are described in figure 11.

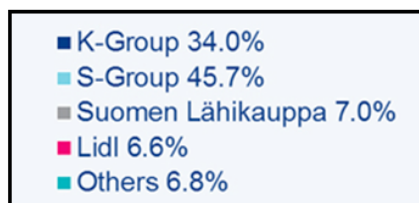


FIGURE 11. *The market shares of the main players in the Finnish food markets in 2013.*

Kesko Food is engaged in the grocery trade in Finland. The operations of the approximately 1,000 K-food stores are based on the K-retailer business model. These stores form Kesko Food's K-citymarket, K-supermarket, K-market and K-extra chains. In grocery wholesaling, Kesko Food's subsidiary Kespro Ltd. is the leading wholesaler in the Finnish Ho.Re.Ca business. Kesko Food manages the operations of the chains made up by the stores. Cooperation between Kesko Food and the K-retailer is based on the chain *operations defined in the chain agreement*. Chain operations ensure higher competitiveness for the entire chain. Key Factors contributing to competitiveness in chain operations include customer-orientation and operational efficiency. The major duties of Kesko Food include centralised purchasing of goods and logistics, chain concepts and their development, formation of selections that are available throughout the entire chain, the chains' marketing, data management and store site operations, and management.

The competitiveness of K-food stores and Kesko Food is reinforced by efficient practices and *long-term cooperation models with selected partners*. Responsibility is an integral part of Kesko Food's and K-food stores' daily operations. In 2013, K-food stores introduced a K-responsibility concept, which makes the responsible operations of K-food stores increasingly visible to customers.

Kesko Food's subsidiary Kespro is the leading wholesaler in the Finnish hotel, restaurant and catering (Ho.Re.Ca) business and acts as a partner for its customer companies and municipalities in Finland. Kespro provides its customers with the best sourcing solutions as well as delivery and cash and carry services in the Ho.Re.Ca sector.

Another important Ho.Re.Ca. value chain is that of railway stations and trains. AVECRA offers catering and restaurant services at railway stations and on long-distance trains. It has 17 restaurants at six different stations and a daily restaurant service on approximately 160 trains. AVECRA sells about 2.2 million cups of coffee per year and since April 2009 it is only serving Paulig's Mundo coffee. By switching to UTZ certified, Mundo supports the company values and the VR Group's objective to become a greener company.

AVECRA tested Paulig's Mundo coffee in Pendolino Prego restaurant cars during January and February 2009. Customer feedback was very positive. According to AVECRA's Marketing Manager, Sanna Närhinen, Paulig's Mundo was the right choice for them because it is a high-profile, high-quality product. Moreover, UTZ Certification provides assurance that the coffee they serve is produced sustainably, caring for the people and the environment of the origin countries. (www.avecra.fi).

2.3 ILLYCAFFÈ'S SUPPLY CHAIN

2.3.1 Product mapping and supply chain

Product mapping

Following the still majoritarian European approach¹⁸, which differs from the US approach that favours mono-origin coffee, Illy builds on a unique high-quality blending among several origin coffee types. More particularly, Illy produces one blend made exclusively from *100% sustainably-grown* Arabic coffee from Brazil (around 50%) and from other African and Central American countries.

17. It should be noted that nowadays this traditional European approach is changing and also in Europe the production and commercialization of mono-origin coffees are developing/growing.

Illycaffè blends its coffee before roasting it.

Illycaffè produces three different roast levels of its blend, according to the market to be reached: light for Northern Europe; medium for northern Italy and dark for US, Brazil, Greece, Spain and Southern Italy (DAVIRON; PONTE, 2005, 148). The medium roast is also available as decaffeinated coffee.

The Illy *blend* for at-home consumption is available in the following forms: *Whole Bean Coffees* and, depending on the type of coffee machine, *Ground Espresso*, *Ground Drip Coffee*, and *Ground Moka Coffee* for stovetop preparation.

Nevertheless, Illy produces also *six single origin Arabica coffees*: *Monoarabica Whole Bean Coffees* from Brazil, Guatemala, Ethiopia, Colombia, Costa Rica and India. However, for this case study we focus on the high-quality Illy blend, given that it specifically exemplifies Illy strategy.

Illy coffee is packed in an air-free, pressurised can that enhances and seals in the precious aromas and oils of the coffee (Illy website).



FIGURE 12. *Illycaffè products for at-home consumption: Whole Bean Espresso, Ground Espresso, Monoarabica Whole Bean Coffee. (Illy website).*

The Illy blend and the single-origin Arabica coffees are also available in capsules for the *iperEspresso Capsule System*, for the *UNO Capsule System*, the system for home espresso developed in partnership with the Italian roaster Kimbo with the technological contribution of Indesit (Coffitalia 2014-15, 20), and in pre-measured *E.S.E. (Easy Serving Espresso) pods*. Solely in the form of *iperEspresso* capsules, Illy produces a limited edition coffee, *Idillyum*, a single-origin Arabica coffee grown in the soils of El Salvador and naturally low in caffeine.

The Illy blend is also offered for the out-of-home consumption, in capsules for the *iperEspresso Capsule System* and in pre-measured *E.S.E. pods*, as well as for the *consumption of coffee in the office* through two different types of coffee machines systems (I-Espresso System and Mitaca Professional System).

Illycaffè sourcing supply chain

The Illycaffè supply chain displays particular characteristics related to the quality of Illy coffee. The strong commitment to innovation in supply chain management practices and to the diffusion of knowledge along the chain is a central aspect of Illycaffè model¹⁹. At the beginning of the 1990s, during the period in which the ICA regime ended, Illycaffè was experiencing major difficulties in finding the quality of coffee that it needed for its blend through its supplying-strategy at the time, which was mediated by international traders. Consequently, the enterprise decided to change its supply-strategy completely, by *going directly to the producing countries and creating a new structure which was able to foster the production of high-quality coffee* (which, in that period, just after the liberalisation of the market, was not yet disseminated) *and to co-ordinate directly key tasks* relating to quality standard-setting, quality management and control, packing and transportation, and also the development and transfer of innovation and know-how necessary for the producers to be able to meet the *company's private standards and requirements*.²⁰ The company strategy included, as we shall see, also the co-development of innovation with local producers (see CAFAGGI & SWENSSON, 2012, 20).

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18. See M. Biotto – A.F. De Toni – F. Nonino, (2012), "Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement", *The International Journal of Logistics Management*, Vol. 23 Iss 2 pp. 212 – 237, part. p. 217.
 19. Illycaffè interview; Illy sustainable Value Report, 2013, pp.56, 87-88. On the strategy of Illycaffè in Brazil, see CAFAGGI et al., IDB Working Paper, 2012; Biotto, De Toni, Nonino, *Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement*, cit., part. 220 seq. (with special regard to supply chain management and knowledge transfer along the chain); ANDRIANI & HERRMANN-PILLATH, 2011; ANDRIANI, P.; A. F. DETONI, 2008; SAES, NEVES & REZENDE, 2003, 69–121; SAES & ISHIKAWA, 2006; SAES, 1998, 113–120; FITTER & KAPLINSKY, 2002.

The *procurement strategy adopted by Illycaffè*, initially in Brazil and then replicated in other countries, *is based upon 3 pillars*: (a) an award for the best coffee; (b) a price differential to reward quality, and (c) a direct relationship with the farmers, thereby eliminating the traditional intermediaries present in the commodity market (HAGEL et al. 2010; ANDRIANI & HERRMANN-PILLATH, 2011, 19²¹).

The award for the best coffee beans and the price differential to reward quality are directed to attract producers and create the economic incentives for them to switch to quality. In addition, Illycaffè decided to eliminate traditional intermediaries, buying coffee only directly from the farmers, focusing on creating a long-term relationship with them. According to the company, *part of the revenue saved through the reduction of intermediaries is re-allocated to green-coffee producers through the payment of the higher price for their product (on average 30% higher than market prices²²), the awards in the annual competition, and also through the transfer of innovation and knowledge to the farmers* (Illycaffè interview).

Thus, in Brazil, where the coffee supply chain structure was only based upon the commodity-coffee model, Illycaffè created, either directly or through partners, a completely new and alternative structure to co-ordinate the upstream side of its supply chain.

More specifically, Illycaffè has decided not to buy green-coffee directly from the **cooperatives** (eliminating them as chain intermediaries in the Illycaffè supply chain) and has also decided not to include the participation of cooperatives and green-coffee producers association in the organisation of the Illycaffè award²³. The role of cooperatives as chain intermediaries would have altered the modes of intra-farmer competition in a situation in which the roaster has already its own structure to comparatively assess the quality of competitors' bids.

In a different perspective, cooperatives and other institutions (like associations) do play an important role in supporting the capability enhancing effort taken by Illy's suppliers: *they play more as market intermediaries than as chain intermediaries*²⁴. Indeed, cooperatives' members offer their samples to Illy (for supply and/or prize competition). In this perspective, cooperatives have provided important communication channels, informing their members both about the Illycaffè award, but also about the possibility of switching to the high quality production and selling their product to Illycaffè. Thus, *they have operated as informal intermediaries and so have producers' associations*. While analysing and grading their members' green-coffee, often cooperatives promote the high-quality of the product and suggest to the producers to send samples of the product to Illycaffè, both to sell it to the Italian company and to participate in the competition, when the quality of the beans analysed is very high. In fact, especially at the beginning of the development of the differentiated coffee market in Brazil, green-coffee producers had no awareness about the quality of their product and about the possibility of selling it with a higher added value through a differentiated market.²⁵

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20. On lead firms' expansion of direct involvement in the procurement of raw materials sides of the value chain in the agri-food global supply chains (with specific regard to coffee, cocoa and sugar, see also G. Gereffi, *A Global Value Chain Perspective on Industrial Policy and Development in Emerging Markets*, 24 Duke J. Comp. & Int'l L. 433, part. 439. On the relevance of direct relationship with growers in Illycaffè strategy: Biotto, De Toni, Nonino, *Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement*, cit., part. 222.
 21. Illy Sustainable Value Report, 2013, p. 96. To guarantee a fair profit to its suppliers it is stated in Illycaffè Code of Ethics, 2013, as one of the commitments of Illy (see Code of Ethics, par. I, available at <http://www.illy.com/wps/wcm/connect/it/azienda/societa>).
 22. Illycaffè did not want to involve cooperatives and associations in the prize organisation because it was concerned that cooperatives and associations might privilege their own members, which would undermine the legitimacy of the prize.
 23. See G. Gereffi, *A Global Value Chain Perspective on Industrial Policy and Development in Emerging Markets*, 24 Duke J. Comp. & Int'l L. 433, part. 451, on the role of so called "regional production networks" creating scale economies and complementarities that can drive more production and processing and thus higher value exports from the regions.
 24. Even today many producers do not have the means to provide for an independent coffee quality analysis and are often even incapable of recognising good quality coffee by themselves. Therefore, often the cooperative itself is responsible for making small producers aware of the quality of their coffees, fostering their participation in the competition and even preparing and sending the producers sample to Illy's analysis.

According to Andriani & Herrmann-Pillath, the example of Illycaffè in creating networks among its suppliers set the conditions for the creation of personal trust among green-coffee producers in Minas Gerais, improving the relationships between each other and stimulating the creation of new networks among green-coffee producers (ANDRIANI & HERRMANN-PILLATH, 2011, 21). Currently, as affirmed by the authors, “Most suppliers are now part of multiple associations, clubs, cooperatives, and other organisational forms. Participation in multiple forums increases the variety of contexts to which suppliers are exposed, amplifies the diversity of information and stories and allows the cross-fertilisation of knowledge among different regions” (ANDRIANI & HERRMANN-PILLATH, 2012, 22. See also RAUSCHER & ANDRIANI, 2009). Others authors highlight the cooperative effects of Illycaffè strategy in the relationship with and among the growers, so involved in cross-fertilisation of knowledge in agricultural practices. A self-selecting mechanism is also described by these authors as an effect of Illycaffè approach towards excellence²⁶.

The particular organisational structure adopted by Illycaffè in Brazil: activities performed and actors involved

Looking more specifically at the Illycaffè organisational structure and actors involved within its Brazilian supply chain, we should distinguish between (i) the organisation of the annual competition – “Illycaffè award”, (ii) the supply of logistics and quality control tasks, and (iii) the strengthening of the relationship with the suppliers and the technical knowledge transfer.

(i) *The organisation of the annual competition.* In this phase, Illycaffè selected ADS comunicações, a Brazilian marketing-company, as its partner to help with the creation and organisation of the annual coffee competition. As mentioned above, the competition was an important part of the Illycaffè strategy to attract and encourage the Brazilian producers to switch to the high-quality coffee market (CAFAGGI & SWENSSON, 2012, 21. See also CAFAGGI et al., IDB working paper, 2012).

25. On the relevance of direct relationship with growers in Illycaffè strategy: Biotto, De Toni, Nonino, *Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement*, cit., part. 222.

26. Biotto, De Toni, Nonino, *Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement*, cit., part. 222.

Box n. 11 – ‘Prêmio Ernesto Illy de Qualidade do Café para Espresso’ – Illy’s Prize

When Ernesto Illy arrived in Brazil, he wanted to know the reality of Brazilian producers, the way they used to produce coffee and their commercial practices. He had it in mind to promote a coffee competition, to stimulate the production of good quality coffee and to help to identify good quality coffee producers. The idea of the competition came from a quality silk competition that had been promoted by the Ermenegildo Zegna brand for the same purposes (See SAES, 2008, 115 and SAES & ISHIKAWA, 2006). The initiative has then been replicated in India, Colombia and Guatemala²⁷.

The first Prize was organised in 1991 by Illy’s partners in Brazil: Aldir Teixeira (who would then create the Assicafé, a quality analysis laboratory; see below) and ADS comunicações.

Initially, the competition indicated the ten best coffees sent for analysis to the Assicafé, and the ten producers received an amount of money according to their ranking. Nowadays, besides the ten best coffees selected, prizes are also given to the other forty finalists. There is also an award for coffee graders that have classified the largest volume of coffee samples placed between the fifty finalists.

In order to take part in the competition, the producer has to send a sample to Porto de Santos (until recently in charge of Illy’s export), specifically indicating that the sample is destined for the competition. The analysis process is the same one that is performed for quality analysis of the samples sent for Assicafé in order to select those that will be bought by Illy. The difference is that the analysis of the samples sent for the competition is registered and ordered so that it is possible to establish who the finalists are and, in a second moment, who the winners are (interview).

The prize amounts to \$30,000 given to the producer of the best Arabica coffee and, since the first year of the competition, Illy has recognised more than one thousand producers and distributed more than R\$ 4 million (Brazilian reais).

According to interviews, *the Prize has created a valuable competitive dynamic among different coffee producing regions*. The Prize revealed several good-quality producing areas, some of which were even known for their low-quality coffee (as is the case of Matas de Minas, which is also called the Zona da Mata region, in Minas Gerais state). In fact, the Prize broke down some prejudices concerning good quality coffee producing regions.²⁸

The Prize had also an important role in advertising the Cerrado region as the main production region of high quality coffee in Brazil. In fact, the first producers to win the first edition of the Prize came exactly from the Cerrado Region, which has, as we have seen, developed an important regional policy to take advantage of these benefits, through, among others, the geographic indication system. (For more details see box on the Minas Gerais State policies and on Illycaffè spillover effects in Brazil).

(ii) *The supply of logistics and quality control tasks.* These two tasks were traditionally performed with the collaboration of two partners, Assicafè and Porto de Santos. Assicafè is a laboratory responsible for the quality analysis of the coffee samples sent by producers, according to the specific quality standards established by Illycaffè.²⁹ Assicafè also selects the coffee both for purchase and for the award. Porto de Santos, on the other hand, is an exporting company, that was 51 per cent owned by Illycaffè and which was responsible (a) for the purchase of the coffee (selected by Assicafè) directly from the producers, and (b) for all the exporting and transport logistics, assuring the quality of the product from Brazil until it arrives at Illycaffè's producing plant in Italy (Porto de Santos interview). In March 2012, the partnership between Illycaffè and Porto de Santos ended with Porto de Santos buying the 51% of the shares owned by Illycaffé.

The model is increasingly moving towards vertical integration. In the company's opinion, in fact, it is of crucial importance to establish a facility onsite in the coffee origin country, in order to have a closer relationship with the farmers. Thus Illycaffè has started to perform the same activities previously performed by Porto de Santos through a company owned entirely by the Italian group, Experimental Agrícola do Brazil (Porto de Santos and Illycaffè interview). With this strategy, Illycaffè is able to establish its supply-chain specific quality parameters, in order to ensure that the purchased coffee complies with its quality standards, and that the same quality is guaranteed right up to its arrival in the company's industrial plants in Italy (CAFAGGI & SWENSSON, 2012, 21. See also CAFAGGI et al., IDB working paper, 2012). In particular, within Experimental Agrícola do Brazil two functions can be identified: one concerns specifically the trading activity and it is of exclusive competence of Experimental Agrícola do Brazil; the second one is related to the purchasing strategy of Illy and the transfer of knowledge to the farmers and this one is performed by Illy itself through its representatives, being Experimental Agrícola do Brazil the vehicle to carry it on onsite.

27. For example, the common sense was that the south of the Minas Gerais state region produced the best quality coffee.

28. Regarding Illycaffè quality standards, see letter "a" below.

(iii) *The strengthening of the relationship with the suppliers and the innovation and knowledge transfer.* Within the above-described perspective, Illycaffè has soon become aware of the importance of the transfer of technical knowledge and innovation (regarding both the product and the producing process) in order to both encourage the producers to engage in innovative agricultural practices and to allow them to produce a high-quality product in compliance with Illycaffè's quality standards and to maintain the producers' fidelity. For this reason, Illycaffè has adopted the strategy of "internalising" the functions regarding the development and transfer of innovation inside its own supply chain³⁰. In particular, Illy transfers to the farmers technical knowledge concerning both quality and safety of coffee and its production, share innovative knowing, techniques and best practices, in a direct and operative way on-field with the farmers. Initially Illy performed itself this transfer of knowledge, while now the company has trained specialized technicians who stay onsite in countries of origin and are committed to transfer competitive knowledge to the farmers in a wider way. At the beginning the transfer of knowledge was mainly focussed on the criteria used by Illy and its laboratories to evaluate coffee samples and therefore on the coffee producing process, in order to build farmers' awareness about Illy coffee selection process³¹. Moreover, within its new structure in Brazil, Illy has developed two main instruments, namely, as we may see below, the *Universidade Illy do Café* (Unilly), a public-private partnership between Illy and the University of São Paulo; and the *Clube Illy do Caffè* (Illy Coffee Club), a fidelity programme which has the objective of offering Illycaffè's suppliers a number of advantages, including knowledge transfer and technical assistance (see below). Another very significant point is that the company also invested in a co-development *research project with local producers* in order to develop new and innovative coffee species. This is the core of co-innovation production. *In differentiated, as opposed to commoditised, supply chains, innovation is primarily the outcome of collaborative projects rather than innovation being bought in the market* (CAFAGGI & SWENSSON, 2012, 21. See also CAFAGGI et al., IDB working paper, 2012).

To sum up, the Illycaffè model of selection of coffee suppliers takes place through a mix of competitive and cooperative practices with farmers that include, even if informally, elements of collaboration, technical assistance and, in particular, innovation and technological transfer. On the one side, suppliers do compete when sending their samples to Assicafé for quality assessment, and they also compete when racing for quality prizes; on the other

hand, several initiatives are taken by Illy and its linked institutions in order to transfer knowledge to suppliers on a collective basis also enabling mutual learning among them.

After all the activities performed in the origin country, Illycaffè operates as a roaster and develops the activity of roasting coffee exclusively in Italy. This is consistent with the regulatory framework described above with regard to the international trade regulation of tariffs. The roasting phase is entirely operated internally and directly by Illycaffè.

When the coffee arrives at Illycaffè's roasting plant in Trieste (Italy), further quality control tests³² and a final selection procedure³³ are performed by automated system and sophisticated machinery.

After that, the green coffee beans from different origins and with different characteristics are mixed following a precise recipe to form Illy's unique blend. For the blend preparation, a specific tasting test is conducted by "internal" experts trained after a three-year internal tasting course³⁴.

The following step is the roasting of the blend.³⁵ It can be divided into three stages: drying, roasting and cooling. It can be considered the most critical stage in coffee production. In Illycaffè it is highly automated and heavily monitored by both instrumental quality control checks and skilled employees (Illycaffè website).

29. Illy Sustainable Value Report, 2013, p. 88.

30. Illycaffè interview, November 2014. On some of these aspects see also: Biotto, De Toni, Nonino, Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement, *cit.*, part. 223 seq.

31. In this procedure: "robots pick up the bags, count them and place them on the conveyor belt. Once the beans have been removed from the bags, they are placed on a vibrating screen which separates any remaining foreign objects. An aspirator removes the smaller, lighter impurities and a magnet removes any metal. At this point, the green coffee is stored in silos. Website: <http://www.probrands.ro/index-en/illy-coffee/about-illy/the-illy-blend.html>

32. The last selection is conducted by six sophisticated bi-chromatic systems which electronically "photograph" each bean, detecting and eliminating any which do not meet strict color standards – an indication that the bean is not fully ripe – or is a "stinker", a fermented bean that can ruin a whole batch. With this technology, each and every raw bean is inspected at a speed no human hand could match, and with precision beyond even the most highly-trained human eye. Illycaffè believes that this level of inspection is essential for natural coffees in particular and it is just one of many methodologies used exclusively by Illy to approach its goal of "zero defects". Website: <http://www.probrands.ro/index-en/illy-coffee/about-illy/the-illy-blend.html>

33. Biotto, De Toni, Nonino, *cit.*, p. 224.

34. According to Illycaffè website: "Roasting is what transforms the green beans into dark, fragrant coffee with its tantalising aroma and flavour." (Illycaffè website)

After roasting, the coffee is packed and ready for distribution. Illycaffè developed already in 1934 an innovative system to pack the coffee with pressurisation. This method guarantees the coffee quality and a longer preservation time of over two years before its use. (Illycaffè website.)

