

## Colombia's Coffee Growers' Smart ID Card: Successfully Reaching Rural Communities with Digital Payments

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Over seven years, the *Federación Nacional de Cafeteros de Colombia* (Colombian Coffee Growers Federation) saved approximately \$15.5 million by shifting their payments to coffee growers from cash to payment cards. That is a saving of approximately 80 percent of the cost of making those payments in cash. The program also resulted in an opportunity to expand financial inclusion, which is particularly challenging in rural areas.

In 2007, the membership organization that represents Colombia's coffee growers began using payment cards to pay coffee growers throughout the country instead of cash. While *Cédula Cafetera Inteligente*, or the Smart Coffee ID card, was originally intended for paying farmers for their coffee harvests, the card expanded into an efficient, transparent channel for the distribution of government subsidies and credits. Since its inception, the electronic payments program has made 5.4 million payments worth over US\$736 million.

While the program undoubtedly benefited the Colombian Coffee Growers Federation, it struggled to develop the necessary infrastructure and incentives for farmers to use the *Cédula* for more than cashing out their balance, limiting financial inclusion outcomes.

Responding to these challenges, at the end of 2013 the organization and its partner bank revamped

the approach to incentivize coffee growers to make payments electronically and facilitate financial inclusion. As a result, in 2014 the *Federación* and the bank re-launched the *Cédula* to address many of the challenges it faced. The coffee growers will now be offered a full savings account at the bank with a franchised debit card with access to all ATM and POS devices in the country.

This case study is the first to examine a shift to electronic payments in a large-scale rural business-to-business context. The study relies on data and insights from *Federación* and bank leaders, as well as focus groups and in-depth discussions with the coffee growers themselves.



## Coffee plays a critical role in Colombia's economy and the sector is primarily made of small-scale farmers

Coffee is a vital product for the Colombian economy, representing 3 percent of exports and almost 2 percent of GDP. Nearly three-quarters of the country's coffee is grown by more than half a million small farmers, each of whom has less than five hectares of land. Coffee growers are all represented by the *Federación Nacional de Cafeteros de Colombia* (the Colombian Coffee Growers Federation).

## The geographic scale and remote location of farmers meant cash was expensive and dangerous

The *Federación* provides technical assistance, administers government subsidies, and runs a guarantee program which allows farmers to sell their coffee at a set minimum price. These offerings require the *Federación* to make payments to farmers throughout the country, including in remote areas.

By 2005, the *Federación* faced mounting problems with its coffee purchase program. The costs and risks of transporting cash had risen dramatically, in part due to increasing insecurity related to an insurgency in some rural areas. At the same time, the traditional banking infrastructure had been shrinking with the closure of rural branches following a local financial crisis in the late 1990s. While checks instead of cash alleviated some of the risk, farmers would often need to trade checks in for a discounted rate.

As a result, the *Federación* embarked on an ambitious project to shift payments to an electronic form leveraging the organization's identity card. However, the project faced a key obstacle from the beginning: There was limited or no access to financial institutions in 380 of the 592 target municipal areas, and most of the farmers were unbanked.

To help address these challenges, Banco de Bogotá, the banking partner, created a personalized prepaid card with both a magstripe and a chip, which also serves as their ID within the coffee sector, a function the coffee growers value greatly. The card was designed to operate only on a closed-loop basis, at ATMs or special point-of-sale (POS) devices deployed by the bank at coffee purchase points and with rural merchants. Farmers received payment for their coffee crop through the card, and could

then either withdraw the balance in cash or make purchases at participating merchants.

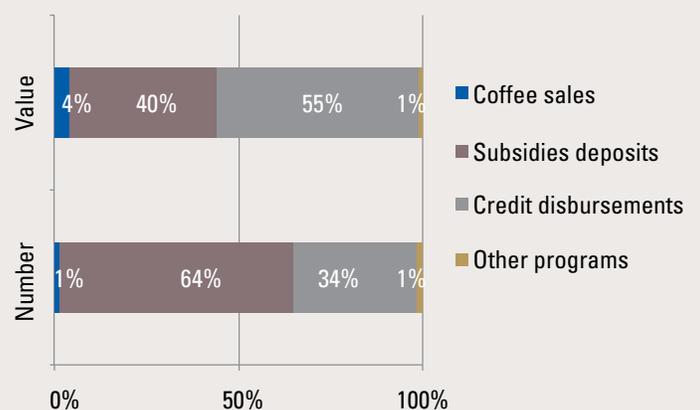
By the end of 2012, 99 percent of coffee-growing municipalities had at least one POS device, and 77 percent had at least one ATM that could be accessed using the *Cédula*. By 2013, 82 percent of all coffee growers had a card and 5.3 million payments totaling \$740 million had been disbursed.

## Adding government subsidies and credits to the card increased adoption among farmers

Early in the project, usage of the *Cédula* cards was limited in part because many farmers did not have money on their cards. This was caused by two factors. First, not all coffee growers sold their crops to the *Federación* or not all asked that funds be deposited on the card. Second, many of the early subsidies distributed over the *Cédula* were narrowly tailored to specific farmers' profiles. The turning point — a key driver of both activation and usage — started in 2009 with the disbursement of massive government subsidies and credits over the cards to mitigate losses caused by bad weather and a downturn in international prices.

