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INSTALLATION OF POS EQUIPMENT IN LOCAL BUSINESSES: ADVANCES IN A STRATEGY FOR TECHNOLOGY-BASED FINANCIAL INCLUSION*

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Full financial inclusion is only possible when the entire population has convenient access to quality services at accessible prices. It is not easy to achieve this in the poorest rural areas of the country, which are often remote places with a scattered population and poor connection to cities. In these situations, the installation of traditional channels (e.g., bank branches, ATMs) for access to financial services is neither viable nor profitable, so their use is mainly limited to urban and peripheral urban areas with greater banking penetration (Álvarez, 2013).

There is potential for technological advances to provide channels for access to financial services in remote areas, thanks to their greater capacity for penetration, compared to more traditional channels. These innovations can also be useful for resolving difficulties inherent in the use of those channels, with options such as mobile banking with platforms in the local language and with audio options for people who are illiterate (Center for Financial Inclusion, 2013).

Among the technologies that facilitate access to services are POS,[1] for installation of non-

* For more informatiion consult the *Proyecto Capital* website: <www.proyectocapital.org>.

1 POS: Point of Sale.

bank agents and sales, and mobile banking. The main advantage of mobile banking is the prior penetration of mobile telephony in the poorest sectors, which significantly reduces access costs for both financial institutions and customers (Diniz, Fingerman and Best, 2011a: 6). Similarly, mechanisms such as non-bank agents have been shown to considerably reduce the logistical costs of access to customers in remote areas and to generate revenue and greater circulation of customers in affiliated businesses (Diniz, et al., 2011b).

Nevertheless, the use of technologies also has difficulties associated with (1) potential users' understanding of their tools, (2) operativity, and (3) financial institutions' ability to and/or interest in installing the equipment. The experience of other initiatives involving technologies for inclusion shows that aspects such as complicated geography, households scattered by locality, lack of interconnectivity, lack of banking capillarity,[2] and other factors translate into fewer service channels based on mobile solutions, such as POS and mobile banking. Similarly, lack of familiarity with such technologies, or lack of knowledge related to the use and understanding of financial services, such as savings accounts, translate into the self-exclusion of users from access to such services, even among customers who already have a financial product (Atkinson and Messy, 2013; Center for Financial Inclusion, 2013; Gutiérrez and Guerrero, 2013). Finally, besides those complications in operativity and use, there is difficulty in recognizing the benefits of installing technologies for access, or lack of knowledge of the best strategies for establishing partnerships with local stakeholders to develop service networks among providers of financial services (Álvarez, 2013).

Although technologies for inclusion exist within the framework of social programs, the use of these technologies for paying subsidies is still limited in the region. Because these programs usually use POS and ATM technology in bank branches in cities or areas close to cities, they remain relatively inaccessible to remote rural and poor populations (Maldonado et al., 2011).

This *inshort* offers insight into the best strategies for taking advantage of the benefits of using technologies for financial inclusion for users of social programs. It summarizes the results of an intervention for financial inclusion of users of the JUNTOS CCT program, based on the installation of POS technology for making purchases with debit cards at businesses near the users' homes.

In Peru, the JUNTOS program delivers a conditional subsidy to user families through savings accounts in the *Banco de la Nación* (BN). The savings accounts are in the name of the mother of the user family, who receives a VISA debit card with which she can withdraw her subsidy at any bank branch or other service channel of the BN. As noted above, however, although JUNTOS families already have access to on financial service, that does not guarantee the use of such services, because there are other limitations, such as difficult access to service channels or lack of knowledge of and reluctance to use the financial system and its services.

2 Banking capillarity: proximity to the user through an extensive network of offices.

The Complementary Technological Platforms for Financial Inclusion Project

The Technological Platforms pilot project was implemented jointly by Visa International, VISANET, the *Banco de la Nación* (BN), the Ministry of Development and Social Inclusion, the JUNTOS Program and the *Instituto de Estudios Peruanos* (IEP), as part of *Proyecto Capital*. These public and private stakeholders sought to provide a service network for users of the JUNTOS Program using POS sales technology in 10 local businesses located in four districts in the department of Junín.[3]

The districts were chosen through a two-stage process, (1) pre-selection of districts that met minimum requirements for connectivity (access to land lines or cellular telephony) and had a JUNTOS population, and (2) selection of districts based on their proximity to one another.[4] This initial work resulted in the pre-selection of 107 districts in 13 departments, which were later filtered using criteria such as distance to the capital (no more than 12 hours from Lima). Toward the end of this second selection stage, the IEP team, in coordination with VISA and VISANET, decided to implement the intervention in the provinces of Huancayo, Concepción and Chupaca, in the department of Junín.

