Rent appropriation among rural entrepreneurs: three experiences in coffee production in Brazil

Maria Sylvia Macchione Saes

A propriedade da renda por empreendedores rurais: três experiências na produção de café no Brasil

A questão que norteia este trabalho é se existem estratégias factíveis e sustentáveis que possibilitem reverter a queda da renda agrícola dos produtores de pequena escala. Para respondê-la, analisa-se como os empresários escolhem estratégias que criam e capturam valor, com o objetivo de apresentar um modelo de análise de diferenciação no segmento. Quatro perspectivas teóricas são apresentadas: Posicionamento Estratégico, Visão Baseada em Recursos, Economia dos Custos de Transação e Teoria do Lucro de Knight. Baseadas no modelo, três experiências estratégicas no sistema agroindustrial do café brasileiro são examinadas, divididas em três categorias: interdependência conjunta, que apresenta o foco estratégico de criação de valor por meio da exportação direta de café de boa qualidade adotado pela Cooperativa Regional de Produtores de Café (Cooxupé); interdependência sequencial, que examina a estratégia de marca de qualidade da torrefadora illycaffé; interdependência mútua, na qual a experiência dos produtores de Poço Fundo é analisada, visando agregar valor ao café com base no mercado de café sustentável. Observa-se que a estratégia mais bem-sucedida em termos de representação (número de produtores envolvidos) é aquela que enfoca escala e escopo na comercialização de cafés especiais. Outro achado interessante diz respeito ao novo paradigma na relação entre o setor rural e o setor à jusante, em relação à qualidade da bebida e às questões de sustentabilidade.

Palavras-chave: estratégias de agregação de valor, análise de posicionamento estratégico, visão baseada em recursos, economia dos custos de transação, teoria knightiana, agronegócio café.

1. INTRODUCTION

The purpose of this article is to answer the question of whether there are sustainable, economically feasible strategies that are able to ensure that the rent created in the rural sector can be appropriated by rural entrepreneurs. Two
main motivations have driven this work. The first is theoretical, since in orthodox economics the role of the rural entrepreneur in economic activity has long been ignored, although the concept of entrepreneur, originally rooted in Cantillon’s work, emerged a couple of centuries ago (ELKJAER, 1991). Orthodox economics focuses mainly on the competitive equilibrium of the market. This framework establishes what are generally called the price taker and perfect knowledge assumptions. Buyer and seller both having perfect knowledge in the market adjust his/her response to market prices perfectly and as a result market equilibrium is promptly achieved. Therefore, there is no room for time lags and the functional role of entrepreneurs. However, such an approach ignores the numerous examples of pioneers who opened agricultural frontiers and the willingness of individual producers to adopt new technologies and obtain differentiated rents. As Casson (2005, p.116) argues, neglecting the entrepreneurial dimension offers a partial explanation for the behavior of the firm. On the other hand, focusing only on the entrepreneur also only tells part of the story.

The second motivation relates to private and public policies, since the general declining trend in the agricultural sector’s share in national income generated by supply chains is a challenge. This challenge goes beyond the dichotomy between rich and poor countries. Although it is more pressing for undeveloped countries, the issue of declining income in the agricultural sector is not the prerogative of producers from poor countries. In undeveloped countries declining agricultural income is, by and large, conducive to an impoverished economy. For developed countries, although this problem is solved by the allocation of the large resources provided by public policies, the ill-fated results of these transfers and the dissatisfaction of society, which pays for regulation inefficiencies, raise the issue of the unsustainability of artificially maintaining producers’ income.

Recent studies (FITTER and KAPLINSKY, 2001) argue that de-commoditization through product differentiation attributes is the only way to avoid price-competition in the agricultural sector, allowing it to obtain extraordinary rents. Thus, in order to answer how rural entrepreneurs choose a strategy that creates and captures value, we build a model to analyze differentiation strategy in the rural sphere.

Our model integrates four complementary strategy theories:
- Strategic Positioning Analysis (SPA), focused on the product market;
- Resource-Based View (RBV), mainly focused on a firm’s internal factors;
- Transaction Cost Economics (TCE), concerned with the coordination of entrepreneurial activities;
- Knight’s Theory of Profit (KTP), which explains the appearance of rents in a situation of disequilibrium.

The second section of this article addresses the way in which economic literature discusses sustainable competitive advantages. The third section introduces our analysis model. The fourth part describes three experiences in Brazil’s agricultural coffee sector according to the model presented. Finally, a comparison is made between them and some considerations and suggestions are put forward.

2. HOW ARE SUSTAINABLE COMPETITIVE ADVANTAGES (SCAs) GAINED?

Looking at the issue through four complementary theoretical lenses, this section aims to address the question: How do entrepreneurs choose a strategy that creates and captures value? Once that has been accomplished, an endeavor is made to integrate the four approaches presented.

The most traditional strategic view is Porter’s Strategic Positioning Analysis (SPA). It states that companies must observe the competitive interactions with their immediate and potential rivals. Such a strategy involves the creation of entry barriers (economies of scale, economies of scope and differentiation) to old and new competitors in consuming countries. This strategy of creating entry barriers reflects a particular view of how markets work, having as a paradigm the perfect competition model, in which the only source of profit is the creation of monopoly rents (PORTER, 1985; CHANDLER, 1998; PORTER, 1998).

The Resource-Based View (RBV) argues that companies must develop and benefit from internal differentiated resources. In this case, in order to maintain SCAs, the firm’s strategy consists in identifying, developing and emphasizing its capabilities, so that its rivals are unable to imitate them. The source of value comes from Ricardian rents (RUMELT, 1984; WERNERFELT, 1984; BARNEY, 1991; RUMELT, 1991; PETERAF, 1993).

