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Relational Contracts in the Rwandan Coffee Chain

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Summary

Businesses often engage in long-term relationships with firms and people they trust and know, in which they informally sell and exchange information and services (Baker, Gibbons, & Murphy, 2002). As postulated by Arrow (1972, p. 357), "virtually every commercial transaction has within itself an element of trust". Within these relations, trust is defined as the belief that market actors adhere to informal contract arrangements. Particularly in lower-income countries, which are often described by distortions – such as inefficient institutions (e.g., contract enforcement), imperfect markets (e.g., access to credit), and market distortions created by firms (e.g., lobbying) (Atkin & Khandelwal, 2020) – such relational contracts are important for commercial interactions locally and internationally and are an important complement to formal contracts.

In low-income economies, how are relational contracts used to foster economic activity? What policy measures can be used to aid trust-based relational contracts, or to address its inefficiencies? This Policy Brief presents the results from a study on the Rwandan coffee chain, which surveyed coffee mills, farmers and exporters on their performance and relational contracts. The main findings are that relational contracts are an important component at two levels of the chain: (a) between cooperatives, washing stations and mills, and its members, and (b) between mills and buyers. Mills, for example, offer informal provisions to its farmers to ensure timely delivery of high-quality beans. Exporters and mills invest in trust-based relationships with buyers by spending on getting market access and productivity-increasing activities (e.g., investing in new machinery) in anticipation of future buyer demand and prior to formal contracting. Buyers likewise invest in creating and maintaining relational contracts to local firms by providing informal technical and financial support. With the exception of certification programmes, few of the activities that both mills and buyers undertake are formally enforced through contracts but instead are done at the discretion of producers and buyers. Such informal relations are important and necessary because in low-income countries there can be market risks (e.g., limited access to inputs for farmers) that, if not addressed, affect the coffee supply and quality.

The coffee sector in Rwanda is to a large extent comparable to the coffee sector in other countries and other agricultural supply chains in low-income countries (like labour- and quality-intensive products, such as tea and cocoa). Therefore, this study may offer some valuable lessons to policy makers:

1. **Promote brokerage services to support trust-based relationships between local firms and international buyers.** Brokerage services include programmes (either by governments of international organisations) that bring together and facilitate buyer-supplier linkages. These services have proven successful in creating long-term buyer-supplier relationships, while also facilitating financial and technical support for local firms and market access. There is a role for both international organisations and national governments to provide financing or facilitate such services.
2. **Use certification to formalise quality upgrading and market access.** Certification programmes include credible, internationally recognised standards and evaluation protocols that are used across multiple commodities. Certification can help formalise some of the quality upgrading and market access activities that firms and farmers otherwise would receive informally through relational contracts. There are roles for national governments to promote and subsidise certification practices and for international organisations and certification providers to expand such services.

The Rwandan coffee sector

Coffee is Rwanda's sixth largest export good and constitutes around 5 per cent of total exports. Dry mills are supplied by around 400,000 farmers, most of whom are smallholders. There are more than 300 coffee mills in Rwanda, 17 per cent of which are owned by foreign exporters (AgriLogic, 2018). Most of these mills are owned by or part of cooperatives, which act as collection, processing and training facilities where coffee bean collection, pulping, washing, as well as training and input supply are centrally organised. Initially, it was the government that promoted cooperatives to kick-start the coffee sector, but more recently cooperatives have been used by private partners to organise farmers and their supplies.

Before 2000, the Rwandan coffee sector was small, produced mainly for the local market, and primarily depended on government investments in facilities for local processing (e.g., by creating cooperatives). Since 2000, the scale and production capacity has increased quickly (Macchiavello & Morjaria, 2022). Local exporter groups (such as Rwandex) and international agencies (such as the United States Agency for International Development (USAID)) have provided technical and financial support to increase the quantity and quality of coffee production. Recently, the National Agricultural Export Development Board (NAEB) has been instrumental in driving sector productivity, growth, and exports through technical assistance and marketing. NAEB is also responsible for setting a minimum price that mills pay to farmers for their coffee beans. These initiatives have resulted in an increase in farmer income and the share of coffee that is "fully washed" (processed; which is around 55 per cent of total beans) and "specialty coffee" (highest-grade coffee).

In Rwanda, an important characteristic of the coffee sector is that most coffee mills are either owned by or linked to only a few exporter groups. To alleviate anti-competitive practices, the NAEB introduced a zoning policy in 2016 (which was repealed in 2023), which dictated that farmers sell to mills within their own district. In practice, the policy was ineffective. Results from the survey show that because there is a limited supply of coffee beans (due to limited land area being dedicated to coffee), some mills provide farmers with premiums above the baseline NAEB price to (illegally) attract beans from outside their district.

