What fills a cup of specialty coffee?

A study with agents in the specialty coffee global value chain in Brazil and Europe

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What is inside a cup of specialty coffee, besides a delicious drink? Recently, the Specialty Coffee Association (SCA) has updated the definition of specialty coffees[1], which associates the product with a set of intrinsic and extrinsic attributes. When a consumer buys a cup of coffee, different attributes may come with the dark liquid: social, environmental, local, cultural and historical assets are "inside" those coffee beans. One of the spheres of sustainability concerns governance among the agents along the chain. Understanding how these relations between specialty coffee chain agents are organized in the northern and southern hemispheres, and how this organization enables higher values, is a key concern to a more suitable chain. **Distortions in value creation and distribution harm the survival of the chain. In this report, we present the perspective of the specialty coffee global value chain among agents in Brazil and in Europe.**

Value chains are made of people. We acknowledge all the people and companies interviewed during this research: their attention and time dedicated to us were of huge value!

Introduction

When it comes to high-value chains, the main discussion in literature involves value creation and distribution. Following what was proposed by the **2030 Agenda for Sustainable Development**, the sustainability of value chains depends on the accurate coordination and information sharing among agents in/along the chain. In shorter channels, such task tends to be less complex since producers and consumers are in direct contact and are more able to match their value supplies and demands. But in global value chains, such value issues are much more complex to be governed: so many agents taking part in the chain; geographical distances; differences in business environments; social, cultural, and legal and normative imbalances; different historical backgrounds; language gap and so on... Thus, the governance of a global value chain is not simple, though essential for chain upgrading and sustainability. It is a "game" played by agents in different countries, and involves aspects such as contract design, price, quality requirements, incentive and monitoring mechanisms, standards, certifications, among others. **Value takes a central role in the game!**

SDG Tagging: 5 GENDER EQUALITY | 8 DECENT WORK AND ECONOMIC GROWTH | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 10 REDUCED INEQUALITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | 17 PARTNERSHIPS FOR THE GOALS

This report is the result of a study on the specialty coffee global value chain governance , and value chain upgrading for coffee producers in Paraná state, Brazil. Our goal is to analyze how smallholding producers can reach high-value coffee markets through value creation and distribution. We conducted a research with agents in Brazil and in Europe, including coffee producers, exporters, importers, roasters, and coffee shops. We could observe different patterns of value creation and distribution linked to diverse governance models.

How is value created and distributed on the specialty coffee global value chain?

How value attributes of specialty coffee are disclosed towards the market?

We present some aggregate results and analyze some potential impacts of those patterns and models of chain organization. In general, we concluded that the survival of the coffee value chain depends on the co-governance between exporters and importers through a relational construct. We hope this report can bring valuable information and insights for specialty coffee chain agents, giving subsidies to improve chain effectiveness, competitiveness, and sustainability.

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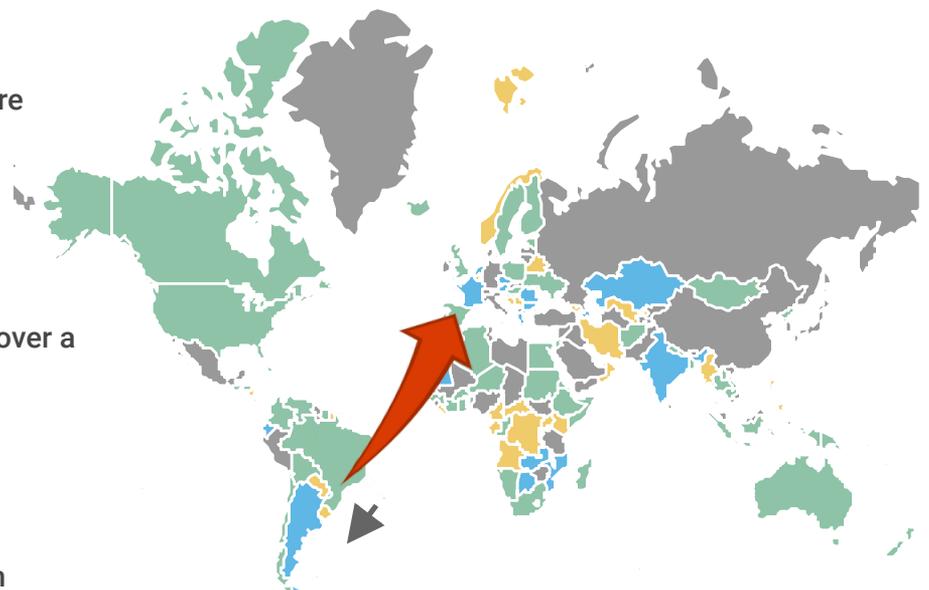
Millions bags of 60kg were produced in 2021 [7]

