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# INTEROPERABILITY AND INTERCONNECTIVITY OF ELECTRONIC PAYMENT METHODS AND FINANCIAL INCLUSION IN PARAGUAY

Case Study No. 2  
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## INTRODUCTION

The purpose of this document is to share the Paraguayan experience with digital financial services, which began with the launch of money remittances by mobile phone operators in 2008. Although the Paraguayan experience is considered a successful one, it was specifically influenced by the economic situation in the country over the last 10 years. We hope that some of the lessons learned and features drawn from the local experience may be useful for other countries facing similar challenges.

This case study deals with the implementation of electronic bank accounts, which are transactional accounts. Besides offering the possibility to issue and receive electronic payments, they are the gateway through which to access all the other services offered by formal banking institutions. Banco Central del Paraguay views this as a tool for financial inclusion. Once a user is registered as a customer of a licensed electronic money issuer, “Empresa de Medios de Pago Electrónico” (EMPE), in addition to making payments and getting discounts at different retail shops, they can open accounts or link their wallets to bank accounts, activate accounts or obtain credit.

To date, there are more than two million electronic money accounts registered through EMPEs. Through these accounts, customers can send remittances, receive money and make payments at retail shops. These services are in addition to those offered by financial institutions.

Although the use of electronic money accounts as a means of payment is more than satisfactory in Paraguay, the service has some challenges. We believe that integration with the financial system, which consists of banks, financial institutions and co-operatives, card operators, payment facilitators and other payment systems, may require more time and effort. Of these two million accounts, only 64,000 are linked to bank accounts.

In the first section, we describe the economic situation in Paraguay when mobile phone operators launched local remittances and the retail payments service. The second section discusses the business models and how products were adapted by mobile operators to develop the business. The third section describes the policies introduced by Banco Central del Paraguay to regulate remittances and electronic payments. The fourth section describes the aim of enhancing network interoperability and the challenge faced by electronic payment service providers to increase the use of electronic money accounts. Finally, the last section presents a summary of this work.

## IMPLEMENTATION AND DEVELOPMENT OF ELECTRONIC MONEY ACCOUNTS

The implementation of electronic money accounts in Paraguay began in 2008. Mobile phone operators, Personal and Tigo, launched non-banking payment services and electronic transfers. This business operated in a favorable economic environment until 2014. The per capita income in Paraguay had reached an average of US\$1,350 from 2000, and by 2008, it was already up to US\$3,000. Estimated per capita income for 2017 is expected to reach US\$3,800 - an increase of approximately 180 percent (Chart 1).<sup>1</sup>

This stable macroeconomic environment played a decisive role in the development of the service, as this type of money and buying power weakens with inflation. Declining inflation rates reflect responsible economic policy. In addition, the stable environment reduced the risk level and increased financial penetration. The financial system created incentives to offer products with longer terms and at lower interest rates (Charts 2, 3 and 4).

In 2008, people were enjoying better economic conditions, but road infrastructure was not well developed. The cost of money transfers, including waiting time, realization and security, were high. Mobile phone operators identified a need to send money and make payments remotely, and launched products to meet this need. Traditionally, people were sending cash to their loved ones or paying their bills through money orders using transport companies that traveled to inland regions, or they used local transfer services offered by banks and financial institutions. However, these were not cost-effective ways to reach small villages or remote parts of the country. The person receiving the order had to travel long distances and spend time waiting to receive it. In this way, mobile operators were able to take advantage of points of sale (POS) in their network to offer this service and reach most towns in the country.

Moreover, in Paraguay, the majority of people have access to a mobile phone and usage among adults is high. Before the launch of the transfer services and payments, usage of simple mobile phones was almost 100 percent by all adults. By 2016, the penetration of smartphones increased to 86 percent of adults (Chart 5).

