

# Effects of Fair-Trade Certification Standards on Performance of Coffee Cooperatives in Rwanda

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**Abstract:** *Coffee farming in Rwanda is the major contributing crop to foreign exchange in agriculture sector. Its production has declined constantly, and it has not recovered since 1992 because of existing production are inefficient. Therefore, this study was designed to assess effects of fair-trade certification standards on performance of coffee cooperatives in Rwanda. Specifically, the study analyzed the effect of fair labor conditions on performance of coffee cooperatives in Rwanda. The study adopted descriptive study design. The target population included the staff of coffee cooperatives in Rwanda, which are producing and selling coffee. A sample of 152 staff members was computed from a population of 296 using Yamane's formula. Proportionate, stratified random sampling techniques were applied in this study in selecting the sampling size. The study adopted multiple regression model to explain the relationship between certification standards and cooperative performance. Data were presented in form of tables and charts and then, findings showed that all coffee cooperatives in Rwanda are certified and largely comply with FLO certification standards. The findings further showed that fair labor conditions have positive significant effect on cooperative performance. The study recommends that cooperatives should give certification standards highest priority in a bid to improve their performance. For example, fair treatment of laborers should be embraced through offering competitive remunerations, conducting continuous training and abiding labor laws.*

**Keywords:** Certification standards, FLO certification, fair labor conditions, coffee cooperative performance

## 1. Introduction

Small-scale farmers in developing countries are making efforts to produce sustainably for the global market. However, these farmers are frequently faced by challenges of price volatility and natural hazards. (Sick, 2008). However, production for the global market has more economic benefits its subject to myriad of risks (Sick, 2008). For example, when there is a fall in global prices, farmers abandon their production and searches for new income sources (Sick, 2008). These boom-bust cycles of commodity prices make it very hard for small-scale farmers to improve their standards of living. Coffee production is one of the industries dominated by small-scale producers, scattered throughout the developing world. In the years between 1961 and 2000, coffee export more than doubled in volume to 5.5 million metric tons and revenues raised from it increased more than 350% reaching \$8.4 billion. Millions of small-scale farmers rely on coffee production for their survival, but unfortunately it is now an industry characterized by a prolonged price crisis brought about by overproduction (Loveless, 2012), and by the disintegration of the International Coffee Agreement in 1989 (Lyon, 2006).

The concept of Fairtrade is triggered by the state of widespread underdevelopment and unequal income distribution. Poor consumers' needs to be given fair prices for their produce if their lives are to be lifted and evade poverty (Diren, 2010).

Fair trade tackles poverty through setting a minimum price (FLO web page) and setting down rules and standards to govern production and sale of commodities. Fair Trade certification aims at improving the socio economic and environmental well-being of producers in less developed countries through upholding production and trade standards (Kadow Alexander, 2011).

Fair trade is very important to producers as it protects producers against price fluctuations, encourages external trade, provision of credit to producers, supporting development projects through premium payment and lastly it provides producers with information regarding market.

According to Filippa and Assem (2018) Fairtrade is a certification scheme that is based on the market and rely on consumer's willingness to pay more reflecting more value. It further offers transparency in production strengthening consumer-producer relationships (Lyon, 2006) hence the poor farmers can have a say in the market.

On the other side, Fairtrade revives obsolete production practices that are no longer able to compete in the market due to unfavorable market forces through imposing minimum price floor. It advocates for the philosophy of farmers must remain farmers (Sidewell, 2008).

Minimum Prices may be considered favorable to producers and this will boost the supply of coffee thereby exceeding demand, which ultimately leads to suppressed prices (Henderson, 2008).

Challenges faced in promotion of agricultural products around the world, has made world trade organization to come up with a certification called fair trade and in this case the researcher intends to analyze effect of fair trade on performance of coffee cooperatives in Rwanda.

