

Understanding the socio-economic effects of co-operatives: An Ivorian case

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As hybrid organisations, co-operatives have effects on individuals, as well as territories and sectors. They are subject to economic and social performance imperatives. However, the definition and measurement of their socio-economic effects remain a scientific challenge, both conceptually and methodologically. Grounded in field data and informed by previous research (N’Goran, 2024) and a theoretical framework (Artis, 2022), our study provides an in-depth examination of the effects of co-operatives in a region of Ivory Coast. This localised approach allows for a nuanced understanding of the effect of co-operatives while offering broader theoretical perspectives on co-operative models in similar contexts. This article discusses the economic impact and social empowerment offered by co-operatives to their members and rural communities. Our findings indicate that co-operatives in Ivory Coast have contributed to increased income and job security for their members. While co-operatives hold significant potential, their governance structures and inclusiveness mechanisms require further refinement. Our findings underscore the adoption of sustainable agricultural practices alongside the development of environmentally friendly sectors. These initiatives align with global sustainability goals and demonstrate the potential of co-operatives to contribute to environmental resilience.

Introduction

Co-operatives embody a distinctive ideal of enterprise, contrasting with the shareholder enterprise model (Artis et al., 2023). Concurrent with the research on the capitalist firm, a modest body of research has examined alternative forms of enterprise, with a particular focus on collective enterprises such as co-operatives. A substantial portion of the extant literature on co-operatives is founded on the research conducted by American scholars during the period spanning from 1950 to 1970. Prominent figures in this field include Ward (1958), Domar (1966), and Vanek (1975). During this era, the concept of co-operatives was examined through the lens of the self-managed enterprise. The analysis focused on the efficiency of the self-managed enterprise in relation to the capitalist firm, around two themes: objectives and internal organisation. According to these authors, the objectives of a co-operative firm and a capitalist firm are different: the former seeks to maximise average income while the latter pursues profit maximisation. This non-maximisation of profit has been shown to provide co-operatives with a comparative advantage in their pursuit of efficiency (Vanek, 1975) and fosters competition. The issue of firm efficiency is a recurring theme. In a capitalist firm, the capitalist is responsible for

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managing the work. In contrast, in a worker-managed firm, control is delegated to the workers themselves through peer oversight. The emergence and operation of co-operatives challenge the traditional ownership structure of capitalism. Profits in co-operatives are distributed according to principles of collective and equitable sharing among members, emphasising solidarity rather than the pursuit of financial gain or compensation for capital ownership.

In the contemporary era, co-operatives have developed into significant economic entities within various sectors, demonstrating both their durability and relevance. For example, Fakhfakh et al. (2012) showed, using French data, that the capital growth rate in co-operative enterprises was comparable to that of other businesses. Additionally, Craig et al. (1995) provided evidence that plywood production co-operatives in the United States achieved higher productivity than their capitalist counterparts. A comparison of the average survival rate — and consequently the average lifespan — of co-operative and capitalist businesses indicates that co-operatives tend to perform better, although this advantage is not explicitly stated (Burdín, 2014).

Co-operatives, in their capacity as an empirical reality, exhibit a high degree of heterogeneity about sector, size, strategy, mode of development, and other factors. This heterogeneity is further compounded by the diversity inherent in the different types of member-co-operators, who may be producers, workers, consumers, traders, or entrepreneurs, among others. Additionally, the primary activities of the co-operative, such as agriculture, banking, and distribution, contribute to this heterogeneity.

The measurement of the effects of co-operatives remains a scientific challenge (Pradier, 2019). Co-operatives have been likened to hybrid organisations (Mair & Rathert, 2019), combining apparently contradictory and paradoxical aims due to growth and combining with non-co-operative entities (Battilana et al., 2015). The socio-economic effects of co-operatives, as a distinct business model compared to traditional shareholder firms, represent an area of scientific inquiry with ongoing debates. This study aims to address this gap by providing an institutional and multidimensional perspective on the socio-economic effects of co-operatives.

Co-operatives in Ivory Coast are not an exception. In the early years following independence, around the 1970s, the Ivorian authorities turned to co-operatives to support political initiatives aimed at fostering economic and social development (N'Goran, 2024). These co-operatives play a crucial role in Ivory Coast's agricultural sector. They were established to promote the growth of a strong and diversified agricultural industry, which includes products such as coffee, cocoa, rubber, cashew nuts, cotton, rice, bananas, and maize.

Agricultural co-operatives, which have been present in Ivory Coast for several decades, are key players in local economic development and are often involved in community initiatives encompassing economic, social, cultural, and educational activities (N'Doly, 2019). These co-operatives also contribute to development co-operation efforts, addressing the socio-economic needs and social protection requirements of local communities. This article explores the socio-economic effects of workers' agricultural co-operatives in the Ivory Coast to foster an environment conducive to community development.