Lastly, levels of financial inclusion in the country were low. Most people were not used to using financial services offered by the formal financial system. In fact, in 2014, 42 percent of the population were excluded from the financial system and only 29 percent reported having a savings account in a formal financial institution, only 12 percent of which were accounts held in banks.<sup>2</sup> The fact that the population was not ready to join the financial system drove demand for services in the market, which mobile phone operators addressed.

1 Calculations by the author with data from the Economic Report of the Central Bank of Paraguay Statistics Annex. <https://www.bcp.gov.py/informe-economico-mensual-i361>

2 Central Bank of Paraguay (2014): "Paraguay - Financial Inclusion National Strategy 2014-2018". <https://www.bcp.gov.py/estrategia-de-inclusionfinanciera-i459>

## TWO MOBILE PHONE OPERATORS, TWO BUSINESS MODELS

The experience of mobile phone operators shows that people were waiting for a better alternative to make and receive payments. In the early stages, both companies, Personal and Tigo, were forced to adapt their initial business model to increase the number of users and transactions. Both faced challenges that generated important lessons and allowed them to adapt the services to meet the needs of the population.

At the beginning, the services both operators offered were quite complex for users in Paraguay. Once the market was assessed, both companies decided to simplify and offer basic services, mainly over-the-counter transactions. This turned out to be what the market needed: a quick service without complex registration systems that was reliable and low cost. Tigo concentrated its efforts on offering electronic money without linking it to banks and over-the-counter transactions. With this proposal, Tigo reached 1.3 million customers before electronic money was regulated (Chart 6).

Meanwhile, Personal maintained its philosophy of offering electronic money accounts linked to bank accounts until 2012. The executives at Personal noted that, in order to increase the number of people using their services, they needed to offer access to over-the-counter transactions, as this is what the market was demanding.

Therefore, it was necessary to offer both types of services: electronic wallets and over-the-counter services. After this change in strategy, Personal reached 700,000 registered customers in 2017.

### A) THE TIGO CASE

In 2008, Tigo launched a multifunctional electronic wallet called Tigo Cash. This wallet offered a range of simultaneous services, mainly the ability to transfer money between users and commercial and public payment facilities. However, insufficient demand and low transaction levels indicated a lack of acceptance of this service. A major obstacle was the complexity of the application and registration process, which required a specific contract to be signed.

The shortcomings Tigo experienced enabled their executives, through a learning process, to simplify the service initially offered. After a quantitative assessment of the factors driving users to send local remittances and payments, the basic necessary features required for greater acceptance were identified. Tigo identified the target group for their remittance services as those who were using informal service providers, since they would be interested in a simpler, user-friendly, secure, fast, and cheaper service. This service would become the best alternative for local remittances.

CHART 1: PER CAPITA INCOME (USD ,000)