Coffee introduced to Rwanda through German missionaries in 1904 and currently the sector is made with over 355,000 farmers, mostly smallholders, and is a major source of export revenue for the country (NAEB, 2016). Overall coffee production in Rwanda is markedly lower now than it was 25 years ago stabilizing over the past 7-8 years in the range of 280,000 bags (16,800 MT). It is notable that other selected

countries in the East Africa region have increased their production during this same timeframe (NAEB, 2016).

In the late 1990s the Rwandan government began a process of liberalization and privatization of the coffee sector, dismantling barriers to trade, and creating incentives for groups and organizations to invest in coffee production (Boudreaux, 2011). Rwanda's coffee cooperatives are farmer organizations established to improve smallholder income and livelihoods mainly by providing technical assistance and inputs for production, processing fully-washed coffee, increasing farmers' bargaining power and market entry opportunities as well as providing non-technical services. Many of these cooperatives have emerged as a result of government and NGO support. In 2006, the government of Rwanda issued a legal and statutory framework to support the establishment of cooperatives and to contribute to their smooth functioning and proliferation (MUJAWAMARIYA, 2012).

Additionally, NGOs and development programs such as the Partnership for Enhancing Agriculture in Rwanda (PEARL) implemented by Michigan State University and partners have helped farmers establish cooperatives and have trained members in various aspects of coffee production, processing, marketing and certification standards (Ortega *et al*, 2016).

Coffee certification initiatives, which aims at advancing production to conform to environmental friendliness has been adopted more recently. Coffee produced and exports accounted for about 58 million US\$ and 60% of total exports in the early nineties but experienced a severe crisis due to production trends so that revenues were down to 20 million US\$ in 2001 and represented 30% of total exports (MINAGRI & MINICOM, 2008).

Certification increases the value of a product through taking care of environment in the production process. It advocates for consumers' payment of premium prices that meet minimum preferred standards. (Ponte, 2012).

Moreover, certification standards follow certain criteria that takes care of value chain stages right from production to marketing as well as taking care of environmental aspects such as emissions of wastes and energy production and utilization. In Rwanda, the certification programs have been geared through influences of traders, NGOs and buyers.

This was to ensure the traceability of the supply chains and push the coffee actors to be more involved in coffee lifecycle while strengthening coffee farming communities.

### 1.1 Problem statement

Fairtrade is one of the most well-known and recognized certification labels among Western consumers. To producers, it offers a guaranteed minimum price and a premium to be. From the studies by Ruben *et al* (2009) on the impact of Fair trade on development in Peru and Costa Rica, it has evidenced from the findings that Fair trade contributes greatly to development through improved income of coffee and banana farmers, increased credit access, capital stocks and investment and positive attitude to risk. This implies that

invested in business or social development programs that benefit the community (SNV, 2011). Currently coffee cooperative in Rwanda market their farmers produce under Fairtrade certification standards but, the performance is low in terms of profits. A number of cooperatives face critical challenges in terms of certification procedures and costs (Weber and Labaste, 2010). Other studies have cited limited skills as major challenge to certification; consequently, most economically disadvantaged and marginalized farmers in developing countries, like Rwanda, remain outside certification schemes, and fair-trade governance countries (Lyon, 2007).

Although a number of empirical case studies have been conducted on fair trade Certification, majority are in developed nations and few in developing nations; Bacon (2015) in Northern Nicaragua, Raluca, Nathan (2014) in Costa Rica, Valkila & Nygren (2010) in Nicaragua, Caroline (2014) in Kenya. Few studies exist in developing nations and none has been done to Rwanda case; and none addresses issues of Fairtrade certification standards in developing nations like Rwanda. There is therefore a need for this kind of study to fill in the information gap.

### 1.2 General objective

The broad objective of the study is to assess the effects of fair-trade certification standards on performances of coffee cooperatives in Rwanda.

### 1.3 Specific objective

To evaluate the effects of Fair labor conditions on cooperative performances in Rwanda

### 1.4 Research Hypothesis

Fair labor conditions positively affect performance of coffee cooperatives in Rwanda.