This article is organised into three sections. The first section analyses the socio-economic effects of co-operative enterprises, focusing specifically on their impact on co-operators, the relevant sectors, and the local territory. The second section outlines the research design used in this study, providing a detailed explanation of the methodology and approaches taken. Finally, the third section presents our results.

Measuring the Socio-Economic Effects of Co-operatives

In the contemporary context, the primary objective of co-operative organisations is to mitigate the vulnerability experienced by impoverished rural populations by establishing autonomous conditions that facilitate their socio-economic inclusion (Metereau & Figuière, 2017; Yao, 2008). This approach is now part of a community-based strategy for regional development, the

cornerstone of which is the establishment of co-operative relationships and proximity between stakeholders. Mechanisms are in place to ensure satisfaction of members and multi-level coordination between stakeholders and various partners (economic, social, development, etc.). In addition to their socio-economic orientation, co-operatives are also linked to internal solidarity, the process of inclusion, and security.

The effects of worker co-operatives on co-operators

Co-operatives are often seen as a way to enhance the income and economic security of their members, especially in rural areas and informal sectors. There are several reasons for this perception. Co-operatives are known to provide economic stability for their members by reducing income volatility and creating sustainable jobs (Birchall & Hammond Ketilson, 2009). A study by Birchall and Simmons (2004) indicates that co-operatives can boost their members' incomes by offering fairer prices, improving access to markets, and lowering transaction costs. Agricultural and consumer co-operatives are frequently recognised for their resilience during economic crises (Chaddad & Cook, 2004). Additionally, Wanyama et al. (2008) demonstrate that agricultural co-operatives in Africa have played a significant role in reducing poverty by improving access to markets and resources. In the case of Morocco, co-operatives thrive and sustain themselves based on three main factors: (i) internal factors related to total factor productivity, (ii) management factors involving the characteristics and management style of the president or manager, and (iii) external factors linked to the business or market environment (El Mekkaoui & Loukili, 2022).

Several studies have explored the impact of worker co-operatives on individual earnings. According to Pérotin (2016), workers in co-operatives often enjoy more stable and, in some cases, higher incomes compared to those in traditional businesses, especially during economic downturns. This stability is primarily due to a fairer distribution of profits and a focus on job preservation over profit maximisation. Additionally, co-operatives promote job stability and foster the development of specific skills, which can lead to improved long-term earnings (Chevallier, 2013). Burdín and Dean (2009) found that workers in co-operatives in Uruguay had higher average wages than those in conventional enterprises, even after controlling for individual characteristics and sectors of activity. However, they also noted that this difference varied according to the sector and the size of the co-operative. Burdín and Dean (2009) and Pencavel (2015) showed that the co-operative firms in their samples tended to respond to cyclical difficulties by adjusting wages rather than staff numbers or production quantities.

Borzaga and Tortia (2006) demonstrated that workers in co-operatives enjoy a better work-life balance, which contributes to an overall improvement in their wellbeing. They also observed a reduction in stress and workplace conflict, attributed to a more collaborative and less hierarchical working environment. Co-operative management is linked to enhanced quality of life at work and greater employee satisfaction. Key intrinsic factors — such as job fulfilment, interest in tasks, and autonomy — are particularly valued in co-operatives, which helps to boost motivation (Castel et al., 2011). Therefore, co-operatives can influence their members' income in various ways. Co-operatives are defined by a certain level of organisational stability and the accumulation of experience among their members. This stability can positively influence sector dynamics by promoting a long-term approach and consolidating specific skills within the sector (Chevallier, 2013).

Multiple studies indicate that the benefits of co-operatives can sometimes be unevenly distributed. Co-operatives have the potential to serve as an effective participatory strategy to help low-income individuals integrate into the socio-economic mainstream (Majee & Hoyt, 2011). However, some co-operatives adopt practices similar to those of traditional businesses due to co-operative degeneration, which diminishes their redistributive impact (Cornforth, 1995). The issue of governance remains a crucial area for research within co-operatives (Chaves et al., 2008). Bernard and Spielman (2009) highlight that co-operatives can inadvertently exclude the poorest or least educated members, who often lack the resources to participate actively or pay the initial membership fees. This situation can perpetuate existing inequalities. Similarly, Mendoza and Thelen (2008) point out that co-operatives may fail to support the most disadvantaged individuals, as these members often do not have the necessary resources to

fully engage or benefit from what is offered. In the context of Morocco, particularly regarding the vulnerability of working women, co-operatives have not proven effective in transforming social and gender structures (Gillot, 2016).

Effects on community development

The pursuit of reducing people's vulnerability and fostering conditions for their socio-economic inclusion occurs at the territorial level (Birchall & Hammond Ketilson, 2009; Zamagni, 2012). Co-operatives play a role in promoting internal solidarity and facilitating inclusion in economic development while also ensuring its sustainability (Ansart et al., 2016; Pérotin, 2016). Additionally, the implementation of socio-economic initiatives supported by co-operatives contributes to community wealth (Dubb, 2016; Maddocks, 2019). These initiatives are founded on principles of autonomy, collective action, local solidarity, and community engagement to enhance the dynamics of collective solidarity efforts.

