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Comparative marketing performance between the Peruvian Cooperatives and the Intermediaries: Acopagro cooperative vs. Intermediaries- a Case Study

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Summary

In the Peruvian jungle, there are two main cocoa marketing channels: the intermediaries and the cooperative. For example, the Acopagro Cooperative, a Peruvian organization, has contributed to the shift from illegal crops like coca to an alternative crop like cocoa which gives small scale farmers a sustainable welfare. Despite the fact that the Acopagro cooperative benefits their members by paying a fair price, supplying technical assistance and credit, many farmers still prefer commercializing their cocoa via the intermediaries. A further analysis of cocoa prices was carried out through personal interviews and a survey made between December 2009 and January 2010, of 243 farmers in Juanjui, San Martin, Peru's main cocoa production area. The outcomes demonstrate that there is not so much difference between the cocoa price that the farmers receive from the Cooperative versus through the intermediaries. The main difference is that Acopagro cooperative divides its surplus income among its members at the end of each fiscal year. These results are consistent with previous analysis[1] that proved participant farmers are better paid for their product than non-participants. Moreover, there are significant differences in the agri-marketing functions performed by each marketing channel. Farmers who prefer to commercialize via the intermediaries do not choose this marketing channel mainly due to their desire to be independent in the market or their low cocoa production. Because high economies of scale are required for large volumes of produce, the cooperative should attract small scale farmers who distribute cocoa through intermediaries to become Acopagro members in order to satisfy international market demands.

Key words

[1] Arnould, E. J., et. al., 2007 ; Aspiazu, J., 2010.

Acopagro cooperative, Peruvian jungle, intermediaries, cocoa, price, agri-marketing channel, marketing channel.

Introduction

Intermediaries in developing countries get a large share of the benefits generated by agricultural power, farmers' lack of knowledge of the market price and the high transaction cost per unit of marketed product (D. M. Pokhrel and G. B. Thapa, 2007). In the past, the Peruvian jungle geography favored the intermediaries as they had boats and trucks for transporting the gathered products. The intermediaries became a monopolistic marketing channel. Moreover, the intermediaries lent money to the producer at the beginning of the campaign. And at the end of the latter, the intermediaries gave the farmer a lower price for their harvest (Bedoya, E., 1986). The jungle producers sold their crops to whoever passed towards their farms' gates and offered a price (Garcia, F., 2002).

As a consequence of terrorism and drug trafficking, farmers were abandoned in the free market without financial or technical support. Consequently, the cocoa crop became an alternative to coca leaves (Ruiz, R., 2007). Nowadays, Peru is the second world coca leaves producer with 59,900 hectares with 92% used for drugs (ONUDD, 2009). Acopagro cooperative, a Peruvian organization created in 1992 with United Nations support, for example, has contributed to the shift from illegal crops like coca to an alternative crop like cocoa. This shift helps small scale farmers in the Peruvian jungle to increase and diversify their income in a legal and sustainable way, preserving the environment at the same time.

A farmers' organization influences the generation of more production crop volume, productivity and increment of cultivated surface (Aspiazu, J., 2010). Jungle Peruvian cooperatives export their whole production to international markets, working on themes such as technical assistance, training, assistance, dissemination of information, health, credit, etc. in order to improve living standards of their members. On the other hand, intermediaries do not pay attention to the beans' quality. And as the intermediaries are receiving the same price for their whole production, they do not have incentives to improve the product quality and even contribute to cocoa forgery (The Inter-American Institute for Cooperation in Agriculture (IICA), 2009). Cooperatives act as a shock absorber against the effects of volatility that global market capitalism visits on poor producers, seeking to reduce the layers of middlemen between producers in the developing world and consumers in the developed world by handling a number of logistics and product certification functions (Arnould, E. J. et. al., 2007). Nevertheless, cocoa farmers continue to choose the intermediaries as their principal marketing channel to distribute their cocoa. This is because the farmers want to have freedom to sell their production to the person who pays them the highest price in the market. This study aims to compare the marketing performance of the Peruvian cooperatives versus the intermediaries. Specifically, this study will 1) determine if

there is a difference or not between the cocoa price that the farmers received from the Cooperative and the intermediaries; 2) analyze the differences of the agri-marketing functions performed by each marketing channel (cooperative and intermediaries) and 3) examine the reasons why farmers choose the intermediaries as their main marketing channel.