## 2. Literature Review

### 2.1 Effect of Fair labor conditions on performance of coffee cooperatives

Despite the unequal power relations currently operating within the FLO certification system, case studies and empirical analyses show an undeniable positive impact of participation in the system on the wellbeing of producers. Moreover, certification further improves skills among farmers, staff and cooperative capabilities. Cooperatives participation in FLO-certified supply chains also have a direct impact on international and regional coffee prices leading to improved income among coffee growers (Bacon, 2015).

through fair trade certification, farmers can get access to credit, the living wage improves and hence their welfare improves which culminates to development of cooperatives and by extension economy. This study adopted multiple linear regression method to analyze the impact of fair trade on development in general term.

Stefan & Martina (2016) carried a comparative study in Asia, Africa and Latin America to assess to which extent producers' participation in Fair Trade can increase their adaptive capacity and make them more resilient to climate change. 83 agricultural and handicraft producer organizations from Latin America, Asia and Africa were utilized to gather information. Results suggested that Fair Trade affect the adaptive capacity of smallholder farmers and artisan in developing countries in two ways. The study carried in Somalia by Abdulkadir *et al* (2015) on employee motivation and organizational performance using multiple linear regression model indicated that employee motivation through creating a good working environment and facilitation directly influences organizational performance.

## 2.2 Cooperative performance

Cooperatives are organizations that are formed by people with a mutual interest and undertaking; cooperatives are

basically formed to fight for the welfare of a specific group of people with mutual interest. According to Aldamoe *et al* (2012), organizational performance is always indicated by financial scales non-monetary, sales, market share and profit methods such as, commitment and efficiency of employee, organizations' productivity, employees' satisfaction, quality of service, and innovativeness. Olaniyan and Lucas (2008) argued that training created capacity building that maximizes performance of the organization. Caroline (2014) further asserts that performance of cooperatives can be measured by total units of output in terms of Kilograms; where, Malaolu and Ogbuabor (2013) observe that labor-force development is very important for manpower efficiency and organization performance based on the idea that formal education does not offer adequate manpower skills to the employer. They further note that few individuals might have attain abilities, skills, competencies, and knowledge needed to for specific job undertaking and also make important influence to organizational performance.

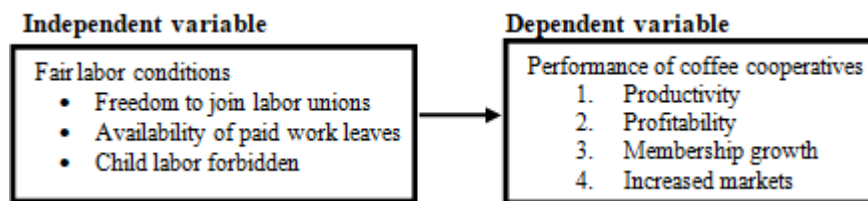


Figure 2.1: Conceptual Framework

## 3. Research Methodology

### 3.1. Research design

The study used descriptive research design and this design involves querying the selected population about a certain issue and allows the researcher to collect information on the actual state of the phenomenon at the time of the study (Musungu & Nasongo, 2008). Quantitative research excels at summarizing large amounts of data and reaching generalizations based on numerical statistical projections. Qualitative research on the other hand excels at story telling from the participants' viewpoint, providing the rich descriptive detail that sets qualitative results into their human context.

### 3.2 Population and Sample selection

Population is defined as the group of individuals or participants with the specific attributes of interest and relevance (Asiama N. et al, 2010). The population of this study comprised 296 staff of all coffee growing cooperatives in Rwanda in which included the top management and support staff. The researcher focused on only the FLO certified cooperatives that are in coffee sector in Rwanda which process and sell coffee. A sample of 152 staff and management was calculated using Yamane's Formula and the researcher employed stratified proportional random sampling techniques due to heterogeneity of population. The population within the cooperatives was divided into two strata namely top management and support staff. The researcher then applied proportional sampling technique to determine the number of respondents to be chosen from each

stratum. Lastly, within the stratum the researcher selected respondents randomly without bias.