In the perspective of Transaction Cost Economics (TCE) firms adopt differentiated governance structures with the aim of reducing transaction costs. Since value creation results from trade, transaction costs can prevent exchanges from being made, or make them more expensive. So value is created when transaction costs are reduced through governance structures that allow for better coordination between agents (WILLIAMSON, 1985; WILLIAMSON, 1996), or make it possible to explore, previously unexplored attributes of goods through the redefinition of property rights (BARZEL, 2002).

Finally, Knight’s Theory of Profit (KTP) proposes that competitiveness depends on the entrepreneur’s judgment (KNIGHT, 1964; FOSS and KLEIN, 2004; FOSS, 2005). This judgment is characterized by its uniqueness, due to a subjective evaluation (made by the entrepreneur) concerning future gains. The importance of this approach lies in the fact that it includes uncertainty within its scope, in addition to highlighting the role played by the agent who decides which strategies the firm will use. An interesting implication arising from this is that, even in the absence of information asymmetry, economic agents...
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(entrepreneurs) will disagree on the best way of allocating resources, since interpreting reality depends upon their personal judgment about the future, which reflects on the firms’ heterogeneity. The consolidation of the main features of these theories is presented in Table 1.

It can be noted that all the theories here presented provide only a partial view of how firms can create and capture value (FOSS, 2005). According to Nickerson (2003), both SPA and RBV fail to take into consideration the costs of organizing activities internally, which may imply the adoption of costly strategies to capture value. In addition, from the perspective of the RBV, managers will not capture value if their unique resources are not valuable to consumers. Concerning TCE, the main criticism regards the fact that a strategy that economizes transaction costs may fail to capture or create value because of limited demand or excessive competition. KTP fails because it does not provide an understanding of the rationality of decision-makers when choosing problem solutions for putting into place an idealized strategy (NICKERSON and ZENGER, 2004). Integrating these views could, therefore, minimize the deficiencies found in each, thereby providing a theoretical instrument that would allow for a better understanding of the SCAs. An integrative view allows for an understanding of how the firm’s strategy of value creation (Ricardian/montopolisic rents) aligns with its governance structure in the supply chain (how property rights are allocated) and how value appropriation will be determined.

The following aspect is particularly important to our research problem: there is no use in formulating a value creation strategy if, when the transaction is carried out, the value is transferred to the upstream segment. In other words, residual property rights must be allocated in such a way as to allow agricultural producers to capture value. Therefore, the value that the producer will appropriate along the supply chain not only depends upon the firm’s ability to exclude non-proprietors and enforce its own rights; it also depends on how bargaining power is established between the parties.

In order to integrate the four approaches we looked for inspiration in Nickerson and Zenger (2004). They depart from the Transaction Cost Economics’ approach to argue that the discovery of opportunities by the entrepreneur involves two aspects: identifying problems, which, if solved, create value; and governing the organization to allow for the creation of a continuous process of solution search.

The efficient organization depends on the type of solution search required (NICKERSON and ZENGER, 2004). For the

<table>
<thead>
<tr>
<th>Theoretical Views</th>
<th>Unit of Analysis</th>
<th>Variables that Define Firm Competitiveness</th>
<th>Sources of Competitive Advantage</th>
<th>Critical Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA</td>
<td>Value chain</td>
<td>Entry barriers:</td>
<td>Monopoly power</td>
<td>Ignores different firm performances within the same industry.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Economies of scale and scope</td>
<td></td>
<td>Does not explain the boundaries of the firms.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Differentiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RBV</td>
<td>Resources(*)</td>
<td>Scarce resources, expensive to transfer and to replicate</td>
<td>Ricardian rents</td>
<td>Ignores firm’s external environment (demand).</td>
</tr>
<tr>
<td>TCE</td>
<td>Transaction (WILLIAMSON, 1985; 1996)</td>
<td>Alignment between governance structure and transaction attributes: asset specificity, frequency; uncertainty</td>
<td>Reduction of transaction costs</td>
<td>Ignores gains resulting from team production.</td>
</tr>
<tr>
<td></td>
<td>Property rights (BARZEL, 2002)</td>
<td>Alignment between governance structure and costs of measuring the attributes of the goods</td>
<td>Maximize transaction value</td>
<td>Ignores firm’s heterogeneity.</td>
</tr>
<tr>
<td>KTP</td>
<td>Human action</td>
<td>Entrepreneur’s cognitive characteristics / learning</td>
<td>Entrepreneur’s judgment</td>
<td>There is no economic logic behind the entrepreneurial decision.</td>
</tr>
</tbody>
</table>

Note: * The unit of analysis under the RBV is not consensual; it includes other definitions such as: activities, strategies, processes, routines, capabilities and core competences, among others.
authors, there are three alternative and opposing forms of organization associated with the problems, according to their degree of complexity:

- problems of reduced complexity (decomposable) – the entrepreneur ideally looks for it’s a solution for them via the market;
- problems of moderate complexity (nearly decomposable) – the entrepreneur ideally deals with the search within the limits of the firm, using his or her authority (or fiat);
- problems that are highly complex (non-decomposable) – he or she ideally looks for a solution by creating a consensus-oriented organization, in which socialization is used to create a common communication code by which knowledge can be economically aggregated.

These authors point out that the discovery of valuable opportunities usually requires choices involving multiple knowledge sets about the project and that marketing them encompasses different characteristics of the agents. Only in small operations can a single entrepreneur know precisely which decision and which choices to make about planning, manufacturing, finance, accounting, marketing, human resources and strategy activities. When problems are complex and non-decomposable, the authors argue that the firm will acquire a specific feature, while creating a favorable environment for knowledge sharing. The entrepreneurs will have to organize the firm in order to create its own culture and identity, thereby favoring knowledge sharing and a search heuristic.

The proposition presented by Nickerson and Zenger (2004) provides reflections for the analysis of supply chains, even though the article mentioned here centers on strategic solutions regarding the firm, as will be seen in the next section.

3. SUSTAINABLE COMPETITIVE ADVANTAGES IN THE AGRICULTURAL SECTOR: AN ANALYTICAL PROPOSAL

The analytical scheme of value creation or and appropriation is presented in Figure 1.