34%

Brazil is responsable for over a third of this amount [8]

<1/5

Less than 1/5 of Brazilian traded coffee was specialty coffee [8]

Main destinations of Brazilian coffee exports were North America and the European Union [8].

The research background at a glance – some very important concepts!*

🫘 A **sustainable value chain** ought to be maintained at a certain level and/or to continue to exist effectively and competitively over a period of time considering the economic, social and environmental dimensions[2];

🫘 A **value chain** is a network of horizontally and vertically related companies that jointly aim at/work towards providing high-value products or services to a market. It could be a global value chain if involves the coordination of activities and allocation of resources among agents from different countries[3, 4];

🫘 **Value chain upgrading** is defined as the process of improving the ability of economic actors to move from lower to higher-value activities in global value chains through innovative capabilities in product, process, organization, and market chain[3, 4, 5];

🫘 A **buyer-driven chain** is the one in which downstream lead firms define the conditions under which other actors in the chain operate[6].

🫘 A **producer-driven chain** is the one in which what is produced by sellers impact the conditions under which the chain will operate[6].
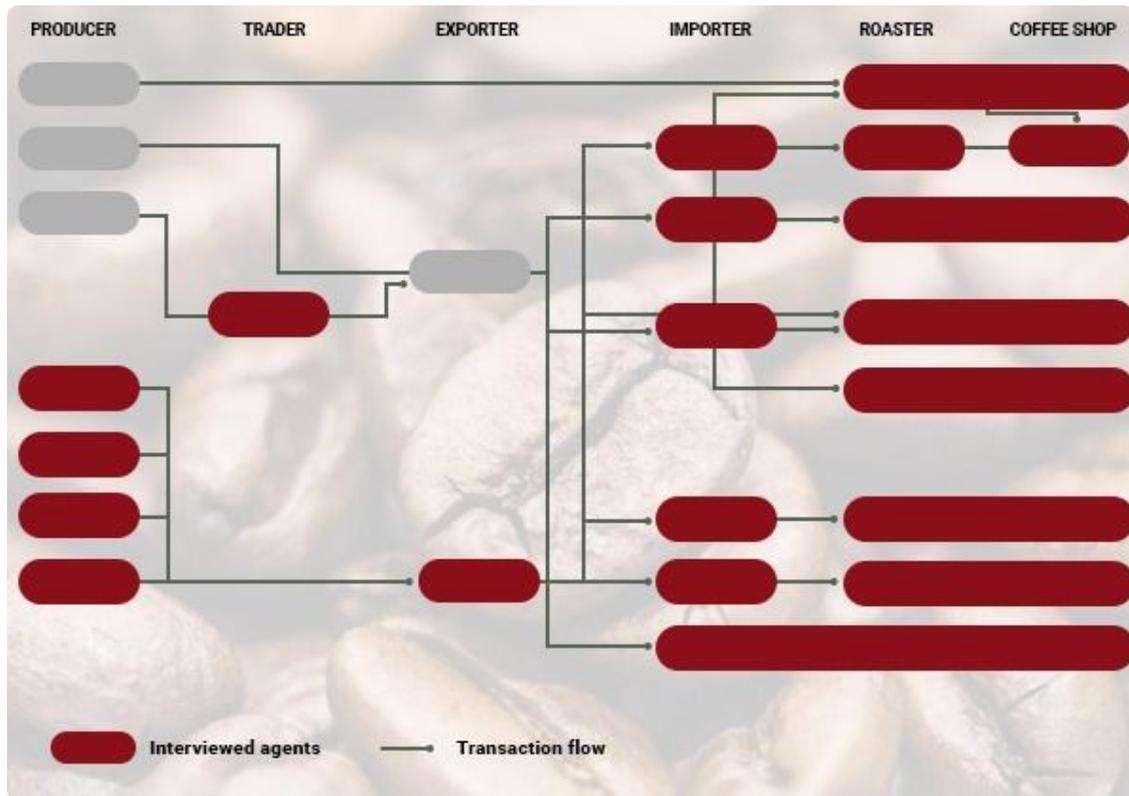
Research design