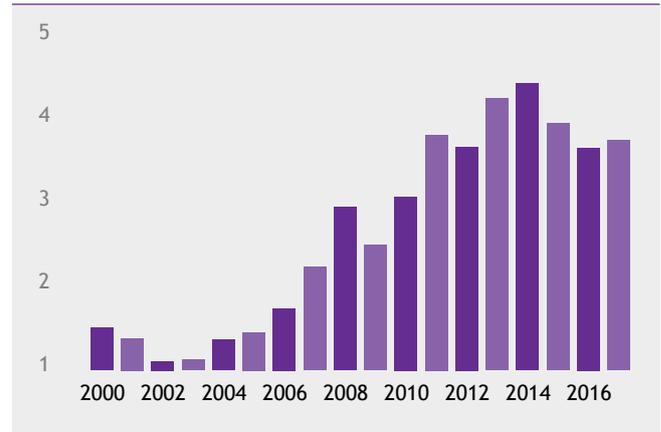


CHART 2: M3/GDP

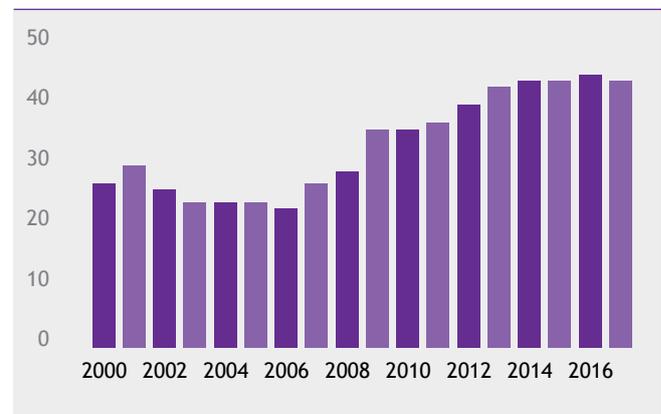
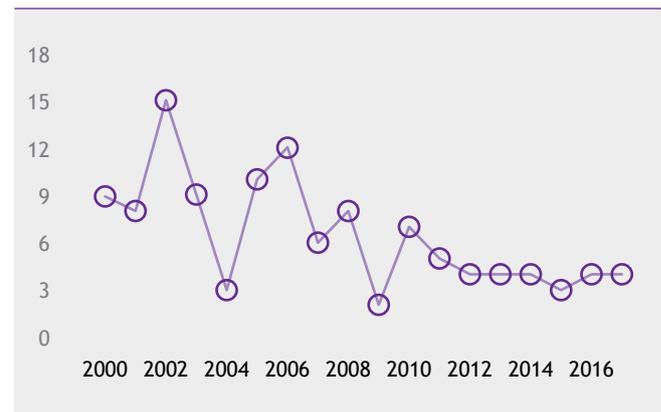


CHART 3: INFLATION (%)



In July 2010, after some changes to the design of the services, Tigo launched Giros Tigo. This service, besides offering electronic money accounts, also offered over-the-counter money transfers. It also reduced the time it took clients to register for the service to less than a minute. This service allowed clients to perform operations by showing their identity card and filling out a brief form to register the transaction.

## B) THE PERSONAL CASE

From the beginning, Personal's business model was to have electronic money accounts linked to existing bank accounts. The product it offered, and still offers today, was a combination of bank financial services and communications services offered by Personal. Their customers could link their accounts to bank accounts in up to four financial formal entities to which Personal was linked. The registration process for opening these accounts meant that the customer became a bank customer as well. In its early days, the market was not prepared for these relatively sophisticated type of services, which forced Personal to adapt their business model.

In 2012, the Personal Wallet was added, and Personal began to offer over-the-counter services. For money transfer services, it was not necessary in principle to link its users' electronic money accounts to a bank account. So, executives at Personal decided to offer both types of services: electronic money accounts linked to existing bank accounts and electronic accounts not linked to an account. In the first six month after adjusting its strategy, Personal opened approximately 20,000 accounts with this model. This mixed model reached 700,000 accounts in 2017, 120,000 of which are active.