In our model, the entrepreneur-producer initially discovers a value creation opportunity for his or her business (Figure 1 [1]). This opportunity (problem identification) relies on the creation or exploration of the new attributes of productive resources (Figure 1 [2]). In this situation, there will always be two elements of uncertainty. The first relates to the need to estimate all production operations from beginning to end. It is impossible to state precisely what the result of a production activity will be in physical terms (quantity and/or quality) before the resources actually enter the production process.

The second element regards the need to forecast the wishes of the consumers towards whom a good is directed. Producers must estimate: the future demand they intend to meet and the future result of their operation aimed at meeting this demand
(technology direction management and production control). Such activities are directly connected with the SPA strategy, and, therefore, are conditioned by the structure and competition pattern of the industry within which the firm operates (Figure 1 [3]).

In the agricultural sector, in general, as entrepreneur-producers do not have scale, the adoption of an individual strategy will have to take into consideration the transaction costs (Figure 1 [4]) of a collective action. They will have to persuade producers in their neighborhood to adhere to the strategy with a view to obtaining scale, which will allow them to fulfill their aim. The analysis of the transaction costs of vertical coordination will be jointly analyzed with the horizontal strategy (Figure 1 [5] and [6]), id est once the profile of the resource necessary to achieve the objective has been defined, the horizontal production strategies and vertical strategies for selling the product must be integrated.

It needs to be emphasized that the definition of horizontal and vertical strategies is rather complex: other people do not easily adopt an innovative strategy that is the brainchild of an entrepreneur-producer. A person creating or discovering new attributes is motivated to use them directly because it is costly to transfer knowledge that is not easily measurable. There are costs associated with discovering the relevant price and costs for negotiating, measuring unknown attributes and formulating contracts. Therefore, entrepreneurs usually avoid negotiation costs in order to prevent value dissipation. They cannot become idea sellers, since knowledge is susceptible to problems of moral hazard and adverse selection (3). In addition collective action could take several forms and, hence, must be aligned with the strategy as conceived.

Based on the model of Nickerson and Zenger (2004) and on the taxonomy adopted by Lazzarini, Chaddad and Cook (2001), it is possible to indicate three classical types of coordination that exist between rural producers for solving value-creation problems, namely: joint interdependence, which is associated with a reduced complexity (decomposable) problem; sequential interdependence, related with moderate complexity (nearly decomposable) problem; mutual interdependence, which concerns a high complexity (non-decomposable) problem. Each of these problems requires different solutions, which implies different resource profiles. Each resource profile defines organizational arrangements, which will generate attributes that are consistent with the target positioning.

At the end of the supply chain, consumers will respond to the strategic choice by buying products, based on the association between their preferences and the utility of the product, id est analyzing the costs and benefits of the products offered via the strategies they have available (NICKERSON, 2003). In other words, it is the consumer who will ultimately validate value-creation strategies and determine the value that can be appropriated.

Therefore, value appropriation (Figure 1 [8]) will depend on demand elasticity (how much consumers are willing to pay for the product), id est the total value created and how property rights are allocated. The definition of property rights will depend upon the governance structures (Figure 1 [7]).

The three types of structure that are consistent with the complexity of the problems, in terms of value-creation strategies, are as follows:

- **Joint interdependence**
  In this case, each producer within a group makes an autonomous and well-defined contribution to a given task. Relationships between agents are rare and social ties are weak. This represents the reduced complexity, or decomposable, type of problem. Prices reflect the totality of investments required. Producer cooperatives, for instance, represent a type of solution for dealing with problems of this nature. Standardization, which can be obtained through certification, is a key instrument for solving problems of information asymmetry. Though there is a differentiation strategy, producers have little power to influence product prices, which are defined by the market. As Barzel (2002) puts it, while it reduces the cost of obtaining information about the attributes of the goods, standardization brings the world of costly information and perfect competition closer together. This is why producers make more use of the externalities of networks (reduced transaction costs) for obtaining competitive gains than of price differentials. The appropriate vertical governance structure is the market. Even if producers were to possess processing means through a cooperative, their power to appropriate value would be limited. An example of this would be a value-aggregation strategy, based on the sale of a product with standardized quality.

- **Sequential interdependence**
  This type of interdependence occurs when a producer’s strategy is directly related to the specific investment of an upstream firm that will determine the conditions for the organization of production. In this case, with regard to the complexity of the problem, the type of solution is moderate. Hierarchy-based authority is necessary to prevent the dispersion of strategic information. Residual decision rights are allocated to the upstream firm, which carries out the coordination through planning and adaptation to changes in the external environment. Since the firm is responsible for the decision of the whole network of relationships, the solution is trivial (SAUVÉE, 2002). In marginal terms, the result of this type of governance structure can be more advantageous for rural producers, compared with the result obtained through joint interdependence, since there is value creation to be negotiated. It is worth observing that
when this type of strategy is started by a rural producer, it is more feasible when the producer also owns the processing firm upstream, because if not the producer has to persuade an entrepreneur to invest in the processing of the product. Since the focus of this work is on small producers, this strategy is more commonly adopted by a processing firm. A case illustrating this example is a processing firm’s brand strategy with regard to the specific quality of a product.

- Mutual interdependence

In this case, each agent is mutually dependent on the choices and actions carried out by other agents. Decision rights are distributed among rural producers, which implies the presence of a complex solution process. Since it is not a trivial problem, a consensus mechanism is presupposed, as well as a negotiation between the parties and a mutual adjustment (MENARD, 2004; ZYLBERZTAJN, 2005). The coordination and adaptation forms require learning through feedback rather than through centralized decision-making planning. Due to their complexity (and, therefore, the difficulty in duplicating them), the resources created by this mechanism make for a better appropriation of the margin by rural producers. Therefore, if the firm’s performance depends on the resources it controls, the meaning of its existence derives from its relative greater ability, when compared with other governance structures (market and contracts), to generate and appropriate economic rents (RUMET, 1984; WERNERFELT, 1984). An example that illustrates this case is that of a brand strategy in the rural segment, in general not related to its origin and regional quality. Since it involves several producers, exclusion rules must be clear and consensual, and there are problems with free riders.