Data and methodology

A survey of the cocoa producers was carried out in December 2009-January 2010 in Juanjui, San Martin (which is the largest cocoa producer region in Peru). Primary data was gathered by using a structured questionnaire at the study site with cooperative support, covering topics as the socio-economic characteristics of households and marketing information. As a result, a total sample of 243 farmers was collected. Personal interviews with the general manager of Acopagro cooperative as well as the intermediaries were conducted for qualitative description purposes.

Discussion and results

It is said that increased farm gate prices are likely to occur due to the presence of more competition, larger vehicles and thus greater effective demand (Shriar, A. J., 2006). Moreover, previous analysis in Peruvian cooperatives proved that participant farmers sold more and are better paid for their product than non-participant (Arnould, E. J., et. al., 2007). In this particular case, a cross tab for the price was performed in order to measure the price received by the farmers who commercialize through Acopagro cooperative versus working through intermediaries. The price differential is especially appealing during periods of crisis (Tulet, J.C., 2010) but not during periods of non-scarcity like now. The results in table 1 showed a non significant difference in the mean price between the two both marketing channels during a period of non-scarcity.

Cooperative member	N	Minimum price (Soles/ton)	Maximum price (Soles/ton)	Mean price (Soles/ton)	Std. Deviation
Yes	103	4480.00	8500.00	6757.6091	641.14231
No	140	4800.00	8571.43	6921.3144	484.30917
Total no. farmers	243	4480.00	8571.43	6851.9249	560.85085

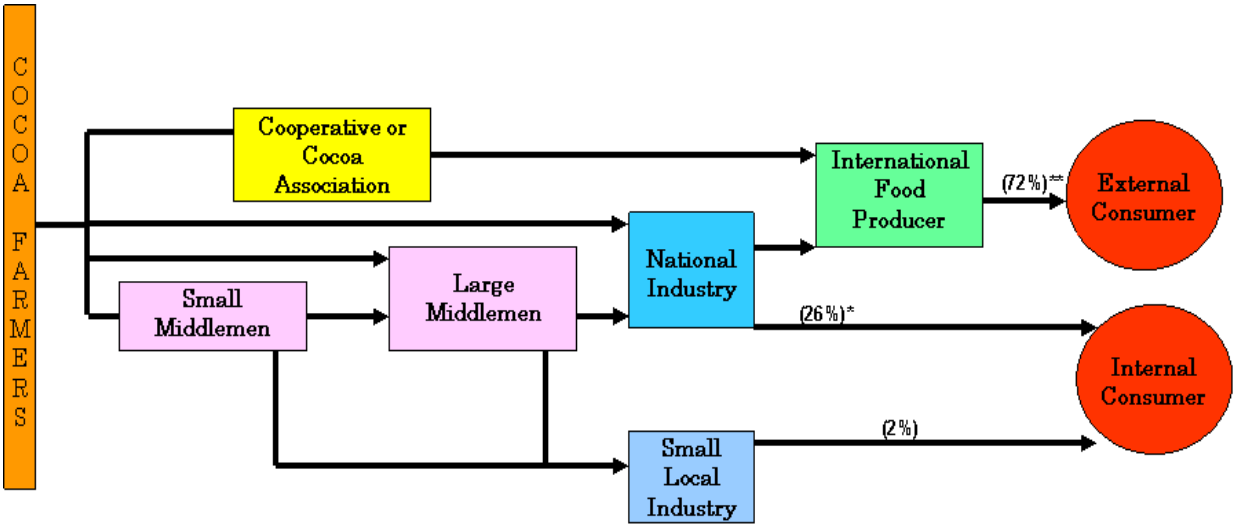
Tab. 1. Price difference between the farmers who are Acopagro cooperative members and non members

From the information obtained by the interviews and questionnaires made by the author, there is no significant difference between the price offered by Acopagro cooperative and that offered by the intermediaries. Nonetheless, the main distinction between both channels is that Acopagro cooperative offers distribution of its surplus income among members - around 600 soles per ton - at the end of the fiscal year. This is a fact that Acopagro members highly appreciate. On the other hand, cocoa farmers and small middlemen sell their cocoa to the intermediaries, located in the province capital Juanjui, who pay some cents above the price provided by the cooperative. This is due to the fact that usually farmers want money immediately for covering their basic needs.