Their community-based actions promote social inclusion and participation, building solidarity and trust within rural communities (Birchall, 2013; Birchall & Hammond Ketilson, 2009). By nurturing values of co-operation and collective responsibility, co-operatives help strengthen the social fabric of these communities. Co-operatives are particularly well placed to foster local collective dynamics because they are rooted in the realities on the ground. They enable the emergence of initiatives that directly address the needs of their members through collective actions. Their ability to build local collective action makes them players who can contribute to local development. By promoting solidarity and disseminating good practice to support vulnerable people in rural communities (Majee & Hoyt, 2011; Simmons & Birchall, 2008), co-operatives are part of an inclusive development ecosystem. Due to their proximity to members and participative structure, co-operatives are seen as essential drivers of rural development (Majee & Hoyt, 2011; Simmons & Birchall, 2008).

The programmes developed by co-operatives at the local level are designed to promote community participation and specifically target vulnerable or impoverished sections of the population. Banerjee (2023) demonstrates that the capacity for collective action has fostered the emergence of horizontal solidarities, overcoming vertical divisions within Indian village society. This process has challenged the status quo, particularly transforming the local political context for women. This connection between co-operatives and community development has already been done in European countries such as Italy (Bianchi, 2023).

The connection to the territory is recognised as a defining characteristic of co-operatives, highlighting the intensity and diversity of their links with other organisations (both civic and economic) and institutions (Pecqueur & Itçaina, 2012). Co-operatives view their territory not merely as a resource to exploit, but as the foundation of their activities, development, business models, and community life (Artis et al., 2023; Draperi & Le Corroller, 2015; Richez-Battesti & Vallade, 2017). Emerging from grassroots dynamics and deeply rooted in their territories, co-operatives mobilise local resources and develop a nuanced understanding of community issues and needs, proposing solutions tailored to the aspirations of their members.

Our research question

We are studying co-operative dynamics that benefit both individual members and their communities within a local development framework. Our focus is on the effects of worker co-operatives in the Ivorian context, particularly due to their recent growth and the limited existing literature on the subject. The existence of co-operatives can be understood through the concept of "affectio societatis" which integrates societal relationships into governance and economic democracy. The foundational rules and conventions that guide a co-operative's internal functioning are rooted in a form of economic democracy, allowing for participation by citizen co-operators (Artis, 2022).

Using an institutionalist approach, our research question aims to understand the socio-economic effects of co-operatives on their members. At the individual level, we hypothesise that

participation in a co-operative has a positive impact on a member's direct economic income. This increase in income allows co-operators to invest in empowerment activities, such as education, healthcare, and housing.

Research Design

The study focuses on a localised case of three co-operatives in the Bouaflé region of the Ivory Coast, aiming to produce a detailed and contextualised understanding of internal dynamics and interactions within one of these co-operatives. Data collection occurred in two complementary phases. First, a series of semi-structured interviews were conducted with members of the co-operative. Second, a questionnaire was distributed to the co-operative members. The quantitative data collected from the questionnaire were subsequently analysed using principal component analysis. Our research design provides a roadmap for conducting case studies and research on co-operatives, beyond the specific case of co-operatives in the Ivory Coast.

Background

We decided to assess the impact of workers' co-operatives in Ivory Coast, focusing on a specific territorial area. Our work is based on semi-structured interviews with representatives from the three main co-operatives. The semi-structured interview, as a methodological tool, allowing for an in-depth understanding of the participants' perceptions and experiences while providing sufficient structure to guide data collection in a coherent and relevant manner. In parallel, we implemented a questionnaire survey of the members of one of these co-operatives. Principal component analysis (PCA) is grounded in a positivist and reductionist epistemology, which aims to uncover underlying structures from observable data. The approach is based on the notion that statistical variance represents a significant aspect of the data's meaning, allowing its complexity to be simplified into a few interpretable dimensions. We limited the questionnaire to a single co-operative to enhance our response rate and allow for a more focused analysis of the responses within a common organisational context. By combining the two methods, the insights obtained from the interviews feed into the selection and interpretation of variables for PCA, while confirming the importance by PCA of insights that emerged in the interviews. The analysis uses Glaser and Strauss's (1967) grounded theory, a methodological framework that facilitates the development of theories from unique case studies (Langley, 1999). This approach encompasses both a methodological framework for data treatment and a process for generating theories. The methodological framework and the process are intricately interwoven, and the grounded theory method is distinctly inductive, as evidenced in this study, wherein theory is derived from the data.