Therefore, we see that the definition of vertical and horizontal organizational strategies is based on the value creation opportunities devised by entrepreneurs. Table 2 consolidates this discussion.

In the first case, the market is the most expected form to be seen, since there is no way to improve the distribution of the producers’ value through the adoption of hybrid forms or forward vertical integration (acquisition of a processing firm). In fact, cooperatives that adopt such integration strategies start behaving in a similar fashion to processing firms, which aim at competing in the market. The capacity to appropriate value is nil and gains result from economies of scale and scope.

In the second case, in which the firm’s brand is an important strategy, hybrid forms are expected to be more commonly observed, and relational or formal contracts or even hierarchy may occur, depending on the type of resource that is related to the brand. Gain will result from the use of differentiated resources and the creation of entry barriers in the product market. The value will tend to stay with the agent that holds the residual decision rights (or the strategy’s coordinating agent). In this latter case, more complex coordination mechanisms are necessary for dealing with problems resulting from joint actions. More complex coordination mechanisms mean consensual decision-making and responsibility sharing. As the strategy is shared among the agents, value division will also tend to be.

The next section will analyze the three strategies, based on the examples of three experiences in the Brazilian coffee system.

### Table 2

**Value Creation and Appropriation**

<table>
<thead>
<tr>
<th>Types of Problem Identified</th>
<th>Governance Appropriate to Profile of Resources</th>
<th>Allocation of Property Rights</th>
<th>Market Conditions</th>
<th>Capacity to Appropriate Value</th>
<th>Strategy Gains (SCAs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low complexity</td>
<td>Joint interdependence</td>
<td>Market</td>
<td>Low entry barriers</td>
<td>Nil</td>
<td>Economies of scale and scope/efficiency</td>
</tr>
<tr>
<td>Average complexity</td>
<td>Sequential interdependence</td>
<td>Authority (one of the segments)</td>
<td>High entry barrier: focus on consumer loyalty</td>
<td>Total, for the agent with authority</td>
<td>Ricardian/monopolistic rents</td>
</tr>
<tr>
<td>High complexity</td>
<td>Mutual interdependence</td>
<td>Shared</td>
<td>High entry barrier: focus on unique resources</td>
<td>Shared among agents</td>
<td>Ricardian/monopolistic rents</td>
</tr>
</tbody>
</table>
4. VALUE CREATION AND APPROPRIATION: SPECIALTY COFFEES IN BRAZIL

This section discusses experiences that illustrate the theoretical platform presented to be illustrated. These experiences have been grouped into three categories:

- Joint interdependence, designed to examine the strategic focus on value creation in the Coffee Growers Regional Cooperative (Cooperativa Regional de Caeifutores em Guaxupé – Cooxupé), located in the state of Minas Gerais, Brazil.
- Sequential interdependence, looking at the exceptional quality coffee brand created by the illycaffè roaster’s owner. Such a strategy required an action for targeting coordination of the supply chain in Brazil.
- Mutual interdependence, related to the experience of coffee growers from a region called Poço Fundo, also located in the state of Minas Gerais, Brazil. This community has recorded actions from growers that aim to add value to their coffee, based on the sustainable brands market.

4.1. Joint interdependence: Cooxupé making progress on a social network path

Having stepped into the role of Cooxupé’s CEO at the age of 46, Isaac Ferreira Leite, known as Dr. Isaac, was driven by his goal of finding ways of adding value to coffee, as a result of which Brazilian growers’ remuneration could be enhanced (SAES, 1995). To this end, the entrepreneurial vision he conveyed to others conferred a quite peculiar and innovative aspect to this strategy. Dr. Isaac brought to Cooxupé his observations about the dynamics of large firms, which included, for instance, gains in economies of scale and scope in textile manufacturing, as well as a professional work ethic in the workplace and in negotiations with clients. This happened at a time when Brazilian cooperatives placed almost no emphasis on professional management, and, even less, on internationalization strategies.

It also needs to be borne in mind that Brazilian agricultural cooperatives are widely disseminated economic structures and often seen as tools for the development of rural areas. The main argument in defense of the cooperative form is precisely what led to the creation of Cooxupé, namely, the competitive nature of the primary sector that interacts up and downstream in highly oligopolized markets. To balance these forces, a union of rural producers makes for a decrease in business risks and costs, and, therefore, the quality of the product. This pioneering initiative allowed Cooxupé to develop unique resources for trading coffee directly with international buyers in the 1980s.

Product standardization, therefore, was the first step toward changing the rules of the game that established how the coop’s coffee was exported. This was important because, over time, buyers adapted to this system, even when purchasing the product through third parties. Dr. Isaac believed that success in direct exports would be achieved through the creation of a long-term relationship based on trust and reputation and, of course, the quality of the product.

In 1984, the cooperative opened an office in the city of Santos, the world’s main coffee exporting port. In 1990, export director Joaquim Libânio took over, with responsibility for developing the relationship, a task facilitated by his previous experience as the IBC’s Brazilian representative at the International Coffee Organization (ICO). In the same year, Cooxupé directly exported 200,000 bags of coffee. In 2005, a large part of the 3 million bags traded by Cooxupé, "id est" 1.4
million bags, was directly exported (to 30 countries and 150 clients); 988,000 bags were indirectly sold and 630,000 bags were traded on the domestic market.

Allied to the conscious and responsible consumption movement, the increased demand for specialty coffees in the early 2000s offered the opportunity to trade high-quality coffees produced in a sustainable manner, at premium prices when compared with the commodity market. In parallel to this, several quality contests appeared in Brazil as a means of fostering the production of quality coffees.