In this research we were more concerned with the "how's" and "why's". To access the "deep" information about the subject under investigation, we took some preparation steps. First, we gathered overall information about the European market and companies with specialty coffee agents in Brazil. For four years, we worked actively in the chain, through a series of observation activities with the actors in the chain, as well as field days, training and interviews. Then, we interviewed the representative of a specialty coffee institution in Europe, which allowed us the identification of different downstream agents in global specialty coffee value chains in Europe. A total of 18 downstream agents – among importers, roasters, and coffee shops – were interviewed, in France, Belgium, Sweden and The Netherlands. In Brazil we conducted an exploratory survey with 120 coffee producers from Paraná. We then interviewed seven upstream agents in Brazil, of which five were specialty coffee producers, one was a coffee trader agent and the other a specialty coffee exporter.

Exploratory survey with 120 coffee producers

Specialty Coffee Association

Observations, field days, training

7 upstream agents in Brazil

18 downstream agents in Europe

*To understand the governance of the specialty coffee value chain we have as theoretical basis the scientific intersection between the global value chain approach and the New Institutional Economics, by a number of Nobel Laureate authors.
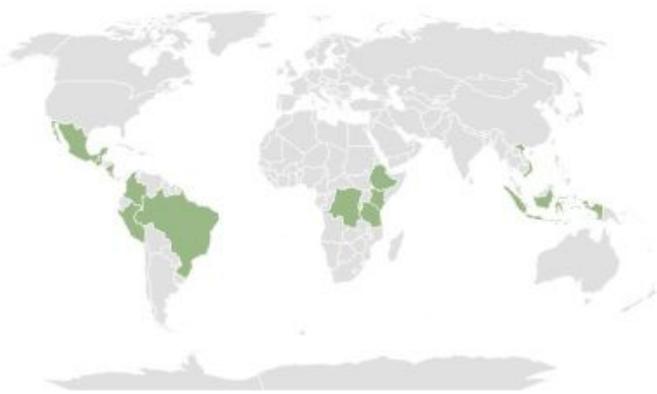
A heteregeneous and complex value chain: the specialty coffee chain design

Differently from what is said in books and manuals, the specialty coffee chain between agents in Brazil and Europe is not so easy to be designed.

PRODUCER · TRADER · EXPORTER · IMPORTER · ROASTER · COFFEE SHOP

Interviewed agents — Transaction flow

Some companies act in different parts of the chain and transact with more than one agent, bringing higher complexity to the chain. We could identify three different configurations: 1) the first one named "integrated", involving imports, processing and distribution by a single agent; 2) a second design called "semi-integrated", since two stages are performed by a single agent (e.g. roaster and coffee shop); 3) and finally, a third type refers to a "non-integrated" chain, in which each agent operates in only one single stage of the chain (importer, roaster of coffee shop). This chain is also heterogeneous in the number of agents, companies' profiles, different coffee origins purchases, and number and size of suppliers.