### 3.3 Data Collection

The researcher used close-ended questionnaires to collect data due to its easiness in understanding and permits the respondents to be restricted to the matters researched and therefore reduces missing information and saves time (Uršae *et al*, 2003). The same authors affirm that Close-ended questions in general yield higher percentages than open-ended questions for answers that are identical in both question forms.

## 4. Research Findings and Discussion

### 4.1 Analysis of Performance of Coffee Cooperatives

The performance of cooperatives was analyzed for the period of five years of certification from 2013 to 2017 based on membership growth, premium value and production output. The findings are presented in the following table 4.4. Membership grew tremendously overtime as per the findings. The value of additional premiums advanced to farmers also grew overtime within the five years. From the findings, it can be deduced that there was a general increase in the coffee output. The highest output within the period was attained in 2015 and the least output was attained in 2013. This shows that FT certification has over the years brought a positive effect on the performance of cooperatives.

**Table 4.1:** Analysis of performance of cooperatives

Indicator	2013	2014	2015	2016	2017
membership	9491	10200	10510	10788	10931
Premium value(\$)	247500	315190	458383	458516	459,226
Production output	1743.74	1745.68	2795.96	2190.88	2344.58

Source: researcher, 2019

**4.2 Fair labor conditions and performance of coffee cooperative**

The success of an organization or an enterprise lies on the treatment of employees. Fair treatment of staff culminates to good performance. The second specific objective of this study shift focus on the effect of fair labor conditions on the performance of coffee cooperatives. The status of labor conditions within the studied cooperatives was assessed among respondents and then the correlation between the two variables was deduced.

**Table 4.2:** Respondents opinion on fair labor conditions and cooperative performance

Statement	No effect	Low	moderate	high	Very high
1. Living wage/fair wages to workers will affect performance.		8(5%)		99(65%)	45(30%)
2. Existence and freedom of joining unions by workers will affect performance.		45(30%)		68(45%)	39(25%)
3. Availability of paid work leave to workers will affect performance				82(54%)	70(46%)
4. Non-practice of child labor within the cooperative will affect performance.				114(75%)	38(25%)
5. Safe working environment for the workers will affect performance.		15(9.8%)		101(66.67%)	36(23.53%)

Source: researcher, 2019

**4.2.2 Correlation between fair labor conditions and cooperative performance**

The researcher sought opinions from respondents regarding the correlation between fair labor conditions and cooperative performance showed that there is a positive correlation between both variables, and it is explained by a positive Pearson’s coefficient of 0.690 with significance value of 0.001.

**Table 4.3:** Correlation between fair labor conditions and cooperative performance

Correlations		Fair labor conditions	Cooperative Performance
Fair labor conditions	Pearson’s Correlation	1	.690**
	Sig. (2-tailed)		0.001
	N	152	152
Cooperative Performance	Pearson’s Correlation	.690**	1
	Sig. (2-tailed)	0.001	
	N	152	152

Source: researcher, 2019

**4.2.3 Regression analysis**

After correlation analysis to find the direction and degree of association between fair labour conditions and coffee cooperative performance, there was a need to determine the magnitude of change of cooperative performance per unit change in fair labor conditions through regression analysis and is illustrated in the table of coefficients below.

**4.2.1 Respondents opinion on Labor conditions and cooperative performance.**

The researcher sought opinions of respondents regarding fair labor conditions and cooperative performance. This was done in five aspects. The findings indicated that 95% of respondents agreed highly that provision of a living wage to farmers affects cooperative performance whereas only 5% declined. 30% of respondents opined that existence and freedom of joining unions by workers do not really affect performance of cooperatives whereas 70% of the respondents agreed highly that it affects. All respondents accepted highly that availability of paid work leave, and non-practice of child labor affects cooperative performance. Lastly, most respondents accounting for 90.2% widely agreed that safe working environment for workers affects cooperative performance while only 9.8% declined.