The structure of the distributive chain

The Illy blend is now sold in over 140 countries, across 5 continents, and it is served in more than 50,000 public establishments around the world, with more than 6 million cups consumed each day (Illycaffè website, last visited November 2014). In 2013, 56% of total sales were outside Italy (Illy is also the first European coffee brand in North America)³⁶.

Illy distributes its unique espresso blend through both the retail segment and the Ho.Re.Ca one, in Italy and abroad. In the Ho.Re.Ca. segment illycaffè has a market share of 8,8%³⁷. In the Italian and European retail segment, Illy has direct relationships with the centralised purchasing offices of all the main large-scale distributors, while in the Ho.Re.Ca. segment the distribution chain is less centralised and the roaster tends to have direct relationships with single Ho.Re.Ca. operators, providing them with dedicated assistance and speed delivery service³⁸. In Italy, Illy coffee is sold half through the retail segment and half through the Ho.Re.Ca. one.

Within the framework of Illy's corporate strategy of offering high product quality and customer service, Illy has built a huge distribution network that consists of coffee shops and retail shops across the world selling only Illy coffee.

For international distribution of its coffee Illy shows a wide use of vertical integration, given that subsidiaries have been established in many relevant foreign countries (e.g. USA, Canada, Brazil, Germany, France and Benelux, The Netherlands, Spain and Portugal, China, South Korea).

35. Illywebsite. See also Biotto, De Toni, Nonino, Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement: The illycaffè case study, *International Journal of Logistics Management*, 2012, 2, p. 221.

36. Illy Sustainable Value Report, 2013, p. 41.

37. Biotto, De Toni, Nonino, Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement, *cit.*, part. 225.

3 CONTRACTUAL GOVERNANCE IN THE THREE EXAMINED CASES

3.1 LAVAZZA

3.1.1 Green coffee purchases

In the commodity market, contractual practices along the chain tend to follow a general pattern³⁹, which can be identified also in Lavazza contractual practices.

In fact, Lavazza generally purchases the product through spot contracts, based upon a description of the reference-quality profile determined by Lavazza itself at the beginning of the supply season on the basis of the coffee harvested in that year (PONTE & DAVIRON, 2005, 45). The focus is on the reliability and homogeneity of the supply and coverage throughout the year that is accomplished by buying the coffee mainly from large traders or large exporters, which are able to assure uniformity and large scale supply (PONTE & DAVIRON, 2005, 45). Contracts are integrated with requirements in code of ethics and suppliers' code. Pursuant to Lavazza Code of Ethics⁴⁰, Lavazza

38. The acquisition of green coffee by roasters is characterised mostly by market-based relations, short-term on the spot contracts on the physical market, and by a few direct relations between green-coffee producers and roasters (See CAFAGGI & SWENSSON, 2012). This conclusion is based on limited empirical findings due to the difficulties to access contracts.

39. Available at the following link: http://www.lavazza.it/it/mondo_lavazza/ethics.html. Among the main principles followed by the Lavazza Group in its business and commercial relations are integrity and loyalty and the commitment to base any relations on fair, transparent negotiations. The Group's fundamental values have been stated in 2013 in the new Lavazza Code of Ethics, which is an integral part of the Italian Legislative Decree 231/2001 on the administrative liability of legal entities, within the Group's Internal Control System. The Code is applicable within Luigi Lavazza S.p.A and within all the companies controlled by it, both in Italy and in all the countries where the Group operates, in accordance with local laws and regulations. Moreover, Lavazza ask any person, such as, but not limited to, suppliers and commercial partners, who enter a business relationship with the Lavazza Group to comply with the rules expressed in this Code (Code, par. 1.1., pag. 6).

The guiding principles of the Code are the following: passion for excellence; team spirit; gratefulness; transparency; integrity; farsightedness.

endeavours specific *commitments towards its suppliers such as*: carefully select its suppliers on the basis of objective, impartial and comparable criteria focusing on merit, reliability and competitiveness, rewarding partners who respect in their activity internationally recognised human rights, labour and environmental principles; establish trustworthy and inclusive relationships with its suppliers, fostering cooperation and inclusion in technology innovation projects and in the continuous improvement of products and services, according to a model of “shared value”; foster information sharing, transparency of relationships and open communication, also with regard to control modalities concerning quality of supplies as well as principles to be complied with; prevent risks of conflicts of interest and corruption attempts, in order to ensure integrity during the entire business relationship but also in the selection procedures; foster commercial relationship hinged on mutual trust and continuous cooperation, but also on environmental and social sustainability of all activities.

Lavazza suppliers must comply with the Lavazza Supplier Code of Conduct⁴¹, which has been issued by Lavazza in September 2013 on the basis of the Lavazza Code of Ethics and having as references recognized standards such as the United Nation Universal Declaration of Human Rights and the International Labour Organisation labour standards⁴². The Lavazza Supplier Code of Conduct contains the key ethical and sustainability guidelines Lavazza is committed to and asks all its suppliers to adhere to when conducting business with Lavazza, starting from compliance with national and international standards and Lavazza quality requirements (Supplier Code, par. 1). Lavazza rewards those suppliers who are engaged in improving their performance, also taking the corrective actions identified by Lavazza, and reserves the right to terminate the relationship with the suppliers who refuse to take these corrective measures⁴³. Lavazza fosters its suppliers to build durable relationship with the communities where they operate, making active contributions to address the social and environmental challenges they face, being proactive in sharing value all along the supply chain and supporting coffee production communities (Supplier Code, par. 3). Lavazza expects its suppliers to comply with all applicable laws and regulations concerning safety and health of working environment, working hours, wages and benefits, and also with the Universal Declaration of Human Rights and the Fundamental Conventions of the International Labour Organization. Moreover, Lavazza asks its suppliers to engage in the prevention of involuntary labour and the abolition of child labour (Supplier Code, par. 4). Lavazza suppliers shall

also comply with all environmental laws and promote eco-innovation. The relationship of Lavazza with its suppliers is hinged on transparency and open communication, also with regard to the implementation of the Code.

The Supplier Code, in fact is considered an integral part of the contractual relationship between Lavazza and its suppliers and violations of the Code may lead to contract termination⁴⁴. Contract termination is a last resort measure, which normally occurs only in very severe cases in which parties are no longer willing to cooperate; these are cases in which non-compliance does not only regard sustainability issues but also quality aspects⁴⁵. The sanctioning system of the suppliers' code reflect an escalating structure where corrective measures are privileged over sanctions and penalties and compensation for breach⁴⁶. Compliance with the Supplier Code is guaranteed by Lavazza through facilities inspections, with or without notice, and employees' interviews, as well as through third party audits⁴⁷. In case corrective measures are needed,

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40. Available at the following link: http://www.lavazza.it/it/mondo_lavazza/ethics.html.
41. See Lavazza Sustainability Report, 2012, published in April 2014, available at http://www.lavazza.it/it/mondo_lavazza/csr/sostenibilita/, p. 111. See F. Cafaggi, The regulatory functions of transnational commercial contracts. *New architectures*, 36 *Fordham Journal of international law* 1558 ff.
42. Interviews with Lavazza, November 2014.
43. See on the integration between commercial and regulatory functions in transnational contracts F. Cafaggi, The regulatory functions of transnational commercial contracts. *New architectures*, 36 *Fordham Journal of international law* 1558 ff.
44. Interview with Lavazza, 8 January 2015.
45. See Lavazza Suppliers Code: "Continuous improvement. We give priority to Suppliers who can give evidence of compliance with all the provisions of this Code and to those that are genuinely engaged in improving their performance pursuing or anticipating market requirements. If during our assessment we identify corrective actions, we require our Suppliers to be fully committed to undertaking the appropriate measures. We reserve the right to terminate without liability any relationship or agreement with Suppliers refusing to take corrective actions within a reasonable period of time."
- On the relationship between cooperative remedies and termination see: F. Cafaggi - P. Iamiceli, Supply chains, contractual governance and certification regimes, in *European Journal of Law and Economics*, 2014, pp. 131-173; F. Cafaggi - P. Iamiceli, Contractual relationships in global supply chains: the role of cooperative remedies, forthcoming *Uniform law review* 2015 See also UNIDROIT / FAO Legal Guide on Contract Farming, forthcoming, Spring 2015
46. See on the monitoring structure of contracts along global supply chain F. Cafaggi, The regulatory functions of transnational commercial contracts. *New architectures*, 36 *Fordham Journal of international law* 1558 ff. part. 1600 ff.

Lavazza expects its suppliers to implement them (Supplier Code, par. 5). The adoption of corrective measures has absolute priority over any other remedy in case of non-compliance⁴⁸. These are agreed upon by Lavazza and the non-compliant supplier with a view to foster cooperation and long-term relations with strategic partners⁴⁹.

Among the sustainability objectives of Lavazza to be accomplished in the next years are: (1) the application of the Supplier Code of Conduct to all the suppliers that have direct or indirect relationships with Lavazza and (2) the implementation of a system for the evaluation of suppliers that takes into account aspects of Corporate Social Responsibility, such as the adoption of a Code of Ethics, the drafting of the Sustainability Report, the possession of environmental and social certifications

The contractual governance of the upward side of Lavazza's supply chain deploys two contracts. Firstly, there is a **domestic contract between coffee growers and the local exporter or trader**, which is governed by Brazilian law. This contract may take the form of *a pure exchange contract or that of a farming contract*, depending if the object of the sale is simply the commodity or if particular quality aspects or certifications are at stake, requiring the buyer to better coordinate and partially control the production process and transfer some technology and know how⁵⁰. In either case Lavazza even if it is not party to the contract participate indirectly in this specific contractual relationship by visiting together with the trader several farmers once a year, generally at the beginning of the supply season when defining the quality standards of the coffee to be purchased (Lavazza and CECAFÈ interview). Often large coffee growers develop their own exporting facility or take the form of cooperatives which take care also of the exporting phase and of the related logistics activities.

Secondly, there is an **international contract between Lavazza and the local exporter or the international trader** for the sale of green coffee. This contract follows the *ECC model contract* created by the European Coffee Federation, which contains all the general aspects regarding the acquisition and the shipping of green coffee (CECAFÉ, Escritório Carvalhaes, Porto de Santos and Lavazza interviews. See supra cap. II, par. 3)⁵¹, integrated with the Supplier Code of Conduct. Lavazza uses this contractual model to purchase a large range of types of coffee from more than 10 different countries (Lavazza interview) and to ensure the supply throughout the year. It is on this second contractual relationship that the procurement strategy of Lavazza is hinged, also when it is interested in a particular quality or sustainable coffee.

Lavazza does not enter into a direct contractual relationship with individual coffee growers. A fortiori, when certified coffee is needed, Lavazza tends to select specific local exporters or international traders which have a branch based in the producing country, so that these locally based operators can enter into domestic contract farming relationships with coffee growers, making sure that they produce coffee according to the required specifications (Lavazza interview). Moreover, in such cases specific controls are performed by the certifier.

It is interesting to note that *this type of complex contractual arrangements might be traced back to the “intermediary model” of contract farming as identified by the literature*⁵² (see also supra, ch. II, par. 4.2): Lavazza, in fact, formally interacts only with an intermediary, the exporter/trader, who then contracts with the farmers, on the basis of the specific needs and requirements of Lavazza.

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47. See F. Cafaggi - P. Iamiceli, Supply chains, contractual governance and certification regimes, cit.
 48. Interview with Lavazza, 8 January 2015. See F. Cafaggi - P. Iamiceli, Contractual relationships in global supply chains, cit.
 49. On farming contracts see the Unidroit Guide on farming contracts, FAO Guidelines, GIZ Guidelines.
 50. See also <http://www.ecf-coffee.org/> and <http://www.greencoffeassociation.org>.
 51. In the literature, five models of contract farming have been identified, distinguished according to the type of contractor, the type of product, the degree of vertical coordination between the parties and the number of parties involved. In the *intermediary model*, the purchasing firm directly interacts with an intermediary, such as a farming committee or a trader or a “collector”, who then contracts with the farmers (Eaton and Shepherd, Contract farming, cit.; Bjman, Contract farming in developing countries: an overview, WP Wageningen University (the Netherlands), 2008). See more recently Unidroit Guide on contract farming 0 draft, available at www.unidroit.org, Contract farming for inclusive market access, FAO 2013, Vermeulen and Cotula, making the most for agricultural investments a survey of business models, 2010.

Generally, under the ECC model contract traders promise to sell a specific quantity and quality of green coffee that has been already harvested in the country of origin but is not already at their disposal, following the scheme of contracts for the sale of future things but on the physical market and not on the stock exchange. However, when differentiated coffee is needed, traders tend to enter into forward agreements with coffee growers with a view not only to define and control coffee production quality, but mainly with a view to provide **financial support** to the farmers for the production, particularly in case of sustainability coffee (e.g. Fair trade). *Thus, in this second case, far from being just “a contract covering movement of coffee from the port of shipment to the port of destination” – as is described in the ECC model contract itself – the international contract between Lavazza and the exporters/traders (based as well on the ECC model) plays the role of a governance tool for the supply of quality coffee.*

In the individually-negotiated contract signed by Lavazza and accompanied by the general condition of the ECC model, the company establishes essentially three points: (i) the quality specifications of the product, (ii) the conditions and time of the delivery, and (iii) the price which is based on the price established at the stock exchange market for the general standard quality of coffee, as a reference price, plus a certain differential depending on the characteristics of the specific green coffee purchased through the contract. *Lavazza has its own list of qualitative standards of the product which refer to the maximum number of defects it may have*⁵³. These quality specifications may range from lower quality parameters, including, for example, even a maximum of 30 defects, to much higher ones, which include, for example, a maximum of 6 defects (Lavazza interview). For all other contractual provisions (such as qualitative claims), the parties refer to a specific standard as established in the contract model (Lavazza interview and data).

52. According to Lavazza, although its purchases concern the commodity market, they do not regard “generic” coffee, but coffee with specific and determinate characteristics. In fact, the product must be of a certain variety and comply with the different quality standards established by the company. (Lavazza interview).

Besides the ECC contract model for the procurement of green coffee from the country of origin, which is the most commonly used, Lavazza may also use another *ECF model contract* – the *European Contract for Spot Coffee* – when it buys coffee already cleared through customs and traded within the import market, or future contracts, when it needs to quickly buy conventional quality coffee. However, the use of future contracts is mainly related to risk-edging operations, while the effective purchase of green coffee through future markets is more limited⁵⁴. In this case, depending on the type of coffee bought (Robusta or Arabica), the contract is negotiated on the London or NY future markets and the delivery may occur in specific delivery points in Northern Europe or in specific exchange warehouses.

As regards the dispute resolution, the ECF contract model also provides that “any dispute which the parties are unable to resolve amicably shall be determined by arbitration at the place stated in the contract and under the rules and customs of the arbitral body for the coffee trade there established” (ECF contract model).

Thus, the choice of the place of arbitration depends on the choice of the parties and, according to Lavazza, most often it is Hamburg or London, which have a long tradition in this regard. To ensure the effectiveness of the arbitration, especially in the cases in which the country of the parties has not ratified the 1958 United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (the “New York” Convention), the European Coffee Federation created a “black list”, that is a list with the name of all the sellers and buyers that had not abided by the arbitration decision. As the players in the international coffee market are not very numerous, to end up in the “black list” can bring very bad consequences for business of the party involved, as the other buyers/sellers could consider it risky to buy/sell coffee from/to them.

In the case of Brazil, for example, which until 2002 had not yet ratified the “New York” Convention⁵⁵, the list was an efficient indirect mechanism to ensure the accomplishment with the international arbitration decision (Lavazza interview).

53. There are two main futures market centres that serve the global coffee industry: New York (NYSE: ICE) especially for Arabica coffee and London (LIFFE) for Robusta. ITC, 2011, 132.

54. Brazil ratified the New York convention through the *Decreto Legislativo* n. 4.311 from 24/07/2002.

However, in the practice, most of the disputes are solved directly by the parties and the use of arbitration or domestic courts is very rare.

3.1.2 Quality control and traceability

In relation to quality standards contractual regimes govern liability and the allocation of tasks among different chain participants. Given that Lavazza does not have its own facilities in producing countries, the company carries out the activities related to the monitoring of the quality of the product and traceability mainly in Italy, before roasting⁵⁶. However, such activities are also done by the seller (i.e. the exporter and/or the trader) in the green-coffee exporting country. In fact, given that sellers bear the risk for the green-coffee sold to the buyers, they also perform their own quality and safety control and they often have their own traceability system (CECAFÉ and Cooxupé interviews).⁵⁷

According to Lavazza, the company is able to identify each batch of coffee it has bought, but not the origin of each specific green-coffee bean and of each specific green-coffee producer (Lavazza interview). This is also due to the blend that it is used.

In fact, in the commodity market the possibilities of identifying the origin of the product are more limited than in specialty market or certified coffee. This is in partly due to the role of **growers' cooperatives**, which also Lavazza and its traders source from. Indeed, most cooperatives use to mix the product acquired from different green-coffee producers, and to sell it indistinctly, with no possibility of tracing its origins. Furthermore, in general, with the exception of Brazil, green-coffee is produced in very small properties in family farms and when large quantities of green coffee are sold through the commodity business system the traceability of each green-coffee bean may be very complicate.

With the development of the differentiated coffee market, this situation has significantly changed. In Brazil, for example, traceability has been developed also by green-coffee exporters and cooperatives with regard to green coffee producers. This is very important not only to guarantee the differentiated characteristics of the products (such as origins) but also because they are the ones responsible for the product they sold and have, therefore, interest in being able to identify the traceability of the product if there is a problem with it (CECAFÉ interview).

It should be investigated further whether this emerging practice, which represents an important example of system level innovation, has remained confined within the differentiated coffee market or has spread throughout the commodity market as well.

On the other hand, once the product reaches the roasting site, Lavazza operates its internal traceability system for the remaining part of the chain and processes. The company is able to identify which batch of coffee was used to produce each roasted coffee product and, therefore, to make the recall of the entire lot of roasted coffee, if there is a problem. Indeed, it is this type of traceability – tracing the lots of products produced, that have a defect (and not the traceability of each coffee bean back to Brazil) – that the authorities in the consuming countries and the retailers request (Lavazza interview).⁵⁸

As regards quality control, Lavazza demands that the shipping companies fully abide by a series of requirements for the shipment of its coffee. On arrival in Italy, the containers are checked to ensure that the coffee quality has not deteriorated during transportation (Lavazza website and interview).

Lavazza also has its own green-coffee quality analysis laboratory that is responsible for selecting the beans, creating the blends, and defining and checking the quality standards of the batches of the green coffee that have been purchased.⁵⁹

Traceability operates differently in relation to product safety. Legislation rather than contracts and markets define the standards and allocate liabilities among chain participants. Requirements by international standards and domestic legislation impose the establishment of HACCP regimes whose violations may create liability. Pursuant to this legislation and given that Lavazza is very strict in case of non compliance, rejecting the product, its suppliers tend to carefully follow safety standards.

55. See also Lavazza Sustainability Report, 2012, pp. 76 ff.

56. According to Lavazza, the quality control is done in Italy in order to be handled more directly by the companies that do not have their own structure there. Lavazza has found difficulties in relying completely on the control made at the origin. (Lavazza interview).

57. According to Lavazza, today there is an information system that automatically gives the information about which lots the roasted coffee sold belongs to. (Lavazza interview).

58. As part of its system of quality checks, Lavazza performs chemical tests on every incoming batch of green coffee to assess its quality and compliance with current legislation. (Lavazza website).

3.1.3 Distribution contracts

Distribution contracts differ depending on the channel. The contractual relationships at the downstream level of the supply chain are characterised by the use of distribution contracts, generally establishing one-year duration and providing special mechanisms regarding discounts on purchases within the year. Despite the short-term duration of the contract, usually the relationships are long-term, since the contracts tend to be renewed year after year. With regard to the retail market, Lavazza usually enters dealership contracts with the LSD, foreign distributors (in 80 countries), specialised commercial partners and some subsidiaries.

Distribution contracts with the LSD tend to be poorly detailed, only one page, containing the general conditions and the discount rate. Negotiation, indeed, is made on the discount rate. Framework contracts are generally used, they are entered between the roasters and the centralised office of the distributor, followed by executory contracts stipulated between the roaster and the single local outlet. Framework contracts may be more detailed, including distributors' policies and guidelines. According to Lavazza, the *retailers* do not impose particular quality standards on the company regarding the product, but in general regarding the delivery and logistics (that may include also the position of the label on the pack). These are aspects that may influence the costs. It is important to mention that an important movement for standardisation of the label and barcodes has taken place through private regulation that has helped to make uniform the label and reduce the costs (in Italy: INDICOD association). In some cases, retailers may require their suppliers to provide safety certifications or may ask to perform audit at the suppliers' facilities in order to verify the compliance with food safety standards.

For the distribution abroad, the relationship is governed by dealerships agreements with operators who often have the exclusive right to import in a given country and in a certain channel. These relationships are generally long-term. If exclusivity clauses are included, requiring to the dealer a commitment not to distribute competing products, the maximum duration is five years (pursuant to EU regulation 330 of 2010 on vertical agreements).

In the Ho.Re.Ca. channel, instead there is a growing tendency towards requiring specific standards related to sustainability certification. For example, in order to supply the food service chain of IKEA, Lavazza has been required to obtain the Utz certification, although it had already certified its high-quality coffee (Tierra!) under the Rainforest Alliance standard.

Moreover, contractual relationships are different within the Ho.Re.Ca. channel or the portioned coffee one as in this case roasters are required to provide also assistance services or training to the buyer. In this case, in fact, coffee machines and coffee grinders are provided by the roaster to the buyer under a loan-for-use contract, which establishes minimum purchase amounts and discounts on prices over the year. Distribution Contracts have a minimum duration between three and five years and often they include penalty clauses for early withdrawal and exclusivity clauses, establishing exclusive coffee supply from the roaster.

Typically within the Ho.Re.Ca. channel, the roasters play an additional relevant role: they not only supply the coffee, provide the coffee machines (under loan-for-use contract), and provide services, but generally also offer favourable solutions to finance the owner of the bar, for example, in starting up the business or for restructuring the premises. Competition among roasters in this distribution segment is based on the services roasters are able to offer. With specific regard to Lavazza, the company has its own finance company issuing loans for these purposes.