By 2013, deposits for coffee purchases represented just 1 percent of the number of transactions and 4 percent of the value, while the main source of funds came from more than 15 subsidy programs.

**FIGURE 1** Deposits into the *Cédula* in number and value (2007-June 2013)



Source: *Federación*

## Investments and innovation helped overcome challenges

Several challenges emerged in the process of making the *Cédula* program successful.

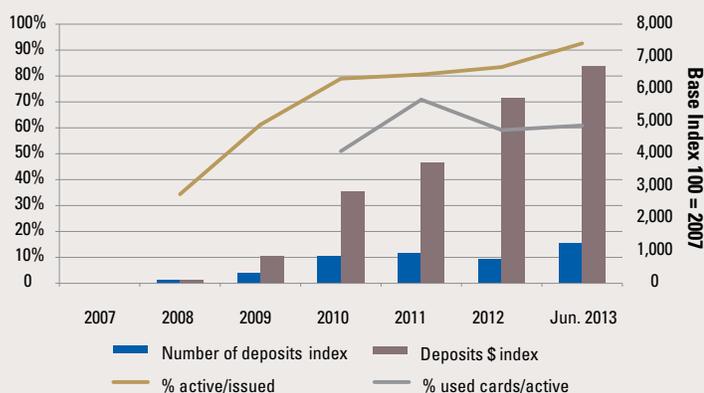
### 1. Creating effective and reliable cash-out and purchase points in rural areas

The bank had to guarantee at least one cash disbursement point per municipality. This could be an ATM, an extended cashier, or a commercial establishment, and it could operate online or in batch transfer. By 2013, 290 of the 379 coffee municipalities had ATMs.

Additionally, the contract specified that the bank had to install a POS at the coffee purchasing point that could make online, real-time transactions. Other POS devices, for cashless purchases, could be installed at a commercial establishment and operate offline.

But finding and linking commercial establishments to create more cash access points turned out to be more complex than expected. It was challenging to identify businesses that complied with the bank's risk-mitigation requirements and maintained the necessary cash flow. These challenges were compounded by two issues: The bank did not advertise on behalf of the shops where the POS devices were installed, and there were no incentives for shops to promote usage, such as a fee per transaction. Additionally, POS were continuously slow or blocked, creating distrust and complaints.

**FIGURE 2** *Cédula* activation and usage vs. deposits from the *Federación*



Source: *Federación*

### 2. Distributing and activating hundreds of thousands of cards

In addition to developing the channels, the *Federación* and Banco de Bogotá had to get cards into the hands of the coffee growers, and get the coffee growers to start using the cards. This turned out to be a more complex task than initially thought.

To distribute cards, the *Federación's* Department Committees and the bank organized massive events to attract a high concentration of coffee growers. Coffee growers could learn how the cards work and how to use them. Cards not distributed at the events were distributed by the *Federación's* extension services.

Once distributed, the next difficulty was to convince coffee growers to activate and use the cards. Activation and usage started to increase only when coffee growers could access government subsidies and credits.

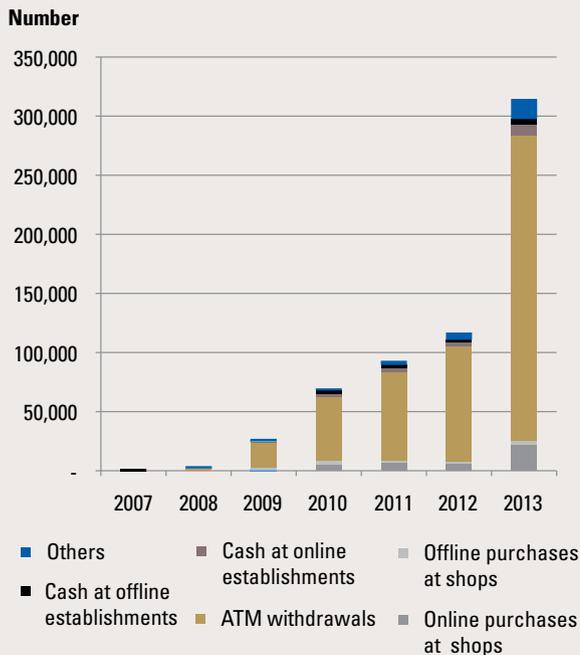
### 3. Addressing the cash-out behaviour

It was very difficult to change the coffee growers' preference for cash and continues to be a challenge. The vast majority of transactions undertaken with the *Cédula* were to cash-out. In 2013, 78 percent of the transaction volume and 84 percent of the value were ATM withdrawals, compared with 6 percent and 9 percent, respectively, for purchases at commercial establishments. Coffee growers used all ATMs, even outside of Banco de Bogotá network, suggesting that access and convenience may outweigh the importance of fees.

