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Exploring double side-selling in cooperatives, case study of four coffee cooperatives in Rwanda

Gaudiose Mujawamariya [a], Marijke D'Haese [a,b,*], Stijn Speelman [b]

[a] Development Economics Group, Wageningen University, Hollandseweg 1, 6706 KN Wageningen, The Netherlands
[b] Department of Agricultural Economics, Ghent University, Belgium, Coupure Links 653, 9000 Ghent, Belgium

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ABSTRACT

Apart from the difficulty to attract new members, leakage of sales outside the cooperative is a major challenge for the coffee cooperatives in Rwanda. Local (independent) traders still constitute a major market for coffee producers. Yet, cooperatives also accept the produce from non-members and pay them the same price. Our objective in this paper is to analyse the importance of this phenomenon of double side-selling. We collected data from a sample of 170 coffee farmers. We use a probit model to analyse characteristics linked to cooperative membership and to study double side-selling. We describe the trade relationships between farmers and the cooperative on the one hand, and between farmers and traders on the other by the attributes of transaction costs involved in the trade of coffee. Membership characteristics include easy access to labour, land tenure, risk aversion, and mutual trust between farmers and cooperatives' management. Preference to sell to traders can be explained by the trust farmers seem to have in them after the repeated transactions in credit and basic consumption items and by long-term relationships in the community.

Introduction

Agriculture is the main economic activity in rural Rwanda, mainly because of the quasi absence of minerals or other natural resources, the landlocked location of the country, the low level of industrialisation, and the low purchasing power of the population (MINECOFIN, 2002). The sector is characterised by small family subsistence farming on less than one hectare, with mixed farming systems. The sector employs more than 70% of the rural population and its contribution to the country's GDP amounted to 34% in 2009 (World Bank, 2009).

Coffee production is predominantly a smallholders' activity. It was introduced by German missionaries as early as 1904. In 2004, Rwanda had approximately 400,000 active coffee producers (OCIR, 2005; similar figures are given by OCIR for 2009; OCIR is the Rwanda Coffee Development Authority). Coffee cooperatives emerged in the last decade as a result of government and NGO support (see e.g. Loevinsohn et al., 1994) with the purpose of improving the producers' incomes through (a) providing services and inputs for production, (b) processing high-quality coffee, and (c) increasing farmers' bargaining power (OCIR, 2005). The Rwandan government promoted cooperatives by issuing a cooperative legal and statutory framework in 2006 with the aim to support the establishment of autonomous cooperatives and to contribute to their functioning and their growth[1] (MINICOM, 2006). OCIR (2008) lists 224 active coffee cooperatives in Rwanda and estimates that 20% of the coffee farmers are members of one of these.

Cooperatives are renown as institutional devices to increase market access for individual smallholder producers (see references in the next section, including Bernard and Spielman (2009), Poole and de Frece (2010)). Coffee cooperatives increase farmers' inclusion in high quality, specialty or fair trade markets in which the farmers may fetch better prices. Fair trade certification should reduce the effect of world price decreases on farmer income levels. There is ample evidence for Latin American fair trade cooperatives (see, e.g., Wollni and Zeller (2007), Chaddad and Boland (2009), Bacon (2010), Valkila and Nygren (2010) and Barham et al. (2011)), but recent work on African coffee cooperatives is scarce. Exceptions are the studies by Kodama (2007) on Ethiopia, Parrish et al. (2005) on Tanzania, and Mude (2006, 2007) on Kenya.

* Corresponding author at: Department of Agricultural Economics, Ghent University, Belgium, Coupure Links 653, 9000 Ghent, Belgium.
E-mail address: marijke.dhaese@ugent.be (M. D'Haese).

[1] Strategies were therefore developped to promote cooperatives. These included (1) sensitizing the population in favour of the cooperative movement membership; (2) establishing an agency for the promotion of the cooperatives that will be entrusted to promote, supervise and evaluate continuously the activities of the cooperatives; (3) facilitating the registration of the cooperatives; (4) education and cooperative training; (5) facilitating and intensifying the computerization of the cooperatives and their connection to the National Telecommunication Network; and (6) establishing a guarantee Fund for the cooperatives in order to solve the problem of accessing to the bank financing due to the inadequacy of the guarantees and credibility of cooperatives (Minecom, 2006).

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Studies have listed several internal and external problems that reduce the cooperative's efficiency and effectiveness such as free-riding, noncompliance, underinvestment, poor management, membership desertion and heterogeneity among members (see references below). Side-selling is also mentioned, but its impact on the sustainability of the cooperative is not established and it has, to our knowledge, not been quantitatively analysed before. Work by Pascucci and Gardebroek (2010) considered the problem of cooperative delivery and showed an important relationship between membership and delivery, but they failed to explain the reasons for the observed side-selling behaviour. In the context of contract farming side-selling or leakage is usually explained as a way in which farmers avoid paying for subsidies they received (Fafchamps, 2004; Bellemare, 2010). Yet, in the case of the cooperatives studied in this paper, leakages seem to be associated with loyalty, trust and interlocked contracts of farmers with local traders, as well as with the absence of exclusion mechanisms from the side of the cooperatives. This created a reality of 'double side-selling': cooperative members selling to traders, and non-cooperative members selling to cooperatives.