Results show that **72%** of the companies define the origin of the coffee they purchase according to **seasonality** and **28%** always buy from the **same origin**. Downstream agents (importers, roasters, and coffee shops) are from different countries, of different sizes and scales. Main coffee origins were **Brazil, Vietnam, Colombia, Indonesia, Ethiopia, Peru, Mexico, Costa Rica, Congo, Rwanda, Guatemala, Mynmar, Tanzania, Kenya, Sumatra, Papa New Guinea** and **Nicaragua**. Those countries together produced almost **81% of the world's coffee supply** in 2021.

Coffee as a set of attributes! So, how is value created?

Is value something even along the chain, for each different agent? According to our results, the answer is **NO**.

It is known that a chain is organized in order to meet customer's demands. And in the specialty coffee chain this is not different! It is imperative to know **what** is desired by the customer, and even more, that the chain is organized in order to transmit information upstream, until it reaches coffee producers. **Efforts for value creation therefore start at the production stages!** In these specialty coffee chains, involving Brazil and Europe, we identified that intermediary agents (**exporters and importers**) have an important role in accessing information about what is desired at the end of the chain and in articulating efforts to make producers accomplish the desired quality.
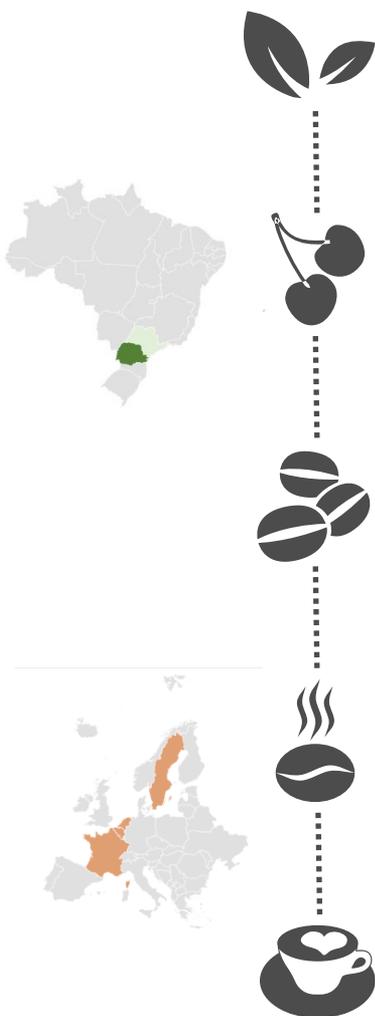
What is transacted is a set of intrinsic and extrinsic attributes!

But producing quality is not so obvious!

Talking about **coffee production** is also talking about **uncertainties**. This is an activity exposed to climatic uncertainties, such as precipitation changes, frost and temperature. Furthermore, it was seen that there are producers who have the potential to produce the desired coffees, but do not have the resources to do it (i.e. knowledge, structure, labor). Therefore, even though producers make the best efforts to produce coffee with the desired characteristics, the final set of characteristics is not the one demanded, but one that was "achieved" from the combination of the different efforts of producers and the climate and production scenarios.

The specialty coffee chain is both buyer-driven and producer-driven.

An example of how these uncertainties affect the set of characteristics of a determined coffee would be too much rain, even in an ideal production setup. So, when articulating the chain, it is important that agents, especially intermediary ones, consider not only the characteristics of what is demanded by their customers, but also the characteristics achieved during production. Although theoretical studies group global value chains into two different categories (producer or buyer-driven), we observe that the specialty coffee chain is a combination of both, which makes it more complex, and can help explain the **importance of the co-governance of more than one agent in the chain**.