CHART 4: ACTIVE INTEREST RATES

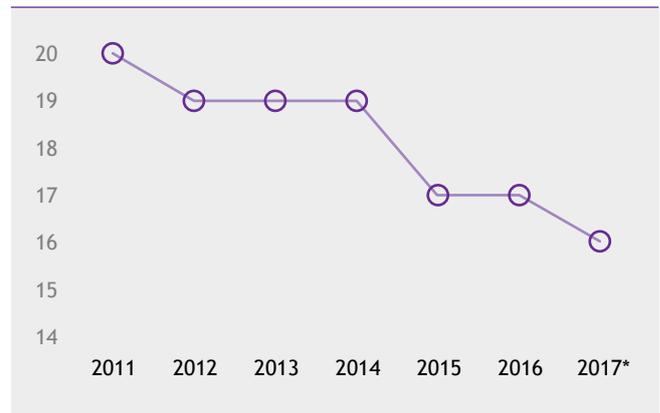


CHART 5: SMARTPHONES PER ADULT

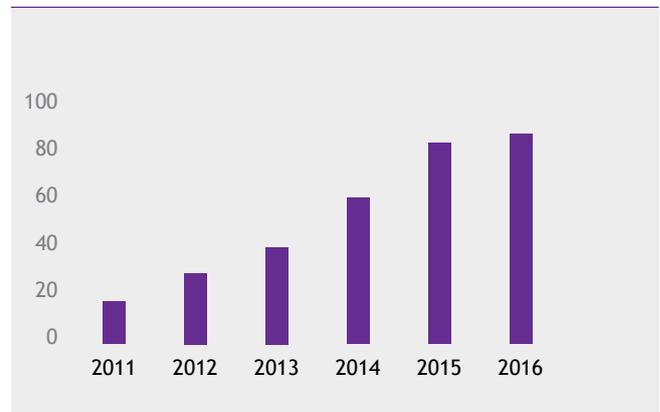
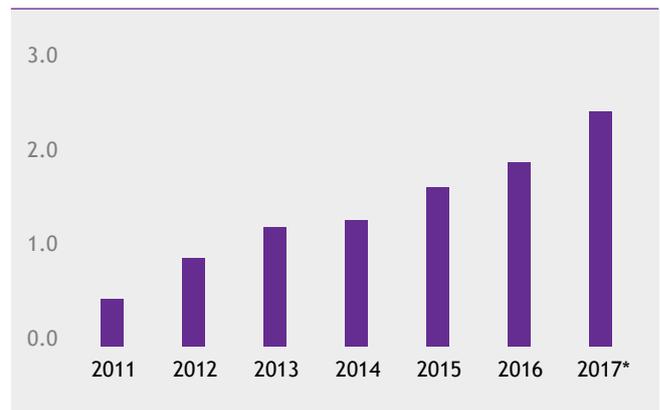


CHART 6: ELECTRONIC MONEY ACCOUNTS (MILLIONS)



Sources: Statistics of the Banco Central del Paraguay Economic Report, Average Monthly Rates and Indicators, Banking Superintendent and National Telecommunication Banking Data

Source: Superintendencia of Banks, Banco Central del Paraguay

## REGULATION OF ELECTRONIC MONEY IN PARAGUAY

Banco Central del Paraguay decided not to regulate the remittances and payments made by mobile operators in the initial stages. Using a follow-up and learning strategy, the regulators were able to gain experience and knowledge about this new activity while the business was evolving. Likewise, this strategy encouraged the development of the industry through market incentives. This way, when the time came to issue regulations, the regulator had the necessary information on the functioning of the business and the needs of the market.<sup>3</sup>

In the period prior to regulations being issued, Banco Central del Paraguay conducted an evaluation and verified the development of electronic remittances and payments. At the same time, it kept an open door policy with both mobile network operators offering this service and other agents participating in the process. This helped mobile operators understand the perspective and concerns of the regulator and allowed them to build mutual trust, which was necessary for teamwork.

Banco Central del Paraguay issued a regulation of electronic payment methods, “Reglamento de Medios de Pago Electrónicos - Resolución 6” in March 2014.<sup>4</sup> The purpose of this regulation was to manage the issuance of non-banking electronic money and electronic transfers. From then onward, companies offering mobile financial services were to become licensed e-money issuers or “Entidades de Medios de Pago Electrónicos” (EMPE). The main objective of the Central Bank is to support the EMPE’s initiatives and grant them the necessary legal security.

Resolution 6 is a regulatory framework that, in addition to allowing the formalization of e-money for mobile operators, offered legal stability for the development of the operators’ businesses and promoted significant levels of investment required to reach the scale and profitability necessary for this business to flourish.

In 2017, three years after the Resolution was issued, the advances, scope and, above all, acceptance of EMPE services at the base of the pyramid, confirmed it was not only necessary but sufficient to help develop these services.