In order to form a general picture regarding the intermediaries and Acopagro cooperative performance, the evaluation of their respective process of providing consumers with opportunities to purchase the products and services they need is indispensable in this case. Hence, it is necessary to understand how well organized are both channels' agri-marketing functions to evaluate the agricultural marketing structure based on technical and economic considerations in order to satisfy the demand. The marketing functions involved in agricultural and food marketing processes are under three sets of functions of a marketing system: exchange, physical and facilitating functions (Kohl, R. L. and Uhl J. N., 2001). Using this theory, the differences of the agri-marketing functions performed by the cooperatives and the intermediaries will be analyzed.

A. Exchange functions

The exchange functions involve finding a buyer or a seller; negotiating price and transferring ownership. Nowadays, in the Peruvian jungle, there are two main marketing channels. First, there are the intermediaries who just focus on the high prices without concern about the quality of the beans sold to larger traders. Then there are the cooperatives who pay attention to cocoa beans differentiation due to their participation in the international market, giving benefits, such as, credits and technical assistance, as well as international prices information to members (M. Wollni, M. Zeller, 2007). The quality is one factor that makes a big difference between the cooperative and the intermediaries. Farmers who are gathering the cocoa for the intermediaries do not pay attention neither to the beans humidity percentage nor its fermentation degree. Moreover, large and small impurities as dust, shells and fibers are included in the final cocoa weight. This is because it is used as raw material for low quality cocoa butter or powder production for national consumption (IICA, 2009). This low quality problem and the long marketing chain even decreases the price received by the farmers (Aspiazu, J., 2010).



Source: Peruvian Cocoa Market Profile and Exportation's Competitiveness, 2002

Fig.1. Peruvian Cocoa Marketing Channel

The cooperative organized an efficient system based on local committees instead of the organization of a central team of technicians who permanently visit farmers. Members recognize that their roles and their decisions are fully respected (Slingerland and Diaz Gonzalez 2006). The Acopagro cooperative is an organization composed of cooperative's headquarters, communities' agents, gatherers and farmers. Gatherers are very important in this particular marketing channel. They are a link between the Acopagro cooperative and the farmers from each community. This is because they not only receive, ferment and dry the cocoa from each community's farmers, but they also send the cocoa to the Acopagro cooperative. In addition, they represent the Acopagro cooperative in the community, giving farmers the price per ton and spreading information regarding the cooperative. On the other hand, regarding the distribution through the intermediaries, there is an insufficient organization between the farmers and the middlemen. This is why the price negotiation between the actors is unstable as farmers sell their production to whoever pays more for their cocoa. In addition, intermediaries always have lack of volume problems (Lozano, M. and Garfias, A., 2007) due to this relationship imbalance in order to fulfill the market's demands.

B. Physical functions

The physical distribution includes the aspects of storage, transportation and processing. As it is a private institution, the cooperative buys the cocoa from its members. It is transported by boats, motorbike or truck for storing and processed on its own installation. Subsequently, the cocoa is sold to the international market. Most cocoa is exported in the form of beans although now is being processed into chocolate under the private label name

"El Gran Pajaten". Alternatively, the intermediaries buy the cocoa from their own premises located in Juanjui, buying also coffee, corn and other products. Consequently, there is not enough storage space to keep large amounts of cocoa beans. Middlemen also possess boats and motorbikes in order to transfer the beans, selling them without any further processing to the national industry.