Mapping was then done to identify businesses that had the basic requirements for formal operation[5] and were located in an area with adequate connectivity.[6] Because many potential businesses did not meet requirements for formal operation, part of the affiliation process involved advising them on the steps for obtaining a tax ID number (RUC). Based on the businesses' interest in becoming formally established, it was necessary to reconsider the selected districts, eliminating some and adding others.

Although the first phase of the project involved only POS installation, four months after the intervention began it was determined that a financial education (FE) component was needed, because of the lack of activity detected in BN accounts or other accounts with VISA cards in the businesses, which indicated a need to accompany financial inclusion processes with strategies for developing knowledge and skills for using technologies associated with financial services.

The purpose of the FE package that was designed was to facilitate understanding and use of the technologies implemented; it targeted JUNTOS users in the area, as well as the recipients of the equipment. The content and educational materials that were produced aimed not only to develop skills for the use of POS (through constant training with cardboard POS devises and incentives for their use with special offers at shops), but also to build trust in the financial system and the service channels it provides.

3 The districts of Chongos Alto (Province of Huancayo), San José de Quero (Province of Concepción), San Juan de Jarpa and Yanacancha (Province of Chupaca).

4 Districts preferably located in the same province.

5 Having a taxpayer ID number known as a Single Contributor Registry (*Registro Único de Contribuyente*, RUC).

6 Refers to access to a land line. This requirement corresponds to the basic technological infrastructure necessary for implementation.

Results

To evaluate the intervention, the decision was made to survey JUNTOS users and conduct in-depth interviews with the proprietors of participating businesses. The survey of users was conducted at the beginning of each training session to determine how much information had been retained from the previous session. The interviews with shop owners were conducted throughout the implementation process, with a final round of information gathering after the three months of training.[7] Reports of transactions using the intervention's POS terminals were also analyzed, showing only the transactions involving the accounts in the BN (the institution that pays the JUNTOS subsidy).

What results were found?

Why do you believe financial entities exist?

Why do you think there are financial entities or institutions?	Number of training sessions				
	One (%)	Two (%)	Three (%)	Percentage variation (1-2)	Percentage variation (1-3)
To lend money	**15,77**	**11,68**	**8,51**	**-4,09**	**-7,26**
To hold money	**17,63**	**19,08**	**19,89**	**1,45**	**2,26**
To make payments/transfers	1,26	0,99	2,60	-0,27	1,34
To make payments for services	0,22	0,00	0,18	-0,22	-0,04
To cash checks	0,22	0,00	0,00	-0,22	-0,22
Other	1,79	2,96	0,09	1,17	-1,70
They serve no purpose	0,07	0,00	0,00	-0,07	-0,07
Don't know	1,34	0,99	0,63	-0,35	-0,71
No response	61,68	64,31	68,10	2,63	6,42
Number of surveyed	1,344	608	1,116		
Pearson chi2(16) = 75.7590 Pr = 0.000					
Percentage variation (1-2) Pearson chi2(8) = 12.3402 Pr = 0.137					
Percentage variation (1-3) Pearson chi2(8) = 60.7970 Pr = 0.000					

There are changes in how banks are perceived: There is a significant increase and a clear upward trend in recognition of banks as institutions that offer the service of saving and a decrease in recognition of them as entities that offer loans. This greater recognition of saving reflects the cumulative value of training in building knowledge, as the more talks the participants attend, the more likely they are to associate banks mainly with saving and less with lending.

There is also a *significant increase in positive opinions of formal savings over other strategies*, such as saving at home or saving in kind (e.g., animals, grain).

