Fair Trade Coffee Chains in PNG: Do Smallholders receive Better Returns and do Communities benefit?

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Abstract

Coffee is an important source of income and livelihoods for smallholders in the Highlands of Papua New Guinea with most of this coffee being marketed through conventional commodity chains. Recently, Fair Trade chains have begun to emerge in Papua New Guinea as an alternative avenue for improving coffee returns for PNG smallholders and benefitting their communities. If these Fair Trade chains are to be successful, it will be necessary for them to deliver on these promises. This study examines whether the expected outcomes are occurring in Fair Trade coffee chains in Papua New Guinea by examining paired case studies of a conventional chain and a Fair Trade chain. The study was conducted during a period of high international coffee prices and there was no evidence that smallholders who sold their coffee through the Fair Trade chain received higher returns than smallholders who sold through the conventional chain. However, the communities that the Fair Trade smallholders belonged to did benefit. The study exposed some interesting challenges relating to incentives for opportunistic behaviour by Fair Trade coffee smallholders and free rider problems within their communities.

Key Words: Fair Trade, coffee, Papua New Guinea; returns and margins

Introduction

Coffee is an key export crop in Papua New Guinea. Arabica coffee grown in the Highlands Provinces accounts for 95% of coffee exports (Gimbol, 2001) and 85% of the volume of PNG coffee exports is produced by smallholders (Murray-Prior and Batt, 2006; ACIAR, 2007). Not surprisingly, coffee is an important source of income and livelihoods for smallholders in the Highlands Provinces of Papua New Guinea.

The majority of PNG coffee is exported through conventional commodity chains (Gimbol, 2001; ACIAR, 2007). These are long chains where coffee flows through many intermediaries between smallholders and exporters and beyond to the international markets (Murray-Prior and Batt, 2006; ACIAR, 2007). Almost all smallholder coffee producers market their coffee through such chains (ACIAR, 2007).

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Oxfam (2002) found that typical returns to exporters, processors and smallholders in international coffee chains were 7%, 5% and 2% respectively. This equates to in-country returns of 47% to the exporter, 33% to the processor and 20% to the smallholder. This finding is supported by Kaplinsky and Fitter (2004). By contrast, Batt and Murray-Prior (2006) cite evidence that PNG smallholders can receive 32% of the in-country return for exported organic coffee.

Efforts have been made to improve the incomes of smallholders' incomes in the Highlands Provinces by increasing their returns from coffee. One way to do this is to determine whether it might be possible for them to receive better returns by engaging with alternative chains. Such chains can include Fair Trade coffee chains or specialty chains, such as organic coffee.

The intention of Fair Trade chains is to improve smallholders' returns by gaining a premium in the marketplace, which is then transmitted back to smallholders and their communities through a shorter chain with fewer intermediaries than conventional chains (Dietz et al, 2001). The marketplace premium is created by signally a credence attribute to buyers, which guarantees fairer returns to smallholder producers than conventional commodity chains (Murray-Prior and Batt, 2006; Transfair USA, 2008). The presence of this attribute is in a product is transmitted to the marketplace through FLO (Fair Trade Labelling Organisation International) certification. However, there may be other ways in which smallholders' returns from coffee can be improved. For example, specialty chains are targeted at the gourmet coffee market in consuming countries, and are based on differentiated product attributes such as product origin, unique quality or a distinctive taste (Gimbol, 2001).

Fair Trade chains have recently begun to emerge in Papua New Guinea and have potential to increase smallholders' returns from coffee production. This study examined the extent to which smallholders operating in a Fair Trade coffee chain received higher returns than producers operating in a more conventional chain.

Methodology

The results from two chains are presented in this paper. One chain had Fair Trade attributes while the other chain did not. Both coffee chains originated in the same region. The PNG part of the chain was the unit of analysis chosen for study but as much information as possible on the overseas segment of each chain was gained from PNG chain players.

Detailed case studies of each chain were undertaken using a case study research strategy (Yin, 2003). The methodology used by Martin and Jagadish (2006) when investigating fresh produce supply chains in PNG was adapted to gain insight into coffee chains. A total of 31 interviewees across the two chains participated and these included smallholders, Fair Trade Cooperative Board members, a processor and exporters.