C. Facilitating functions

The facilitating functions are those activities which enable the exchange process to take place. They include product standardization, financing, risk bearing and market intelligence. It is in these particular functions where there is a big difference between the cooperative versus the intermediaries. All the cooperatives participating in fair trade have clearly reaped significant benefits such as training in direct cocoa marketing and techniques to improve the quality of the cocoa (Murray, D. L., 2006). Acopagro cooperative offers standard weights and quality measures and credits to the farmers. Acopagro bears the losses from the farm gate to the cooperative headquarter and gives technical assistance and information to their members. Comparatively, there is no linkage between the intermediaries and the farmers, just an untrustworthy business relationship among the actors without having any access to market information or new commercialization routes (The Inter-American Institute for Cooperation in Agriculture (IICA), 2009).

Access to information due to availability of roads, basic telecommunications and news services can give a competitive advantage to particular groups of farmers or traders (Norton, G. W., *et. al.*, 2006). Even though the flow of information in the San Martin region is restricted and just localized in certain specific areas due to geophysical conditions as well as the lack of infrastructural facilities as roads and bridges, an Acopagro community agent goes to the villages and provides one-on-one and group training of farmers on a variety of agricultural topics and technical assistance (table 2).

Cooperative member	N	Technical assistance (more than 3 times/year)		Information about processors' final prices		Information about international prices	
		No	Yes	No	Yes	No	Yes
Yes	103	23	80	11	92	21	82
No	140	128	12	119	21	138	2

Tab. 2. Market intelligence: Cooperative members vs. non members

After identifying the two marketing channels that farmers use to distribute their produce and analyze their differences related to the agri-marketing functions, a two-way table consisting of rows and columns to determine whether there is a relation between row variables and column variables was used for comparison purposes. Age, education and farm profit are factors that affect farmers' marketing channel choice (Tsourgiannis L. *et. al.*,

2008). Therefore, it is necessary to understand the socio-economic characteristics for making judgments about the effects of different policies on economic welfare (Glewwe, P., 1991). Socio-demographic factors as coca cultivation, cocoa price, age and education were considered in order to understand the actors' cocoa marketing channel selection.

The Acopagro cooperative has contributed to the shift from illegal crops like coca to cocoa. Data suggests that cocoa farmers older than 30 years old who were linked to the coca cultivation in the past chose Acopagro cooperative as their main marketing channel for commercializing their cocoa as also a way to recover from the threat of terrorism and drug traffickers as shown in figure 2. On the contrary, almost all farmers who use intermediaries as their main commercialization channel and are under 40 years old have never cultivated coca. They have dedicated their lives just to the agriculture or other off farm activities.

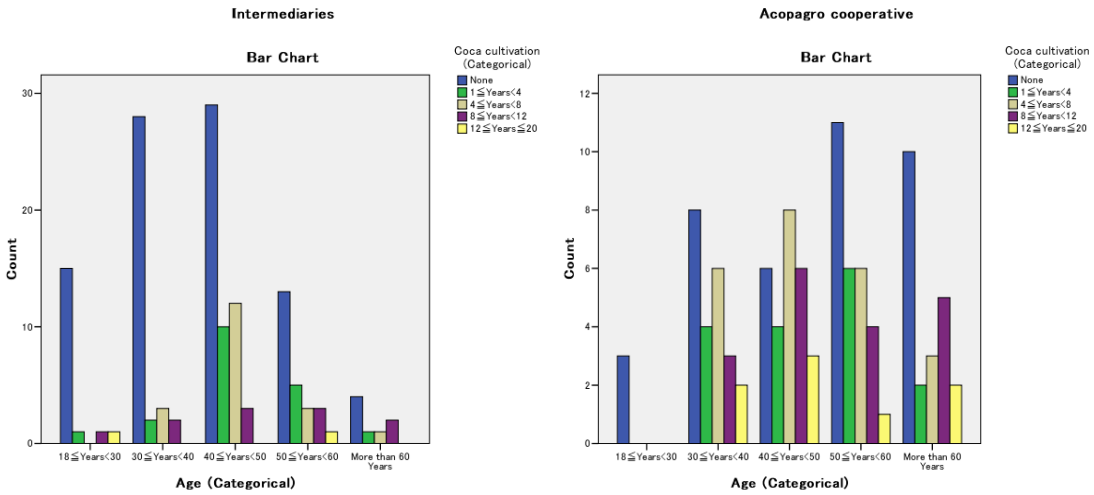


Fig. 2. Socio-demographic factors between the two types of farmers: Age (years) vs. coca cultivation (years)