4.1.1. Gains in horizontal cooperation

Cooxupé’s initial strategy, id est eliminating intermediaries in the commercial process and negotiating from a stronger bargaining position, enabled it to obtain gains that resulted in higher incomes for producers. As defined in section 3 of this work, this strategy is called joint interdependence. Each producer within a group makes an autonomous and well-defined contribution, and relationships between producers are rare and generally without the need for strong social ties. This represents a type of reduced-complexity problem relative to the organizational structure, since it is decomposable. Prices reflect the totality of the incentives required. Once the coffee has been classified by the cooperative, its price is determined by the market. The standardization process adopted by Cooxupé was highly instrumental in solving problems of information asymmetry. The producers’ major gains are related to scale and scope when it comes to selling their coffee, the joint purchase of inputs and the creation of knowledge and management resources that, through the cooperative, enable them to build partnerships with other companies that buy quality products.

4.2. Sequential interdependence: illycaffè’s high quality brand

The case here portrayed concerns the strategy devised by engineer Ernesto Illy, known as Dr. Illy, owner of a traditional, family-owned Italian company – illycaffè – that is well-known for its high quality espresso coffee. The high-quality brand strategy was developed as an idea in the industrial segment, but as will be seen, to be fully effective it required coordination of the supply chain, id est producers would have to be engaged in this strategy, thereby creating mutual interdependence (SAES and ISHIKAWA, 2006). It is important to highlight that the supply chain does not discriminate against a producer’s size, which means that illycaffè’s suppliers come in a variety of sizes.

There were two key drivers in Dr. Illy’s choice of strategy: his experience in the company and his academic background. Francesco Illy, Ernesto Illy’s father, founded illycaffè in 1933 in Trieste, Italy. Before taking over as co-owner and CEO of the company in 1956, Dr. Illy had worked in several economic sectors, but it was through his experience with clients that he realized the extent to which consumers valued the consistency, aroma and flavor of the beverage. In addition, his education in chemical engineering fostered in him a high regard for laboratory analyses of the drivers of quality in coffee, which had been previously based on the subjectivity of specialists. The alliance of these two types of knowledge enabled Dr. Illy to visualize the potential of the high quality coffee business. In 2006, illycaffè had some 40,000 sales outlets around the globe, where over 5 million cups of espresso were served daily, with its unique and always constant blend of nine origins of Arabica (SAES and ISHIKAWA, 2006).

The illycaffè supplies 12 countries, benefiting from differences found in climate and altitude conditions, among other aspects. From June to October it purchases coffee from Brazil and from January to May from Central American countries, India and Ethiopia (NEVES, SAES and REZENDE, 2003). The company acquired some 200,000 bags of coffee from Brazil in the 2006-2007 crop year. Though this is a large quantity in terms of high quality coffee, it represents little if compared to the country’s overall production of approximately 35 million bags, on average (CIC, 2008). In any case, the small quantity bought by illycaffè in Brazil marked a change of history for Brazil’s coffee production, as we shall see later.

Brazil is a strategic supplier to illycaffè. Besides being the world’s largest coffee producer, from 65 to 70 per cent of illycaffè’s raw material come from Brazil, because this is one of the few countries that dry-processes coffee. This is an essential method in the composition of the espresso, since sun-dried coffee has a higher sugar content, caused by the migration of sugars from the drying fruit to the coffee bean, which gives more aroma and body to the blend (ZYLBERSZTAJN and NEVES, 1997).

However, although illycaffè has bought Brazilian coffee since 1933, it was only in the early 1990s that the company was able to participate strongly in the acquisition of green beans. This was justified because, before this time, Brazilian market regulations from the IBC determined that the product could only be exported by its accredited agents.

Allied to this fact, the way Brazilian coffee was sold – mixing coffee of different qualities and from different regions – made it hard for illycaffè to obtain its desired standard. Of the ten or twelve coffee samples that reached Trieste only one would be approved for purchase by illycaffè. Finally, because this commercial practice in Brazil did not value the product that was of a higher quality, producers stopped investing in quality and the quality product was eliminated from the market.

The fall in international coffee prices in the early 1990s mirrored a loss in quality, since decapitalized producers invested minimally in post-harvest practices. In 1989 illycaffè had serious supply shortages: of the 36 samples examined by Brazilian exporters, not a single one was approved by the company. Having identified the problem, Dr. Illy would now have to
discover the opportunities arising from it. Worried about the supply issue, he decided to come to Brazil to visit the coffee producing regions and understand how the production and marketing of the raw material were organized.

Contrary to his expectations, he was surprised by the high quality of the coffee fruit on the tree. He was, however, frustrated by the harvesting (stripping the cherries from the branch by hand) and processing methods, which resulted in beans at different stages of maturity being all mixed up in the same batch. Dr. Illy saw that the main problem was the coordination of the harvesting, drying, processing and trading activities. Problems occurred because the agents involved were not receiving adequate incentives to produce the quality he needed.

The solution would not lie in acquiring properties and, therefore, vertically integrating production: the quality of coffee is influenced by weather conditions, which cause large variations in quality from region to region in a given crop.

The idea for solving the problem came when Dr. Illy observed the strategy of the Italian fashion designer, Ermenegildo Zegna. Faced with difficulties when it came to buying quality cashmere, his company had created a quality contest, offering financial incentives to communities that supplied the best fabric (SAES and ISHIKAWA, 2006).

Replicating this strategy, in 1991 illycaffè started to promote an annual, Brazil Coffee Quality Prize for Espresso contest, aimed at identifying the superior quality coffee produced in a given year. As a prize the company pays a premium that is 20 to 30 per cent above international prices for good quality coffee beans, and purchases the coffee beans that are thus classified.