3.2 PAULIG

3.2.1 Green coffee purchases – general aspects

Paulig's procurement strategies and contractual governance strategies can be described taking into account the needs of the different brands. When buying certified coffee, the roaster needs to find certified coffee farms or exporters in addition to the normal criteria of coffee quality and flavour.

During 2011, the **procurement strategies** of the Paulig company were honed in all categories of purchasing. Paulig's Coffee Division is a member of the Paulig Group-wide Sourcing project. The aim was to streamline cooperation in procurement and transport and to use the best practices throughout the

Group. Paulig aims to invest in strategic partnerships with its suppliers, which are selected on increasingly specific criteria. Important factors include, in addition to the ability to produce quality, the terms of delivery, reliable delivery, knowledge of the green coffee market, and responsibility. The new Procurement Policy records the responsibilities, authorisations and practices related to purchasing. The guidelines help to harmonise procurement procedures (www.paulig.fi).

Despite not having direct contractual relationships with farmers, Paulig at least twice a year visits farmers in countries of origin together with the intermediary, who is formally its contractual partner. These visits are aimed at conveying to the farmers Paulig's focus on quality and sustainability, strengthening and complementing the role and the services specifically offered by the intermediary. Usually, in fact, the intermediaries provide to the farmers technical support and farming best-practices. In this way, Paulig can evaluate its contractual partners, verifying their work on-field and checking the implementation of sustainability standards. Moreover, the direct communication concerning quality and sustainability made by Paulig to the farmers can be viewed as a sort of knowledge transfer⁶⁰. Paulig has improved its contract management activities when it realized the importance of certification issues for its business. Paulig has deepened its relationships with farmers as well with their intermediaries even though it does not have direct contractual relationships with farmers.

Paulig coffee procurement is governed by the *Paulig Code of Conduct* and the *Paulig Code of Quality*, which apply to the trading partners and not to the farmers. However, trading partners are request to extend its application to the relation with sub-supplier, therefore adding a clear supply chain dimension to contractual governance⁶¹.

Express codification of procurement standards contributes to improve supply chain management through intermediaries. The principles of procurement are *used in all the main producer countries*. All procurements are subject to common purchasing practices and guidelines (Paulig interview). Paulig specifies, among other things, quality criteria and quality assurance practices for green coffee. The code also takes a stance on the environmental friendliness of cultivation methods and the labour rights of coffee plantation workers and work safety. *The code is based on the ethical guidelines of the European Coffee Federation and on the regulations of the International Labour Organisation and the UN.* (Paulig interview.) When buying, for example UTZ certified coffee,

then the certification adds additional criteria to Paulig's own code of conduct. Thus, Paulig approach focuses on sustainability, following also the impulse coming from the distribution, as a core aspect somehow playing even a more relevant role than the certification itself.

In case of non-conformity with regard to quality standards Paulig tends to ask for product replacement, while price reduction is rarely used, only in cases where the defective product can be used in an alternative way. When non-conformity concerns safety standards, usually Paulig rejects the product. No cases of non-compliance with sustainable standards have been reported but the approach to non-compliance is explicitly presented as a cooperative one in the Code of Conduct, being the focus on corrective measures and consensual problem solving⁶².

Paulig complies with the European Contract for Coffee (ECC) rules in all its purchase contracts for green coffee⁶³. "We do not yet audit our suppliers systematically. So far it has been enough that we go through Paulig's Code of Conduct with the exporter and they sign it. Anyway, we visit the countries we import our coffee beans from. *If the supplier breaches the contract we do not buy from them anymore or we reduce the amount of coffee – that has been a feasible sanction so far.*"⁶⁴

59. Paulig interview, November 2014.

60. *The Paulig Group Code of Conduct for Suppliers*, p. 3 ("The supplier shall have a system in place to implement and communicate the principles within its supply chain. The Paulig Group will assess its supplier's compliance with this CoC by asking the supplier to provide relevant information and also by conducting audits and reviews of the supplier and, if relevant, of its sub-suppliers. The suppliers shall provide name and location of the sub-suppliers they use upon request from the Paulig Group."). On the relevance of supply chain dimension in contractual governance see F. Cafaggi – P. Iamiceli, Private Regulation and Industrial Organization: Contractual Governance and the Network Approach, in *Contract Governance: Dimensions in Law and Interdisciplinary Research*, edited by Martin Stefan Grundmann, Florian Möslin, Karl Riesenhuber, Oxford University Press, forthcoming, 2015, pp. 341-374; F. Cafaggi – P. Iamiceli, Supply chains, contractual governance and certification regimes, in *European Journal of Law and Economics*, 2014, pp. 131-173.

61. *The Paulig Group Code of Conduct for Suppliers*, p. 1: "Paulig Group will support its suppliers to meet the standards through dialogue and cooperation. Any supplier who does not meet the requirements in this CoC needs to discuss corrective actions openly with Paulig. If the supplier is unwilling or unable to carry out corrective actions, Paulig is entitled to terminate the business relationship and any contract(s) with the supplier immediately". On these aspects see F. Cafaggi – P. Iamiceli, Contractual relationships in global supply chains: the role of cooperative remedies, forthcoming *Uniform law review* 2015.

62. www.ecf-coffee.org

63. Interview from Paulig.

Most green-coffee purchases consist of high-quality Arabica beans, for which Paulig pays a quality bonus. This means a better income for the growers.

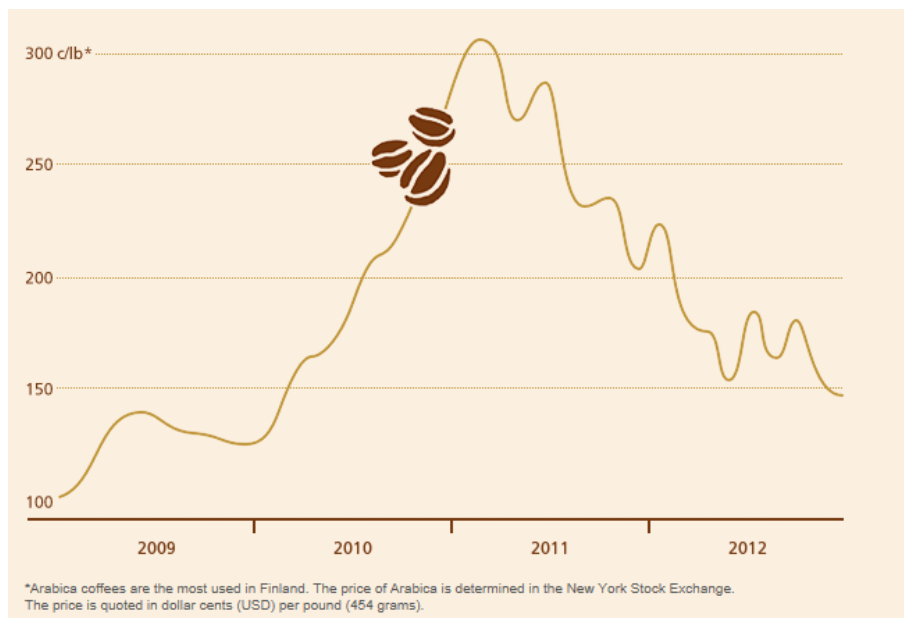


FIGURE 13. *The price of Arabica beans.*

3.2.2 Procurement side: speciality requirements and product traceability

Paulig is systematically working on the traceability of all the coffee it buys in cooperation with its trading partners because traceability is an important part of the coffee chain's management of risk and quality. In 2010, the coffee bought by Paulig could be traced 100 per cent to the export companies in the countries of origin, 86 per cent to the cooperatives and processing plants, and 46 per cent to the coffee plantations. Three years later, in 2013, 90 per cent could be traced to the cooperatives and about 50 per cent to the farms⁶⁵.

In Brazil, Nucoffee, one of Paulig's suppliers described above, promotes traceability of the production of coffee and works arduously to connect all parts of the commerce chain, from the plant to the cup. The trading begins with a barter offer, the exchange of coffee for crop inputs, in which the producer's coffee will be valued distinctly and transparently, taking into account the potential quality and best practice. Following the logics of a "barter", the producers actually pay NuCoffee with their future crop, rather than paying dues or fees to be a member. The producers are then able to receive a premium from Nucoffee almost one year in advance. (RUBINSTEIN 2010).

Aside from the access to their parent company, Nucoffee farmers also have the opportunity to attend workshops and special events on quality control, crop maintenance, cupping and other topics critical to producers. As Nucoffee also works closely with the major certifiers, the knowledge and information given to the farmers is also helpful in the process of obtaining certification. Nucoffee also provides geo-referencing and mapping of each of their farms. If one microlot is producing a superior coffee, these services will help a farmer pinpoint the location, determine the causes and help replicate the conditions. (RUBINSTEIN 2010).

Nucoffee offers the traceability, which is available on the internet and is provided exclusively and without costs to all producers as part of the programme. The platform can be utilised not only for the lots that will be traded for Syngenta inputs, but for the producers' entire production, helping them during commercialisation. The producers will be able to demonstrate best practices to coffee shops and supermarkets and be able to use it to ease the certification admission. In addition, Nucoffee aggregates services to traceability, helping producers better monitor their farming and to have more precise control over the individual processing of coffee, lot by lot. (www.nucoffee.com).

The Exportadora Guaxupé is an exporting company, which takes care of the traceability of the coffee bought from it by Paulig. The compliance of Paulig's UTZ certified products is verified by annual external audits⁶⁴. UTZ certified coffee supplier are subject to UTZ code of conduct, which sets criteria related to environmental and social issues.

64. <http://www.paulig.fi/yhteiskuntavastuu/hankinta>

65. www.utzcertified.com

FLO-CERT certifies Paulig's operations annually in compliance with Fairtrade certification⁶⁷. The production of Organic products is regulated by EU organic legislation. The monitoring of organic products embraces the entire procurement chain. In Finland, supervision is in the hands of Finnish Food Safety Authority Evira⁶⁸.

Focusing on the traceability and improving it is one of the key ways to secure responsibility for cultivation and coffee trade in the green coffee production chain, according to purchasing director Katariina Aho from Paulig. (www.paulig.fi).

Shortening of the value chain and focus on partnerships is general trend in Paulig's coffee procurement as the need to tell the source of the coffee becomes more and more important to the consumers.

3.2.3 Distribution contracts

When selling to the Finnish wholesale companies, the procurement requirements set by these organisations can be diverse. The common issue for the two main retail chains K-Group and S-Group from the beginning of 2014 has been the change in the competition law. Effective from the beginning of 2014, the Finnish competition legislation has changed so that, in deviation from the rest of the EU, the limit of a dominant market position in the food trade is 30% in Finland. According to the new law, Kesko Food and Inex Partners are in a dominant market position.

Kesko's challenges in responsibility work include communicating its responsibility policies to suppliers like Paulig, retailers and customers, and ensuring responsibility in the supply chain. Value discussions are organised in all of Kesko's operating countries for the purpose of promoting responsible operating practices. Kesko's responsible sourcing and purchasing are guided by ethical purchasing principles, compliance with which is ensured by continuous training of the purchasing personnel. Responsibility in purchasing is also maintained by assuring the existence and timeliness of suppliers' quality systems and self-control plans⁶⁹.

Kesko Food has its own Product Research Laboratory, which monitors the quality of groceries and home and specialty goods sold by K-food stores. In 2012, the laboratory analysed 11,688 product samples and conducted 51,744 product analyses. Kesko Food pays special attention to human rights issues and working conditions in their purchasing chain. The objective is to identify the whole of the supply chain and actively promote the social responsibility audits of the suppliers in high-risk countries. (www.kesko.fi)

Kesko develops their product selections while listening to their customers. Kesko adds indication of origin to its own brand products.

Kesko offers a wide selection of Pirkka responsible products. Kesko's objective is to offer 500 Pirkka products meeting a responsibility criterion by 2015 and 200 Pirkka organic products by 2015. Merchandise that fulfils a responsibility criterion includes Fairtrade products, MSC certified products, products with environmental labelling and UTZ certified products

S-Group's wholesale company Inex Partners quality requirements for their food suppliers are described in the Inex Partners Supplier Quality Requirements. These requirements include HACCP, GlobalG.A.P, BRC, IFS, SQF 2000, EFSIS, ISO 22000 or ISO 9001/2000 quality control system standard.⁷⁰

Paulig is the only coffee seller in the Ho.Re.Ca value chain to McDonald's in Finland. This means that all the coffee sold in McDonald's restaurants in Finland is UTZ certified coffee. The decision by McDonald's to buy only certified coffee has been an important driver for the diffusion of sustainability-labelled coffee in Finland. They carry out very strict auditing for Paulig⁷¹.

McDonald's carries out annual SQMS (Supplier Quality Management System) audits to verify its suppliers' food safety and quality credentials. In autumn 2011, Paulig was awarded an A grade, the highest possible, for its September audit. McDonald's also regularly audits corporate responsibility issues, both in the form of the suppliers' self-assessments and through external audits. No discrepancies were found in the responsibility audit held in February 2012.

66. www.fairtrade.net

67. www.evira.fi and www.organic-farming.europa.eu

68. <http://www.kesko.fi/en/Investors/Keskos-Corporate-Governance/Risk-management-and-audit/Most-significant-risks/>

69. <http://inexpartners.eu/english/company/supplier/qualityappendix.pdf>

70. Personnel interviews Paulig and McDonald's.

3.3 ILLYCAFFÈ

3.3.1 Green coffee purchases: types and structure of contractual relationships

The particular characteristics of the Illycaffè supply chain reflect also on the contractual governance concerning sourcing relationships. In fact, Illycaffè, instead of adopting the traditional commodity procedure for buying coffee through traders⁷², has developed a new sourcing strategy, buying the product directly from the producers within an organisational structure owned by Illy.

Direct suppliers' monitoring is highly important for Illycaffè and determines the structure of the supply chain⁷³. Illycaffè buys coffee directly from green-coffee producers through controlled or fully owned exporters in order to monitor green-coffee producers and guarantee the compliance with its private quality standards. Illycaffè imposes its contractual conditions on the green-coffee producers through a **domestic sale contract** signed between its controlled (now fully owned) company in Brazil, playing the role of an exporter, and green-coffee producers. It is useful to keep in mind that in 2012 Illycaffè and its controlled company, Porto de Santos, ended their partnership and Illycaffè started to manage its supply in Brazil through a 100% owned company, the "Experimental Agrícola do Brazil". The supply chain has moved towards a higher degree of vertical integration leaving out only farming.

Despite vertical integration the number of transactions remains the same but one is an intragroup transaction. The contractual governance of the upstream part of the supply chain is characterised, at least formally, by the use of two contracts: one for the **domestic sale of green coffee**, subject to Brazilian law, between the green coffee growers and Illycaffè local exporter; and a second one for the **international transaction** concerning the transfer of green coffee from the local exporter to the Illycaffè manufacturing plant. This second contract between the exporter and Illycaffè, in reality an intra-group transaction, is an international sale based on the ECF model contract and, in this case, it truly constitutes a pure "contract covering movement of coffee from the port of shipment to the port of destination" (according to the definition contained in the ECC model contract).

Illycaffè's procurement strategy is based on direct relationships with suppliers, after careful selection of them, and on direct control over quality in the very first stages of coffee growing through quality management practices and knowledge diffusion along the chain. In fact, although formally farmers contract with an exporter and not with the roaster, Illy retains a substantial influence on this contractual relationship, as also enabled by the proprietary link with the exporter. *Moreover, Illy does not delegate to a chain intermediary (e.g. trader) the control over the quality of the production process and the selection of the green coffee suppliers, being a step of crucial importance.* Illycaffè does so with the assistance of Assicafè, the trusted lab with a long-term collaboration with Illycaffè, through a specific **service contract** for performing quality analysis.

As we will see, the conclusion of both the green coffee sale contracts mentioned above (domestic and international) is contingent upon the quality control performed by Assicafè and its final approval of the quality of the product.

As a further evolution of Illycaffè's procurement strategy toward a greater degree of centralised control, in the last years (around 2009), while the company still had a partnership with Porto de Santos, it started to directly sign **futures (forward) contracts**⁷⁴ *with producers that have shown excellent contractual compliance.* Illy has an important database on the historical behaviour of coffee producers, and based on that data, selects some reliable producers to buy part of their future crop. This is a way to guarantee, in advance, part of the quality coffee supply.

This type of contract ensures Illycaffè a percentage of its future supplying needs of quality coffee, decreasing the risk of lack of raw material. In recent years, in fact, it is gaining relevance due to the increase of the high quality market in Brazil and the *increased presence of competitors* in this market.

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71. As informed by the company, this happens only in the rare cases that they are not able to acquire the quantity of green coffee they need through their own sourcing strategy.
 72. Biotto, De Toni, Nonino, Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement: The Illycaffè case study, *International Journal of Logistics Management*, 2012, 2, pp. 212–237.
 73. Futures contracts are defined as a legal agreement to buy or to sell a given quantity and quality of a commodity at a specified price at the time the contract is executed (*Chicago Boarding of Trade in BRORSEN & FOFANA*, 2001, 133).

The contracts typically refer to the harvest of the year immediately following and, according to the interviewee, never have more than a one-year duration. Like in the regular green coffee sale contracts stipulated by Illycaffè, also in this case the purchase price is defined at the time of conclusion of the contract and negotiated individually with each producer. But the payment is made only upon coffee delivery, after Illy performs quality evaluation on the delivered coffee lot. The advantage to the producers is to know that they will have a buyer for their quality coffee and the price it is known. This enables them to have a better financial plan. But producers cannot count on the money regarding this contract to finance production.

This evolution has been possible thanks to the producers' monitoring, which has been undertaken throughout the last 20 years of the company's operations in Brazil through its controlled company, Porto de Santos (Porto de Santos interview).

3.3.2 Contractual obligations within domestic green coffee sale contracts

The elements of the domestic contract for the purchase of green coffee entered into by coffee growers and the Illycaffè local exporter are established and imposed by Illycaffè, through a **standard contract**, which includes the conditions and place of the delivery of the product, the date of the payment, quality parameters, etc. Illycaffè, in fact, unilaterally establishes its quality parameters, which may change from buying season to buying season, and only buys coffee that complies with them.

Pursuant to this contract, the producer must deliver the full batch of green coffee compliant with Illycaffè quality standards at the exporter's warehouse specified in the contract, bearing the risk of the transportation.

Although each formal contract between the Italian company (through the exporter) and the producer is related exclusively to a single transaction and has a duration of one year, it tends to be renewed each year, giving rise, in most cases, to long-term relationships. Thus, even if it is fragmented in many contracts, the relationship should be considered as unitary (CAFAGGI & SWENSSON, 2012, 23. See WILLIAMSON, 1979; MACNEIL, 1978; GOETZ & SCOTT, 1981). Indeed, *in some cases, farmers have been Illycaffè's suppliers for more than ten or twenty years.* The company knows, therefore, that the producer knows what kind of product Illycaffè wants and how to produce it. In this way, Illy is able to build *long-term relationships with key suppliers.*

It is important to note that the transfer of competitive knowledge performed by Illycaffè specialized technicians onsite is not explicitly regulated within the green coffee sale contract and is not formally protected by specific contractual tools or property rights.

Standards imposed on green coffee producers

Illycaffè establishes its shopping quality parameters already in the **pre-contractual selection phase**. Illy's shopping period in Brazil lasts from about the beginning of June until the end of September. The crop year of coffee in Brazil runs from the beginning of April to the end of March and it varies from country to country according to the season; however, the shopping period may occur some months after the harvesting of coffee and the first processing, so that the coffee may be ready for export approximately between July and December in the case of Brazilian Arabica, and between January and June in the case of Robusta⁷⁵.

Porto de Santos used to advertise Illy's coffee quality parameters (including grain size, humidity percentage, and quantity of defects tolerated) and to receive coffee samples from all over the country. In 2012, Illy started to advertise its parameters through the *Experimental Agrícola do Brasil Ltda.*⁷⁶

74. ICT, Coffee Exporter's Guide, 2011, p. 3.

75. See <http://www.clubeilly.com.br/site/experimental.html>.

Quality standards define the threshold to access the chain. In this specific case they are firm and specific rather than market-based: Illycaffè establishes its own chain-specific quality standards, which have to be accomplished by the suppliers to have access to its GVC. The parameters are partially based on the Brazilian commodity classification system in order to orient producers but comprise also specific physical quality proprieties of the product, which will determine the drink's flavour, aroma, acidity, sweetness, aspect, body and after-taste (high quality coffees) that are not completely disclosed to producers (CAFAGGI et al., IDB working paper, 2012).

The company does not require any kind of third-party certification from its suppliers, neither regarding the characteristics of the product, nor regarding the production process⁷⁷ and in the publication of shopping quality parameters the company does not specify any safety or sustainable parameters (Porto de Santos 2011 shopping parameters announcement and 2012 Experimental Agrícola do Brasil Ltda shopping parameters announcement).

As regards **environmental standards**, it is important to mention, however, that *in the sales contract between Porto de Santos and the green-coffee producers, Illycaffè used to require that the producers comply with the Brazilian law regarding the environmental and labour requirements* (Porto de Santos interview. See below for more details.)

Quality analysis on the product and price determination

As it has been noted⁷⁸, “[t]he quality control system implemented by Illy is extensive: from the supply to the internal production process, each bean passes 125 checks before final packaging (114 quality control steps from the moment the green coffee arrives to the plant to the time it is shipped out in sealed metal cans)”. In its laboratories illycaffè analyses 4.000 samples of green coffee and 20.000 sample of roasted coffee⁷⁹.

In order to sell their green coffee to Illycaffè, coffee producers have to send their samples to Porto de Santos (and from 2012 to Experimental Agrícola do Brasil Ltda) to be previously approved by the Illy quality control system as performed by Assicafé.