For a case study of four cooperatives in coffee producing regions in Rwanda, this paper aims to describe characteristics of membership and to show the rationale behind double side-selling. Double side-selling may explain the limited commitment and loyalty to cooperatives. The main claim of this paper is that farmers trade-off costs and benefits related to the two market channels (cooperatives and traders), but that a classical cost-benefit analysis fails to capture the transaction costs involved. Moreover, we need to acknowledge the importance of interlocked contracts with traders and the effects of trust and loyalty to fully understand the farmers' behaviour. Side-selling may seem economically irrational, but is a reasonable decision from a farmer's livelihood perspective. Whereas cooperatives seek to buy better quality berries, traders accept lower quality coffee. Traders also provide extra services such as credit (mostly in kind) which is supposed to be paid for at harvest time. Hence, market segmentation is made possible to the traders' activities in the coffee market.[2] Yet, side-selling may become problematic for cooperatives in the long run as they build on member loyalty.

Literature overview

Cooperatives or more generally producer organisations[3] are common in developing countries, particularly in agriculture. It is estimated that worldwide about 250 million farmers belong to a producer organisation (WDR, 2007). Common characteristics of producer organisations are detailed in Bijman (2007) and include a democratic decision-making structure, bottom-up establishment and ownership and control by members.

The cooperative movement in Sub-Saharan Africa dates from colonial times (Holmén, 1990; Poole and de Frece, 2010). In East Africa, the growth of member-initiated cooperatives in the colonial era was associated with an attempt to break up the monopolies of Asian traders and middlemen. The purpose was to support European settlement by establishing native farmers' societies into the externally controlled, monetized economy, where they could be taxed more easily, while guaranteeing to produce for the export markets. Holmén (1990) viewed this as a system of politically controlled production. As much as the native farmer societies were concerned, little attention was paid to the voluntary and democratic aspects of cooperation. On the contrary, cooperation in the colonies was strongly flavoured by the omnipresent paternalism of foreign rule. Moreover, power over local cooperatives was often captured by or given to elites. This power enabled elites to convert cooperatives as assets into supplementary resources and to establish themselves as private moneylenders (Holmén, 1990). After independence, many African governments viewed cooperatives as suitable vehicles for agricultural development and socio-political change (Attwood and Baviskar, 1988). Their aim was to help small and poor farmers without radically changing the distribution of economic power (Attwood and Baviskar, 1988).

The current focus on the potential of cooperatives to support local farmers in developing countries (e.g., WDR, 2007) has less to do with these top-down, government controlled, cooperatives[4] but more with what we could call NGO-supported or 'philanthropic' cooperatives and 'grass root' cooperatives that emerge from social capital. Producer organisations with philanthropic support (e.g. NGOs, and development aid organisations) are common in developing countries. In coffee, they are especially active in speciality markets such as fair trade (e.g., Parrish et al. (2005) amongst many others). Grass root cooperatives emerge from local farmer unions. Social capital provides the necessary trust to support collective action between the members. An example of a very successful grass root coffee cooperative is Cooxupé, the largest coffee cooperative in Brazil. It was founded in 1957 by 24 coffee producers with the motto of '*trust and work*'. In 2005, it counted more than 10,000 members selling 2.5 million bags of coffee (Chaddad and Boland, 2009).

The support which the two latter forms of cooperatives receive from policy makers and international institutions (e.g., WDR, 2007) is undeniably linked to their potential contribution to rural development. Poole and de Frece (2010) summarise the benefits of producer organisations as economic and social inclusion. Economic inclusion refers to the importance of collective action to achieve (a) managerial economies of scale (cost reduction of inputs, transformation and transaction functions, increased production volumes, improved quality and timing of services, and deliveries to market), (b) improved market power, and (c) improved performance. Social inclusion through collective action increases social and other forms of capital assets (Poole and de Frece, 2010). Markelova et al. (2009) conclude that collective action can contribute to a pro-poor market development because farmers may benefit from better market arrangements and access to new domestic and international markets. This is for example confirmed in the work of Loevinsohn et al. (1994), Bebbington (1996), Staal et al. (1997), D'Haese et al. (2005) and Wollni and Zeller (2007).

Yet, in order to succeed in social and economic inclusion, producer organisations need to adapt to the ever faster changing and globalising external market environment (see Poole and de Frece (2010) for Africa). Producer organisations need to develop managerial capacity and new technical and communication skills to participate in high-level negotiations (WDR, 2007). They need to be well-equipped, organised and sufficiently financed (Ruben and Lerman, 2005). These external requirements may reduce effectiveness of the producer organisations.

Internal problems of the producer organisation may result in reduced efficiency because of reduced interest of members, difficulties to align members or managerial problems. This is because collective action is costly (Olson, 1965). Markelova et al. (2009) emphasise that collective marketing may not be profitable or

[2] We thank an anonymous reviewer for pointing this out to us.

[3] A producer organisation is defined as a 'voluntary organisation, with a democratic decision making structure' (Bijman, 2007), such as cooperatives, producers associations, producer groups and other form of economic structure. It excludes farmer unions, interest groups and non-economic associative bodies (Bijman, 2007).

[4] Governmentally-based cooperatives are described in Brass (2007) for Peru as institutional forms for poverty eradication. State-run cooperatives in Nicaragua are described in Ruben and Lerman (2005) where the Sadinista regime encouraged individual farmers to join Agricultural Project Cooperatives based on collective land ownership and state support. In South Africa, cooperatives were a policy instrument in the support to white commercial farmers during the Apartheid regime (Ortmann and King, 2007).