The incentive structure enabled by the contest allows illycaffè to identify the parties present in the transaction, which is a relevant aspect in the product’s final result. In this case, since the spot market was unable to coordinate transactions, the hierarchical structure was replaced by an innovative solution (ZYLBERSZTAJN and NEVES, 1997).

The illycaffè quality contest changed the pattern of competition in the coffee market. Producers realized that Brazilian coffee, which was considered to be of average quality in the international market, could be sold at a premium price provided better harvesting practices and new commercial processes were adapted.

The number of candidates for supplying coffee to illycaffè increases every year. Through a multiplying effect, similar contests have been adopted and regions that traditionally produced low quality beans have sought new technologies to improve their production processes. This happened, for instance, in Minas Gerais’ Zona da Mata (forest zone), where coffee beans had been given a low score in the classification (Rio Zona). After implementing a new technology for processing the beans, local producers started to be classified in quality contests (SAES, BOLDRINI JUNIOR and REZENDE, 2003).

Producers have an additional advantage when supplying coffee to illycaffè: the positive externality of possessing an implicit quality certification. Even if only a small amount of a coffee grower’s production is sold to illycaffè, the status of being a supplier allows for better negotiating conditions with other suppliers.

This fact was observed in a survey conducted with producers who supply to illycaffè, in which 83 per cent (of the 46 interviewees) declared that being an illycaffè supplier results in gains in negotiations with other buyers, besides being a general valorization of the coffee from a given place if the region has been awarded prizes (SAES, BOLBRINI JUNIOR and REZENDE, 2003).

4.2.1. Gains with vertical coordination

Consumers identify the illycaffè brand by the quality of its espresso coffee. The brand’s reputation ensures the attributes that consumers desire; they know that the company has selected the best suppliers, no matter who they are. For this reason, the company does not need to establish contracts or establish a formal relationship with producers. The incentive to produce quality is dictated by the market signals, indicating that a premium price exists in comparison with the commodity price.

Therefore, the relationship established between illycaffè and producers is characterized by sequential interdependence. Both the structure of the contest and the premium have led to the creation of an elastic supply of quality product, thereby bringing about an extremely efficient situation for the supply chain. Competition in the market of factors produces the participants’ maximum effort (those who do not strive are expelled from the market). In addition to the premium price indicated by the market, information systems were created, thus providing producers with the technology needed to enable them to increase the supply of high quality beans.

4.3. The experience of Poço Fundo’s producers

The next experience is about a successful case of small family producer strategies providing for the aggregation of income. The well-known case of Poço Fundo’s producers in the coffee market is seen as a source of inspiration for other communities that have tried to follow in their footsteps. The municipality of Poço Fundo is located in the south of the state of Minas Gerais. This location mainly comprises small family farmers, with coffee representing 85 per cent of the population’s income (SAES and MIRANDA, 2006; SOUZA, 2006).

Just as was seen in the previously presented experiences, the 1990s crisis in the coffee market served as motivation for 20 small coffee farmers, led by Luís Adauto de Oliveira, a technician in agriculture extension, to decide to create the Cooperative of Small Producers from Poço Fundo and Region
in 1991. The theme behind the innovative strategy was, therefore, the same one that has driven the cooperative movement worldwide: joining forces to improve the commercial relationships of the municipality’s growers.

Luís Adauto’s facility for organizing collective actions resulted from the experience he had accumulated from the practice of sharing work in coffee crops with his neighbors – mainly in communal harvesting tasks – called mutirão (worker task forces). Like most producers from the region, Luís Adauto is a small family farmer. With only the help of his wife, he works his 6 hectares smallholding, producing some 180 bags of coffee a year. At harvest time, families gather to harvest their crops. Luís Adauto’s participation in the human rights organization, the Land Pastoral Commission (Comissão Pastoral da Terra – CPT), has also been an important source of learning for improving his natural leadership skills and his communication abilities with his peers.

However, the resources required to implement a strategy involving the specialty coffee market did not form part of the knowledge-base of the region’s producers, and much less considering the Fair Trade market. In this case, a paramount role was played by agricultural engineer, Sérgio Pedini, from the Federal Agro-technical School (Escola Agrotécnica Federal – EAF) of Machado, who, interested in seeking solutions for the region’s development, envisioned the strategy of investing in the Fair Trade market, since the region’s producers had the necessary requirements to do so (small-scale family farmers associated into a cooperative).

Initially the Association, and then the Poço Fundo Family Farmers Cooperative (Cooperativa dos Agricultores Familiares de Poço Fundo e Região – Coopfam) that was founded in 1993, had no great intentions. The cooperative’s aim was to enhance the negotiating power of its members and raise their income through gains in scale when purchasing inputs and jointly trading coffee. However, the joint strategies arising from the gains of the association only resulted in a small increase in the income of these farmers. Right at the beginning eight producers gave up participating in Coopfam. The low coffee prices of the period contributed to their lack of interest. Luís Adauto attributes this to the existence of prejudice on the part of international buyers, who saw Brazilian producers as large landowners. In the case of the 196 associates of Coopfam, they have rural areas no bigger than 12 hectares, the average being 5 hectares.

The first negotiation to export coffee occurred in 2000, when the International Conference on Organic Coffee and Fair Trade was held in the city of Machado, sponsored by the EAF. This event allowed the region to become known to the external market, since it hosted some 400 interested participants and representatives from several buying countries, like Australia, China, Japan and Colombia. It was also seen that if producers were to sell on the international market, they were expected to have quality certifications that supported their organization system in their target markets. The Ecological Certification from the German BCS Œko Garantie label was their next achievement. In 2001, the 75 families who had obtained this certification made the first sale of 287 bags of coffee to the US-based Royal Coffee.

The result of this venture motivated other producers, thereby raising the number of Coopfam’s associates. In 2006 the association had 196 members, who were exporting through Brazilian exporters (Sancoffee from Santo Antonio do Amparo and Exprinsul) to the Royal Coffee and Braser Wolthers importers, which distribute coffee in the United States, Italy and England. Poço Fundo’s coffee can be found in the Wal-Mart stores on the international market. The cooperative’s annual export volume of 5-6,000 bags, however, does not allow it to export directly (SAES and MIRANDA, 2006).