A higher education level influences farmers to seek better prices as they are naturally more able to better understand the market information and find more access to credit and other forms of capital (Norton, G. W., et. al, 2006). Nonetheless, most of the farmers who are Acopagro members have only an elementary school level and agriculture is their main income source. Low numerical and literacy skills exhibited by these farmers explain why a considerable number of those interviewed expressed that they simply could not understand contracts, balance sheets, etc. and signed documents without a full knowledge of what was contained within them (Murray, W. E., 1997). Instead, the farmers who commercialize on their own have a higher level of education (high school level) than the ones who chose Acopagro, especially those who are younger than 60 years old (figure 3). The non Acopagro members argue that they do not need any organization to improve their knowledge as they can work better producing and selling by themselves.

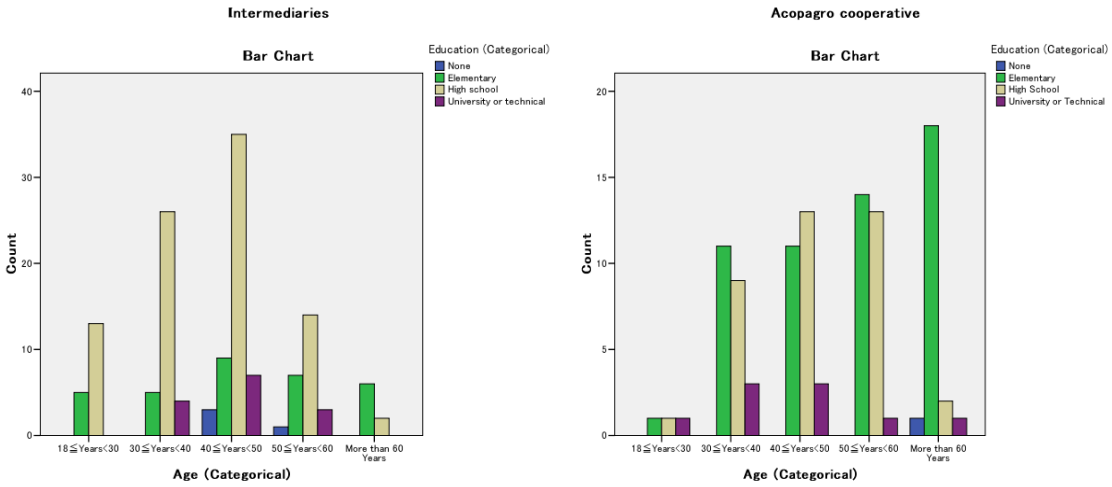


Fig. 3. Socio-demographic factors between the two types of farmers: Age (years) vs. education (categorical)

Age also can be considered as an indicator of experience in farming (B. Gebremedhin et al., 2009). Experience in cocoa cultivation is expected to be positively associated with receiving better prices. Acopagro cooperative members generally report receiving more than 7000 soles per metric ton than non members as the experience cultivating cocoa increases as suggested in figure 4. On contrary, in the farmers' case who commercialize through the intermediaries, when the experience reaches its peak between 4 and 7 years, farmers seek prices higher than 7000 soles per ton. This is because farmers who belong to Acopagro are older than the ones who commercialize through intermediaries. Consequently, farmers who sell cocoa through intermediaries have less experience cultivating cocoa. Moreover, as above explained, non Acopagro members have less experience with the coca cultivation than the members.

