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# Factors affecting the value added by agricultural cooperatives in Saint Lucia: An institutional analysis

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## 1. Introduction

Saint Lucia is a small island developing state in the Caribbean region. Traditionally, agriculture has been the country's major export earner. In the early 1990s, agricultural exports accounted for 60% of the country's total export revenue, of which 96% was attributed to bananas and less than 3% to non-traditional crops (mango, hot pepper and avocado) (Ministry of Agriculture, Food Production, Fisheries, Cooperatives and Rural Development [MAFFCR], 2000, p. 3). The banana industry not only dominated agricultural land use but also the economic life of the country. However, banana production declined sharply after 1995 following the erosion of Saint Lucia's preferential access to the European Union (EU), its major export market. In the recent past, this decline was compounded by adverse weather and the prevalence of Black Sigatoka disease. These factors contributed to a substantial reduction in agriculture's share of the economy, from 20% of gross domestic product (GDP) in 1986 to less than 3% in 2010 (International Development Bank [IDB], 2013, p. 12).

Successive governments attempted to diversify agriculture into non-traditional crops, livestock and fisheries. Industry strategies were designed to diversify production, improve competitiveness, and to create opportunities for rural communities adversely impacted by the demise of the banana industry. Two agro-processing plants were established by the government to promote sales via Saint Lucia's statutory Marketing Board but these facilities were not well patronised (MAFFCR, 2006, p. 5). Apart from bananas, most of the food produced in Saint Lucia for the market is grown by smallholders and sold to domestic supermarkets, hotels and restaurants – either directly or indirectly through marketing cooperatives (Wilfred, 2013). Little value is added along the chain despite a longstanding commitment from the government to help co-operatives initiate value-adding activities (MAFFCR, 2009). In 2015 there were eight registered agricultural marketing cooperatives operating in Saint Lucia, some dealing in crops and others in livestock. However, very little is known about the structure of these cooperatives or the extent to which their institutional arrangements support value-adding strategies.

La Gra, Leighton, and Oechsle (1989) attributed the under-performance of Saint Lucia's agricultural cooperatives to poor management, lack of capital and high external influence. The New Institutional Economics (NIE) theory suggests that these 'problems' may be symptoms and not the cause of cooperative failure. NIE literature identifies five institutional problems that fundamentally constrain a traditional cooperative's access to capital and hence its performance; the free-rider, horizon, portfolio, control, and influence problems (Cook & Iliopoulos, 1999; Sykuta & Cook, 2001). These problems stem from ill-defined benefit and voting rights assigned to members (Chaddad & Cook, 2004).

Saint Lucia intends to privatise its marketing and processing parastatals, and expects its agricultural cooperatives to play a much greater role in value-adding. For most of Saint Lucia's cooperatives, this will require significant upgrading of their business activities and better access to capital. This research examines the institutional, governance, group and management attributes of four agricultural marketing co-operatives in the Caribbean, and assesses their impact on value-adding activity. The aim is to make recommendations that improve the ability of Saint Lucia's cooperatives to initiate and sustain value-adding activities.

The paper first considers the contribution that marketing co-operatives could make to local economic growth by creating opportunities for producers and agents in value chains, discusses key institutional problems that may prevent traditional cooperatives from fulfilling this role, and then presents the analytical framework applied in this study. Section 5 describes the qualitative methods used to gather and analyse data. Findings are presented and analysed in Section 6, and the paper concludes with recommendations for policy makers and co-operative managers.

## 2. Potential benefit of smallholder marketing cooperatives

Historically, state regulated enterprises played an important role in linking smallholders to markets (Abbott, 1967). However, deregulation and globalisation of agriculture resulted in the dismantling of parastatals (Bijman, Muradian, & Cechin, 2011) and smallholders were exposed to rising compliance costs associated with growing demands for

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high quality, safe food (Reardon, Timmer, & Berdegue, 2005). This reduced their access to preferred markets (Poulton, Kydd, & Dorward, 2006). However, there is increasing evidence that cooperatives can be effective in linking smallholders to high value and niche markets (Markelova, Meinzen-Dick, Hellin, & Dohrn, 2009; Narrod et al., 2009).

Marketing cooperatives can coordinate input purchases and secure bulk discounts. They can also coordinate famers' production schedules and pool their output, so reducing unit transport, processing, compliance, marketing and transaction costs while better meeting the needs of buyers looking for consistent supply (King, 1992). These advantages give cooperatives bargaining power when negotiating terms with buyers and strategic partners. Importantly, marketing cooperatives equipped with appropriate institutional arrangements can pool farmers' capital and finance value-adding assets of their own (Markelova et al., 2009).

## 3. Key institutional problems of traditional marketing cooperatives

Unfortunately, the institutional arrangements that underpin traditional marketing cooperatives tend to discourage farmer investment and weaken their compliance with supply contracts. Empirical evidence points in particular to the free-rider, horizon and influence problems (Beverland, 2007; Cook & Iliopoulos, 2000; Rosairo et al., 2012; Salazar & Galve Górriz, 2011). The free-rider problem arises because traditional cooperatives reward members for their patronage and not for their investment. This problem can be addressed by obliging members to invest in proportion to their patronage, as in a Proportional Investment Cooperative (PIC) or New Generation Cooperative (NGC).