Case study

The institutionalisation of the co-operatives in Ivory Coast has roots in a colonial historical legacy, following the example of the co-operative system in sub-Saharan Africa (Tadjudje, 2021). After gaining independence, Ivorian authorities adopted this principle around the 1970s to support political initiatives aimed at economic and social development (N'Goran, 2012). Co-operatives are major players in Ivory Coast's agricultural sector. They were created to promote the growth of a diverse agricultural landscape, which includes coffee, cocoa, rubber, cashew nuts, cotton, rice, bananas, and maize. Co-operatives represent 90% of the country's co-operative organisations and are primarily engaged in production, collection, distribution, and marketing. This economic development, of which co-operatives are an integral part, is also linked to community initiatives. These initiatives can be observed through the implementation of various economic, educational, social, and cultural activities (N'Doly, 2019). Often supported by development co-operation, the community actions undertaken by these co-operative organisations address local needs related to socio-economic development and social protection.

The Bouaflé department in Ivory Coast has an estimated population of 300,000, which accounts for approximately 1.02% of the national population, according to the RGPH-2021 data (Open

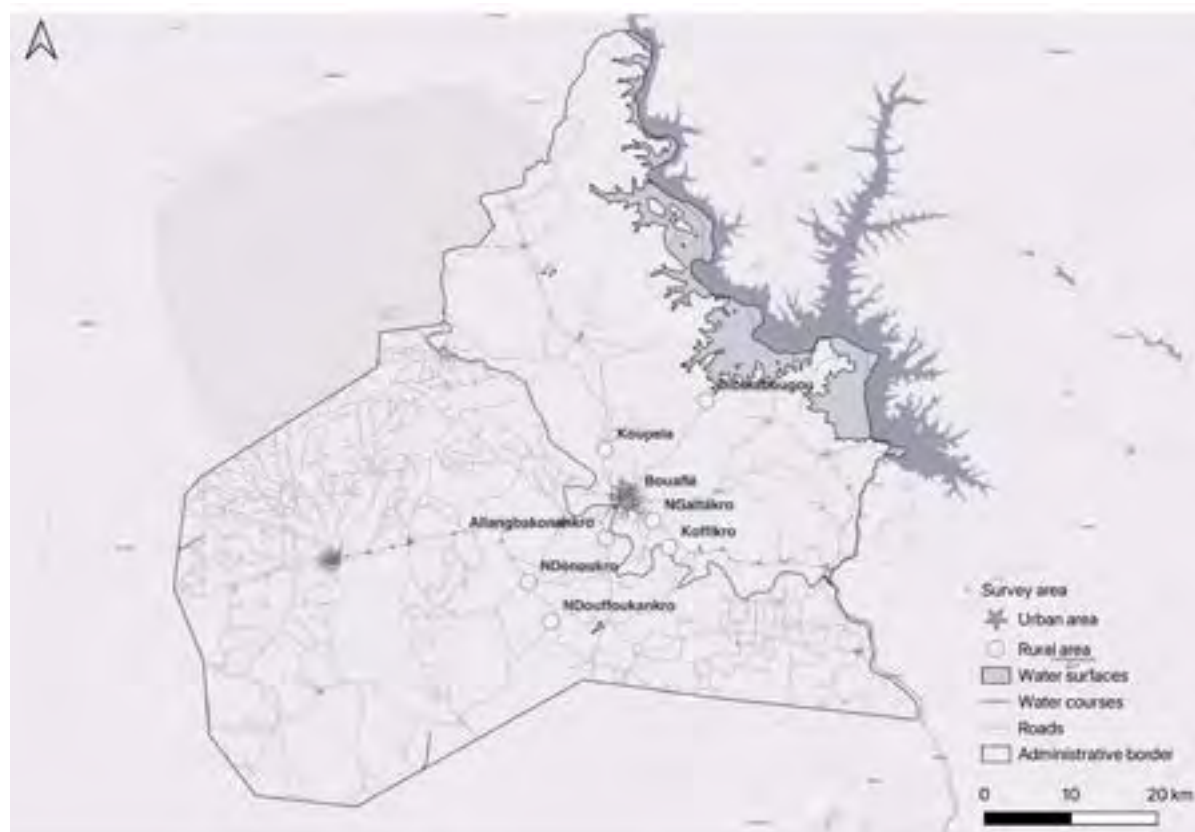
Data Côte d'Ivoire, 2022). This department faces a significant challenge with high poverty levels exceeding 50% (53.6% to be precise). The situation is marked by considerable geographical and economic disparities, with poverty being particularly severe in rural areas (61.8%) compared to urban areas (44%), as indicated by data from the 2015 National Household Life Survey (International Household Survey Network, 2018).

The Bouaflé department is located in the central-western region of Ivory Coast. It boasts natural resources that create an appealing environment for the development of productive economic activities. The economy of Bouaflé primarily revolves around trade, services, fishing, and agriculture (Houedin & Otcho, 2020). However, the various socio-political and economic crises that occurred in the 1980s, 2000s, and 2010s have hindered the urban economic growth initiated by the town of Bouaflé (Sanou et al., 2022). The region also has a significant agricultural sector, which has led to the creation of several agricultural co-operatives. The structure of local employment shows a concentration of the workforce in the agriculture (59%), services (22%), and commerce (11%) sectors in 2017 (see Table 1).