**TABLE 1** Costs for the *Federación*

USD (Millions)	Cash Payment (a)	Check Payment (b)	<i>Cédula</i> (c)
<i>Costs</i>			
<i>Opportunity Cost of Float</i>			0.3
<i>Fee for Cash Payment</i>	16.6		
<i>Cost of Check</i>		10.0	
<i>Personnel Costs and Other</i>	3.0	3.6	3.0
<i>Card Replacements</i>			0.7
<b>Total</b>	<b>19.6</b>	<b>13.6</b>	<b>4.1</b>
<b>Difference (a, b - c)</b>	<b>15.5</b>	<b>9.5</b>	<b>-</b>

**FIGURE 3** Number of transactions  
— monthly average by type



Source: *Federación*

#### 4. Facilitating in-kind subsidy distribution

In addition to the monetary subsidies and credits the *Cédula* facilitated, in 2009 the *Federación* asked Banco de Bogotá to allow for the payment of in-kind subsidies on a massive scale. This presented a challenge to the bank: Chip technology was new to Colombia, and the kind the *Cédula* used had limited space for information and services.

To meet the need, the bank designed “virtual pockets” ring-fenced amounts held by the bank that coffee growers could claim and use for specific purposes, such as purchasing fertilizer or

fungicide, according to the subsidies for which each grower qualified.

Although the chip did not hold the information, the card was required to claim the subsidies in the “pockets.” The authorized commercial establishments’ mobile phones acted as a POS device. To claim a subsidy, the coffee grower would go to one of these establishments and read off a code from his *Cédula*, which the shop-keeper would enter on the mobile POS. This would allow the coffee grower access to the in-kind subsidy.

#### Electronic payments offered multiple benefits to *Federación*

*Federación* perceived various benefits from implementing the *Cédula*:

- New capacity to transfer payments at a massive scale and to provide emergency support for coffee growers quickly;
- Increased leverage when negotiating credit lines and preferential conditions for the farmers;
- Reduced leakage from fraudulent subsidy claims or crop sales;
- Guaranteed traceability, offering transparency for the disbursement of government resources;
- Limited the misuse of resources.

Additionally, it was able to have the significant cost savings by digitizing payments to the farmers. If all the payments channeled through the *Cédula* had been disbursed in cash, the *Federación* would have incurred costs of US\$19.6 million. Instead, the estimated cost was \$4.1 million.<sup>3</sup>

# Lessons for BTCA stakeholders

The case of the *Federación's* efforts has many lessons for other similar membership organizations, governments, and development partners that advise, design, or implement disbursement programs in rural areas.

**1 Cost savings can be significant, even in a rural context.** The *Federación* was able to reduce costs by 79 percent compared to cash.

**2 Building the channel can lead to further digitization.** Establishing a functioning digital channel allowed other payment types, especially government subsidies and credits, to flow to small farmers efficiently and more transparently. The card, in combination with a database hosted at the *Federación*, also made it possible to better tailor subsidies to recipients' profiles, provide support in emergency situations, and disburse at scale and in remote areas. Nevertheless, the use of proprietary technology limited the scheme's usefulness for the end user. It restricted coffee growers' access to other electronic payment channels, and did not offer them the possibility to make deposits, restricting the impact in terms of financial inclusion.

**3 Reliable service is key to building trust and increasing adoption.** Convincing beneficiaries to digitize their own payments —

rather than simply cashing out — takes time and effort. The payments system needs to provide a good customer's experience to generate trust among the clients and promote usage.

**4 Incentives are necessary.** Rural areas may require stronger incentives for both acceptance and usage. Farmers still prefer cash because of its liquidity, convenience, and lack of traceability for tax purposes. On the merchants' side, establishing the transactional network proved difficult without incentives. This "last mile" problem is a remaining challenge for the *Cédula*.

**5 Approaches can and should evolve.** The next phase of the *Cédula* will tackle many of the concerns, particularly those related to the financial inclusion aspects of the approach, providing a more valuable experience and services for the farmers by offering a savings account with all its functionalities, where the debit card will also serve as the coffee growers' ID.



## About the Better Than Cash Alliance

The Better Than Cash Alliance is an alliance of governments, private sector and development organizations committed to accelerating the shift from cash to electronic payments. The Better Than Cash Alliance is funded by the Bill & Melinda Gates Foundation, Citi, Ford Foundation, MasterCard, Omidyar Network, USAID and Visa Inc. The UN Capital Development Fund serves as the secretariat.



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- <sup>1</sup> Content and data in this document are based on information gathered during the fourth quarter of 2013, and therefore represent data prior to this date.
- <sup>2</sup> The lead authors of this case study are Beatriz Marulanda, Lizbeth Fajury, Ursula Borrero for Marulanda Consultores, which is part of the Bankable Frontier Associates-led consortium responsible for the Better Than Cash Alliance's Development Results Focused Research Programme. For the full case study, see [betterthancash.org](http://betterthancash.org).
- <sup>3</sup> The costs covered by the Federación's contract with the Banco de Bogotá included the cost of hosting events to distribute and activate the cards, advertising, and the staff to manage the Cédula within Federación, as well as the costs of replacing the cards and the opportunity of a minimum float commitment.

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