As provided for by the certification scheme, part of the resource proceeds from coffee sales, corresponding to US$0.05/lb (price per pound of coffee) has to be invested in the community. As a consequence the following social projects have been carried out in Poço Fundo: a school of informatics has been built for producers, their children and needy children, orthodontic and orthopedic treatment is being provided for producers’ children and for needy children, along with dental assistance for all cooperative members, an agro-forest organic production system has been implemented and a home for the elderly has been supplied. The cooperative also assists the
community with the distribution of staple foods and school materials. With these resources, Coopfam was also able to have its own headquarters, with a warehouse for processing and storing coffee.

The successful and innovative experience of these producers has helped attract the attention of other partners and collaborating centers, which maintains the continuity of the resources, thereby creating a virtuous circle of investments.

4.3.1. Gains from horizontal and vertical coordination

The case of the producers from Poço Fundo started with a mutual interdependence, since they have a brand to uphold. In this case coffee is jointly traded, which requires shared knowledge and actions. This is a more complex strategy, since it requires engaging multiple agents in the transfer of knowledge and in developing a cognitive map. As a consequence, the governance structure has to be aligned to this need for knowledge transfer and responsibility among agents. The structure was still being formed in 2008, insofar as the experiences are recent and characterized by vertical and horizontal interdependence.

5. COMPARATIVE ANALYSIS OF THE CASES

The gains and costs with specialty coffees in the three experiences are presented in Table 3. Coopfam’s producers trade nearly all of their production as specialty coffee. Only 5 per cent of Cooxupé’s members sell specialty coffees, trading only 5.4 per cent of the coffee they produce as special. Among specialty coffee producers, the ones associated with Coopfam reported having the highest cost differential between specialty and traditional coffees. Accounting for this is the fact that small-scale organic production uses fewer industrial inputs and only family labor, which results in lower production costs. Therefore, with the need for certification, the relative costs rise significantly. Nevertheless, these are the producers who obtain the highest price differential by virtue of their fair-trade certification.

The question running right through this article was whether strategies, leading to the creation of differentiation attributes in the rural segment, could ensure adequate rents for agricultural producers. To that end, an analysis model was built based on the strategic view of the Economic Theory of Organizations, having the SCAs of the firms as the focus of the analysis. Later, three cases were presented, aimed at showing how the model could explain producers’ performance in terms of rent appropriation.

As illustrated in Table 4, entrepreneurs (KTP) in each of the cases presented have made different judgments on business opportunities [1]. The solution to the problem posed by each experience was related to the life histories of each entrepreneur, as well as to what they learned from their own business [2]. Depending on the type of problem to be solved [3] new resource attributes had to be explored [4] and different governance structures (TCE) required [5]. Finally, added to the conditions of product market [6], the elements above-mentioned determine producers’ capacity to absorb rent [7]. Therefore, with the chosen governance structure aligned with the resource profile, both value creation (SPA) and its appropriation (TCE) were simultaneously defined.

Taking the contemporaneous nature of these cases into consideration, the results obtained in terms of short-run rent appropriation remain unclear, although they do provide some interesting reflections with regard to theories and public and private policies.

In the case of Cooxupé’s strategy, good quality, consistency and transparency in relationships with buyers in the international market were the attributes conquered through an innovative system of standardization that, allied to the strategy of increasing the number of associates, allowed the cooperative to have volume and provide regular supplies. Setting up its business model in the international market was made possible through the development of human resources in the period of tenure of entrepreneur Dr. Isaac, who played a pivotal role in the creation of unique competences in his organization. Due to the reduced complexity of the initial strategic solution –

<table>
<thead>
<tr>
<th>Average of Coffee Traded as a Specialty</th>
<th>Cost Difference Between Special and Traditional Coffee (%)</th>
<th>Price Difference Between Special and Traditional Coffee (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Producers</td>
<td>% of Total</td>
<td></td>
</tr>
<tr>
<td>Cooxupé</td>
<td>5 (5%)</td>
<td>5.4</td>
</tr>
<tr>
<td>illycaffé</td>
<td>9 (100%)</td>
<td>48.2</td>
</tr>
<tr>
<td>Coopfam</td>
<td>9 (100%)</td>
<td>95.6</td>
</tr>
</tbody>
</table>

standardization and the sale of good quality coffee in the international market – in which each one of its integrating parts (rural producers) provides a discrete contribution to the whole, we have joint interdependence. We have also seen that the conditions for quasi-rent expropriation are nil, since coffee is sold at the price set by the Liffe and CSCE. Gains, therefore, arise from two factors: the minimization of transaction costs, resulting from efficiency gains in negotiations, and economies of scale and scope in the commercial process. In this case, the firm will have SCAs, because it will be more efficient than its current or potential rivals in the creation of value in the joint production of standardized good quality coffee.

With regard to illycaffè, the attribute Dr. Illy explored was **quality excellence**, which required the coordination of the supply chain. To achieve excellent quality coffee, investments were required in crop handling but, because the market did not pay for them, they were not being made. Here we have an moderately complex problem, because the decision centralized by the firm (it holds residual decision rights) in the coordination process solves the problem by providing adequate incentives.