Table 1: Number of initiatives by sector of activity in Bouaflé in 2017 (Marahoué Regional Council, 2017)

Business sectors	Initiatives	Percentage (%)
Agriculture	90,802	59
Mine	1,810	1
Industry	7,334	5
Building and public works	1,100	1
Commerce	17,269	11
Services	34,093	22
Other sectors	1,045	1
Total	153,453	100

Figure 1: Geographical situation of the study field



Source: Authors

The Bouaflé department merges urban and rural areas where poverty dynamics are apparent (including absence or insufficiency of basic infrastructure, precariousness of land and housing status, and low monetary income). Local economic activities develop around the agricultural sector, livestock farming, and an economy dominated by microenterprises and small retail businesses such as crafts, perishable agricultural products, telephone services, and the sale of spare parts.

Data collection and analysis

We conducted a dual survey. On the one hand, we carried out semi-structured interviews with co-operative managers (n=3). Co-operative managers were selected based on data from previous research (N'Goran, 2024). The aim was to discuss the structuring of their internal functioning to better understand their capacity to offer development opportunities to their members. The simplified characteristics of these co-operatives are described below (see Table 2).

Table 2: Simplified characteristics of the co-operatives surveyed

Co-operatives and characteristics	Women's Cooperative for the production, Processing and Marketing of Agricultural products of Marahoué (COOP. COVIMA)	United Brothers Agricultural Cooperative of Marahoué (CAFUM COOP-CA)	Simplified Cooperative Society of the Marahoué Bean (SOCOOFEM-SCOOPS)
Corporate object	Production, processing, and marketing of agricultural products (food crops, coffee, cocoa, cashew nuts)	Marketing of agricultural products (coffee, cocoa, cashew nuts)	Marketing of agricultural products (coffee, cocoa, cashew nuts)
Date of creation	2005	2014	2014
Sales revenue	More than €76,000	More than €76,000	Between €30,000 and €76,000
Number of members	3,776	1,392	826
Source of funds	Equity from economic activities/subsidies/ membership fees/funding and donations from social partners	Equity from economic activities/subsidies/ membership fees/ funding and donations from social partners (a small number)	Equity from economic activities/subsidies/ membership fees/ funding and donations from social partners (a small number)
Micro Financing of rural initiatives from own funds	Development of economic activities/social actions to support members (distribution of inputs, social safety nets for cash transfers, marriage, death, health, etc.)	Development of economic activities/ social actions (marriage, death, health, etc.)	Development of economic activities/ social actions (marriage, death, health, etc.)
Beneficiaries of partner social schemes	A large number of social partners through financial schemes such as: FAFCI, 100 Weeks (both NGOs), and AVEC, a self-managed financial system set up by village communities.	Yes, but only a small number	Yes, but only a small number

Source: Authors, based on survey data

In addition, we conducted a survey using a questionnaire among the members of one of the co-operatives. As in other parts of the research design, the questionnaire was set up in an inductive way and based on the qualitative results obtained from earlier interviews. The aim was not to test emerging results, but to question emerging hypotheses and try to build better understandings of the effects of co-operatives. The data collection focused on a single co-operative: SOCOOFEM.

Presentation of a co-operative: The Simplified Cooperative Society of the Marahoué Bean (SOCOOFEM)

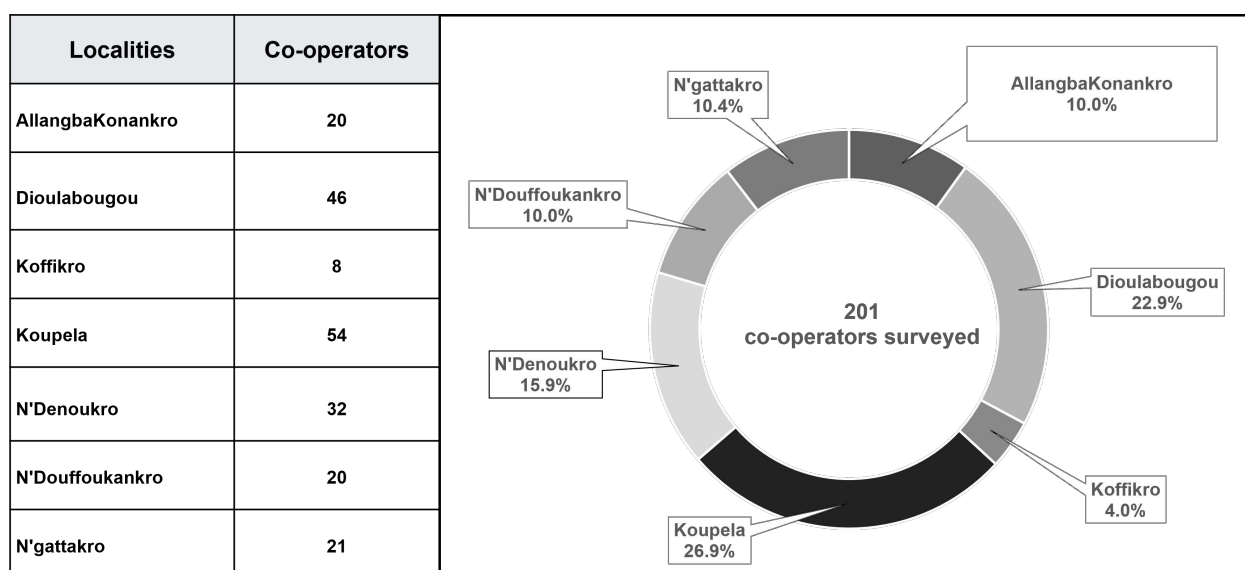
The Simplified Cooperative Society of the Marahoué Bean (SOCOOFEM) is a cocoa producers' co-operative based in Bouaflé, Ivory Coast. Founded in 2014, SOCOOFEM brings together 826 local producers to support cocoa production, collection, storage, and marketing. The co-operative's main goal is to provide its members with the necessary services for self-financing while supporting their agricultural and socio-economic activities in a way that strengthens local community ties.