The quality analysis costs are borne by Illy. The producer bears no costs to submit its coffee to quality analysis, and even after quality approval he has no obligation to sell his coffee to Illy (Porto de Santos and Illycaffè interviews).⁸⁰ Illycaffè, as well, has no obligation to buy any lot corresponding to every approved sample, submitted for analysis to Assicafé. Thus, there is freedom on both sides. Porto de Santos used to buy the quantity needed and was allowed to interrupt the shopping period at any moment when the supplying necessity of Illy was achieved. Therefore, the green-coffee producer that sends its samples first has more probability of having his product acquired. Moreover, it is important to mention that *Illy does not require exclusivity from its suppliers, but establishes a minimum offer quantity: 100 bags (of 60kg each).*

Porto de Santos used to send the samples (which are only identified by a number code) to Assicafé. Assicafé analyses the coffee quality and grades the coffee. Assicafé used to send to Porto de Santos the analysis results, indicating the coffee lots that could or could not be bought. (see IDB working paper, 2012).

Only after the approval of the quality analysis the exporter signs the sale contract directly with the producer to buy the coffee lot corresponding to the sample approved by Assicafé.

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76. Assicafé is just a laboratory that analyses that the sample sent by the green-coffee producers reach the quality parameters established by the company. In other supply chains of high quality coffee, the exporter, the cooperative, the associations or even the producer itself (such as Daterra) may have their own laboratory to analyse the green-coffee and verify if it reaches the quality parameters established for the acquisition.
77. Biotto, De Toni, Nonino, cit., p. 224.
78. Illy Sustainable Value Report, 2013, p. 35.
79. Illycaffè quality approval can add value to green coffee, regardless of it being purchased by Illycaffè or not. Some green-coffee producers may indeed use it in order to add value to their product and then sell it to other buyers negotiating a higher value.

When this standard contract is signed the price is individually negotiated with each supplier. However, the price is paid to the producer only after the product is delivered to the warehouse and Assicafè has performed the second sampling evaluation, directed to verify the correspondence between the first sample and the “shipping sample” taken directly from the batch.

Previously, the standard contract included a fixed price, while *since 2011 Illycaffè has changed its strategy and started negotiating the price individually with each green coffee producer* (see below, box n. 12).

Box n. 12 – Illycaffè price determination strategies

Before 2011, Illycaffè used to pay the same price per coffee bag to all producers and for all types of coffee approved, updating it at the Porto de Santos website daily. It was established as around 35% higher than standard coffee’s market price on the NYCE, being just a parameter. *In a period where the only alternative possibility for producers was the commodity market, Illycaffè’s differentiated price represented a great opportunity for producer and can be recognised as the first economic incentive for Brazilian green-coffee producers to switch to quality* (see IDB working paper, 2012 and ANDRIANNI & PILLAPHT, 2011).

According to the announcement made by the company, with the new price strategy the company intended to “look for the recognition of the final quality and partnership of all” (Porto de Santos 2011 shopping announcement). More particularly, this new strategy can be described as follows. As referred by a producer, Illycaffè’s quality parameter can be, for example⁸¹, equivalent to a minimum of “80 points” coffee according to the BSCA classification system (see above, chap. I, box on definition of specialty coffee). Though individually negotiated, contracts proposed by Illycaffè would provide for the same price for an equivalent of 80, 85, or 90 point coffee whereas, with the previous price strategy, they would not distinguish among the different qualities of green-coffee acquired, once the product complies with the company’s established parameters. With the development of the differentiated coffee market in Brazil, indeed, the green-coffee producers started getting very different prices for a coffee equivalent, for example, to 80, 85 or 90 points in the market and it started not to be always advantageous to sell their high quality coffee to Illycaffè under the previous price strategy.

Thus, among the reasons that could explain this change is the development of the market for high-quality coffee in Brazil and the different price that green-coffee producers can get in the market. With this new strategy Illycaffè is, therefore, currently able to pay a differentiated price for the different range of quality of coffee received (all of them of “high quality”) and, therefore, to stimulate the green-coffee producers to keep selling their coffee to Illycaffè and not to other players in the market. Moreover, this economic incentive motivated green coffee growers to both collaborate and share knowledge and invest in research to improve the quality of their coffee⁸². In addition to that, as we will see later, Illycaffè implemented mechanisms to transfer knowledge and know-how to coffee growers through academic courses, both theoretical and practical, offered by the Università del caffè, based in Trieste but with other campuses in coffee growing countries (22 campuses) and relevant markets where it also collaborates with local institutions⁸³.

Market competition has then triggered an important change in Illy’s contractual practices, offering additional incentives for suppliers’ investments in capability enhancing. *This “buyer-driven” system of investment remuneration through prices can be compared with other schemes providing for specific price remuneration of investments done in social and economic development of the supply chain and suppliers in particular: the reference is to schemes that are more focussed on fairness and sustainability standards rather than quality (such as for Fair Trade). The explanation might be that in the context of social and sustainable standards more than in quality standards, third party coordination is needed to set the standards, to remunerate the added value of investments required and to monitor over correspondent price increases.*

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80. Here the BSCA classification system is only used as an example, given that there are many other different criteria that can be used to establish the quality of the product.
81. Biotto, De Toni, Nonino, Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement: The Illycaffè case study, *International Journal of Logistics Management*, 2012, 2, p. 222.
82. Biotto, De Toni, Nonino, cit., p. 223.

It is interesting to note that, defining the price at time of contract conclusion (after the sample test) allows the producers to use the contract as a guarantee when buying inputs, machinery, to go to the financial market etc. This mechanism seemed to somehow balance the risk that is borne by producers, whose payment depends on the final approval of the coffee by Assicafé and Illy. This financing function is still possible under the new pricing method, for which price depends on quality level as eventually ascertained by Assicafé. Indeed, price variation is kept within certain limits and allows potential financiers to prize the contract value as a form of guarantee. Moreover, price is not the only index for assessing the value of the contract. The stability of the overall relation has an important value, too, also in the eyes of potential financiers.

Performance-compliance control and remedies for non-conformity

Once the lots of green coffee are delivered to the exporter's warehouse, new samples are collected and sent to Assicafé. At this time, Assicafé would undertake an analysis to determine if the new sample matches with the original one.

If the sample does not match, there are two possibilities;

(i) Assicafé decides that the coffee lot can go through another quality processing. Assicafé gives the producer a chance to present the coffee lot a second time, with reduction of the coffee defects to the parameters tolerated.

(ii) Assicafé decides that the defects cannot be removed. The lot is rejected and the contract is rescinded. In this case, Illycaffè will not pay the price agreed and the producer will have to search for his coffee at the warehouse. No damages will be charged. The interviewees noted that Porto de Santos never encountered problems with producers who had their coffee rejected. Interviewees said that producers normally understand the 'rules of the game'⁸⁴.

83. This practice reflects the wider approach in farming contracts where damages are rarely the main remedies sought by the buyer in long term relationship. See the Unidroit Guide on farming contracts.

It is important to highlight that, in the case of non-compliance, unless defects' reduction is deemed impossible, delivery is refused only after a former attempt of defect reduction during an additional quality processing. This shows how the collaborative approach aimed at farmers' capacity enhancing can influence contractual governance also in terms of remedies against breach⁸⁵. We can distinguish this one from other approaches taken in different market segments.

By contrast, if the sample matches, the payment is made and the exporter would sign an international sales contract with Illycaffè, and would be responsible for delivering the lots in Italy.

From 1991 to 2012, Porto de Santos and Illycaffè have had a contract according to which Porto de Santos had to export all bought coffee to Illycaffè and to deliver the coffee to Trieste, Italy (Porto de Santos and Illycaffè interview).

3.3.3 Distribution contracts

Illycaffè distributes its coffee both in the retail segment, through distribution contracts with large-scale distributors operating at national as well as international level, and in the Ho.re.ca. one, which is characterised by the higher relevance of services offered and the their capillarity. It is interesting to note that the overall strategy of Illycaffè focusing on knowledge-sharing practices and the diffusion of a culture of excellence in coffee quality are extended also in the downstream part of the supply chain⁸⁶. In the relationships with Ho.re.ca customers (i.e. the café owners), this strategy allows their expertise and professional competences to be enhanced, thus improving the quality of the final product and the consumers' satisfaction. Further, the diffusion of this culture of quality to final consumers enhances the perceived quality of the final product, so that they are willing to pay a premium price. Thus, the typical branding strategy is here combined with the diffusion of a culture of quality.⁸⁷

84. On the cooperative approach to remedies see F. Cafaggi - P. Iamiceli, Supply chains, contractual governance and certification regimes, in *European Journal of Law and Economics*, 2014, pp. 131-173; F. Cafaggi - P. Iamiceli, Contractual relationships in global supply chains: the role of cooperative remedies, forthcoming *Uniform law review* 2015.

85. Biotto, De Toni, Nonino, Knowledge and cultural diffusion along the supply chain as drivers of product quality improvement, *cit.*, part. 222.

86. Biotto, De Toni, Nonino, *cit.*, p. 225–226.

In the Ho.re.ca. channel, Illycaffè operates both directly, through its own brand shops, and indirectly, through its selling network of agents and technical advisors, and it has also developed variegated distribution solutions within a more comprehensive distribution strategy aimed at creating a strong and loyal relationship with its customers. So, Illycaffè has contracts with Ho.re.ca. operators, usually including assistance services and “loan for use” contracts concerning the coffee machine and the grinder machine, as we have seen also in the case of Lavazza. In order to guarantee a high level of service and customer support, Illycaffè specialised technicians often visit the café assisting Ho.re.ca. operators.⁸⁸

In 2009 Illycaffè has started a project to establish an international chain of bars in franchising characterised by a contemporary design: here Illy espresso is accompanied with a selection of typical Italian food and the offer of all Illy products⁸⁹. Up to now, these quality fast food sites (called “Espressamente Illy”) are more than 200 in the major cities of 34 countries, either in airports, busy streets, museums or shopping malls (Illycaffè website). With specific regard to the other out-of-home segment concerning the consumption of coffee at workplaces, Illy operates through a subsidiary in charge of commercialising and promoting the different products and solutions for this market.

87. Biotto, De Toni, Nonino, cit., p. 225.

88. See <http://www.franchisekey.com/it/franchising/espressamente-illy-i.htm>

4 INNOVATION AND SYSTEM-LEVEL INNOVATION

Following the scheme of chapter II, we develop the analysis on system level innovation to investigate major changes within the “system” of international coffee value chains that have occurred in the latest decades with the effect of enhancing social and economic development through innovation. As seen above, we adopt a comprehensive notion of innovation, including innovative practices linked with both (i) the adoption of quality and sustainable standards and (ii) the development of technological innovation more traditionally intended. In both perspectives we expand the concept of innovation looking at the impact on supply chains and the emergence of forms of “organisational innovation”. Sub-section 4.1. addresses the use of standards in each of the three examined supply chains. Sub-section 4.2. analyses the modes of production and transfer of innovation through the supply chain. As sub-section 4.2. shows, transfer of innovation through supply chains is often linked with the need to ensure compliance with quality, safety and (or) sustainable standards along the chain.

4.1 INNOVATION, SYSTEM LEVEL INNOVATION AND THE USE OF QUALITY AND SUSTAINABLE STANDARDS

4.1.1 Lavazza

Lavazza adopts international standards regarding its production system⁹⁰. The company has the ISO 9001: 2008, which attests that Lavazza complies with the established quality management system standards.

89. See Lavazza Sustainability Report, 2012, p. 79.

As regards third party certifications, the company adopts several schemes applied to the industrialisation stage of Lavazza's production. The certification adopted may vary among Lavazza's four production plants in Italy.

All Lavazza plants have the Kosher certification, which is a third party certification issued and monitored by the rabbinate that guarantees that the food product has been handled with procedures and ingredients that comply with the requirements of the Torah (Lavazza website and data).

The Pozzilli Plant, responsible for the production of decaffeinated coffee, complies with the public regulation and has the certification from the United States Department of Agriculture (USDA) National Organic Program (NOP)⁹¹, which regulates the production and transformation of organic products for the American market and is applied to Lavazza's decaffeination process (Lavazza website). This plant also complies with the European Union standards established by the CE 834/2007 and 889/2008.

On the other hand, the Turin plant, which is Lavazza's main one, has also the UTZ certification (Lavazza website) and the Rainforest Alliance certification, like the Gattinara plant. The implications of having UTZ certification and/or the Rainforest Alliance one are rather significant also in relation to the contractual relationships with the partners in the supply chain. Lavazza, however, requires the adoption of these certification schemes only to some of its suppliers for specific lines of certified roasted coffees.

As regards the other plants of the company, other than the Kosher certification, the Verrés Plant has, the voluntary EMAS Registration regarding the environmental impact of the industrial activities (see above), and the Turin plant has the HACCP certification which addresses food safety.

Thus, certification is not mandatory for all of its suppliers. In the case of certified products, specialised traders are involved in order to request a more careful selection of suppliers. In this case the company requires in the contract for the purchase of green-coffee (from traders and exporters) that, in addition to the quality parameters set by Lavazza, the product must be Rainforest or UTZ certified. In such cases, the green-coffee producers pay the certification and the certifying bodies monitor the compliance of the green-coffee producers. According to those schemes the buyer pays a premium that covers those costs.

Lavazza, as we see below, has also a special CSR project, in which the company gives assistance and helps green-coffee producers to acquire the Rainforest Alliance certification without any commitment to supply their product to Lavazza. In this case, the option for sustainable standards, as practiced by the roaster, has contributed to generate a type of system level innovation by the means of cooperation with a multi-stakeholder non-profit organisation active in the field of capability building among coffee suppliers (see below on ICP and the Neumann Foundation).

The Lavazza commitment in the area of sustainability goes beyond the purchase and roasting of certified coffee. Indeed, Lavazza Sustainability Report shows that Lavazza specific *Sustainability Mission* consists in the integration of sustainability in its business strategy and its activities, making recognizable the commitments of Lavazza both within and outside the company, towards consumers, customers, suppliers, business community and communities where Lavazza operates, in the following *main areas*: product sustainability, sustainable production processes and sustainable relationships with internal and external stakeholders⁹².

Among the *key issues of sustainability* examined in the Report, with regard to activities managed by the executive center and production establishments in Italy in 2012 and partly in 2013, with some reference also to foreign affiliates and activities outside Europe, are: *products quality and safety; sustainable product innovation* and sustainable environmental packaging; *reduction of environmental impacts* of production processes; employment protection; *sharing product know-how and coffee culture with customers and commercial partners; collaboration and networking with peers and Universities to promote research and innovation*; respect for human rights along the supply chain; projects to *support the development of coffee producing communities; creating value on the territory* where the company operates; increasing presence in foreign markets; competitiveness and profitability of the Group.

90. According to the USDA website the “USDA’s National Organic Program regulates the standards for any farm, wild crop harvesting, or handling operation that wants to sell an agricultural product as organically produced.” (USDA website).

91. Lavazza Sustainability Report, 2012, pp. 20 and 31.

The importance of sustainability issues is highlighted also within the relationship of Lavazza with its suppliers to whom it asks compliance with specific sustainability rules contained in the Supplier Code of Conduct⁹³. A specific attention is devoted to the *communities where Lavazza operates*, “towards whom it feels a moral obligation of protection and towards whom it will direct its efforts for a sustainable development”. In particular, to this end Lavazza commits to develop “partnerships with key actors in the local social and economic contexts with the aim to strengthen, where possible, the competitiveness, well-being and sustainability of the communities”, foster the application of principles of corporate social responsibility all along the value chain and work towards the minimisation of the environmental impacts of its operations as well as of its products.

To ensure the high quality and sustainability standards of its products, Lavazza evaluates the environmental performance of some key products through the methodology Life Cycle Assessment, in accordance with the rules of reference ISO 14040/14044, starting from the coffee raw material, passing through processing in the countries of origin and in production plants in Italy, to packaging, to transport of raw materials and finished products, until the disposal of coffee⁹⁴.

The Lavazza Group has also taken an active part in the project for the definition of PCR (Product Category Rules), within the environmental certification system EPD (Environmental Product Declaration), for drafting guidelines for calculating the carbon footprint of green coffee. The project was born thanks to the contribution of Lavazza to the initiative of Sustainable Trade Initiative (IDH), SAI Platform, Illycaffé, Nestlé, Tchibo, Mondelez, D.E. Master Blenders 1753 Coffee Standards setting Organisations⁹⁵.

Finally, among its sustainability commitments, Lavazza collaborates since 1996 with Slow Food, an international non-profit eco-gastronomic association founded to promote good, clean and fair food and counteract fast food and fast life⁹⁶.

92. Lavazza Sustainability Report, 2012, p. 111.

93. Lavazza Sustainability Report, 2012, p. 89.

94. Lavazza Sustainability Report, 2012, p. 92.

95. Lavazza Sustainability Report, 2012, p. 32.

4.1.2 Paulig

Paulig has been the frontrunner in the Finnish coffee business since the very beginning of the company. The major technological innovations were the development of roasted coffee for the Finnish markets and later the development of the vacuum-packed coffee package. Paulig's innovations are mainly focused on the roasting, trading and consumption phases of the value chain.

Paulig is more innovative in adopting international food safety and sustainability standards than its Finnish competitors. It also participates in the global standard-setting forums and round tables in order to proactively develop standards for the coffee sector. Companies which actively participate in the standard-setting organisations as well as in international sustainability forums and networks (like round-tables) are more proactive and innovative than their competitors. This organisational features seem to be characteristic for the frontrunner companies (SORSA 2008, 151–162; SORSA 2009, 187–212)⁹⁷.

Gustav Paulig has an ISO 22000 standard-compliant food industry management system, for which certification was granted in December 2008. Compliance with the standard is verified annually with external audits. It also has an OHSAS 18001 standard-compliant occupational health and safety system, for which certification was granted in January 2011. Compliance with the standard is also verified annually with external audits.

96. SORSA, K. 'Responsible Business; Integrating the Legal Environment to Company Strategy by Proactive Approach', Proceedings of the IACCM International Academic Symposiums on Contract & Commercial Management held at The Savoy Hotel, London, UK on November 9th, 2007 and at the Radisson Fort McDowell, Arizona, USA on April 7th, 2008. In: Lowe, D. (ed.), USA 2008, 151-162. And SORSA, K. Towards a Contracting Capabilities Maturity Model for Projects, in Martinsuo, Miia (ed.) 2009, 187-212. Recipes for success in project-based management. Project Management Association Finland. Espoo.

Gustav Paulig has an ISO 14001 standard-compliant environmental system, for which certification was granted in June 2004 by Det Norske Veritas (www.paulig.fi). Compliance with the standard in environmental activities is verified annually with external audits. In 2011, the systems were combined into the Paulig Integrated Management System (IMS). IMS amalgamates the aims and requirements of the different systems, which helps to harmonise operating methods. The functionality and efficiency of the system are assessed regularly by internal and external audits. In 2011, a total of 15 different types of audits were held at the roasteries in Vuosaari and Tver. (www.paulig.fi).

As regards final products, some of Paulig's ones are certified as compliant with organic, social and sustainable standards. See the following pictures.



FIGURE 14. *Examples of Paulig products.*

As we can see, Paulig has implemented all the general ISO standards relevant from the environmental or food safety perspective. More recently, it has focused on the sustainability-related standards, like organic, UTZ certified and fair trade. From the value chain perspective, the last three ones have more system level impacts compared to the ISO standards which are more focused on the single company level compliance.

In the case of UTZ certified training and certification processes contribute to better relationships between farmers and their cooperatives. According to the several impact studies access to sanitation facilities and clean drinking water has been improved. Children from UTZ certified farms are more likely to attend school than children from non-certified farms. There is also a positive impact for the environment with UTZ certified farmers taking more steps to protect water quality, reduce soil and water pollution and preserve biodiversity (UTZ Impact Report 2014).

More generally, the use of private regulation standards in companies has shown to have positive impacts in the company and on the system level. (SORSA 2011, 103–117; 188–205.) The requirements for innovation might come in the form of buyers' certification requirements (like from Kesko or McDonalds) or from inside the company. In order to show the added value for the company's stakeholders there is a need for the use of standards. If the company aims to export its products there is a need to comply with the international food safety standards or sustainability standards. For the Finnish small and medium size companies this is challenging (SORSA 2014⁹⁸).

Paulig and the development of standards in the Finnish coffee sector: Paulig's networks in the coffee community

Paulig has membership in several different coffee industry organisations. The biggest player in Finland is the Finnish Food and Drink Industries' Federation, which is a lobbyist for the Finnish food industry in business and labour market politics. The Finnish Food and Drink Industries' Federation (www.etl.fi) also serves as a collaboration forum in relations with the authorities, wholesale and retail, producers and other stakeholders. Paulig is also a partner of GFSI, which is an impartial, non-profit, global organisation that aims to create unified standards and operating methods for players in trade and industry. GFSI is the world's most widely used standardisation solution for the delivery chain (www.gs1.fi). In this regard, Paulig is actively participating in the development of the legal landscape in which coffee companies will do their business in Finland and in Europe. According to the Managing Director of Paulig, Coffee Division, with the market share that Paulig has, it is the responsibility of Paulig to be a frontrunner and developer of the coffee culture and coffee sector in Finland.⁹⁹

97. SORSA, K. Kala-arvoketjun johtaminen. (Fish value chain management. Forthcoming 12/2014).

98. Personnel interview.

The other two organisations which clearly aim at promoting the coffee sector are the Finnish Coffee Roasters' Association (Paahtimoyhdistys) and the Specialty Coffee Associations of Europe (SCAE). FCRA is a sector association of the Finnish Food and Drink Industries' Federation and a member of the ECF (European Coffee Federation). In addition to lobbying, the Association develops links to the researcher community in Finland to keep tabs on coffee research. It also closely monitors international research, questions related to coffee and health, and environmental issues. The mission of the FCRA is to provide Finns with up-to-date information on coffee, coffee culture, and the production and processing of coffee. The Specialty Coffee Association of Europe, SCAE, on the other hand, has the mission of developing the appreciation, profile and sales of specialty coffees and to increase the knowledge and professional skills of people working in the sector. Paulig has also partnership with the Specialty Coffee Association of America (SCAA).

Paulig also participates in the Finnish Business & Society. The aim of the network is to develop cooperation between the private and public sector to promote socially and economically sustainable development. International Coffee Partners GmbH (ICP) is also a forum in which Paulig works. It is a non-profit joint venture established in 2001 by five European family companies in the coffee sector. ICP promotes sustainable development in the coffee countries of origin by carrying out projects that benefit coffee-grower families and the environment (www.coffee-partners.org). The most recent development cooperation project "Coffee and Climate" was launched in Spring 2011 by ICP and the German development cooperation organisation GIZ. The project assists coffee smallholders to adapt to the challenges of climate change.