We observed that what is transacted is more than the coffee itself. It is actually a **set of intrinsic and extrinsic attributes**. The **intrinsic attributes** that could be seen in the **product** were the **physical** and **sensory** characteristics of the coffee. As **extrinsic attributes** related to the **production process** and which are more difficult to be seen directly in the product, we have the appeals of **socially sustainable production** (e.g. fair trade), **region** (e.g. Northern Paraná), **social** (e.g. producer's historical background linked to coffee) and **gender** (e.g. production by women). Furthermore, we identified that **standardization** and **individual preference** of agents constitute valuable attributes that must be considered in the chain.

Physical characteristics

Socially sustainable production

Northern Paraná

Production by women

Sensory characteristics

Individual preference

Standardization

Producer's history

"Standardized coffee" and "seasonal coffee": different attributes resulting in different coffees

Standardized coffee

- Regular sensory profile
- Scores between 80 and 85 points
- Largely used for the preparation of blends

Seasonal coffee

- Different sensory profiles
- Scores above 86 points
- May involve socially sustainable production appeals, gender, social and region

Even though the transaction is made between the same agents in the same chain, these different attributes imply different information.

For example, in both coffees, the physical characteristics of the green and roasted beans are considered. The sensory characteristics of those coffees after roasting are also taken into account. However, for coffees called "seasonal", the exotic characteristics are important. They may be associated with some rare sensory aspect, or with a specific location. Moreover, this rarity can be exploited based on the type of production, such as production by a group of women. On the other hand, for the so-called "standardized" coffees, regularity in the profile is very important, given the search for the same sensory profile. But **how to assess those characteristics?** While physical and sensory characteristics can be measured through protocols using equipment, instruments and coffee tasting, ensuring a profile of a coffee produced in a specific location, or only by women, is much more difficult. Therefore, **guaranteed information requires specific coordination mechanisms!**

Furthermore, **what is considered upstream as an attribute is not the same considered downstream.** For example, in transactions involving producers and exporter, the assessment of the physical aspect is a critical stage for the functioning of the global value chain, since it is at this moment that the defective product is separated and the by-product is directed to other markets, generally through domestic chains. In transactions between importers and roasters, both physical and sensory aspects are considered. Roasters and coffee shops highligh sensorial coffee profiles. Finally, for coffee shops, sensory and buyers individual preferences/pleasantness were more relevant.

Different coffees in their different sets of attributes demand different guarantee and coordination mechanisms!

How to make the created value evenly distributed along the chain, if the language (attributes) between the agents along the chain are not the same in the different transactions?

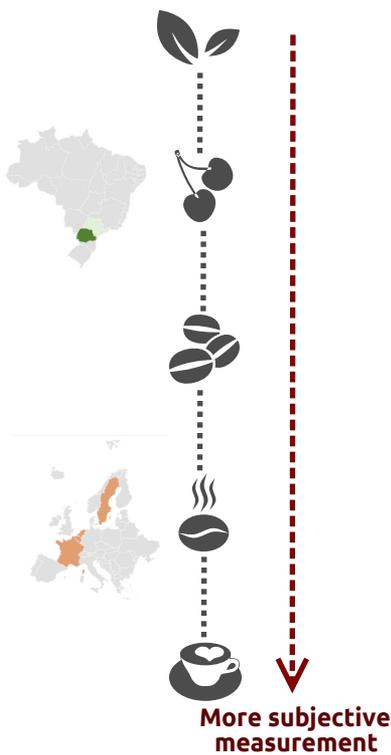## The central role of co-governance between agents: how is value distributed along the chain?

When talking about attributes, we are talking about **information**. The value distribution in the chain depends on the **agents' access to attributes' information**. SCA is right: it is possible to measure the presence of the most of intrinsic and extrinsic attributes (physical, sensory characteristics, origin, etc). However, as we could see, the more downstream we are in the chain, the more important subjective value attributes were. Even if they know the SCA protocol, coffee shops agents mostly give great importance to their individual preferences. Such subjective preferences vary and are not necessarily linked to methodologies to assess coffee profiles: they relate more to what the interviewed agents called "pleasantness".