One of SOCOOFEM's key aspects is promoting solidarity among producers, who benefit not only from agricultural services but also from a collective framework that fosters exchange and mutual support. The co-operative also helps address its members' social needs and contributes to local economic development by actively involving the community in its projects. For example, it has implemented training programmes on Good Agricultural Practices, funded by Sweden and carried out by Solidaridad West Africa. These training sessions, held in field schools, not only improve agricultural yields but also strengthen solidarity and knowledge-sharing among farmers.

Beyond improving individual yields, SOCOOFEM also plays a key role in reinforcing social cohesion and community support. It coordinates collective initiatives, such as Village Savings and Credit Associations (VSLA), which encourage co-operation and mutual assistance among producers. Currently, the co-operative supports 55 VSLA groups, each composed of 25 members.

201 individuals participated in our survey, representing a response rate of approximately 24% (see Figure 2). The questionnaire aimed to understand the impact of community initiatives on members in terms of human capital, including improvements in living conditions (income, life expectancy and health, children's education, housing, and electricity consumption).

Figure 2: Number of surveys per locality

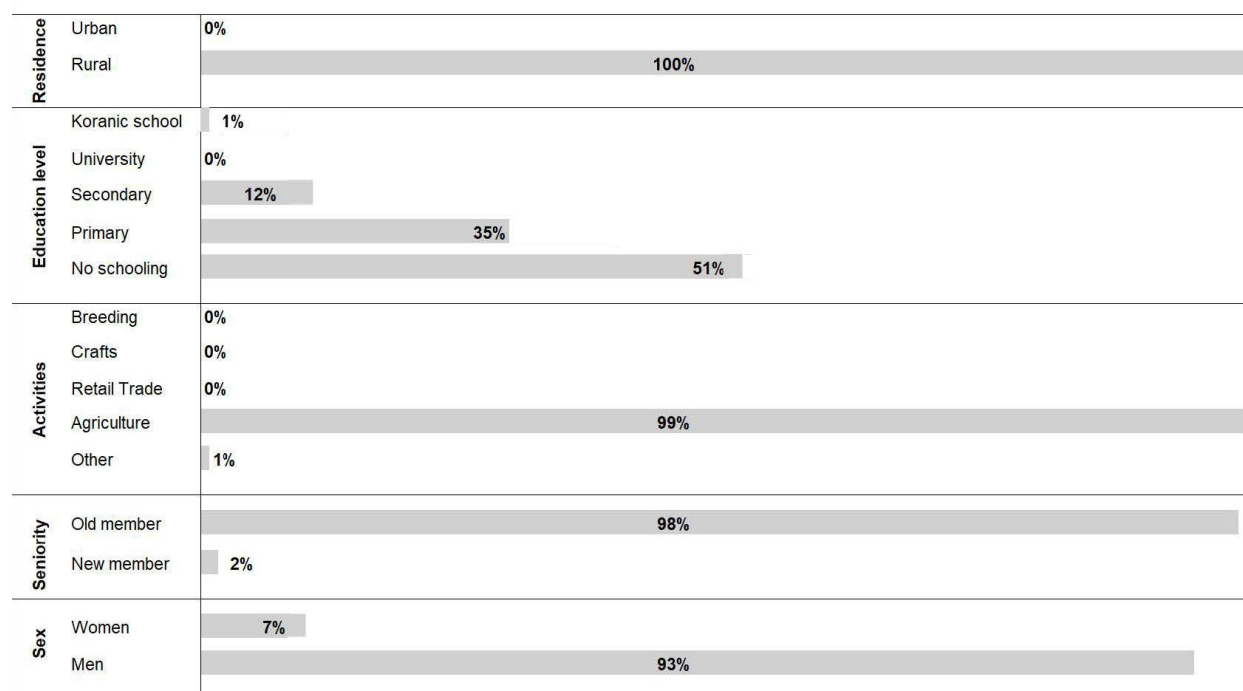


Source: Authors, based on survey data

The profile of the surveyed members is predominantly male, representing 93% of the sample (see Figure 3). Regarding seniority within the co-operative, 98% of respondents have been members for more than two years. Additionally, 99% of respondents are engaged in agricultural activities.