4.1.3 Illycaffè

Illycaffè adopted several national and international standards regarding its *production system* and the *quality* of the product, such as the UNI EN ISO 9001:2008 for quality management system, the HACCP, the IFS Food certificate and the BRC Food certificate for food safety¹⁰⁰. Illycaffè was indeed the first coffee company in Europe to earn the UNI EN ISO 9001, in 1996.

Since 1992, the company adopted the *Qualité France*¹⁰¹, a third-party French certification that regards the Illycaffè product (*product certification*). The certification provides specific guidelines regarding the methods for buying coffee, the characteristics of the products, the composition of the blend, its roasting and air-cooling systems, and the packaging of the coffee. The compliance with the standards are monitored by *Qualité France* representatives¹⁰² (Illycaffè website).

In the last decade, the company increased the attention given to *sustainable practices* and private standards regarding it, and obtained in 2003 the UNI EN ISO 14001:2004 for environmental management system. According to the company, the objective of the acquisition of ISO 14001 is to encourage systematic improvements in a coherent, effective and, above all, sustainable manner (Illycaffè website). In 2004, the company also obtained the EMAS Registration (the EU Eco-Management and Audit Scheme) through which the company has voluntarily agreed to continuous reductions in environmental impact of its industrial activities (Illycaffè interview and website).

Furthermore, in July 2012 Illycaffè joined the UN Global Compact endorsing its ten global ethical principles in the areas of human rights, labour, the environment and anti-corruption¹⁰³.

In 2011, Illycaffè adopted also the Responsible Supply Chain Process certification elaborated by the Det Norske Veritas (DNV), who is the certifier¹⁰⁴. It is a third-party *process certification*.

99. Illy Sustainable Value Report, 2013, pp. 18-19.

100. The *Qualité France* certification is elaborated by the *Qualité France SAS*, an independent certifying body that certifies farmers, producers, and distributors in their quality initiatives in the field of food (*Qualité France* website).

101. Illycaffè website and Illy Sustainable Value Report, 2013, pp. 18, 35-36.

102. Illy Sustainable Value Report, 2013, p. 13.

103. The DNV is an independent Norwegian foundation responsible for creating, among others, standards and certification schemes for a wide variety of industry worldwide (DNV website). DNV is also the certifier for the UNI EN ISO 9001:2008 quality management system. See also Illy Sustainable Value Report, 2013, pp. 87-89.

According to Illycaffè the certification attests both the quality of the product and the sustainable practices of the company's supply chain and, in particular, Illy's relationships with its suppliers.

The quality standards are those established by Illy, while the sustainability certification scheme and correlated standards were elaborated together by Illy and the certifier, by combining Illycaffè's supply chain model already described, current and emerging guidelines on sustainability and corporate responsibility, and standard certification and accreditation guidelines.¹⁰⁵ *Although it is also based on Illycaffè's supply chain model it is a certification open to any company or industry worldwide (Illycaffè data). This experience is then ready to generate similar practices (also among competitors) in a public good perspective. Illycaffè, together with the certifier, has established the guidelines and the process activity to be followed by the certifier. Moreover, they have developed and distributed specific best-practices manuals for each supply-chain¹⁰⁶.*

It is important to mention that this certification certifies the company (Illycaffè) and not the green-coffee producers that, according to the company, are nevertheless an integral part of the process and are required to share its values and principles (Illycaffè interview and data).

In fact, *Illycaffè does not require its suppliers to be subject to specific third-party certifications¹⁰⁷*. Without bearing certification costs, farmers will contribute to the compliance of the entire Illycaffè supply chain, enabling the roaster to provide the certifier with due evidence about sustainable practices along the supply chain. Effective enforcement is ensured through sample checks on the farmers¹⁰⁸.

The company preferred to develop its own strategy (as described before) and coordinate directly by itself and through its partners its supply chain. The costs of all these activities are handled by Illycaffè, and not by the green-coffee producers. *This is a major difference from the situation described with reference to Lavazza and Paulig that, when applicable to their final products, require third-party certification of their suppliers at their own expenses. In this latter situation the payment of premium for certification may compensate these costs.*

When the certifier identifies non-compliances with quality and/or sustainability standards, it reports it to Illycaffè who will require corrective measures in order to solve the problem. If the supplier does not implement the corrective measures it will be replaced. Within its procurement strategy, Illycaffè favours corrective measures instead of price reduction, among the remedies in case of non-conformity¹⁰⁹.

As regards public regulation, Illycaffè requires that the contract stipulated between farmer and exporter imposes compliance with the Brazilian environmental and labour legislation.

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104. The standard developed for Illycaffè is made up of two parts: the first one (protocol A) that concerns the company in all its aspects. Areas subjected to review include: (i) sustainability strategies, (ii) stakeholder management, (iii) business ethics management, (iv) competition practices, (v) environmental management, (v) human resources management, (vi) social issues management, and (vii) quality of product (Illycaffè and DNV data). The protocol B, in the case of Illy, is a specific section on green coffee and has as its focus the relationships with green-coffee producers, the production process, the monitoring of suitable performance indicators, and on controls carried out in the field and on the final product. (Illycaffè and DNV data). *Areas subject to review include:*
- (i) traceability, (ii) continual improvement in performance, (iii) KPI management, (iv) business ethics, (v) environment, (vi) employment, (vii) plant protection, (viii) fertilisation, (ix) irrigation, (x) workers' health and safety (DNV data).
105. Illy Sustainable Value Report, 2013, p. 89.
106. However, as affirmed in the Illy Sustainable Value Report (p. 56), for the future the company intends to evaluate its suppliers also taking into account the international standards (in the food sector) they adopt, such as Fair Trade, organic certifications, Rainforest Alliance etc..
107. Illycaffè interview, November 2014. Between 2010 and 2013 all Illycaffè suppliers have been visited at least once and 70% twice. More than 5.000 farmers have been involved between 2010 and 2013 in taking part to courses, seminars, visits of technicians. Illy Sustainable Value Report, 2013, p. 90.
108. Illycaffè interview, November 2014.

4.2 THE ROLE OF TECHNOLOGICAL INNOVATION AND THE IMPACT ON THE SUPPLY CHAIN

In the perspective of technological innovation, the research project aims at investigating the possible relation between types of market (commodity vs. differentiated coffee market), models of GVCs (involving or not a number of market or chain intermediaries) and innovation strategies. As regards innovation strategies we investigate whether:

- innovation is produced in-house or outsourced;
- it is aimed at enhancing the whole functioning of the product economic cycle or it is focussed on specific phases (farming, roasting, trading, consumption);
- innovation strategy is focussed on innovation production or also on knowledge transfer along the chain;
- knowledge transfer is ensured by the roaster within the supply chain governance or through other institutions operating in the market.

4.2.1 Lavazza

Traditionally in the commodity business model, innovation is developed and transferred to farmers mainly by the public sector that has main responsibility for financing and coordinating the research in the sector, also in partnership with other actors (see above) (CECAFÈ, BSCA interviews. See also KAPLINSKY, 2004, 10).¹¹⁰

109. As mentioned before, in Brazil this function was absorbed mainly by the IBC (*Instituto Brasileiro do Café*), which was responsible for the coordination of the research in the sector, and developed specially by the *Instituto Agrônomo de Campinas* (IAC). The focus of the research and technological innovation was on increasing the productivity, rather than on the quality of the product or in other characteristics regarding its differentiation. Currently, and within the new "Agriculture Innovation System" approach, the research in Brazil is developed and transferred mainly through the interaction among a multitude of actors (such as universities, firms, associations, public research systems, etc.) coordinated and financed by a public institution, the Embrapa (The Brazilian Agriculture Research Corporation).

This does not exclude the involvement of private actors in producing pre-competitive innovations within PPPs or in other forms. Indeed, Lavazza together with Illycaffè and three Italian universities, the University of Trieste, the University of Padua and the Institute of Applied Genomics of Udine, has engaged in a research project concerning Arabica coffee genome, of which the first results, the sequence of Arabica genome, have been publicized in March 2014. The second step of this collaboration will be to create a permanent scientific committee sponsored by Lavazza and Illycaffè, with universities to establish a method of use of the results obtained, the dissemination to the scientific community, making the data available to researchers, and to foster further study. This is a “a successful example of synergy between the private world and the world of public research”¹¹¹.

Looking at innovations concerning production processes and product quality (generally consisting in competitive innovations), Lavazza aims at transferring to farmers appropriate knowledge about product quality parameters to be complied with to add more value to the product and therefore better remuneration for the farmers¹¹². This innovation transfer mostly occurs through different actors and “new intermediaries”, such as co-operatives, associations and exporters with whom Lavazza collaborates (BSCA, Dattera and Cooxupé interviews. See CAFAGGI & SWENSSON, 2012, 25). However, when possible, Lavazza complements their work with on-field visits during purchasing seasons, explaining to the farmers its quality parameters and transferring the necessary knowledge to produce coffee according to its specifications.

110. The collaboration has been so defined by Maurizio Martina, the Italian Minister of Agriculture Food and Forestry, *Il Sole24Ore*, 24 March 2014.

111. On the ability of global value chains to provide mechanisms for rapid learning, innovation and industrial upgrading, see among the most recent publications G. Gereffi, *A Global Value Chain Perspective on Industrial Policy and Development in Emerging Markets*, 24 *Duke J. Comp. & Int'l L.* 433, part. 454.

With regards to the acquisition of **differentiated** coffee (here intended as certified coffee against quality and sustainable standards, that are mostly *process related standards*), Lavazza, in general, does not participate directly in the transfer of innovation and knowledge necessary for the production of differentiated coffee by the farmers; instead, it mainly requires the farmers to obtain third-party certifications, such as Rainforest Alliance and UTZ certified. This approach has led to the participation to some specific projects regarding the company's Corporate Social Responsibility (CSR) through the activity of the Giuseppe and Pericle Lavazza Foundation Onlus, founded in 2004 to facilitate and collect projects to be developed with several partners in the areas of social, medical and environmental sustainability¹¹³. Indeed Lavazza participates in a non-profit organisation promoted by a European trader aimed at developing capacity building programmes in coffee producing countries. In these projects, the company contributes to *transferring pre-competitive* innovation and knowledge to farmers in green-coffee producing countries aiming at the achievement of high quality of the product and of social and sustainability standards (Lavazza interview and website). Based on one of these projects (*¡Tierra!*), the company has also developed a special line of differentiated-coffee (see below).

Thus, the link between innovation enhancing strategies and supply chain governance still exists at the farming level, although it is somehow blurred into a more open market dimension: indeed, higher competence of coffee suppliers might determine higher access to Lavazza's procurement and, possibly, higher remuneration if the ordinary market mechanisms allow so through the intermediation of traders and exporters as chain intermediaries, as seen above.

With regard to the *industrialisation phase*, the company's innovation system includes three areas: (i) Research & Development, (ii) Equipment Design & Engineering, and (iii) the Training Centre (Lavazza website). In 1979, the company founded the "Coffee Research Centre" and the Training Centre, considered, according to Lavazza, as the first ever training centre to show bar tenders how to prepare the perfect espresso and spread the "coffee culture" (Lavazza website).

The company's innovation system is responsible for developing and maintaining the procedures involved in several steps of the roasted coffee production stages, including: (i) selecting the batches of green-coffee, (ii) roasting, (iii) blending and grinding, (iv) testing the finished product, (v) designing the packaging, (vi) distributing the products, (vii) training (through the Training Centre) and (viii) designing the espresso system (Lavazza website). These sectors of research do not concern directly the cultivation and processing of green-coffee. In 2010, the company inaugurated the "Innovation Centre", a 4,000 square-metre laboratory, classrooms and offices that host in a single building the three different areas of the company's innovation system.¹¹⁴

Among the innovations directly produced by the company there is the Lavazza espresso system present in Lavazza's home, professional and also large vending machines. According to the company, the technology behind these systems is all designed by the Equipment Design & Engineering department and is licensed to the manufacturers, while remaining the property of Lavazza (Lavazza website).

112. See Lavazza Sustainability Report, 2012, pp. 130 ff.

113. According to the company "Its position in the heart of the most important Lavazza plant also symbolically confirms the strategic value of the continuity between research and production, and between planning and implementation" (Lavazza website).

The transfer of innovation by Lavazza's CSR projects

Lavazza has special projects for transfer of innovation and knowledge to developing its countries' green-coffee producers within Corporate Social Responsibility (CSR) programmes. These projects, however, are not directly related to Lavazza's general supplying strategy and do not have a direct commercial purpose (Lavazza interview).

Lavazza participates also through the Giuseppe and Pericle Lavazza Foundation mainly in three different projects: one developed directly by the company (the *¡Tierra!* project) and two others in collaboration with international roasters including Paulig and other actors ("International Coffee Partners" and "Coffee and Climate" projects).

a) The project *¡Tierra!*,

¡Tierra!, is Lavazza's independent CSR project that provides agronomic formation and technical assistance for small green-coffee producers in developing countries. The development of the project with the green-coffee producers communities involved has a long-term duration between 4 and 5 years.

¡Tierra! has three main aims: (i) to improve the living conditions, social development and economic growth of farming communities, (ii) to improve the inhabitability of the land, (iii) to develop high-quality products increasingly ecological and profitable thanks to new agricultural techniques and production tool, (Lavazza website). In fact, as referred by the company, equal attention is paid to coffee quality and the growers' living conditions.

For the achievement of these goals, Lavazza develops a number of activities in the communities involved, in order to improve, simplify, and make coffee production more efficient, including training activities "in the field" and the provision of technical advice (e.g. about pruning or for better farming) by technicians (e.g. agronomists) of the target country to the coffee communities, evolving in some cases into a very intense relationship with the community (Lavazza interview and website).¹¹⁵

114. According to Lavazza "The various projects envisage environmental, social and economic conditions, with the specific aim of improving agricultural practices, such as soil analysis, the proper use of fertilisers, improved pruning techniques, sustainable techniques and so on." (Lavazza website).

The first phase of the project, developed between 2002 and 2009, benefited three green-coffee producing communities in Peru, Honduras and Colombia. For the second phase, which started in 2010, the countries chosen were India, Brazil and Tanzania (Lavazza website and interview).

In Brazil, the project is developed with the participation of other partners, such as the Hans R. Neumann Stiftung, a foundation, created by the German Neumann Kaffee Gruppe (one of the biggest trading companies in the world), and the Brazilians Emater (Empresa de Assistência Técnica e Extensão Rural), the Fundação do Banco do Brasil and the Cooperativa Agropecuária de Lambari, with the support of the Giuseppe and Pericle Lavazza Foundation (Lavazza website). *This can be described as a community-based strategy of technical transfer as opposed to single supply chain strategies, developed in the case of Illy.*

In 2005, the communities involved in the first phase of the project received the Rainforest Alliance certification, confirming their environmental, social and work sustainability (Lavazza website). It is important to mention, however, that the producers are not required selling their product exclusively to Lavazza. They can, in fact, sell also to other roasters as, according to the company, the project does not have a direct commercial purpose (Lavazza interview).

According to Lavazza, in fact, the project benefits the green-coffee producers as they become “fully independent producers of a better green coffee”, and also Lavazza itself, that has created a new differentiated coffee line based on the project (*¡Tierra!* and *¡Tierra! intenso*) which includes high quality coffee certified by Rainforest Alliance. *The project goal can be referred to the creation of a semi-public good able to generate some private benefits for involved parties.*

b) International Coffee Partners and Coffee and Climate project: networks for innovation

In addition to its own CSR project, Lavazza is also taking part in other joint and/or multi-stakeholders initiatives fostering sustainability and innovation.

In particular, Lavazza participates in a network of roasters with the main aim to “*develop, run and scale-up best practice projects in partnership with smallholder coffee farmers worldwide*” with special focus on smallholders in developing countries and with an approach of “help for self-help” (International Coffee Partners website). According to Lavazza, in fact, the project aims to make small-scale coffee farmers more competitive in order to improve their living and working conditions and the environmental sustainability (Lavazza website).

The **International Coffee Partners (ICP)** is a private sector initiative, jointly launched in 2001 by five leading European coffee companies, which include four roasting companies, the Luigi Lavazza S.p.A. of Italy, Ljöfbergs Lila AB of Sweden, Gustav Paulig Ltd. of Finland and Tchibo GmbH of Germany, and one green coffee service group worldwide, the Neumann Gruppe GmbH of Germany. In 2011, also Johansson Kaffe AS, Norway’s leading supplier of high quality coffee, joined the network and additional support comes from the roaster Peter Larsens Kaffe A/S of Denmark.

The ICP is a formal network structured as a not-for-profit company, the International Coffee Partners GmbH based in Hamburg (Germany), among the originally five and now six shareholders, whose primary aim is to finance projects to be carried out through public-private partnership schemes over a 3 to 5-year period. The cooperation with other organisations is considered crucial in order to properly tackle the competitiveness problem of smallholder farmers, which encompasses various aspects in addition to coffee production, and assures a more comprehensive approach and support for farmers and their family.

The concrete implementation of the projects is conducted by the Hanns R. Neumann Stiftung, a foundation established in 2005 with the support of the Neumann Kaffe Gruppe as an independent structure from the commercial entities of the group, specifically devoted to promoting and developing all the sustainability-related activities. The foundation operates through its subsidiary E.D.E. Consulting GmbH, a consultancy company which plays the role of the “implementing arm” of the foundation, running the projects with specific regard to their preparation, implementation, coordination with

other partners and monitoring¹¹⁶. In all the projects developed in green-coffee producing countries¹¹⁷, the work by IPC has, among its goals, the transferring of knowledge to local green-coffee producers about sustainable agriculture, organisation, marketing and economics through individual training.

The project implementation privileges and promotes the participation of private and public partners, especially local authorities and institutions, public development agencies, and international and local NGOs, plus private and public donors, with a view to reinforcing existing associations of coffee growers or facilitating the establishment of new ones (Lavazza website). In particular, one of the objectives of the ICP projects is to support farmers to strengthen their organisations (mainly cooperatives) enabling them to become service providers for farmer-members (e.g. agronomic services, services to implement certification schemes, marketing and business advisory services) and more business-oriented. Thus, the governance structure promoted in various ICP projects, with regard to the farmer side, is an organisation owned by farmers and commercially oriented¹¹⁸. *Farmer organisations not only facilitate the continuity and ongoing production and development of the project's results but they contribute to spreading the project's effects on the territory reaching a larger number of farmers, ultimately fostering the creation of collaborative relationships with other organisations. This is a case in which organisational innovation is at the core of system level innovation.*

115. E.D.E. Consulting was established already in 1991 and originally ICP entered a management contract with E.D.E. for the project's implementation. When the Neumann foundation was established in 2005, E.D.E. passed under the umbrella of the foundation so that all the profits generated are reinvested into the foundation. (Interview with a member of the management of the Hanns R. Neumann Stiftung)

116. As affirmed by Lavazza "To date, eleven initiatives — all of which lasted three years — have been completed. Five others are currently under way and another is about to start. The aim is to involve more than 16,200 farmers in Central and South America, Africa and Asia, in all the leading coffee-growing countries in the tropical belt." (Lavazza and IPC website).

117. It should be noted that in the projects developed by the Neumann Kaffee Gruppe Coffee Alliance Trust, a non profit organisation within the framework of the Neumann foundation which cooperates closely with the European Union and the Ugandan government, a three tier farmer organisation has been developed (Producer Organisations, Depot Committees and Uganda Coffee Farmers Alliance), S. Cognini (Project Coordinator), Kaweri Coffee Farmers Alliance Support Project, End of Project Report, August 2010 (in file with the Authors; access due to gentle concession by the Hanns R. Neumann Stiftung).

In this perspective, the foundation's staff is usually playing a leading role through on-site permanent coaching, providing support for the formation and functioning of these structures, offering follow-up functions and accompanying their evolution without directly participating in the organisations. The underlying idea of the ICP projects is indeed to enable capacity-building processes of small-scale farmers, looking at them as part of the coffee supply chain, and favouring their active involvement and inclusion within the chain, together with their interaction with other players. In addition to farmers' self-organisation, the capacity-building process generally comprises special training concerning sustainable coffee production in accordance to specific standards (mainly Rainforest Alliance) and/or promotion of improved techniques and practices for coffee processing and quality control. Moreover, it may include: support in developing management and entrepreneurial skills; support in becoming more competitive and getting access to new market opportunities – for example, providing contacts with honest exporters and/or helping to achieve required certifications; access to farmer financing. Further, this capacity-building process may offer support in implementing correct management of soil and water resources, and promote improved and safer working conditions, handling practices, as well as enhanced hygiene and healthcare practices.