The perception of quality and value diverges not only along the chain, but from buyer to buyer. For example, even though a coffee with rare and exotic floral notes has exceptional quality, above 86 points in the SCA protocol, it will please some buyers more than others. The **same coffee will please different buyers in different ways.** So, the pleasantness of the coffee will depend on the profile of the buyers.

If a buyer assess coffees based on pleasantness, it is difficult to make this information objective, which shows how important the relational links between the agents are.

In such cases, the difficulty to codify value can bring failures in information sharing across the chain, in both directions (from final consumers to producers, and from producers toward consumers). **Information blurring prevent agents to identify what are the effective value attributes in the chain, affecting value distribution, value creation and associated quality**.

On the one hand, the control made by **the internalization** of all activities by one agent is **hard to do**, specially if we consider that this global value chain involves different contexts. On the other hand, **the full codification** of information is also **unrealistic,** since unique coffees are made by a series of subjective characteristics.

For example, seasonal coffees involve a complexity of attributes, including subjective ones, such as the history of the producer, or even if the production is 100% made by women, which would make the coffee unique. How to encode the uniqueness of these attributes? So, encoding information 100% from the point of view of as the vertical integration is not the most suitable solution, especially if we consider the seasonal coffee chain.

How can we make sure this information be transmitted along the chain?

It takes coordination in different stages of the chain!

More subjective measurement

In this specific case, we identified that **the chain is coordinated** not only by one leading company, but with a co-leading company: importer and exporter, respectively. **They are responsible for transmitting information in both directions of the chain, while dedicating efforts at the same time, both to develop the producer and the market.** Since the chain involves non-contractual dimensions, the relational aspect present in transactions between agents prevents the chain from being captive.

The standardized coffee chain is a codifiable chain, so a modular governance is possible in which the parties understand each other based on the definition of production criteria. Also, the SCA score is not so high and thus quality is not so difficult to be achieved. Although importers and exporters have a built-in relationship, each one performs their role in the chain separately, seeking the common goal of transacting a desired coffee along the chain.

Both exporter and importer are responsible for transmitting information in both directions of the chain, while dedicating efforts to develop the producer and the market.

Co-governance between the leading companies help transmit information while developing producers and the market.

In the seasonal coffee chain, some types of information, although codifiable, are difficult to be guaranteed, such as the producer's history. For these producers, to produce coffee with exceptional quality involving some type of differentiation is the most suitable alternative. The coordination of that chain depends on the co-governance by the leading and co-leading companies, based on their relationships.

A co-governance between the exporter and the importer: what are their roles in the specialty coffee global value chain coordination?

The exporter is directly linked to the coffee producers, and has many challenges to obtain the coffees desired by their buyers. The relationship between exporter and producer is not one of buying and selling, but one of encouraging and supporting production of the desired quality. This support and encouragement involve efforts in-farm (productive, social and access to knowledge as well); and through work to assess and grant value to the coffee quality further down the chain. But the exporter alone in the chain is not enough. The importer has a remarkable role in valuing this quality further downstream. The importer has the role of making all this upstream effort to reach roasters and coffee shops.

And how about value remuneration?

This was a frequent concern when talking to the participants of this research, especially with downstream agents. This can be explained because the agents in the chain are the furthest away from the producer, so it is more difficult to know how the remuneration reaches the producers. And here is the important role of co-governance in the chain.

First of all, producers need to know what they produce, and how it is valued further down the chain. To achieve this:

Producers need to learn about quality and specialty coffee market, and how to assess quality, including coffee cupping.

The information about the value created needs to be transmitted along the chain.

Downstream agents recognizing the value and paying for it.

A co-governance based on relational aspects between exporter and importer promotes all of the others!

However, there is still a question to be answered that this research did not investigate: how do consumers pay for the different characteristics of coffee? As this research stuck to coffee shops, future studies considering willingness of consumers to pay for different coffees, and also a consumer survey, could benefit the chain. We propose some clues found on this subject, which may prompt further studies.