Results

Case Study Chains

Chain 1 was a short Fair Trade chain. It comprised input suppliers, smallholder coffee producers and an exporter, with the chain supported by the Fair Trade Cooperative. The smallholder suppliers were members of a certified FLO cooperative and also certified organic coffee producers. They buy their inputs from agricultural stores in the provincial capital. The Cooperative has 3,600 registered smallholder members, and its Board members are volunteers. It does not trade and its purpose is to receive and distribute the Fair Trade premium and renew FLO certification. The Fair Trade premium is paid by coffee buyers to the cooperative to be used exclusively for community developments, and the use of the premium is audited annually as part of the FLO renewal process. The exporter is FLO and organic certified. It is based in the provincial capital but it has a buying depot in the town close to the area producing the Fair Trade coffee.

Smallholders grow and harvest organic coffee, which is their major source of income. When ripe, they harvest the cherries and then further process them into parchment. This is a process of pulping and fermentation that transforms the cherries into dry beans. Smallholders then transport the coffee parchment to the nearest road and transport it to the village depot or the main provincial centre for sale to the exporter. The exporter aggregates supply from smallholders and processes the parchment into green bean. This involves further drying, de-stoning, hulling to remove husks, polishing, bagging, transporting and grading. The exporter also pays for the FLO inspection fee, but these inspections are facilitated by the Fair Trade Cooperative.

Chain 2 was a longer and more conventional chain. It comprised input suppliers, smallholder coffee producers, a processor and an exporter. The smallholders supplying this chain are in the same region as the smallholders in Chain 1. They use low-cost farm inputs purchased from agricultural stores in the provincial capital. After harvesting their coffee, they process the cherries into parchment, and then sell the parchment to the processor's buying agent in the local town or on the roadside at the provincial capital. The processor operates on a 'wantok' system with its agents and smallholders suppliers, which forms a basis for social cooperation between the processor and smallholder suppliers, and allows the processor to gain some competitive advantage over other processors who are also competing with them for smallholder parchment. The processor hires a processing mill and processes the parchment into green bean coffee in the manner described above. The processor sells the green bean coffee to an exporter based in the provincial capital. The exporter adds value by further cleaning, sorting, grading, bagging, labelling and cupping, and then sells to overseas importers. This exporter is part of an international corporation with interests in several coffee producing countries as well as importers in consuming countries, and so acts as a link between coffee producers and roasters.

Returns and their Distribution

Table 1 shows the average returns to each chain member in both case study chains. In Chain 2, the exporter receives an average return of K9.70/kg. This is the same price as that received by the Fair Trade exporter in Chain 1. The explanation for this might lie in the fact that the exporter in Chain 2 is part of an international corporation that operates in both importing and exporting countries, and so is able to exploit specialist niches in different markets, thus extracting marketplace premiums that are similar to the combined Fair Trade and Organic premium received by Chain 1.

Table 1: Average 2008 Returns in two PNG Case Study Coffee Chains

Chain Member	Chain 1[1] (K/kg)	Chain 2[2](k/kg)
Exporter	9.71	9.70
Processor		6.70
Smallholder		
from Exporter	4.70	
from Processor		4.50
Community (Fair Trade Co-operative)		
Fair Trade Premium[3]	0.32	
Organic Premium	0.95	

[1]Fair Trade and Organic Chain
[2]Conventional Chain with access to different global markets
[3]The Fair Trade Floor Price was K3.23/kg, which is well below current international coffee prices.

In Chain 2, K6.70/kg is paid to the processor, who then returns K4.50/kg to the smallholder suppliers. In Chain 1 (the Fair Trade chain), the exporter undertakes processing and returns K4.70/kg and so this link has been removed in this chain. K1.27/kg is then returned to the Fair Trade Cooperative, of which K0.32/kg represents the Fair Trade premium and K0.95/kg represents the Certified Organic premium. The smallholders in this chain receive K4.70/kg.

Margins in each chain are shown in Table 2. This indicates that smallholders in both chains receive a similar proportion of the in-country margin, with smallholders in Chain 1 receiving 48% and those in Chain 2 receiving 46%. However, the community to which the smallholders in Chain 1 belong receive 13% of the margin through a combined Fair Trade and Organic premium. The exporter in Chain 1 (the Fair Trade chain) receives a greater share of the margin (38%) than the exporter in Chain 2 (31%) but also undertakes the value-creating activities performed by the processor in Chain 2. In effect, one link has been removed from the Fair Trade chain with the returns that would have gone to a processor being distributed between the exporter (who does the processing) and the community.