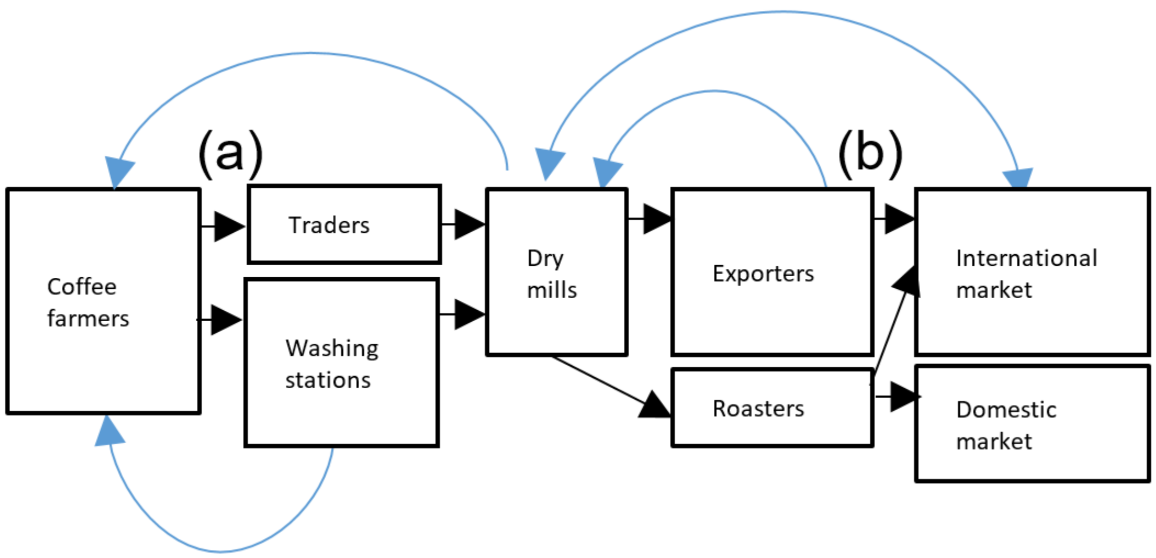
Unlike most agriculture commodities, in the coffee market, price is highly correlated to quality. Quality is determined by the bean size, number of defects, cupping quality and sensory outcomes (e.g., flavour). Coffee quality is captured by a grading system that ranges from "specialty" to Grades 1, 2 and 3 (in decreasing order). Given that quality is determined at different stages of the chain (i.e., at cultivation, cleaning, processing, transport), quality consistency throughout the entire value chain is important. The value chain stages include from farmers to washing stations (coffee cherries), farmers to traders (semi-washed coffee), washing stations to mills (fully washed coffee), to exporters and final buyers in international markets, and to roasters for the domestic and international market (see Figure 1). Relational contracts are a key factor to ensure coffee quality is maintained: cooperatives and mills use it to ensure the timely delivery of high-quality beans; exporters and international buyers use trust-based relationships to similarly determine delivery from mills and exporters, respectively. Until recently, most foreign buyers did not own mills in Rwanda, and therefore, had no direct control over the chain, and to this end used relational contracts to ensure timely supply of quality coffee beans.

The salience of relational contracting

The study included interviews with 10 coffee mills, washing stations and cooperatives, 20 of their farmers, and three exporters. The survey consisted of open questions about firm and farmer performance, market access activities, and provisional support as part of relational contracts. In addition, interviews were conducted with four coffee-related institutions to record information on policies and trends related to the coffee sector and its use of relational contracts. For the purpose of this study, trust within relational contracts is defined as the belief that market actors adhere to informal contractual arrangements.

The study finds that relational contracts are particularly relevant at two levels in the coffee chain: between (a) cooperatives, washing stations and mills, and its members, and (b) mills and buyers, which includes exporters (see Figure 1). Such arrangements showed to be most relevant between mills and their members, where there is limited scope for formal contracting, whereas trust relations between mills and buyers complement their formal contracting. For instance, buyers set up and enforce contracts that dictate the quantity and quality of demand but use trust-based provisions to address market risks (e.g., technical support) to ensure formal agreements are met. While there may be formal contracts between farmers and mills, the study finds that they are not always fully enforceable (e.g., informal provisions are needed to coax famers into supplying the right quantity on time) or market distortions may exist that affect supply (e.g., limited inputs for farmers), which are most effectively provided within relational contracts.

Figure 1: Trust-based relations in the coffee chain



Source: Author

There are several informal provisions that mills, washing stations and cooperatives make to their farmers as part of relational contracting. In part, this is due to the ineffectiveness of the zoning policy and the need to retain members from competing mills. Macchiavello and Morjaria (2021) document that increased competition resulted in reduced informal provisions to farmers – their study finds that mills use informal provisions to compete with other mills. In part, these provisions (which are rarely defined and enforced in formal contracts) are used to increase productivity and ensure timely delivery of high-quality coffee beans. They include the provision of technical and financial support (e.g., providing agronomist service), inputs (e.g., distributing low-cost fertiliser), and saving mechanisms (e.g., offering a pension scheme). Also, cooperatives pay dividends to farmers on a yearly basis in addition to the standard coffee price. The study results show that, because the provisions are made, farmers provide cherries on time and at the promised quantities and quality. Many mills reported that when in the past the informal provisions were not made, coffee quality and timely supply were serious problems, lowering the efficiency of mills and the ability of mills to meet buyer demands.