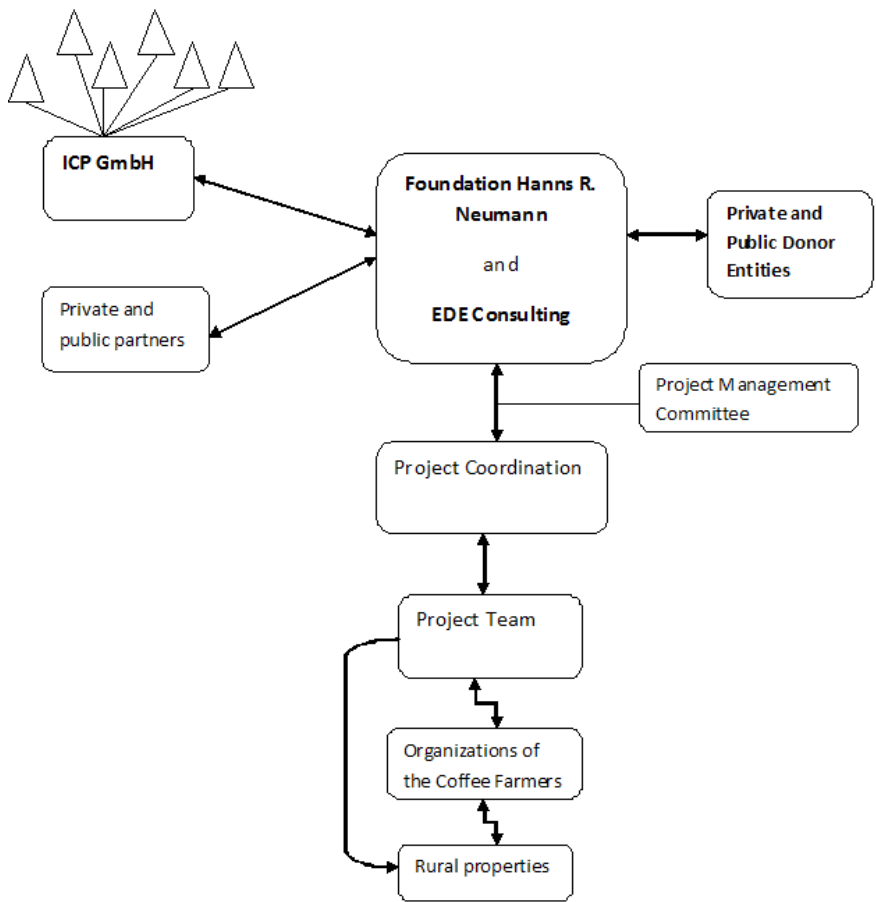
Moreover, farmer organisations are also viewed as vehicles to build collaborative relationships with other institutions and key actors, such as NGOs, governmental development organisations, other local and international organisations, rural trade unions. And the ICP network will offer support in developing such partnerships with public institutions and the private sector.

The Neumann foundation, through E.D.E. Consulting, carries out the project management and the project governance structure may, for example, include: a *steering committee* participated in by all the key actors (representatives of private and public donors and partners, of organisations of coffee producers, etc.), ensuring the concrete and active participation of all partners; a *project coordination body* responsible for the concrete execution and organisation of project operations; and a *project team* providing technical support to coffee producers¹¹⁹.

The foundation's staff is working on site with the farmers and it is mainly composed of local people, specifically trained for this purpose when recruited. Where feasible and appropriate the foundation's staff tends to team up with local organisations in order to reach more farmers or to enrich the project with additional perspectives or topics. The approach followed in the implementation of the project is characterised by mutual learning and sharing of knowledge and experiences with farmers and partners, coupled with continuous monitoring and evaluation to guide implementation and measure impact, in order to prepare for scaling up¹²⁰. Thus the ICP may be seen as an extensive organisation, which coordinates systems of open innovation and bridges the gap between farmers and key stakeholders in knowledge co-production¹²¹.

Thus, the know-how transferred to the farmers is not the one of Lavazza or of other single ICP partners but it is that of the network of roasters and the knowledge transfer is realised by the operative structures of the Neumann foundation or other partner organisations directly working with the farmers. The knowledge generated in each project is then used in other projects on a bigger scale, the idea being to generate learning from small-scale projects using them as *lighthouse projects* or examples to be applied in different countries and contexts and developing them into "scalable best practice models"¹²². Within this framework, Lavazza and the other ICP founding members play a role of co-design, coordination and funding of the projects (Lavazza interview).

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118. ICP Project Proposal "Support for the development of a Sustainable Coffee Culture amongst Small Scale Producers in the Municipality of Sao Francisco de Paula, Brazil", 2009, p. 8 (in file with the Authors; access due to gentle concession by the Hanns R. Neumann Stiftung).
 119. ICP, "partnership with Smallholder Coffee farmers", ppt. (in file with the Authors; access due to gentle concession by the Hanns R. Neumann Stiftung).
 120. Viviana M. Jimenéz, Notes from the field, The co-production of knowledge for adaptive governance: The case of the Colombian coffee sector, December 2012; Berkes, F., Evolution of co-management: Role of knowledge generation, bridging organisations and social learning. *Journal of Environmental Management*, (2009), 90(5), pp.1692–1702.
 121. Interview with a member of the management of the Hanns R. Neumann Stiftung; ICP, "partnership with Smallholder Coffee farmers", ppt.



Source: Organization chart and interrelations, ICP Project Proposal “Support for the development of a Sustainable Coffee Culture amongst Small Scale Producers in the Municipality of Sao Francisco de Paula, Brazil”, 2009, p. 8.

FIGURE 15. Example of ICP project governance structure.

The practical work of supporting smallholder farmers' professionalisation and implementation of sustainable practices generally translates into the increased production of better quality coffee and the *possibility of green-coffee producers to sell their product directly, avoiding the need for mediators and ensuring more equitable earning* (Lavazza website). In addition to building up farmers' professional capacity to allow the implementation of sustainability standards, these projects grant also *access to competitive credit or micro-finance*, which foster further development. **The ICP projects ultimately aim at allowing the farmers to access new markets, through the production of high quality coffees, and to obtain a better remuneration (even to double or triple their income¹²³); in other words, more generally to improve the consciousness and competitiveness of the farmers.** For these reasons, the projects do not have as a final outcome the creation of long-term contractual relationships between ICP roasters and farmers for the sale of the coffee: the farmers, who are now more conscious and capable of taking informed decisions, are left free to decide whom to sell their product (even competitors of Lavazza or of other ICP roasting companies). The price of the coffee produced under these projects is only based on the quality of the coffee and does not include the costs of the project implementation. Thus, this European network for the transfer of knowledge is not directly related to the business interests of the ICP partners and does not have an influence on the exclusivity of the contractual relationships for the sale of coffee by the farmers. By contrast, the focus is on enhancing farmers' access to market and remuneration thereof. Recent studies confirm that price premiums are among drivers for sustainability development¹²⁴.

The ICP partnership, while at the beginning served as a very strong innovator in sustainability in the coffee sector, according to the latest development of this private initiative¹²⁵, will play the more strategic role of a think-tank devoted to the implementation of programmes, rather than projects, to further improve smallholder farmers pushing strategic dialogue and policy initiatives.

122. ICP, "partnership with Smallholder Coffee farmers", ppt.

123. Jason Potts, Matthew Lynch, Ann Wilkings, Gabriel Huppé, Maxine Cunningham, Vivek Voora, *The State of Sustainability Initiatives Review 2014 Standards and the Green Economy*, available at www.iied.org, p. 181 seq.

124. Interview with a member of the management of the Hanns R. Neumann Stiftung.

Since 2011, several members of ICP, including Lavazza, have been participating in the “Coffee & Climate project”, a network aimed at helping coffee growers worldwide to react effectively to climate change and minimise its impact on coffee production (Lavazza website).

The objective of the project should be achieved through: (i) combining innovative climate change science and established farming methods, offering practical, hands-on and applicable tools to be easily used by green-coffee producers (also with the appropriate financial support to back the transition to these new methods) and (ii) forming a network of all relevant stakeholders in the field, applying a 360° precompetitive approach including the entire value chain (Coffee and Climate and Lavazza website).¹²⁶

In fact, as declared on the project website “Building a bridge between climate change experts and smallholders coffee, the initiative aims at becoming a reference point and information centre for producers and other key stakeholders worldwide interested in supporting climate change adaptation and mitigation processes in the coffee sector.” (Coffee and Climate website)

4.2.2 Paulig

Paulig's innovations in the downstream of the value chain in Finland

Paulig has been the leader of Finnish coffee innovations since its origins. In the very beginning, Gustav Paulig imported and traded unprocessed raw ingredients as a wholesale company. In 1904, Paulig built the first coffee roaster in the Nordic countries and expanded its business from wholesale into the food industry. In the beginning, Paulig supplied roasted coffee to shops in five-kilo packages. An enquiry from a shopkeeper in Mariehamn in 1924 led Paulig becoming the first on the market to bring out coffee in consumer packages. Gustav Paulig's successful business idea was to ease housewives' work by roasting and grinding coffee for them. The first packages were 250-gram and 500-gram paper-packs wrapped and sealed by hand. The following year, the roasting plant got its first packaging machinery, and coffee was soon available also in 100-gram packs.¹²⁷ (KENYON-ROUVINEZ et al. 2002). In this regard, Gustav Paulig's innovations were related to the trading and consumption phases of the value chain.

Also remarkable at that time was that until 1929 the coffee bags did not have names. However, the Paulig coffee packages were marked with the P insignia as a guarantee of high quality that was of significant value to the founder of the company and a legacy for future generations. In 1929, Paulig launched its first coffee brands – Juhla and Presidentti blends. (www.paulig.fi). These innovations were related to the product itself, on the one hand to the package as a source of information and the image building on the other.

Between 1919 and 1947, the company was run under the leadership of Eduard Paulig, son of Gustav, and it was during this period that it became the recognised name in the food industry that it continues to be today. Eduard started to travel to coffee growing regions of South and Central America, in order to make vital personal connections which would fuel the company's success for the future. These activities were the first signs of the forthcoming traceability trend.

The product-related innovations continued. Ready-ground coffee and the date stamping of the coffee packages were the next innovations. Paulig was the first in Europe to do so (www.paulig.fi). These innovations were aimed at enhancing the roasting and trading functions of the coffee value chain. During the years of the Great Depression, Paulig's coffee substitutes (first a blend with 15 per cent real coffee and later 25 per cent real coffee), became so popular that the company continued them long after the economy improved. (KENYON-ROUVINEZ et al. 2002, 52).

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125. According to their website: "The initiative for Coffee & Climate (C&C) seeks to establish a pre-competitive network, including key actors along the coffee value chain. Developing a sector wide approach, C&C acts as a platform to enable dialogue and exchange of information and experience between academics, experts, NGOs, government organisations, farmers, farmer organisations, roasters and traders alike." (Coffee and Climate website).
126. Denise H. Kenyon-Rouvinez, Gordon Adler, Guido Corbetta, and Gianfilippo Cuneo 2002: 48–54.

Innovations in the consumption phase of the value chain in the 1950s, when the coffee had become the drink of choice for Finnish adults and children alike, Paulig started printing pictures of cars and other motor vehicles on its rigid carton coffee packages (a total of 216 collectable pictures). This innovation started a craze among children and drove considerable market growth. (KENYON-ROUVINEZ et al. 2002, 52). Another remarkable consumer-focused innovation was the creation of the Paula girl, the visible spirit of Paulig. Three years after the Paula Girl's success, a new craze attracted many junior motorists to Paulig coffee – the Paula Girl collectors' card. (www.paulig.fi/en/company/company-history).

In 1970, Henrik Paulig brought from abroad the idea of offering the professional service for the consumer. In 1971, the Paula service was introduced, which provided not only advice and tips for consumers on the phone and by mail but also produced exciting recipe booklets and held product-related how-to evenings. The Paula Girl toured shops and cafés giving advice. (KENYON-ROUVINEZ et al. 2002, 52-53). These knowledge transfer activities towards consumers combined with the image building strengthened the Paulig-branded coffee products on the consumer markets.

In 1980, Paulig started the Coffee Institute, which was the second food-service training institute in the world. (KENYON-ROUVINEZ et al. 2002, 52). Professionals got a seat of learning of their own in the Coffee Institute, which aimed to foster coffee culture. In 1980 the Vuosaari roastery was renovated with new roasting and packaging technologies. Twenty years later, the new roastery was inaugurated in January 2010, again in Vuosaari. (www.paulig.fi).

The newest technological innovation was introduced in 2014. It is the Paulig Muki, which utilises unique technology unforeseen in a coffee cup. Branding coffee cups is a global trend that's raising its head in Finland, too. Naturally, Paulig sees this as a central part of their branding and marketing in the future. The cup's display uses technology that has also been used in eBooks. The cup also contains a Bluetooth Low-energy module, placed in the bottom of the cup to connect with a mobile device. The module itself receives photos via a mobile application and also tells the coffee temperature with the help of its heat sensor. The Paulig Muki was created in co-operation with the TBWA company.

Advanced technology solutions are used in the roastery as well. Paulig uses Microscan's QX-870 sweeping laser scanner to read codes as they are applied to pallets of packaged coffee. As the label is scanned, information about the pallet is logged and tracked to ensure that the product can be accurately distributed as well as traced back to its manufacture location.

Knowledge transfer related research

Paulig has been developing the hybrid media innovations also before. Paulig was involved in the "Hybrid media in packing" project (Printelligence), which was carried out by the research institutes in cooperation.¹²⁸ Available hybrid media technologies are 2D bar codes, digital watermarks, image recognition, fibre matrix, RFID tags and magnetic codes. According to the research report and conducted interviews during the Printelligence project, hybrid media are used to achieve cost savings, new business and added value for existing businesses. In the face of customers, they may create loyalty, information and additional sales. Using the hybrid media, the brand owner can receive valuable information about the using context. 2D codes are the most common link between packages and electronic media. 2D codes are printed simultaneously with the printing of the package or label at no extra cost. Consumers can read the data content of a code symbol with a camera phone equipped with suitable software. The data content is typically a link to a web service giving additional information about the product. (LINDQVIST et al. 2009, 47).

127. VTT Technical Research Centre of Finland; Oy Keskuslaboratorio – Centrallaboratorium Ab (KCL), which merged with VTT during the project; and Helsinki School of Economics (HSE), which changed its name to Aalto University School of Economics in the course of the project, from 2008 to 2010. VTT has contributed expertise on hybrid media technology, the KCL expertise on consumer behaviour and media use, and the HSE expertise on business models. Lindqvist, Ulf & Aikala, Maiju & Federley, Maija & Hakola, Liisa & Menson, Aino & Moilanen, Pertti & Viljakainen, Anna & Laukkanen, Mikko. VTT Working papers 142, 2009.

The objective of the technology pilot carried out with Paulig was to study what kind of additional information consumers found interesting. Also the aim was to investigate whether this kind of information could improve brand loyalty and/or affect purchase decision. (LINDQVIST et al. 2009, 15–16). Two products were included in the hybrid media project: Paulig Mundo, UTZ certified at that time and Paulig Parisien, a French-style, dark roasted coffee. The digital service structure and contents of the Paulig Mundo hybrid media was almost the same as can be found from Paulig's internet pages. The information was, however, implemented in the format suitable for mobile use. Hybrid media codes were added to the product packages with the help of stickers, so there was no re-designing of the package. According to the interviews conducted during the Printelligence project, the interviewees want to buy products for which the origin is known. Some of them favour domestic food. The conditions at the coffee plant were also the focus of some of the interviews. It was seen as meaningful to support a small coffee producer and perhaps a whole village. Another idea was to have more information about other products from this producer. If a person found one product to be very good, he or she wanted to know if there were other products that might also be worth tasting (brand loyalty). According to the Printelligence project, the origin of the Mundo Coffee was of interest but not useful to the user via phone. This kind of information could be looked over at home if the person had time. It could be used when drinking coffee. As with drinking wine, more information would be available, as some of the interviewees said. This kind of information would not have an effect on shopping decisions. (LINDQVIST et al. 2009, 38). This finding was confirmed by Paulig's coffee division director and the communication manager. Consumers have not actively used the internet page information about the source of the coffee beans. (Paulig interview 2012).

Paulig aims at developing new ways to use social media in different campaigns. The Perfect Match campaign was awarded the best consumer campaign in 2012. It was a great example of how to engage consumers in innovation. During the campaign, different ways to use Paulig's coffees with other delicious food products were investigated. The ideas came from consumers.¹²⁹

128. Robotin company created the campaign for Paulig. The video about the Perfect Match campaign can be seen here: <https://www.facebook.com/robothelsinki/posts/277796605631531>

Knowledge transfer innovations in the upstream part of the Brazilian value chain

Paulig's innovation strategy has for long focused on production of innovations related to company aspects. However, during recent years, the relation with the consumers has become an important area of innovation due to the use of new social media systems. Knowledge transfer into the upstream part of the value chain has also been relevant and has concerned the improvement of the agricultural practices and sustainability in collaboration with the international partners. Knowledge transfer about the sustainability is carried out by the exporting companies and certification organisations in Brazil. *The new partner, Nucoffee, takes care of these activities in the Brazilian part of Paulig's value chains as well as the Exportadora Guaxupe.*

UTZ certified and Brazilian green coffee exporter Nucoffee are investing in a training programme for *small coffee farmers* in the Minas Gerais and São Paulo states from 2013 for five years onwards. Caminho Sustentia initiative aims to increase efficiency in coffee production through technical assistance in good agricultural practices and management styles among some 800 smallholders in 2013, and more than 10,000 smallholders within five years. Specifically, the training will be the implementation of internal control systems, new technologies and the improvement of social and environmental conditions among Brazilian small coffee farmers' communities.

Training is not focused only on small farmers. Nucoffee found out that a thorough knowledge of the beverage attributes has become crucial to allow for transparency in business transactions, and to further enhance marketing of quality coffees. For this reason, cuppers who rate both the sensory attributes and defects of the beverage need to have common points of reference to be used by producers and roasters worldwide at the time of the purchase, and based on the same grading criteria. The rigorous Q Grader judge accreditation, developed by the Coffee Quality Institute (CQI), and based on the classification system of the Specialty Coffee Association of America (SCAA), provides cuppers with a certification to grade coffees worldwide. According to the marketing manager Friedlander of Nucoffee, "The accreditation ensures the necessary credibility for the parties involved in the business transaction because the assessment follows internationally accepted standards". With that in mind, and also concerned with providing its partners with greater business opportunities, Nucoffee sponsored two Q Grader training courses by Coffee

Quality Institute in Brazil during the months of May and June of 2010. “There were few cuppers with this accreditation in Brazil up to the beginning of this year. So we decided to act and change this scenario”, informed Friedlander. Out of the 32 cuppers – Nucoffee partners representing professionals from cooperatives and warehouses, all working with quality control, and also cuppers of the G Quality programme that grades and provides assistance to these professionals – 26 passed and earned their certification. (Nucoffee Newsletter no. 11, 2010).

The Nucoffee case, Exportadora Guaxupé and the partnership in the International coffee Partners projects show that Paulig’s knowledge transfer strategy relies on the other institutions operating in the market. *Compared to Lavazza or Illy Café, Paulig is a small roaster in the international coffee business with less resources compared to its international competitors. This explains why Paulig relies on the international partners in the upstream part of the value chains.*

Innovation-related strategy and supply chain contractual management

Paulig relies on the innovations produced by its partners or civil society actors (e.g. international NGOs participating in certification schemes) in the upstream part of the value chain. In the green-coffee purchase contracts the criteria of the certified raw coffee are delivered to the sellers. As the certification schemes, which aim at improving environmental, social or economical conditions in the global value chains, are examples of the system level innovations, Paulig’s and its Finnish customers’ requirements to the upstream part of the value chain pull the transition in its global value chains. During the last two years, Paulig has also focused on the development of its purchasing contract practices and Codes of Conducts.

It seems that a more important instrument for the global value chain management in Paulig is the use of *relational contracting*. This means that Paulig develops personal relations with the coffee farmers and intermediaries in the value chain. This tradition was initiated already at the beginning of Paulig’s history but strengthened during the last decade.

We can see that contracts were before focused only on managing the relationship between contracting parties. An emergence of corporate social responsibility (CSR) in society has brought other stakeholder groups and legal tools (SORSA 2008a and 2008b) to the business agenda. The role of self-regulation (standardisation, code of conducts, code of ethics, general terms and conditions etc.) has become an important part of daily business especially in the international context. It means that contracts are not only a tool to manage the seller's and purchaser's relationship but it has much broader impacts along the value chain. From the contracting capabilities viewpoint, in the multilevel, networked environment, the companies need capabilities to manage these multilevel rule systems and capability to use other tools in addition to contracts, in order to manage all the relevant relationships with their different stakeholders (SORSA 2009¹³⁰). The need to broaden the perspective from contractual relationships to value chain management called for understanding the role of self- and private regulation in managing the critical sustainability issues in global value chains (SORSA 2008b; 2009d and 2010d). Sustainability codes of conduct has become part of the sales and procurement contracts; auditing of Paulig by its customers and Paulig's audits to their suppliers has also augmented. This trend is in line with the trend in the other food value chains in Finland. (SORSA 2014, 12, 32, 57).

This also means that proactive management of contractual relationships is not enough. The knowledge of future experts needs to be broadened towards the issues of private regulation and business ethics and their role in business management. This development can be seen in Paulig. In 2013 and 2014, Paulig has improved its capabilities by developing its contract management systems and it has hired new personnel to manage relationships with certification schemes related value chains. The maturity of the Paulig company has improved in all the relevant areas of the proactive management and proactive business law as they have developed their competences on “contract contents” and “contract process” levels as well as their “contractual relational capability” and “contractual capability as organisational and personal proficiencies” (SORSA & SALMI-TOLONEN 2009).¹³¹

129. Sorsa, K. (2009a). Towards a Contracting Capabilities Maturity Model for Projects. In Martinsuo, M. (ed.), *Recipes for success in project-based management* (187–212). Espoo, Project Management Association Finland

130. Sorsa, K. – Salmi-Tolonen, T. (2009). Contracting Capabilities in project Business – Proactive Management Approaches to Contracting. In Kähkönen, K. & Samad, K. A. & Rekola, M. (eds.), *The Human Side of Projects in Modern Business* (pp. 221–236). Project Management Association Finland (PMAF) in collaboration with, VTT Technical Research Centre of Finland.

4.2.3 Illycaffè

Illycaffè is an example of enterprise committed to the research and development of innovation in the coffee industry, both at the industrialisation and in the green-coffee producing and processing levels of the supply chain.

Illycaffè was responsible for the development of three of the eight most important innovations in the coffee industry: (i) the pressurisation system to properly and long-lastingly conserve the coffee inside the can in 1934, (ii) the formula of the *espresso* (1935) and (iii) the single-portion pod, made of paper, with the exact dose of coffee pressed in the right point, to allow the preparation of the right espresso also at home (1974). Recently the company has developed a new innovation, the *iperEspresso*, an exclusive capsule-based espresso preparation method that extracts coffee in two distinct phases that is able to create “an authentic espresso with a remarkably rich, velvety and long-lasting crema – at the touch of a button” (Illycaffè website, last visited November 2014). Moreover, in the last 5-6 years Illycaffè has invested in innovations concerning the packaging with a view to reduce the impact on the environment and comply with the goals of Europe 2020. The company has also improved the use of electricity from renewable sources and has modified its facilities, becoming self-sufficient for heating and cooling. Within the process of vertical integration which currently characterizes Illycaffè model, nowadays Illycaffè produces internally both the packaging for its coffee products and the coffee machines.