In order to analyse the main dimensions explaining the socio-economic effects of co-operatives, we used a principal component analysis (PCA). This technique makes it possible to reduce the dimensionality of the data while retaining the essential information contained in the initial variables. The data comes from the survey (N=201) covering 5 themes: socio-economic data, housing, education, health, and the impact of the co-operative (variable = 36).

Figure 3: Profile of respondents



Source: Authors, based on survey data

Before conducting the PCA, we performed several tests to validate the appropriateness of this method. After assessing symmetry and kurtosis, we eliminated variables with abnormal distributions. We also executed the Kaiser-Meyer-Olkin (KMO) test, which yielded a value of 0.851. This result indicates a satisfactory fit for the PCA, supporting its usage.

Findings

Actions taken by co-operatives, as seen by their managers

Interviews with the managers of various co-operatives reveal that one of their primary contributions is the creation of local jobs and an increase in income for both members and the community. In terms of social impact, a significant aspect is the strengthening of social cohesion and the inclusion of marginalised groups at the local level. The PAFEM project (Projet d'Appui à la Formalisation des Emplois en Milieu Rural), in which COVIMA participated, exemplifies an important initiative in rural development. The main objective of the PAFEM-PRO-PLANTEURS project, initiated by GIZ, the German society for international co-operation and financially supported by international partners in the confectionery sector (GISCO), along with backing from the Ivorian State, is to improve and diversify the income sources for families producing coffee and cocoa. Currently underway, this project benefits 200 COVIMA members living in rural areas who are part of Savings and Credit Associations (AVEC). It encourages them to collaborate in the operation of a modern farm, ensuring long-term job security through the establishment of permanent employment contracts. Additionally, participants engage in the economic and social activities of the farm, contributing to the formalisation of the sector and the enhancement of working conditions for producers.

Regarding environmental impact, respondents highlight the development of sustainable agricultural practices and environmentally friendly sectors. Moreover, all responses indicate that co-operatives play a vital role in developing and enhancing both the individual and collective skills of their members. Within the SOCOFEM co-operative, a training programme on Good Agricultural Practices was implemented in 2022. This programme, organised by the NGO Solidaridad West Africa with funding from Sweden, lasted several weeks and included training

sessions in Farmer Field Schools within agricultural environments. These sessions not only focused on optimising crop yields but also promoted solidarity and the sharing of knowledge and skills among producers. A similar initiative is occurring within the COVIMA co-operative, where a partnership with the Houphouët-Boigny National Polytechnic Institute has led to the development of a training programme. This programme concentrates on producing agricultural inputs, which include manufacturing organic fertilisers and ecological charcoal.

The co-operatives also provide valuable support for improving infrastructure and services, such as constructing roads, health centres, and schools, as well as ensuring access to drinking water and electricity. The SOCOOFEM co-operative, as part of its commercial partnership, was able to finance the construction of a three-classroom building in its rural community section of Allangbakonankro. This recent initiative provides children of co-operative members with access to primary education, illustrating the real impact of the role of co-operatives on local development and the improvement of living conditions in communities.

Socio-economic effects seen by co-operators

We identified six principal components that together account for 73.2% of the total variance. The first component explains 34.3% of the variance, the second component explains 12.5%, the third 9.6%, and the fourth 6.7%. This totals 63.2%. We decided not to retain the last two components in our analysis because their explanatory contributions are very low.

The first component pertains to the economic sustainability of the co-operator's activities. Better control of expenses leads to rigorous and efficient cost management, which is essential for profitability. Diversifying activities reduces dependence on a single sector, thereby enhancing resilience against economic shocks. Increased profits serve as a direct indicator of economic success and the effectiveness of financial decisions. Strengthening cash positions ensures greater liquidity, reducing the risk of financial stress and enabling investment in future growth.

The second component emphasises attachment to the community and the local area. The variable "community involvement and local roots" highlights the significance of participation in community and family meetings, as well as involvement in local networks. This participation is essential for strengthening social cohesion and social capital. The variable "local economic dynamism" indicates strong economic ties to the area. Finally, the variable "participation in collective action" underscores the importance of a development model centred on co-operation and economic solidarity.