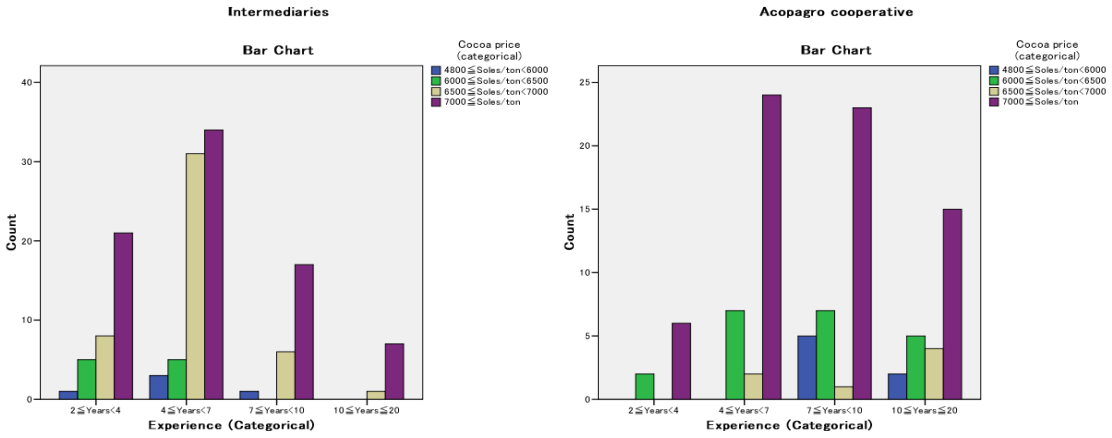


Fig. 4. Socio-demographic factors between the two types of farmers: Experience (years) vs.

cocoa price (Soles/MT).

Overall results through socio-demographic indicators suggested the reasons why farmers chose Acopagro cooperative or the intermediaries. Nevertheless, an assessment of the underlying opinions of the cocoa farmers who chose the middlemen were important to understand deeply the reasons why these farmers prefer to commercialize their cocoa by this channel. An open question regarding the reasons farmers who commercialize through the intermediaries chose the commercialization channel they use was included in the survey. Outcomes are shown in figure 5.

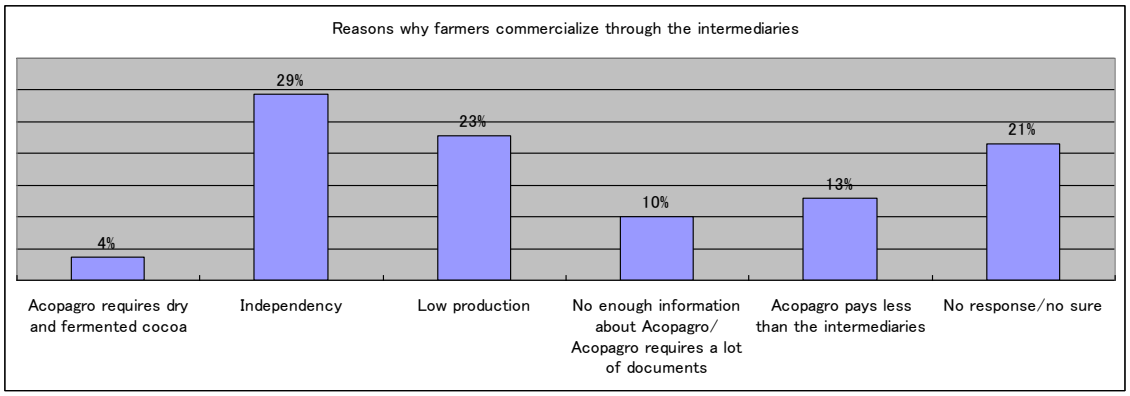


Fig. 5. Reasons why farmers commercialize through intermediaries

Almost a third of the surveyed farmers who distribute through intermediaries indicated that they prefer to commercialize their product as independents. For them, independency gives them freedom to search for the best price offered by the market. 23% of the farmers said that they have low production because they have little land and are just starting to harvest cocoa. Thus, they stated that they can not join the cooperative as Acopagro requires 1.5 ha in production as a strong requirement to become a member. 13% of the farmers without knowing about the surplus divided up among the members at the end of each fiscal year offered by the institution thought that Acopagro cooperative pays less than intermediaries. 10% of them do not have enough information about the cooperative and argued that Acopagro requires a lot of documents they do not possess. 4% said that Acopagro requires well fermented and dried cocoa and that the intermediaries are not so exigent about this matter.