Relational contracting also plays an important role in market access activities. Mills and cooperatives that have not previously exported spend much time and make large fixed-cost investments to attract and build relationships with new international buyers. These investments are in the anticipation of future demand and not stipulated in formal contracts. This includes attending international events (to reach and build relationships with new buyers), temporarily lowering prices and, therefore, profit margins (to attract demand), and investing in quality consistency and relationships (e.g., pre-paying shipping costs, investing in new machinery). This also includes temporarily accepting irregularities on the side of buyers (e.g., delayed payments to suppliers, incorrect grading of coffee beans by buyers). The study shows that these are recurring events that exporters and mills must tolerate and are part and parcel of building a long-term trust-based relationship with buyers. At the same time, buyers also undertake activities with domestic firms as part of relational contracting with the aim of securing a timely and high-quality supply of coffee. These include providing quality feedback (in-person or remotely), technical advice, advancing payments when credit is limited, and offering intent letters to banks (to facilitate investments). According to the survey, none of these provisions by either the local firm or the international buyer are formally agreed, but happen at the discretion of producers and buyers.

An exception is certification, where buyers demand certified coffee (e.g., Fairtrade). It entails rigorous and international standards and evaluation protocols. In Uganda, certification programmes include a multitude of initiatives, from global programmes (e.g., Fairtrade, UTZ, Organic) to market-specific initiatives (e.g., Naturland). Because of the external evaluation, the buying contract clearly stipulates investment in and provision of farmer training to get producers up to standard. In contrast, the efficiency-driven goals of mills (towards farmers) and buyers (towards mills) that aim to receive timely and high-quality coffee beans lack such formal contracting and are largely based on the relational contracting described above. In the study's interviews, actors described certification (and its underlying investments and support) as helpful. This was particularly deemed so because certification increases the likelihood of international buyers accepting new suppliers (initial trust-building was identified as a key constraint for mills) and often inherently included market access services (introducing suppliers to new buyers). In comparison with relational contracts between mills and buyers, certification programmes provide a more secure and long-term commitment to both local firms and international buyers (without the irregularities of buyers that local firms indicate, as described above).

Policy implications

The Rwandan coffee sector is to some extent comparable to other agricultural supply chains in lower-income countries given its structure and features (like labour- and quality-intensive products, such as tea and cocoa). It is closely comparable to the coffee sector in other countries, where cooperatives play an important role in organising the coffee value chain (e.g., Colombia, Costa Rica). Therefore, this case study may offer some valuable lessons to policy makers on the role of relational contracting in commercial relationships. The main takeaways are to

1. **Promote brokerage services to build relational contracts between local firms and international buyers**. Brokerage services include programmes (either by governments or international organisations) that bring together and facilitate buyer-supplier linkages. A key constraint to local firms, the study shows, is finding and building a long-term relationship with international buyers. Several government initiatives have proven effective in linking suppliers to buyers and simultaneously facilitating financial and technical support that aids efficiency improvements. For example, in Costa Rica, the government initiated a programme that "grades" domestic suppliers (on their potential for foreign buyers) and actively

facilitates linkages between local buyers and foreign suppliers (Alfaro-Ureña, Manelici, & Vasquez, 2022). There is a role for international organisations to set up or scale up brokerage service initiatives by bringing together partners or providing financing. Also, national governments are instrumental in providing such services. They may, for example, provide brokerage services as part of sector strategies (see the Costa Rica example). This could also include financing these initiatives or organising stakeholder commitment to such initiatives.

2. **Use certification to formalise quality upgrading and market access**. Certification programmes include credible, internationally recognised standards and evaluation protocols that are used across multiple commodities. The study shows that certification can help formalise some of the quality upgrading and market access activities that local firms otherwise would receive (and would have to negotiate themselves) informally through relational contracts. The aggregate effect of certification, however, also depends on other outcomes. Studies have shown outcomes to depend on the programme's inclusion-exclusion criteria and how certification programmes determine income effects on excluded farmers (Oya, Schaefer, & Skalidou, 2018). While relational contracting is a useful way of enhancing productivity-growth and entering international markets, certification allows for a more structured and long-term commitment between buyers and suppliers. There is a role for national governments to promote certification practices, for example, by increasing awareness of certification opportunities or subsidising costs of participation among producers. For international organisations and certification providers there is a role to expand certification services, for example, by financing expansion or scoping projects (either in new regions or sectors).

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