The third component emphasises the role of the co-operative in developing the individual resources and skills of its members. The variable "reinforcement of individual capacities" reflects a process of empowerment among co-operative members. Their active participation in the co-operative boosts their self-assurance. The variable "access to decision-making skills" allows members to learn and exercise collective power. This experience enables them to develop the skills necessary to manage and direct the co-operative's activities. The variable "securing and managing personal resources" demonstrates the concrete benefits that the co-operative provides, contributing to economic stability and promoting good financial practices. Overall, this component can be seen as a facet of the economic and social empowerment of co-operative members. It underscores the co-operative's role as a space for learning, autonomy, and financial security for its members.

This last component appears to reflect a dimension of material wellbeing and financial stability for households. The variable "living conditions and material comfort" serves as an indicator of wellbeing and quality of life, which partly depends on the available financial resources. The variable "health and safety of household members" is a crucial aspect of wellbeing, influenced by economic conditions and access to healthcare services. Additionally, the variable "debt capacity and access to financial resources" may signal an improvement in household solvency, allowing families to invest in durable goods, such as housing and equipment. This component

can be interpreted as a dimension of economic security and quality of life, where better material and health conditions are linked to greater financial flexibility for households.

To sum up, our research offers a comprehensive framework for understanding the socio-economic impacts of co-operatives at both the individual and community levels. Our findings indicate that co-operatives in Ivory Coast have contributed to increased income and job security for their members. However, the results also reveal that these economic benefits are not evenly distributed, reflecting concerns about the exclusion of the poorest members (Bernard & Spielman, 2009; Mendoza & Thelen, 2008). This discrepancy suggests that while co-operatives hold significant potential, their governance structures and inclusivity mechanisms require further refinement. Co-operatives such as SOCOOFEM have strengthened social cohesion and improved local infrastructure, including schools and health centres. The focus on training programmes — such as Good Agricultural Practices — and partnerships with institutions like Houphouët-Boigny National Polytechnic Institute highlights their role in capacity-building and knowledge-sharing. This emphasis on training and capacity-building implies a commitment to enhancing internal governance. For example, involving members in decision-making processes through initiatives like Farmer Field Schools aligns with the principles of economic democracy. Additionally, our findings underscore the adoption of sustainable agricultural practices, such as using organic fertilisers and promoting ecological charcoal, alongside the development of environmentally friendly sectors. These initiatives align with global sustainability goals and demonstrate the potential of co-operatives to contribute to environmental resilience.

Overall, our results show the tangible benefits of co-operatives in Ivory Coast, including job creation and infrastructure development. These findings suggest that co-operatives can play a crucial role in achieving national development goals, particularly as effective tools for poverty reduction and socio-economic inclusion, especially in rural areas. However questions remain, including whether the success of localised co-operatives can be replicated in other regions with different socio-economic and cultural contexts, how can co-operatives balance the need for professional management with the principles of democratic governance, and how can they address structural barriers that limit the participation of women and other marginalised groups.

Conclusion

The role of co-operatives in promoting local economic and social development is frequently discussed in literature, where co-operatives are recognised as a significant force for job creation, income generation, and social inclusion. However, it is essential to critically evaluate how effectively these organisations achieve sustainable impact and whether their benefits are fairly distributed among members and the wider community.

This study uses a methodological approach that combines semi-structured interviews with co-operative managers and a principal component analysis (PCA) of survey data. The semi-structured interviews provide valuable qualitative insights into internal dynamics and strategic decision-making within organisations, complementing the statistical findings derived from the PCA. Methodologically, we applied PCA to identify the key dimensions underlying its socio-economic effects, ensuring the reliability of our findings. Our research enhances the understanding of co-operative dynamics by providing new empirical data from a substantial survey sample (N=201). The article outlines a framework for conducting case studies and research focused on specific co-operatives, extending beyond the specific case of co-operatives in Ivory Coast.

This analysis identifies key explanatory dimensions by simplifying the complexity of the dataset while retaining essential information. By identifying principal components, our study highlights both the strengths and potential limitations of the co-operative model. The first component emphasises the importance of financial sustainability, showing that profitability and diversification are crucial for resilience. However, this raises concerns about the financial autonomy of co-operatives and their ability to endure external shocks. The second component

focuses on community attachment, revealing that while co-operatives strengthen local ties, their success largely depends on pre-existing social structures and levels of community engagement. The third component addresses capacity-building, demonstrating how co-operatives foster individual empowerment but questioning whether these skills lead to long-term autonomy outside the co-operative framework. Lastly, the component related to material wellbeing indicates that co-operatives contribute to improved living standards, though the extent to which these benefits are equitably shared remains a topic of debate.

Unlike studies that focus exclusively on economic indicators, our analysis emphasises the interconnected aspects of financial sustainability, social cohesion, and individual empowerment. By organising these effects into key explanatory components, we offer a critical perspective on the ability of co-operatives to generate long-term and inclusive benefits.

Rooted in field data and informed by previous research (N’Goran, 2024) and theoretical framework (Artis, 2022), our study provides an in-depth examination of co-operative governance and its potential for development. This localised approach allows for a nuanced understanding of the impact of co-operatives while enabling broader theoretical insights into co-operative models in similar contexts.

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