We have identified that differences in terms of prices charged in coffee shops are mainly based on regions and coffee extraction methods. **Although this needs to be studied, there is already sufficient evidence for a failure in this chain.**

To sum up...

For producer improvements, it is important that information about the value created is transmitted from producers to coffee shop, and that the producer knows exactly what is desired by the buyers. This specialty coffee chain needs to be co-governed by the exporter and importer, especially when considering seasonal coffees. The specialty coffee value chain runs the risk of moving towards being captive if it proposes a full codification of coffee characteristics, and does not pay attention to the importance of the uniqueness of coffees, especially seasonal ones. Since in captive chains there is a risk of power unbalance, it is up to the agents of co-governance to be attentive to not build this imbalance. As a solution, we propose to invest in relational and co-governance transactions, respecting the uniqueness of coffees, seeking to codify what is possible, and respecting what is not possible. It is necessary for the entire chain to be in synergy!

To learn more: the scientific publications of this study

Guimarães, AF., Schiavi, S.M.S & Bouroullec, (2022) M.D.M. Value creation and distribution in the specialty coffee chain: a study of the relationship between agents in Paraná.
Avaiable on:
https://www.researchgate.net/publication/359788971_Value_creation_and_distribution_in_the_specialty_coffee_chain_a_study_of_the_relationship_between_agents_in_Parana

Guimarães. A.F. et al. (2020) Governance analysis in global coffee value chain: a study with downstream agents.
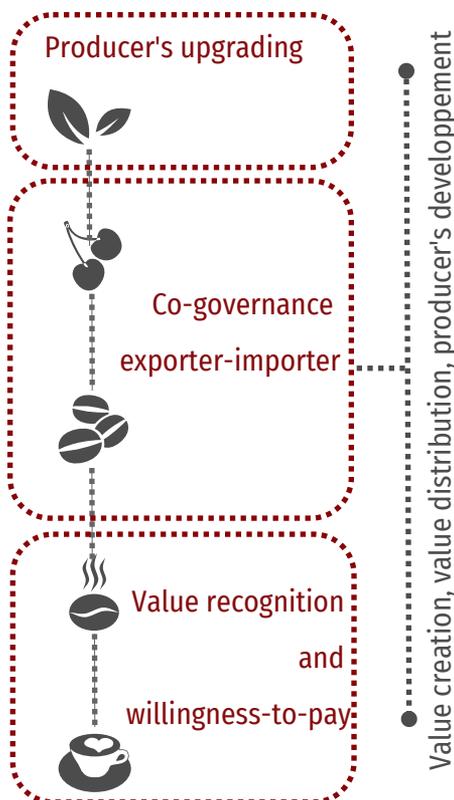Avaible on:
https://www.researchgate.net/publication/359788959_Governance_analysis_in_global_coffee_value_chain_a_study_with_downstream_agents

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Avaiable on:
https://www.researchgate.net/publication/359789127_Governance_in_agrifood_global_value_chain_a_bibliometric_analysis_of_the_past_15_years

Producer's upgrading

Co-governance exporter-importer

Value recognition and willingness-to-pay

Value creation, value distribution, producer's developpement

To go further: some practical suggestions

- Technical incentives for process and product producer's upgrading;
- Valuing the local aspect, the territory;
- Better working conditions, quality of life for the producer;
- Knowing the potential quality of coffee to articulate what can be offered by the producer with what is desired downstream;
- Consumers survey to find out the level of knowledge about coffee quality;
- What the consumer knows: how to teach the consumer about coffee in its set of attributes? What is desired ? What are the strategic opportunities for companies (exporters, importers and roasters)?
- For companies, building their identity in the coffee supply based on what is desired by a consumer who knows what specialty coffee is;
- Disclosure of information on intrinsic and extrinsic attributes, and construction of the company's strategic identity based on building relationships for access and partnership upstream, and valuing these attributes downstream.

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