**Table 4.4:** Model Coefficients

Model	Coefficients <sup>a</sup>			t	Sig.	
	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta			
1	(Constant)	0.208	0.172		0.128	0.021
	Fair labor conditions	0.365	0.066	0.44	1.796	0.001

<sup>a</sup>. Dependent Variable: cooperative performance

Source: researcher 2019

**4.3 Discussion of findings**

Fair trade certification standards are very important for the success of cooperatives since they touch on the welfare of all stakeholders. This study concentrated on the effects of fair labor conditions on cooperative performance. FLO advocates for fair treatment of laborers in terms of salary, working environment, leave entitlement among others. From the findings, it is open that the respondents widely agree with the statements on fair labor conditions and cooperative performance. From the correlation analysis findings, there is a very high positive significant correlation between fair labor conditions and cooperative performance. This is supported by the high positive Pearson’s correlation coefficient between the two variables. The regression findings indicate that keeping other factors constant, a unit change in fair labor conditions improves the cooperative performance by 36.5%. The findings concur with the findings of Stefani and Martina (2016) studied in Graz, Austria and Abdulkadir et al (2015) in Mogadishu of Somalia where both found employee treatment as very important in achieving organizational goals. Stefani and Martina for example found that Fair trade certification improves credit access to the

producers, enhances skills acquisition, which improves their adaptive capacity hence become more resilient to climate change. Abdulkadir stresses on creating a good working environment to the employees or workers in order to improve organizational performance. This can be done through offering training, paid work and study leaves to the employees, medical covers to the staff and offering good salary/salary increment. This improves organizational performance.

## 5. Summary, Conclusion and Recommendations

From the opinion of respondents, a greater percentage of respondents did agree very highly that fair labor conditions affect cooperative performance. The findings also showed that most practices related to fair labour standards exist among coffee cooperatives in Rwanda. The Pearson correlation coefficient between fair labor conditions and cooperative performance was found to be 0.690. The regression model findings indicated that the intercept ( $\beta$ ) of the variables for fair labor conditions was 0.365 with its corresponding probability of 0.001. Fair trade coffee cooperatives in Rwanda are hence certified and implement fair labour conditions as stipulated by FLO certification standards. There is a strong positive significant association between fair labour conditions and performance of coffee cooperatives in Rwanda. This implies that fair labour conditions greatly affect cooperative performance hence should be given utmost priority by cooperatives to boost their performance in terms of increased membership and cooperative profits. The study recommends that coffee cooperatives should adhere to standards of labour conditions as set out in FLO certification such as total ban on child labour, paid work leave, having active labour unions among others, as this will go a long way in boosting their performance. Workers should be free to form unions, which can boost their living standards through savings in those unions at the same time get a chance to advocate their rights as employees.

Thereafter, other related studies should be carried out to other certification schemes (organic, RFA-UTZ, CAFÉ Practices and 4C) to tackle other part of coffee value chain insisting on individuals, private companies and other cooperatives certified /verified through to assess their impact to the sustainable performances of these section as it occupies a big section of coffee sector in Rwanda