In Italy, Illycaffè has four different *laboratories* dedicated to research and innovation for the coffee industry: (i) the *Aromalab*, for the study of the chemistry and flavour profile of coffee, and assessment of green and roasted coffee quality; (ii) *Sensorylab*, where physics and chemistry are matched with psychology through the investigation of the relationship between sensory stimuli triggered by coffee, and cognitive and emotional responses, (iii) *Techlab* where the learning from AromaLab and SensoryLab are applied to new technologies and solutions to continuously improve Illy's espresso blend and production process; and (iv) *Biolab*, for the study of the many biological aspects of coffee's makeup, the characteristics of the coffee plant and the nature of the plant's interactions in various climates and environments (Illycaffè website). The first two laboratories have the ISO 17025.2005 certification from Accredia¹³².

Illycaffè, however, does not invest only in innovation regarding the industrialisation and distribution stages of the supply chain (which, in general, are not transferred along the supply chain), but also in the production and processing level, regarding the high quality coffee.

As already mentioned, Illycaffè, together with Lavazza and three Italian universities, has recently concluded a study on the Arabica coffee genome. This is an example of *pre-competitive innovation* which has a horizon of long-duration also with regard to the possibility of transferring knowledge along the coffee supply chain. The sequencing of the genome of Arabica will allow for a significant improvement of agronomic practices and, in general, an increase in productivity of coffee trees. It will be possible, for example, to obtain a synchrony of fruit ripening. It will be possible to identify the genes that confer increased resistance to disease and infection of the plants and get a better adaptation of crops to adverse conditions, related to certain characteristics of the soil or climate factors (Illycaffè website, last visited November 2014). In addition to that, the knowledge of Arabica genome will allow to stimulate biodiversity through natural techniques leading to greater market segmentation, as required by the new consumer. Within the second phase of the project, concerning dissemination, Illy has committed to disseminate the results through the University of coffee of Trieste¹³³.

It is interesting to note that the project has stimulated other similar initiatives in other parts of the world, such as a consortium in Brazil, one in Colombia and one in Europe¹³⁴.

In order to create growth and value both in a specific territory, and in coffee producing countries, Illycaffè, through the Ernesto Illy Foundation, a non-profit organization founded in 2008, develop and strengthen ethics and sustainability issues promoting research and organizing and disseminating initiatives open to all possible stakeholders. The Ernesto Illy Foundation is responsible for scientific and cultural projects managed directly and/or in partnership, such as, for example, the “Master’s Degree in coffee economics and science Ernesto Illy”¹³⁵.

131. Illy Sustainable Value Report, 2013, p. 18.

132. Illy e Lavazza insieme per la prima volta per studiare il caffè, Il Sole24Ore, 24 March 2014.

133. Illycaffè interview, November 2014.

134. Illy Sustainable Value Report, 2013, p. 26.

Moreover, by imposing its own requirements and its own supply chain-specific quality criteria through its contractual agreements as a threshold for access, Illycaffè has not only fostered the development of innovations in the farming stage for producers to be able to meet the quality requirements, but also coordinated the transfer. Such a transfer occurs either directly or through selected partners within its own supply chain. The interest in producing and transferring innovation along the GVC back to the farming stage seems totally consistent with the exclusive focus of Illy on differentiated high quality coffee.

The transfer of innovation throughout Illy's supply chain

Differentiated coffee production and, in the specific case of Illycaffè, high-quality coffee require producers to perform new tasks relating to the production and trade of the product. For the production of a high-quality product, in fact, it is necessary to use a good genetic variety of coffee plant that will produce good quality beans, to adopt the right growing and harvesting techniques, different processing techniques, instruments which are better able to sort and grade the best beans, and proper storage, among others. In other sectors, innovation for commodities occurs at the seed level (see for example soy). It also encompasses other requirements which do not exactly relate to the production and processing stage, such as specific quality controls, cup testing in laboratories, mechanisms to identify and to specify both the quality and the origin of the product, the traceability of the coffee beans/batches and also the improvement or the development of new knowledge-sharing systems (See ANDRIANI & HERRMANN-PILLATH, 2011 and RUKAZAMBUGA & NTIRUSHWA, 2008,15).

It is very important to mention, as do Rukazambuga and Ntirushwa in the World Bank report, that none of these single innovations would, alone, achieve the objective of maintaining the quality or differentiated attributes along the entire supply chain, considered the core organising feature of the innovation process. All are necessary. In fact, *maintaining quality and attributes of differentiation requires significant coordination at all stages of the coffee value chain, from farmers to processing to exportation* (RUKAZAMBUGA & NTIRUSHWA, 2008, 15). In this sense, to foster the shift of the Brazilian producers to the high quality coffee market and to guaranty the supply of green coffee within its quality parameters, Illycaffè has developed its new sourcing strategy in Brazil. It includes a complete new structure and strategy

to coordinate the supply chain and transfer the innovation and the knowledge necessary for farmers to produce high quality coffee according to Illycaffè parameters, giving birth to a system level innovation. In fact, the coordination of these different tasks was necessary to ensure the viability of the innovation and the success of Illycaffè's strategy.¹³⁶

On the other hand, the know-how about the characteristics of the product (regarding, for example, the different characteristics of different coffee varieties, the new genetic species) can lead to the production of new and distinct products, with higher quality. While during the regulation of the market the production was based mainly on two varieties of coffee, currently producers can supply around twenty or thirty different types of green coffee, with distinct characteristics that relate to the quality of the product (Illycaffè interview).

The transfer of the innovation and know-how along Illycaffè GVC has been made both by Illycaffè itself, its specialized technicians and through its partners, within the new organisational structure created in Brazil. For this purpose, Illycaffè has trained specialized technicians entrusted with transferring to the farmers *competitive knowledge* concerning production processes and product quality¹³⁷. This knowledge transfer is performed on-field, through practical demonstration, although this activity is neither formally regulated via specific contracts nor within the green coffee sale contract. In addition to that, competitive knowledge is also transferred along Illycaffè supply chain through an organisational tool: the *Clube illy do Café* (Illy club), a club created in Brazil and restricted to Illy suppliers which is a significant example of network for innovation.

135. In fact, as affirmed by Andriani and Hermann-Pillath, the switch to quality entails significant risks and financial investments for green coffee producers caused by uncertainty (or sheer ignorance) of final markets, quality criteria demanded by end-users, channels to roasters, marketing techniques, processing technologies, certification schemes, etc. as they were for decades used to the commodity business model. (ANDRIANI & HERRMANN-PILLATH, 2011,19).

136. Illycaffè interview, November 2014.

A second institution has been created in Brazil by Illycaffè with the specific aim of producing and transferring *pre-competitive* knowledge, regarding as well production processes and product quality: the *Universidade do Café Brasil* (Unilly). In this case the organisation is open also to suppliers that do not have business relationships with Illycaffè, given that the knowledge transferred is a public good. Together the *Universidade do Café Brasil* (Unilly) and the *Clube illy do Café* (Illy club) represent the “innovation and knowledge” system of Illy’s structure.

Finally, Illycaffè also participates in projects of co-development of innovation in Brazil in partnership with local producers.

As we see from the descriptions below, a specific link between innovation strategies and contractual governance of the GVC emerges in the case of Illy: on the one hand, the existence of a contractual relation with Illy enables the farmer to access the knowledge transfer system; on the other hand, the participation in this system creates some acceleration in farmers’ sales opportunities. The results of the transfer of knowledge are then accounted and perceived at a systemic level, with the increase of the efficiency of the supplying chain (Illycaffè interview).

Universidade do Café Brasil (Unilly)

The Unilly is a public-private partnership between Illycaffè and the University of São Paulo. It was formed with the intention of training the producers and transferring the know-how needed for the cultivation of high quality coffee. The main aim of the Unilly is to “*educate and inform present and future generations of coffee producers, suppliers of Illy, within the principles of technical, cost and quality, aiming at its improvement, its economic efficiency and customer loyalty*” (Unilly website).

Two different types of knowledge flow through these channels: first, technical and scientific knowledge, mainly related to coffee growing and acquired in central labs (learning-by-researching) is spread in a top-down fashion to suppliers; second, the channel helps diffuse ‘best practice’ acquired in a bottom-up fashion (ANDRIANI & RAUSCHER, 2009, 36).

Unilly performs its activities in partnership with local cooperatives and associations.¹³⁸ The courses and training programmes are open to all green-coffee producers affiliated with the partner cooperative or association. If the farmers are not part of Illy's Club (see below) they need to pay a nominal price to take part in the activities since the majority of the costs are borne by Illycaffè. Access is granted also to non ILLY suppliers.

In 2013, Unilly has offered 11 seminars in coffee production regions, in the area of quality, water resources protection and environmental best-practices, with the involvement of 1741 farmers¹³⁹.

Clube Illy do Café

The "Clube Illy do Café" was created in 1999/2000 with the objective of offering Illy's suppliers a network to share and develop knowledge (also through courses, training, and technical assistance) and a fidelity club to reward the suppliers' fidelity. It currently has more than 700 members, all Illycaffè suppliers (Clube Illy website). It has been described as a more bottom-up and self-organising knowledge-sharing initiative (ANDRIANI & HERRMANN-PILLATH, 2011, 21).

The Club has neither legal recognition, nor public registration. It is an informal network, a fidelity programme, managed by ADS Comunicações. According to ILLY, the Club does not have any role in selecting producers for the award and does not require exclusivity from the green-coffee suppliers. It also does not have any influence in determining the price for the acquisition of the green-coffee from its members (interviews).

Technology transfers and other forms of assistance are dependent upon the status of the supplier, which is formalised by the participation in the Club and the different statuses within the Club itself. Once the supplier sells the green-coffee to Illycaffè, it acquires the right to join the Club, which will last as long as the coffee-producer continues to sell to Illycaffè. *According to the regularity with which the supplier sells its coffee to Illycaffè over the years,*

137. The Unilly in partnership with green-coffee producers cooperatives organises seminars, "field days" and other initiatives to transfer knowledge to a large number of producers regarding mainly the production of high-quality coffee beans accordingly to Illycaffè quality parameters.

138. Illy Sustainable Value Report, 2013, pp. 91-93.

*the supplier can upgrade within the different affiliation categories defined by Illycaffè,¹⁴⁰ and increase the benefits that it can obtain from the Club including technology transfers: **this creates a direct link between access to value chain via contracts and access to knowledge.*** The former conditions the latter.

Indeed, according to the affiliation category, the Club Illy member can (i) take part in exclusive technical meetings with coffee experts indicated by Illycaffè (included in all categories); (ii) receive “preferential samples” to prioritise the analysis of the samples sent for the buying procedure (included for the three highest categories); and (iii) receive or request a technical visit from one of Illycaffè’s consultants¹⁴¹ (available only for the two highest categories). (Club Illy website and data. See also CAFAGGI et al., IDB working paper, 2012).¹⁴²

As regards the *technical meetings*, ADS promotes two technical meetings with Illy’s club members. These meetings take place at one member’s farm, usually a farm considered to be a model of excellence concerning quality coffee production. According to interviews, these meetings are one of the highlights of the club’s programmes. These are opportunities for producers to learn in loco and in practice all the details involved in every stage of high quality coffee production. Through these meetings, Illy’s staff could gradually learn what are the most problematic habits and mistakes performed in each of the coffee production regions. The identification of these practical and specific problematic habits allowed Illycaffè to elaborate an education and training strategy to gradually inform producers about these mistakes and to suggest alternative measures to privilege coffee quality instead of quantity and production acceleration. These meetings are exclusively attended by Illy’s Club members.

139. Illy’s club is made up of four different affiliation categories: red, silver, gold, and platinum, into which producers that have sold coffee continuously for one, three, four and ten years respectively are allocated. Volume of sales (number of coffee bags sold) is not relevant for classification in order to ensure equitable treatment among the small, medium, and big producers. If the club member doesn’t sell coffee to Illy one single year after becoming part of the club, he will pass to the lower category. If he persists in not selling coffee to Illy, at a certain point he will be excluded.

140. As regards the technical visits, Illycaffè maintains three coffee consultants available to Illy’s club members of gold and silver categories. These consultants go to members’ farms to help solve production problems and to clarify producers’ doubts about every technical matter concerning coffee production.

141. Other benefits according to the different affiliation categories can be: to receive the video entitled “How to make coffee a work of art”, to take part in exclusive technical meetings with coffee experts indicated by *Illycaffè*, free participation in *Universidade do Café Brasil - Unilly* courses and seminars, to receive technical information exchange through internet with experts indicated by *Illycaffè*, etc. (Illycaffè website and data).

The “*preferential samples*” is a benefit that increases the producers’ possibility to have their coffee bought by Illycaffè and a way for Illycaffè to reward their fidelity. Illycaffè, in fact, can interrupt the shopping period when the necessary coffee has been acquired. The “preferential sample” gives producers priority in the samples analysis, which means that samples sent by Illycaffè’s Club members will be analysed before samples sent by non-members on the same day. If Illycaffè’s Club members’ samples are analysed first, in case of approval, they will consequently be purchased first and will decrease the risk that their coffee will not be acquired because Illycaffè has ended its acquisitions.

All the club’s activities, training and education material are borne by Illycaffè. Producers have no costs at all to take part in the club’s activities and to enjoy the club’s benefits.

The Illy Club can be considered a successful instrument both regarding knowledge transfer and also of fidelisation strategy (Illycaffè interview. See also ANDRIANI & HERRMANN-PILLATH, 2011, 21).

In fact, *after 10 years of promoting quality coffee production in Brazil, other multinationals and importers turned their attention to the Brazilian differentiated coffee market.* Competition was increasing, as many other roasters were moving towards quality as a means of reach an expanding market. Therefore, the fidelity club was also an important strategy to reward the supplier’s fidelity and, even if informally, a way of protecting the company from the use of the knowledge transferred to its suppliers with other competitors (Illycaffè interview. See below for more details).

On the other hand, the network created by Illycaffè opened an opportunity for small, big, and medium producers to exchange experiences and to create a knowledge network that benefits all of them, helping many producers to change the way they produced coffee (ANDRIANI & HERRMANN-PILLATH, 2011, 21).

The joint consideration of Unilly and IllyClub allows the conclusion that a mix of public and private goods are generated as a result of these initiatives. Whereas Unilly produces knowledge and innovation as a public good, the latter produces a private good that is limited to the Illy supply chain participants with internal differentiation depending on the nature and stability of the relationship.

Strategic collaborative projects with local producers:
the example of the joint venture between Illycaffè and Datterra

Illycaffè has promoted a process of co-development of innovation in Brazil in partnership with local producers through collaborative contracts. These strategic collaborative projects have been developed with local producers of large size, as they are more inclined to invest in research, and have led to the definition of best practices and guidelines for the cultivation of coffee in order to allow coffee producers to differentiate their offerings, with different qualities of coffees. These are projects concerning the development of process innovation, which then leads to product innovation¹⁴³.

One significant example, among Illycaffè collaborative projects with local suppliers of large size, was the joint-venture contractual agreements with Datterra (See CAFAGGI & SWENSSON, 2012).

“Datterra atividades rurais Ltda” (Datterra) is a limited partnership specialised in the production of high quality and sustainable coffee. Datterra was created by the owners of a tyre company (“Dpaschoal”), and is one of the most important Brazilian producers regarding innovative research, high quality and sustainable production¹⁴⁴. Their plantations are located in the Cerrado region and Mogiana region, and have around 15,000,000 coffee trees with a production of around seventy to eighty thousand coffee bags per year. The enterprise has 100% of their properties certified on the adoption of environmental and social sustainable practices. (Datterra website and interview. See also CAFAGGI et al., IDB working paper, 2012).

Illycaffè had an important role in stimulating Daterra to migrate to the quality coffee market. Initially the company production consisted of commodity coffee sold to Brazilian exporters working in the traditional commodity market, although the company has always had the focus on developing a sustainable production (Daterra interview). Illycaffè was responsible for passing along to the Brazilian producers, including Daterra, extremely important concepts such as: (i) coffee is not a homogeneous product; there are various types of various quality, which must be valued accordingly; (ii) product differentiation is determined by a series of factors, such as the kind of coffee that is planted and the care in farming, harvesting, processing, storage and transporting (CAFAGGI et al., IDB working paper, 2012).

To comply with the requirements of the differentiated coffee-market, both regarding quality and social/environmental sustainable criteria imposed both by MNCs such as Illy and, especially, by certification schemes, Daterra has invested and developed innovations with regard to the product, the process and its organisational structure. Moreover, given that Daterra has created its own quality analysis laboratories¹⁴⁵, it is able to perform by itself the analysis related to its product, indispensable for the *direct access* to the differentiated coffee market through a shorter supply chain.¹⁴⁶

Although currently Daterra sells only a small percentage of its coffee to Illycaffè, and accesses the international market of differentiated coffee independently – especially through Rainforest Alliance certified market – for many years, the company had accessed the international market of high quality coffees exclusively through the Italian company.

142. Interview with Illycaffè, November 2014.

143. Due its distinct high financial and management capacity inherited from the *Group Dpaschoal*, to which the company belongs, Daterra was able to develop most of the innovation and knowledge necessary to access directly this new market by itself.

144. Daterra also adopted an innovative software able to list the attributes of each blend, to grade the characteristics of each lot and inform the customer of the intrinsic trails of each cup: the Coffee Sense (Daterra interview and website).

145. In the case of small producers, they may use the structure developed in Brazil by the MNC (such as Illy) or the one developed by national actors, such as the cooperative and associations.

In 1997, Illycaffè and Daterra signed a joint-venture contract to develop common genetic-research and new varieties of coffee (see CAFAGGI & SWENSSON, 2012, 27).—The focus of the genetic-research was the development of new species of coffee plants, which produced high-quality beans in order to meet the requirements of the growing market for high-quality coffee (Daterra and Illycaffè interview).¹⁴⁷

The research project between Illycaffè and Daterra, therefore, stood out from the traditional research projects in Brazil that had always been related to increasing the productivity and the plant resistance against diseases and climatic variations, once the rationality of the commodity market was based upon the sale of quantity, rather than quality, of the product.

Within the joint-venture agreement, Daterra provided the land and the operational instruments, and Illycaffè, in partnership with Daterra, developed the research with a research team, also composed of ex-technicians from the Agronomic Institute of Campinas – IAC (*Instituto Agronômico de Campinas*). Thus, each company could benefit from the experience and resource of the other: Illycaffè did not have to acquire the land and could benefit from Daterra's know-how and experience regarding green coffee production. Daterra, on the other hand, could benefit from Illycaffè's large "plant bank"¹⁴⁸, thereby financing resources and knowledge regarding the product (Daterra interview).

The joint-venture between the two companies was formalised in a contract that, among others, regulated the property and use of the research results among the companies (Daterra interview).

In the example of Illycaffè and Daterra, the joint-venture contractual agreement regulated the IPR of the results of the innovations in such a way that both companies could benefit from it, sharing the ownership of the results among the parties according to the property of the plant utilised in the research.¹⁴⁹ The contract provided that, if the new genetically-modified species came from a tree brought by Illycaffè, the MNC would have its property and the exclusive right to sell the new species, but Daterra would be allowed to use it for its production and to develop further research. The opposite would happen if the new plant came from a tree originally coming from Daterra (Daterra interview. CAFAGGI & SWENSSON, 2012, 28).

Another important aspect is that the joint venture may constitute an important instrument to share the high costs involved. In the case of genetic-research, the costs are very high and positive results are by no means guaranteed. The joint-venture among the enterprises, in fact, constitutes an excellent instrument to share the risks and high costs among the different actors.¹⁵⁰ In the case of Datterra, the investment was also possible because of the financial support that the company had from the Group Dpaschoal, to which the company belongs. Not all producers, especially smaller ones, have sufficient financial capacity to invest in research projects, as Datterra does. In these cases they are dependent on the development and transfer of innovation by the public sector, or other actors in the chain, such as MNC like Illycaffè, or cooperatives (such as Cooxupé), associations (like BSCA) and exporters that have been playing an important role in transferring innovation along the supply chain specially in the differentiated coffee market.

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146. Datterra maintained also two other genetic research projects regarding the creation of new coffee species. The first one focused on the genetic improvement of traditional coffee plants and on productivity and has been developed in partnership with the Agronomic Institute of Campinas (IAC) a public institution, administrated by the government of the state of São Paulo and with a great tradition of research in the national coffee sector. The second one was developed individually, with a focus on sustainability and with the aim to find the best genetic plant to better resist an eco-sustainable production. Datterra has also developed an autonomous ability to innovate in the production process, concerning processing methods and machinery and traceability. In particular, Datterra developed an innovative processing system, the Pentasystem, which is able to guarantee quality, certify origin and provide traceability. As affirmed by Datterra “The quality delivered is the most important output of the system. Every stage of this unique processing system has been designed to only select the coffee beans that match the high quality window of Datterra. From picking to shipping, only the perfect beans remain in the process” (Datterra website). Although the company does not patent all of its innovations, it has a registered mark for some of its products and systems, such as the Penta System, and the Penta Packing, a system able to keep – and in some cases to improve – coffee quality for over 3 years of storage. With regard to traceability, Datterra developed a system that is capable of supplying detailed information on every step of its coffee production, so that each lot is monitored for seed variety, soil attributes, rainfall average, management intervention and transporting. Each batch is screened through the Penta processing. Each bag is tracked in the warehouse. Each shipment is controlled up to the delivery.
147. Although Illycaffè does not have their own land, in 1989 Andrea Illy acquired a “plant bank” of coffee trees for genetic research.
148. Both companies had their own “plant bank” of coffee species for genetic research.
149. In the mentioned case, the investment made by each company was estimated at around five million dollars.

With regard to the results, the joint-venture agreement between the Italian roaster and the Brazilian producer allowed the development of new high-quality coffee-species that can be used by both companies.¹⁵¹

Although currently at an end, it represented, in fact, an interesting case of co-development of innovation and of the direct participation of the roasting company in the coordination of the development of innovation and its transfer in the supply-chain.