With regard to Poço Fundo’s producers, they were the ones who obtained the biggest success in adopting value-appropriation strategies based on a relationship of mutual interdependence. Two reasons account for this: they were the pioneers in Brazil, taking the opportunity when the Fair Trade market was still in formation, and they adopted a strategy that had a well-defined focus on a buying market that was already prepared. That was possible, not only because of entrepreneur Adauto’s capacity to mobilize producers, but also because of

<table>
<thead>
<tr>
<th>Cases</th>
<th>Cooxupé</th>
<th>illycaffè</th>
<th>Poço Fundo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business opportunity [1]</td>
<td>Good quality coffee of international market standard for better trade possibilities</td>
<td>Market niche of espresso coffee of excellent quality</td>
<td>Fair Trade coffee for the external market</td>
</tr>
<tr>
<td>Entrepreneur’s history and learning [2]</td>
<td>Background and vision of business management in the secondary sector</td>
<td>Degree in Chemical Engineering</td>
<td>Experience in organizing producers and the capacity to absorb teaching from the university</td>
</tr>
<tr>
<td>Problem type concerning knowledge transfer to producer [3]</td>
<td>Low complexity: Create standardization (reputation and transparency)</td>
<td>Motivate region’s producers to become partners</td>
<td>Learning from producing/negotiating organic coffee</td>
</tr>
<tr>
<td>Resources created / explored [4]</td>
<td>Standardization recognized at international market level</td>
<td>Coffee brand of excellent quality</td>
<td>Resources shared among all agents</td>
</tr>
<tr>
<td>Conditions for value-adding producers [7]</td>
<td>Nil: Gains from efficient relations, economies of scale/scope and reduction of transaction costs</td>
<td>Average: Depends on negotiation conditions</td>
<td>High: While market is regulated (cartel)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Great possibility of quasi-rent creation (brand)</td>
<td></td>
</tr>
</tbody>
</table>
proximity to the university, which allowed for the transfer of knowledge about the development of a cognitive map, with several agents sharing the same strategy (investment in the production of organic coffee).

6. CONSIDERATIONS ON THE RESULTS

The driving force of this work is the problem of the decreasing trend of agricultural rent in the share of the total amount generated by supply chains. The impoverishment and exclusion of rural workers in poor countries, and the enormous subsidies to producers in rich countries are dual aspects of the same phenomenon faced by the 21st century economy. It was argued that value creation and appropriation had to be jointly determined, because the consistency of the strategy does not only depend upon the characteristics of the sources of value, but also on relationships between segments of the supply chains. Therefore, the way the division of quasi-rent takes place is based on the determinants of this relationship, id est how property rights are allocated. The integrative perspective of the views expressed in this work determined that the value creation strategy (Ricardian/monopolistic rents) must be aligned with the governance structure so that the value created can be appropriated. The empirical analysis looked at the Brazilian coffee market and discussed three cases that have very distinct differentiation strategies. As has been seen, each presented different opportunities and required differentiated resource profiles, which, in their turn, determined different vertical and horizontal governance structures. With regard to the conditions of rent appropriation, our results were very interesting, suggesting future reflections on private and public strategies. ◆

NOTES

(1) The RBV entails several ramifications and concepts, such as: dynamic capabilities and core competencies. This work aims to approach the Pure RBV, or the traditional Chicago-UCLA approach that originated with Barney (1991) and Peteraf (1993).

(2) Once information is known, it is worthless; before it is known, it is not possible to assess it properly. It is not known whether it is a good idea. Besides, we could add two other problems: in general, an innovative idea is only considered as such after its success; often, a creative idea is not properly conceived, is not easily communicated to the markets and depends upon a process of adaptation / experimentation that requires mainly the mind of the strategy creator.

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Rent appropriation among rural entrepreneurs: three experiences in coffee production in Brazil

The purpose of this article is to answer the question of whether there are sustainable, economically feasible strategies that can capture agricultural income. To this end, the body of work on why entrepreneurs choose value-capturing and value-adding strategies is analyzed and then a model is built to analyze differentiation in the rural sphere. Four theoretical perspectives are presented: Strategic Positioning Analysis, Resource-Based View, Transaction Cost Economics, and Knight’s Profit Theory. Drawing on the model, three strategic experiences from the Brazilian coffee agro-industrial system are examined, divided into three categories: joint interdependence, which presents the strategic focus of value creation through direct exports of good quality coffee, by the Guaxupé Regional Cooperative of Coffee Producers (Cooxupé); sequential interdependence, which examines the quality coffee brand strategy of the roasting company illycaffè; and mutual interdependence, in which the experience of Poço Fundo producers, aimed at adding value to coffee based on the sustainable coffee market, is analyzed. The most successful strategy in terms of representation (number of producers involved) appears to be that which focuses on scale and scope in the marketing of specialty coffees. Another interesting finding regards a new paradigm in the relations between the rural sector and the downstream segment regarding beverage quality and sustainability issues.

Keywords: value-adding strategies, strategic positioning analysis, resource-based view, transaction cost economics, Knight’s profit theory, coffee agribusiness.

RESUMEN

Apropiación de los ingresos por empresarios rurales: tres experiencias en la producción de café en Brasil

La pregunta que guía este trabajo es si hay estrategias viables y sostenibles que permitan revertir la caída de los ingresos agrícolas de los pequeños productores. Para responderla, se analizan cuatro diferentes líneas teóricas: Análisis de Posicionamiento Estratégico, Visión Basada en Recursos, Economía de los Costos de Transacción y Teoría del Beneficio de Knight. Con base en un modelo propuesto, se examinan tres experiencias estratégicas adoptadas en el sistema agroindustrial del café: interdependencia conjunta, que presenta la orientación estratégica de creación de valor en exportación directa de café de buena calidad de la Cooperativa Regional de Cafeicultores de Guaxupé (Cooxupé); interdependencia secuencial, que evalúa la estrategia de la marca de café de calidad de la torrefactora illycaffé; interdependencia recíproca, en que se analiza la experiencia de los productores de Poço Fando, con el fin de añadir valor al café en el mercado de cafés sostenibles. Como resultado, la estrategia que obtuvo mayor éxito en términos de representación es la que tiene foco en escala y alcance en la comercialización de cafés especiales o diferenciados.

Palabras clave: estrategias para agregar valor, análisis de posicionamiento estratégico, visión basada en recursos, economía de los costos de transacción, teoría de Knight, agronegocio del café.