The horizon problem arises because members of a traditional cooperative cannot realise capital gains as their equity shares are redeemed at par value when they exit the cooperative (Cook and Iliopoulos, 1999, 2000). This problem is particularly damaging as it not only discourages investment, but also shifts preferences away from retaining earnings (that the cooperative could accumulate to finance assets) towards more current patronage benefits such as favourable prices for products (Nilsson, 2001). As a result, traditional cooperatives rely heavily on grants and soft loans from donors and government agencies to finance value-adding services (Chibanda, Ortmann, & Lyne, 2009), and have difficulty honouring relational contracts with strategic partners as their members tend to 'side-sell' when other markets offer short-term price advantages (Beverland, 2007). The horizon problem can be alleviated by introducing a class of non-redeemable shares that members trade at market prices, such as the 'delivery rights' sold or issued to patrons of a NGC. Solutions that involve tradable shares or delivery rights also alleviate the portfolio problem (as patrons can adjust the level of their investment in the cooperative) and the control problem (as the market price at which these shares trade signals information about the performance of the cooperative and its managers).

An influence problem arises because members of a traditional marketing cooperative have equal voting power. This discourages entrepreneurial members who are willing and able to invest more equity capital from doing so because decisions taken by the cooperative are influenced by majority voters, not majority investors. Rosairo et al. (2012) identified influence problems as a leading cause of failure in democratically controlled farmer companies studied in Sri Lanka but attributed these problems to government interference and flawed procedures in nominating and voting for directors, and not to their voting rights. Democratic voting rights are often considered to be a distinguishing feature of cooperatives but an increasing number of developed countries have relaxed this requirement. In New Zealand, for example, the cooperative legislation leaves it to the constitution of each cooperative to determine voting rights, and voting power is usually allocated in proportion to patronage and shareholding – albeit with limits on the number of votes that shareholders may exercise (Woodford, 2008).

## 4. Analytical framework

The analytical framework applied in this research was adapted from a theoretical model developed by Rosairo et al. (2012) relating the institutional, governance, group and management attributes of farmer organisations to their performance. The NIE literature suggests that a cooperative's ability to establish and sustain value-adding activities is fundamentally dependent on its institutional arrangements, although conditioned by governance, group and management attributes, as well as external factors such as market conditions and government policy. The particular set of institutional and governance arrangements adopted by a cooperative is ultimately constrained by legislation. Changes made to cooperative law in the USA, Canada, Australia, New Zealand and several European countries since the early 1990s permit a range of cooperative models that resolve or alleviate institutional problems associated with traditional cooperatives (Lyne & Collins, 2008). In particular, these changes address the horizon problem by allowing investors to benefit from capital gains.

One of the most popular models is the New Generation Cooperative (NGC), which is credited with the revival of agriculture in the USA's Midwest during the 1990s (Cook & Iliopoulos, 1999; Harris et al., 1996). NGCs raise capital by selling tradeable delivery rights to patrons. In effect, these rights represent a second class of shares that are non-redeemable and appreciable as they can be traded by patrons at market value. This institutional innovation resolves both the horizon and free-rider problems that discourage member investment in traditional cooperatives. It also aligns the interests of members as patrons and investors, which helps to reduce transaction costs in supply contracts (Sykuta & Cook, 2001). Moreover, the prospect of benefitting from increases in the market value of delivery rights creates a strong incentive for patrons to honour their supply commitments, making it easier for the cooperative to build relationships with premium buyers.

Fig. 1 illustrates the overarching propositions that are tested in the study, *ceteris paribus*. It should not be inferred from Fig. 1 that some cooperative models are superior to others as cooperatives serve different purposes. A cooperative established to negotiate favourable terms for its patrons might benefit from the simplicity of a traditional model. If this cooperative broadens its purpose to include warehousing and processing, it may find itself capital constrained and therefore willing to change its institutional arrangements. The extent and nature of these changes will be influenced by the cooperative's access to alternative sources of capital (e.g. grants and soft loans), by legislation governing cooperatives, and by trade-offs between capital, control, and compliance in supply contracts.

The Investor share cooperative (ISC) is a hybrid cooperative model. ISCs resolve the horizon problem by selling class B shares that are non-redeemable, freely tradable and appreciable while restricting majority voting rights to patrons (Chaddad & Cook, 2004; van Bekkum & Bijman, 2006; Woodford, 2008). Although they create incentives for investment, their supply is less predictable than that of an NGC as; (a) patron-members can adjust their supply without having to purchase (hire) or sell (lease) delivery rights, and (b) they lack the proportionality between investment and patronage that aligns the interests of members as investors and patrons. Consequently, the ISC can produce mixed results as unpredictable quantity and quality of products makes it difficult to sustain brand-based relationships with buyers.

## 5. Research methods

A qualitative investigation using multiple-case studies (Yin, 1994, pp. 20–21) was considered most appropriate to understanding how the institutional, governance, group and management attributes of cooperatives impact on their ability to create and sustain value-adding activities. Cooperatives were treated as holistic units for analysis as they had their own stakeholders (shareholders, directors and managers) and sources of data (Yin, 1994, pp. 50–51). Four cooperatives with