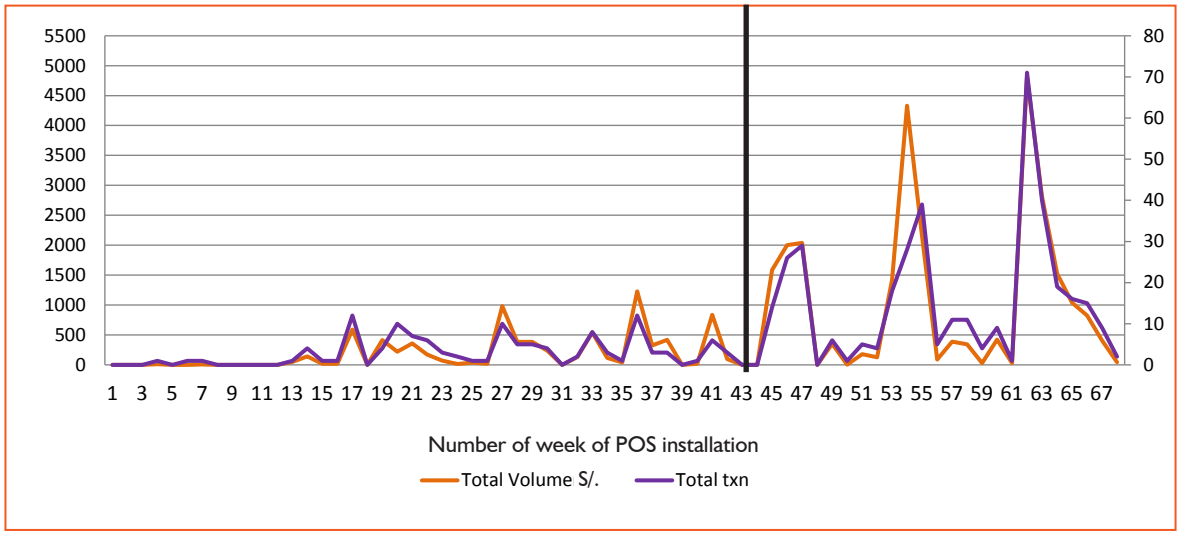
Regarding the use of POS, even when the cards are still mainly used to withdraw JUNTOS subsidies, there is a *gradual increase in the use of the cards to make purchases, as the user attends*

7 This information will be presented in a subsequent document.

more training sessions. This shows that greater access to knowledge and FE leads to greater diversity in the use of available services.

As the analysis of the transactions shows, supplementing these technologies with FE leads to significant changes in the number and volume of transactions in the businesses. The amounts fluctuate from month to month, however, because they respond to the cyclical behavior of the participants' income.

Figure 1: POS transactions involving BN accounts



Compilation: IEP

Despite this progress, it is noteworthy that nearly all the participants (97%) said they knew about their debit cards after the training, but about 80% said they did not have a savings account in their name. In other words, *greater recognition of the card is not necessarily accompanied by greater identification of the account, which indicates that there is still a disconnect between the use of technologies and more abstract concepts linking the cards to a financial service*. This shows that there is a need for more training and financial information for this population.

In addition, more than half the participants were still unfamiliar with aspects related to the concept of a financial institution and the institutions that supervise them. Of the participants surveyed, about half did not know if the money kept in the BN was protected. Of those who said they knew about the protection of those funds, only 1 percent recognizes the Deposit Insurance Fund (*Fondo de Seguro de Depósito*) as the mechanism that would return their savings to them if the institution should fail. About 15 percent of the survey respondents said the BN would be responsible for returning the funds, and 55 percent simply did not remember. This latter option ("I don't remember) increases gradually over the course of the training, from 55 percent after one training session to 63 percent with three training sessions.

The data suggest that the users of social programs use technologies to access more secure financial services (e.g., POS for purchases in local businesses) when they have access to them, are trained to use them and are informed about the benefits. There is still a significant disconnect, however, between this greater use and the internalization of JUNTOS accounts as savings accounts in the name of the families, and with accounts affiliated with the debit cards with which they make those purchases.

Lessons Learned

The project is relevant because it places importance on addressing aspects related to both supply (e.g., technologies for the use of services) and demand (e.g., FE) to guarantee a full process of financial inclusion. The main lesson from these observations, however, is that ***the mere installation of a technology platform does not automatically result in its use by vulnerable populations.***

The main incentive for changing habits is FE. ***Theoretical and practical learning is needed to overcome barriers related to distrust of the financial system and lack of familiarity with the use of technology.***

There is a difference between "informative processes" and "FE." The former only present alternatives for access to services, and it works with a population that has some basic experience with the financial system. FE, however, is more effective in a population that has little experience with the financial system, and it should at least be conducted over a three-month time frame, during which trust in the financial system and its products can begin to develop. The strategy that was implemented reinforces the evidence that changes in financial behavior and the adoption of a new technology take time.

The survey results show that users develop positive attitudes toward formal savings and are more aware of available services and financial service channels (e.g., debit cards, POS) thanks to access to financial education. Nevertheless, topics involving greater complexity, such as savings accounts, have not yet been retained by this population. ***It is therefore necessary to redesign the presentation of more abstract content in future financial education curricula,*** evaluating the real impact on the emergence of positive attitudes toward formal saving.

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