## References

- [1] Abdulkadir et al. (2015). Employee Motivation and Organizational Performance. International Journal of Research in Social Sciences.
- [2] Aldamoe, M. A., Yazam, M., Kamal B., H. (2012): Mediating effect of HRM outcomes (employee retention) on the relationship between HRM Practices and Organizational Performance. International Journal of Human Resources studies. VL2.
- [3] Bacon Christopher (2015). Fair Trade coffee and environmental sustainability in Latin America. Handbook of Research on Fair Trade.
- [4] Bacon, C. (2015). Confronting the coffee crisis: Can Fair Trade, organic, and specialty coffees reduce small-scale farmer vulnerability in Northern Nicaragua? World Development 33:497–511. (Vol. 33). World Development.
- [5] Caroline. (2014). Factors Influencing Performance of Coffee Cooperatives in Kangema Constituency, Muranga County Kenya. Nairobi: University of Nairobi.
- [6] Diren Bilut (2010). Consumer Perception of fair trade. A cross-cultural study. International Journal of Innovation and sustainable development. Vol 5 No 1. pp20-34.
- [7] Filippa P., Assem A., H. (2018): Fairtrade and Sustainability: motivations for Fairtrade certification among smallholder coffee growers in Tanzania. Journal of Sustainability 2018, 10, 1551.
- [8] Henderson, David. 2008. "Fair Trade is Counterproductive and Unfair." Economic Affairs 28(3): 62- 64.
- [9] Kadow Alexander (2011). The Fair-Trade Movement. An Economic Perspective. Working Paper 2001-2005. University of Glasgow.
- [10] Loveless, Kerri L. (2012) "The Impact of the Fairtrade Market on Coffee Farmers in Costa Rica," Undergraduate Journal of Global Citizenship: Vol. 1: Issue. 2, Article 2
- [11] Lyon. (2006). Evaluating Fair Trade Consumption: Politics, defetishization and producer's participation. International Journal for consumer Studies, 30, 452-464.
- [12] Malaolu, V. Ogbuabor, J.E., Orji, A (2013): Determinants of Stock Price movements in Nigeria. Evidence from Monetary variables. Journal of Economics and Sustainable Development, 4 (14), 11-15.
- [13] MINAGRI & MINICOM. (2008). Rwanda national coffee strategy 2009 - 2012 December 2008. Kigali: GoR.
- [14] Mujawamariya G. (2012). Exploring double side selling in cooperatives. Case study of four coffee cooperatives in Rwanda. Thesis, Wageningen University, NL.
- [15] Musungu, L. L. & Nasongo, J. W. (2008). The head-teacher's instructional role in academic performance in secondary schools in Vihiga district, Kenya. Educational Research and Review, 3(10), 316-323
- [16] NAEB. (2016). National Coffee Census 2015. National Agricultural Export Development Board. Kigali: NAEB.
- [17] Ortega *et al* (2016) The role of cooperatives on adoption of best management practices and productivity in Rwanda's coffee sector. 24.
- [18] Ponte, S. (2012). The Marine Stewardship Council and the Making of a Market for Sustainable Fish. Journal of Agrarian Change. 12(3), pp300-315.
- [19] Raluca & Nathan (2014). The Impacts of Fair-Trade Certification. Evidence from Coffee Producers in Costa Rica. Harvard University.
- [20] Ruben et al. (2009). Measuring the Impact of Fair Trade on Development. Nijmegen: Development in Practice.
- [21] Sick, Deborah (2008). Coffee, Farming Families and Fair Trade in Costa Rica: New Markets, Same Old Problems?" Latin American Research Review Vol. 43, No. 3, pp. 193.
- [22] Sidewell, M. 2008. Unfair Trade. Adam Smith Institute: [http://www.adamsmith.org/sites/default/files/images/pdf/unfair\\_trade.pdf](http://www.adamsmith.org/sites/default/files/images/pdf/unfair_trade.pdf).

- [23] SNV Rwanda. (2011). PRACTICE BRIEF Certification opportunities in the Coffee sector: Creating market opportunities for smallholder coffee cooperatives in Rwanda. Experiences and future possibilities for SNV Rwanda and its partners. Kigali: GoR.
- [24] Stefan & Martina. (2016). the impact of Fair Trade on the Adaptive Capacity of Artisans and Smallholder Farmers. Graz: University of Graz.
- [25] Valkila, J., Nygren, A (2010): Impact of Fairtrade certification on coffee farmers, cooperatives and laborers in Nicaragua. Journal of Agriculture and Human Values, 27.
- [26] Weber and Labaste, P. (2010). Building Competitiveness in Africa's Agriculture. A guide to value chain concepts and applications. Washington DC: World Bank