Innovation and contractual governance between private and public logics

With the emergence and consolidation of the **differentiated-coffee-market**, new contractual practices have also been introduced, including elements of collaboration, technical assistance and, in particular, technological transfer within chains (Cafaggi and Swennson, 2012). These contractual practices have replaced the typical market-based contract of the commodity coffee market with long-term relationships. The collaborative dimension does not transform the power relationship between the parties, which remains, even in a much smaller market, significantly asymmetric in favour of the buyer (WILLIAMSON, 1979).

The model adopted by Illycaffè in the high-quality segment constitutes one illustration. The direct contractual relationship with coffee producers was the first point by which it established the basis of long-term relationships as the result of a competitive process for suppliers' selection.

In fact, although each formal contract between the Italian company and the producer is related exclusively to a single sale, the relationship between Illycaffè and its suppliers is, in most cases, often a long-term one. Even if it is fragmented in many contracts, the relationship is unitary. Illycaffè, through its specialized technicians onsite, transfers *competitive knowledge* concerning both coffee quality and safety.

150. As informed by the company's website "the genetic research develop with Illycaffè genetic research developed with Illy, as well as the ones developed individually by the company and in partnership with the ICA, had as a result the creation of new varieties of high quality coffee with also commercial viability such as the "Mundo Novo", a natural cross pollination of Sumatra and Bourbon in Brazil, "Red and Yellow Icatu", back cross [of Bourbon and Canephora Tetraploid, "Red and Yellow Catuai", back cross between Mundo Novo and Caturra" (Daterra website).

This assistance is strongly reinforced through the participation in the Club Illy which in fact is linked with the existence of contractual relations between farmer and roaster. Although it is not formally provided in the contract, the contractual practices between *Illycaffè* and its suppliers include technical assistance and transfer of technology, which are not present in the traditional contractual practices of the commodity market. Moreover, this transfer of competitive knowledge is not formally protected by contractual provisions or property rights: *Illycaffè* is willing to accept the risk of fostering some competition with the view of broadening and strengthening the specialty coffee segment. In a different perspective and with an emphasis on public goods production rather than on knowledge as private good destined to the supply chain only, the Club Illy activities are complemented by the activities of the Universidade Illy do Café (Unilly).

Thus, the contractual practices adopted by *Illycaffè* reflect the core issue of the coordination of its supply chain: more than just the “sale” of coffee, the contractual relationship between *Illycaffè* and its suppliers includes a number of other elements that may characterise it as a long-term collaborative relationship with its suppliers.

It is important to mention also that, in the beginning of the *Illycaffè* strategy in Brazil in the early 1990s the enterprise used to transfer knowledge to its suppliers without the concern that this knowledge could be used to benefit other competitors, as in that period there were practically not many competitors for the high quality market in Brazil.

Recently, however, the situation has changed. The market of differentiated coffee has significantly evolved in Brazil and international roasters and traders are increasing their direct contacts with producers also as a way of ensuring monitoring and compliance with the new requirements of the differentiated coffee market, such as high quality, traceability, origin identification, and so on.

Therefore, although Illycaffè has for long accepted that a significant part of its knowledge transfer has also a public component, leading to producers' advantages in the relations with competitors, Illycaffè has more recently started protecting itself from the use of the companies' innovations and knowledge transfer in benefit of its competitors.

Even if it recognises the difficulties of locking-in knowledge, Illy is trying to address these problems with different instruments (Illycaffè interview).

As regards the more sensitive information comprised in the transfer of innovation, done through the Illycaffè organisational structure in Brazil, the company has adopted contractual mechanisms in the form of **confidentiality agreements** to protect it, especially in special purpose projects and partnerships like in the case of Datterra described above.

Another strategy adopted by the company could be identified in the increasing role of Club Illy itself, which represents an informal but efficient instrument of keeping suppliers fidelity through the “monetary” reward of their loyalty, such as the free technical assistance other than the high price paid by Illycaffè for the green-coffee acquired (Illycaffè interview).

In the specific case of co-development of innovation, as in the example of the joint venture with Datterra, the transfer and utilisation of the results of the research are regulated much more strictly and specifically through specific contracts. In these cases, according to the conditions of the projects, Illycaffè can have the property of the innovation and the co-developer may be able to use it under licensing or other types of contractual arrangements. In other cases, there is the establishment of a co-participation of the results. In others, the co-developer remains with the property of the results, and the Illycaffè with the permission to utilise them. This may change according to the characteristics of each project (Illycaffè interview. See above for more details regarding Illycaffè and Datterra project).

As regards the penalties concerning the transfer of knowledge, the company adopts two different strategies: (i) if the improper use represents a breach of a contractual clause, such as the ones provided in the case of co-development of innovation, Illycaffè, through its Brazilian representative, refers to the Brazilian legal system to solve the question, which, in general, provides for a monetary compensation; (ii) when there is not a formal contract that has been breached (such as in the case of regular supplying relationship), the company uses an informal instrument of penalty: the *removal of the supplier from the company's suppliers list* (Illycaffè interview).

Roasters innovation strategy and spillover effects

Conclusively, Illy's presence in Brazil has had a major impact on the Brazilian coffee sector, influencing new initiatives directed to coffee differentiation, most of them unintended (Cafaggi et al., IDB, 2012)¹⁵².

(1) First of all, Illy's Prize has created a competition dynamic between different coffee producing regions, promoting quality improvement in all of them. The Prize revealed several good quality-producing areas. For example, some regions known for their low quality coffee improved their competitive position (as is the case of Matas de Minas, which is also called Zona da Mata region, in Minas Gerais state). The common sense view was that the south of Minas Gerais state region produced the best quality coffee. Nevertheless, the first producers to win the first editions of the Prize came from the Cerrado region, in the Minas Gerais state. Illy's initiative promoted the sector of self-knowledge development: distinct producing regions started to focus on their differentiation potentials and to economically explore them. (CAFAGGI et al., IDB, 2012)

(2) A second significant result of Illy's presence and influence was the creation of the "Café do Cerrado" trademark by the Federation of the Cerrado Coffee Growers, a non-profit organisation composed of a set of seven coffee producers' associations, eight coffee producers' cooperatives and one foundation established for coffee research financing, of the Cerrado region. This is a new actor that performs several functions as an intermediary along the supply chain. In 1995, the *Cerrado Mineiro* region became the first growing region to receive Geographical Indication (GI) status in Brazil. (CAFAGGI et al., IDB, 2012)

151. According to Ernesto Illy: "The impact of our initiative has been much greater than what we had foreseen. We simply wanted to solve our problem but, in fact, we changed the mentality of the Brazilian market. The number of people who take part in this event, which is causing a great stir, is steadily increasing." (Andriani, Detoni, 2008, 35).

According to the "Café do Cerrado" website: "The award proved beyond doubt the superiority of the Cerrado coffee. Exploiting this fact, the Cacer started to make use of the award as a marketing tool to promote the coffee from the region. As the Illycaffè award was widely known and impacted heavily on the coffee market, we built our strategy on this. Given the magic presence of Cerrado growers among the award winners, in a short time the image of the Cerrado coffee and of the award spread all over and the quality of the region started to be recognised on the global scale." ("Café do Cerrado" website)

(3) A third effect was the emergence of many other quality coffee competitions in many different coffee-producing regions (Interview, Ingris Rauchner, ADS comunicações).

(4) A fourth impact of Illy's presence in Brazil was the introduction of new transactional practices more appropriate to the high quality coffee market requirements. Illy transferred knowledge about the demand side, triggering a learning process towards high quality production. Illy's transaction regime created human, organisational and social capital, which was then implemented in the structuring and consolidation of other supply chains. (CAFAGGI et al., IDB, 2012)

(5) Lastly, it is possible to state that Illycaffè's strategy in Brazil helped changing the image of Brazilian coffee in the international market. Big multinational companies that did not previously buy Brazilian coffee on the basis of the prevailing idea that Brazilian coffee was standardised and of low quality, started to consider Brazil as a potential supplier of quality coffee. Nowadays, companies such as Starbucks and Nespresso purchase large quantities of Brazilian high quality coffee. (CAFAGGI et al., IDB, 2012)

Conclusively, the establishment of trust between a limited number of growers and Illy generated the initial conditions for an epidemic of imitations, which continuously accelerated the transition to the new de-commoditised regime (ANDRIANI & PILLATH 2011, 21). Many cooperatives and associations are now working on the promotion of quality coffee production among their members, and are trying to develop competencies to establish long-term and direct commercial relationships with their buyers.

Some big coffee producers are also investing strongly in coffee differentiation and international market access, dispensing exporting companies, brokerage companies, cooperatives and associations as intermediaries. This is true in the case of Datterra.

CONCLUSIONS

The case study reveals that differences along the chain within the same commodity can depend upon several factors: the market segment, the certifications' characteristics, the final destination to consumers or professionals and, within consumers, the direct marketing versus the use of large distribution. International standards apply to export coffees whereas do not apply to domestic markets. There is a spillover effect but the differences between the domestic and export markets remain. Compliance with international standards can influence the difference between supply chains. In particular when international standards concern production process. Process standards have gained relevance and interfere with the organization of production¹⁵³. They refer to quality, safety but also general agricultural practices. The ever more relevant role played by international organizations in relation to implementation of sustainability standards is likely to generate further changes in relation to monitoring compliance with international standards with an impact on farmers and their cooperation¹⁵⁴. Access to global chains depends on the capability to meet these standards which often require changes in production process by farmers. Financial and technical assistance is necessary for farmers. Production changes are costly and difficult to implement individually, stimulating different forms of collaboration. Processors and, to some extent, retailers, especially when engaged in private label, have established direct relationships with groups of farmers and cooperatives and favor their aggregation. Clearly fragmentation depends partly on ownership concentration. Where land's ownership is fragmented the need for aggregation is higher, when land's ownership is concentrated (Brazil) the need for farmers' aggregation is lower. However land's ownership is not the only driver of farmers' aggregation. Sustainability is becoming another important driver.

152. Codes of conduct like UTZ certified define quite in detail the different stages of production process and the corresponding requirements.

153. See for example the OECD-FAO Guidance for responsible agricultural supply chains available at www.fao.org.

Contracts are the main governance instrument of the supply chain. In global chains as those investigated there is a chain of contracts: some are domestic and regulated by national law, some are international and regulated by transnational principles. Most are standard form contracts with some terms modified by the parties. Production contracts tend to be domestic even when coffee is exported. Increasingly, even in domestic contracts, international private standards are incorporated by reference. Duration changes along the chain. Production contracts tend to be shorter than distribution contracts. Often short terms contracts are deployed in long term relationships. Standard contract forms related to production are drafted by farmers and trade associations. Contract regulation combines domestic and international legislation of contracts, sector specific legislation concerning food standards, and global private standards related to quality, safety and sustainability. The freedom of party and the ability of the chain leaders to design contract is based on compliance with mandatory laws. Mandatory rules are generally related to the safety of the commodity and with sustainability. More freedom is permitted in relation to quality requirements where the sources are private regulations of exchanges and codes of conduct or certification schemes. The contracts are often bilateral but reflect chain leaders' basic requirements included in suppliers' codes, procurement policies and sustainability guidelines. Suppliers' codes issued by producers require compliance with sustainability, quality and safety (ISO 22000) standards. These instruments may specify and characterize the contractual governance of each chain within the same commodity. Therefore the overall content of the relationship is determined by the standard contract and the other documents incorporated by reference. But what really makes the difference are the practices related to monitoring and enforcement. The length and shape of the chain affects contractual relationships. In commodity chains they tend to be spot and short terms whereas in specialty they tend to be long term even if the individual contracts are only one or two year long. The number of contractual networks and farmers' cooperatives or equivalent legal forms is likely to rise changing the role of intermediaries. The role of intermediaries in global supply chains is changing; new intermediaries are replacing old ones especially in producing countries. Farmers associations have changed their mission and objectives and contribute to engage governments and financial institutions to promote export related policies. New intermediaries range from certification schemes to

new associations of smallholders. They provide new services related to quality, safety and environmental requirements and contribute to the establishment of new contractual practices introducing contract farming. Contract farming plays a relevant role in coffee production and it influences the relationship between farmers, exporters and roasters¹⁵⁵.

These changes are reducing but not eliminating the differences between commodity chains and specialty coffee. The identity of differentiated coffee has evolved and quality-driven differentiation, traditionally known as leading to specialty production, has been accompanied by sustainability-driven differentiation. Sustainability initiatives have progressed at a fast pace over recent years and this growth is due to increase in the future, showing its impact on supply chain governance¹⁵⁶. Indeed, sustainability itself has stimulated direct engagement with farmers although, when compared with quality-driven initiatives in the specialty segment, it is often mediated by the intervention of certifiers. Quality still plays a significant role in differentiating commodity and differentiated coffee. Chains producing specialty coffee still reflect a closer relationship between farmers and roasters characterized by a more intense exchange of goods and services (technical and administrative assistance) and by more sophisticated systems of rewards including not only pecuniary premiums but also access to technology that can increase the competitive advantage vis a vis other competitors. The relationship takes place at the production stage before harvest. In commodity chains the relationship occurs mainly after harvest to inspect products' quality. The differences between commodity and specialty remain but there is a spillover effects from practices related to specialty and organic that have entered the commodity market.

The relationship between contractual practices and governance of global chain needs to be further and more deeply investigated but clearly it represents one of the most relevant variables and the differences in legal regimes might represent an obstacle to engage in global trade.

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154. See DA SILVA C.A. and RANKIN M. (eds.), Contract farming for inclusive market access, FAO, Rome, 2013.
 155. Jason Potts, Matthew Lynch, Ann Wilkings, Gabriel Huppé, Maxine Cunningham, Vivek Voora, The State of Sustainability Initiatives Review 2014 Standards and the Green Economy, available at www.iied.org, p. 155 seq.
 156. According to the 2013 Coffee & Climate workshop documentation, “Tooling up for Climate Change” 2013, Belamonte, Brazil, there have already emerged sustainable farm management practices which improve the sustainability of the coffee farms. Three effective practices include: the application of gypsum to trigger root growth of coffee plants as deep as 1.50m into subsoil layers in order to reach water even during drought; the installation of windbreaks e.g. in order to reduce evapotranspiration and, finally, a set-up of easy to use rainwater harvesting system.

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ANNEX

Drivers and obstacles to system level innovation in the area of quality and sustainable standard in the Finnish coffee sector: Paulig's and retailers' view

What have been the organisation exceeding, system level innovations in the coffee value chain according to Paulig's Communicating Manager and Coffee Division Managing Director Elisa Markula?

From Paulig's perspective, among *the main drivers for system level innovations* at the moment is *climate change*, which will impact coffee farmers and the balance of coffee yields. Most of the sustainability standards are focused on environmental issues (UTZ certified, Rainforest Alliance, GlobalG.A.P., organic standards, 4C). By complying with these standards, farmers take better care of the environment than farmers who do not comply with them¹⁵⁷. Another thing is the *increased demand for responsibly produced coffee* that can attract farmers to increase more certified coffee. It means bigger investments for the farmers. Smaller farms need lots of support to join certification systems. Larger farms already have a better organised system, so they don't have to invest so much to join the certification system.¹⁵⁸

The obstacles for system level innovations are several. The biggest challenge for the coffee business in the future will be *the shortage of labour*, however. The coffee cherries are mostly picked manually in the countries where coffee is grown in mountains. According to Paulig's representatives, coffee farming and working on a coffee farm is an unattractive alternative for many people. Only Brazil yields are harvested by machine. Coffee picking is no longer an attractive job and labour costs will grow in the future. Because of the growing labour costs, the price of coffee will stay high. So far 60 per cent of coffee production is Arabica¹⁵⁹ and 40 per cent Robusta. Arabica coffee grows higher in the mountains and picking is therefore more expensive. Arabica has also better quality than Robusta, which is bitter. Because of climate change it is possible that the Robusta share will grow in the future¹⁶⁰.

Another obstacle for system level innovation comes from *local conditions in the coffee consuming countries*. The local condition factor is related to the preferences of the consumer and what they are used to buy. Consumers' coffee tastes change quite slowly, which is a challenge from the roaster's perspective.

From the value chain perspective the main challenges and obstacles for system level innovations are in the beginning of the value chain because climate factors and structural changes are relevant in producing countries. These things affect the whole value chain. The coffee *exporters* have a huge role in the chain. From the Finnish roaster's perspective, *the challenges in the producing countries are the quality of the coffee as well as the availability of sustainably produced coffee*. The role of traders and exporters is to ensure that there is coffee that fulfills the buyers' requirements. The Exportadora Guaxupé, for example, has an important role in the Brazilian coffee business. The founder of the company has a long tradition in developing the Brazilian farmers' capabilities to produce coffee which fulfills the export countries' requirements.

Paulig wants to be involved in development projects to help and teach the local farmers to improve their capabilities in coffee farming. This does not, however, mean that the farmers who participate in development projects directly will be exporters for Paulig. The reason is that crops are usually too small and the quality is not what the roaster needs. Big international coffee roasters need long-term relationships and big amounts of raw coffee. Therefore the small farmers need to be organised into cooperatives or get their coffee exported via intermediaries who collect coffee from several small coffee farms for exporting. This is the case especially in Mexico and Columbia, where the coffee farms are mostly situated high in the mountains.¹⁶¹

157. Personal interviews in Paulig.

158. Arabica plants are generally large bushes with dark-green leaves, and account for over 60% of coffee production. Robusta coffee grows on shrubs or trees up to 10 metres in height, and its cherries take longer to mature than Arabica cherries.

159. Personal interviews in Paulig.

160. Personal interviews in Paulig.

161. Personal interviews in Paulig.

The big international coffee trading companies like Neumann Kaffee Gruppe and Volcafe Group play an important role in the coffee business. *Traders are an important part of that bridge, connecting farmers to roasters who in turn sell to supermarkets, coffee shops and consumers.*¹⁶² Traders help seek out, buy and transfer certified coffee to buyers large and small. Volcafe and Neumann together serve about 25% of the global market, from the smallest to the largest roasters.

The environmental group the Rainforest Alliance announced it has signed agreements with the world's two largest coffee trading companies, Neumann Kaffee Gruppe and Volcafe Group. The announcement was made in May 2003. The Rainforest Alliance Memorandums of Understanding (MOUs) seek sustainability along the entire coffee supply chain "from farm to cup," helping to bridge the gap between certified sustainable coffee farms and consumers around the world. "The MOU between the Rainforest Alliance and Volcafe formally establishes the groundwork for jointly *pushing sustainability along the coffee supply chain,*" said Paul Moeller, CEO of Volcafe Group. From the coffee business value chain perspective, the activities of the biggest players in the coffee business do have a significant role in pushing sustainability along the value chain even though there is not enough demand on the consumer side (SORSA 2012, 12¹⁶³). Sustainability is seen, however, as the biggest trend in the consumer markets but different markets are moving faster than others.

*One obstacle for the acceleration of sustainably-labelled coffee brands is the price in the consumer markets. At this moment, e.g. Juhla Mokka, the Finnish coffee brand, costs about four euros per 500g package and a Fair Trade coffee package or other sustainably-labelled coffee costs about seven euros. This is a big difference. However, in the Finnish coffee sector the retail companies use coffee as a "pull-product"¹⁶⁴ and then the price is reduced. This tradition is different from other European countries, where the coffee as a "pull-product" is not very used.*¹⁶⁵

What role do the *CSR and food safety standards* play for promoting system level innovations? According to the coffee interviewees, the standards play a crucial role in developing coffee cultivation methods to be more sustainable. The main competitors of Paulig in Central Europe have declared that they will buy all of their raw coffee as CSR certified. This means that they need to solve the availability problem by investing huge amounts of money in order to raise the amount of sustainably produced coffee in the world. There are plenty of coffee farms that could be in better use if the good agricultural practices were used. According to the interviewees, the coffee producing countries authorities should take more responsibility because it is also in the state's interest that the landscape is populated¹⁶⁶.

Why did Paulig start to use the UTZ certified scheme in their coffee brands in the first place? The UTZ certified scheme was seen as a good system as it is accepted both in small and big farms. In 2006, when the first UTZ certified products came under Paulig's coffee brand, the availability of Fair Trade coffee with the standardised quality was inadequate. In the very beginning, Fair Trade coffee was not available from African countries. Fair Trade started from Central America.

The Fair trade premium provides more financial support but it does not generate business capabilities. Paulig's brand Paulig Mundo was prepared from UTZ certified coffee but later it was changed to Fair Trade certified coffee. Meanwhile new sustainably certified coffee brands have been brought to the coffee selection, e.g. *Paulig Brazil* coffee is UTZ certified.¹⁶⁷

162. Sorsa, K. 2012: The Role of Multinational Enterprises in Promoting System level Innovations in the Finnish Food Industry, Third International Conference on Multinational Enterprises and Sustainable Development, New Delhi, India 12-14. 2012.

163. Pull-product is a product which is very often sold using very low price during one or two days.

164. Personal interview with Paulig.

165. Personal interviews in Paulig.

166. Personal interviews in Paulig.

The role of *non-governmental organisations* in changing the consuming patterns and in that way promoting system level innovations is important in the long run but how much they affect the final purchase decision to select sustainably-labelled products is dubious according to the interviewees. Also the role of social media is not very active in Finland.¹⁶⁸

According to Paulig's Managing Director, the UTZ certified standardisation scheme has *promoted other minor innovations in the coffee sector*. Especially the traceability in the coffee business is important in business-to-business relations and, in that, the UTZ certified organisation has improved the traceability remarkably with its internet programme. Also the scheme has been able to improve the profitability of coffee farmers and that is a real innovation.¹⁶⁹

Additional considerations are offered by **interviewed retailers**. According to the S-Group's representative, the market share of the private label coffee in general will grow steadily¹⁷⁰. Coffee roasters' representatives see it to be a good trend that there is more competition – it makes the roaster be active and take continuous care of its brands. The Kesko group has brought several sustainability-labelled coffee brands under the umbrella Pirkka brand, which shows how high from the strategic perspective the sustainable products are in Kesko.

167. Personal interviews in Paulig.

168. Personal interviews in Paulig.

169. S-Group representative's interview.