A cross table (table 3) was used to confirm whether farmers who currently have reasons to commercialize their cocoa through middlemen demonstrate a willingness to participate in Acopagro cooperative in the future in order to increase the volume of produce; minimize costs and improve their quality.

Reasons / Willingness	Yes	No	No answer	Total no. of farmers
No answer	1	1	28	30
Quality	4	1	0	5
Independency	2	38	1	41
Low prod.	23	9	0	32
No inform.	13	1	0	14
Pays less	9	9	0	18
Total no. of farmers	52	59	29	140

Tab. 3. Cross table between reasons why farmers commercialize through intermediaries vs. their willingness to participate in Acopagro in the future

Even though the sample is small (140 farmers) and the percentage of no answers is high (20%), the results are significant for analysis purposes. Many tropical and subtropical crops as cocoa display the tendency to produce low yields after years of large yields (Florkowski, W. J. and Sarmiento, C., 2005). Moreover, small cocoa producers do not possess high technology equipment. As a result, most of them are not able to produce in a scale economy. This explains why around 16% of the farmers who commercialize through intermediaries and have a low production would like to join Acopagro cooperative in the future. They are expecting to have more land or more production in order to fulfill at least the minimum of 1.5 ha in production which is one of Acopagro cooperative requirements. On the other hand, 27% of the cocoa farmers who want to be independent in the market do not demonstrate a willingness to join Acopagro in the future. Demographic indicators comparing similar units among the farmers who are willing to participate in Acopagro in the future and those who are not are explained in table 4.

	No	Yes
Reasons	Independency	Low production
Experience	4≤years<7	2≤years<4
Cocoa land	1.5≤ha<2.1	0.5≤ha<1.5
Cocoa production	0.2 ≤MT<1.05	0.2 ≤MT<1.05
Age	40≤years<50	30≤years<40
Education	High school	High school
Price	7000 ≤soles/MT	7000 ≤soles/MT

Tab. 4. Willingness to participate in Acopagro cooperative vs. Demographic indicators

Results demonstrated that farmers who prefer to commercialize by intermediaries and are not willing to belong to Acopagro want to have freedom in the market; own more cocoa land and experience cultivating cocoa are age 40-50 years old. On the other hand, farmers who have less than 1.5 ha would like to increase their production in order to join Acopagro cooperative in the future. These farmers, aged 30-40 years old, want to gain experience and increase their cocoa production in order to become a cooperative member in the long term.

Conclusions

Outcomes from this survey show that Acopagro cooperative members are better paid for their product than non participant because they receive the distribution of its surplus among its members at the end of the fiscal year. These results are consistent with analysis made by previous researchers that proved that participant farmers are better paid for their product than non-participant. Moreover, there are significant differences in the agri-marketing functions performed by each marketing channel. In this particular case, Acopagro cooperative organizes well small scale cocoa farmers to contribute to the generation of a quality standard product for the external and internal market. Meanwhile small growers who commercialize through intermediaries accept the conditions of the middlemen. These middlemen are just focused on moving the cocoa to the national market and are not worried about the drying and fermentation of the beans. Differences in social characteristics among the farmers who distribute cocoa through intermediaries versus the cooperative such as age, education level and coca cultivation experience influenced the selection of the distribution channel. Outcomes also demonstrated that farmers who prefer to commercialize through intermediaries and are not willing to belong to Acopagro want to have freedom in the market. On the other hand, farmers who have less than 1.5 ha would like to increase their production in order to join Acopagro cooperative in the future.

Policy implications

The cooperative should encourage small scale farmers who distribute cocoa through middlemen to become Acopagro members following two strategies: 1) Appeal to those farmers who have low production giving them time in order to increase their production and become full cooperative members and 2) promote policy of distributing the cooperative's surplus income end of the fiscal year, as this is the main difference between the price paid by Acopagro and the intermediaries. This latter strategy could attract those farmers who think that selling independently can give them more profit than becoming cooperative members in a long run.

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