Table 2: 2008 Margins in two Case Study PNG Coffee Chains

Chain Member	Chain 1[1] (K/kg)	Chain 2[2](k/kg)
Exporter	3.74 (38%)	3.00 (31%)
Processor		2.20 (23%)
Smallholder	4.70 (48%)	4.50 (46%)
Community (Fair Trade Co-operative)	1.27 (13%)[3]	

[1]Fair Trade and Organic Chain
[2]Conventional Chain with access to different global markets
[3]25% from Fair Trade Premium; 75% from organic premium.

Discussion and Conclusion

One of the key findings in this study was that the total in-country returns were similar for both chains. This suggests that, while it is possible to gain a premium for Fair Trade and organic coffee, it is can also be possible to gain the same return through more conventional chains that are well-organised towards the consumer end of the chain and so are able to exploit higher-value market niches.

Although the in-country returns were the same in both chains, there were some differences between chains in the way that these returns were distributed along the respective chains. The Fair Trade chain effectively cut a link out of the chain, with the exporter eliminating the processor and integrating this function into its own operations. In doing so, it captured a greater return of the margin than the exporter in the more conventional chain, but the majority of the savings from eliminating this stage in the chain were returned to the community through the Fair Trade and organic premium.

The distribution of in-country margins in both chains did not support some previous studies (Oxfam, 2002; Kaplinsky and Fitter, 2004) with smallholder margins in both PNG chains studied being more than twice those cited in these studies. However, the smallholder margins were closer to those cited in PNG by Batt and Murray-Prior (2006) for organic coffee, though they were still higher. The reasons for such differences are not obvious, although the PNG coffee was destined for higher-value markets, even in the more conventional chain, and the study was carried out at a time of high international coffee prices, which would increase the bargaining power of coffee producers at that time.

The most concerning result was that smallholders in the Fair Trade and organic coffee chain got a very similar return to the smallholders in the more conventional chain. This creates little incentive for individuals to remain committed to the Fair Trade and organic chain, particularly when more effort is required to produce this coffee. Furthermore, the whole community benefits from the Fair Trade and organic premium, and this can create free rider problems in the Fair Trade and organic chain, since all smallholders live in the community and some may sell through the more conventional chain yet still derive a benefit from the Free Trade and organic chain.

References

ACIAR (2007). Papua New Guinea coffee and cocoa policy linkages in the *Australia Centre for International Agricultural Research final report on small research and development activity.* Retrieved on October 3, 2008 from http://www.aciar.gov.au/system/files/sites/aciar/files/node/3940/Final+report+PLIA-2005-148.pdf.

Dietz, M., Piepel, K. & van Biesbrock, J. (2001). Development Impact of Fair Trade Contribution for Discussions, In *Misereor, Bread of the World and Friedrich-Ebert-Foundation*, Aachen/Bonn, Germany.

Gimbol, K. C. (2001). Coffee Industry in Papua New Guinea – Current Status, Prospects, Constraints and Strategies for Sustainable Development. A paper presented at the *Regional Workshop on the Constraints, Challenges and Prospects for the Commodity-Based Development and Diversification in the Pacific Island Economies,* 18-20 August 2001, Tanoa International Hotel, Nadi, Fiji. Retrieved on May 27 2007 from http://www.unctad.org/infocom/diversification/nadi/gimbol.PDF.

Kaplinsky, R. & Fitter, R. (2004). Technology and Globalization: Who Gains when Commodities are De-Commodified? *International Journal of Technology and Globalization 1 (1) 5-28*. Retrieved on 05/01/09 from http://www.eldis.org/vfile/upload/1/document/0708/DOC13929.pdf.

Martin, S. & Jagadish, A. (2005). Agribusiness Supply Chain Management Concepts: Discussion *Paper and Workshop for the CARD Program at the College of Economics, University of Hue*, July, 2005, Hanoi, Vietnam.

Murray-Prior, R. & Batt, P.J. (2006). Emerging possibilities and constraints to Papua New Guinea smallholder coffee producers entering the specialty coffee market. The paper presented at Proceeding of the *international symposium on fresh produce supply chain management*, December 6-10, Chaing Mai, Thailand. http://www.fao.org/docrep/010/ah996e/ah996e00.htm. Retrieved 9/5/ 2007.

Oxfam (2002). Mugged: Poverty in your coffee cup in *Make Trade Fair, Oxfam*. Retrieved on March 20, 2007 from http://www.maketradefair.com

TransFair USA (2008). *Highlands Organic Agricultural Cooperative, Papua New Guinea, Fair Trade Certified.*

Yin, R.K. (2003). Case *Study Research: Design and Methods*, (3rd Ed.) Thousand Oaks, London & New Delhi: Sage Publications.