According to the GSMA,<sup>5</sup> the proposed framework meets international regulatory principles and special features designed for the market. In this way, Resolution 6:

- > **Defines conditions for the provision of electronic money accounts.** It allows the regulator to issue licenses that meet the requirements to establish an EMPE. These should, in principle, manage the process and make payments with electronic money possible.
- > **Defines how to guarantee deposits.** Funds are safeguarded at all times by a trust account created exclusively for this purpose.

- > **Specifies procedures for due diligence and customer identification.** States that EMPE operators must comply with the provisions on simplified knowledge of their customers, i.e. the identification of customers through their IDs to open the accounts. The EMPE must report any suspicious activity to financial supervisors.
- > **States procedures regarding distribution and use of third-party services.** The resolution allows the operators of EMPE to set up and maintain networks of agents for the distribution of electronic money, identifying the EMPE or operator as responsible for the activities of the commercial agents.
- > **Sets a consumer protection and transparency framework.** The operators are obliged to receive and process claims stemming from the service. It also indicates that the customers must have access to detailed information on the EMPE website on charges and commissions incurred for the services used.
- > **Includes a mechanism that promotes financial inclusion for unbanked users.** Balances on electronic money accounts that have been inactive for 90 days or more, and those above a specific amount, must be transferred to a savings account at a formal financial institution. The EMPE will provide an unbanked user with basic savings account in a bank and they will also become a customer of that bank.
- > **Allows for regulation of interoperability in the future.** While interoperability is not initially defined as mandatory, the policy states that the central bank will regulate it in the future.

This Regulation for Electronic Payment Methods is part of a wider strategy for regulatory instruments designed to increase financial inclusion in Paraguay. This complements the Regulation regarding the use of non-Banking Correspondents (Resolution 1/11), the Regulation governing Basic Savings Accounts (Resolution 25/12) and the recently issued Regulation on Payment of Wages (Resolution 4/17).

3 GSMA, “Financial Inclusion in Paraguay: New Regulation for Mobile Money”, July 21, 2014, <https://www.gsma.com/latinamerica/es/inclusion-financiera-en-paraguay-nueva-regulacion-para-el-dinero-movil>

4 Resolution 6, Act 18 Central Bank of Paraguay, 13 March 2014.

5 GSMA, “Regulation and Policies for Mobile Money in Paraguay: Vision, market dynamics and industry perspectives”, September 2015. [https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/11/2015\\_GSMA\\_Regulacion-y-Politicas-para-el-Dinero-Movil-en-Paraguay.pdf](https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/11/2015_GSMA_Regulacion-y-Politicas-para-el-Dinero-Movil-en-Paraguay.pdf)

## THE CHALLENGE OF INTEROPERABILITY

Interoperability of existing payment systems represents an opportunity for growth in Paraguay, allowing people to send remittances and payments regardless of which network one belongs to or the destination. For interoperability to yield positive results, it is necessary to expand the payment possibilities and advantages to participants of all networks. In this process, all are winners. Users will have more options, financial businesses and institutions will reach more customers, and payments will be secure and traceable.

This is why Paraguay's National Financial Inclusion Strategy (ENIF) identified interoperability as an extremely important goal, necessary to achieve all these benefits. Regulatory authorities and payment service providers are urged to "strongly encourage interoperability and interconnectivity of payment systems."<sup>6</sup> Resolution 6 also identifies Banco Central del Paraguay as the authority in charge of issuing the regulatory framework for the interoperability of the licensed EMPE.<sup>7</sup> During the development of the regulatory framework for EMPEs, the central bank decided to let the market develop interoperability in an autonomous way through partnerships with providers of financial services and payments. Although it is possible to regulate interoperability, Banco Central del Paraguay is convinced that interoperability should stem from market consensus rather than be imposed by the regulator.<sup>8</sup>

While the Paraguayan model has developed so far without regulating interoperability, there are already partnerships that allow interoperability between EMPEs, banks and financial institutions, as well as card operators and other companies that facilitate payments and remittances. In this way, incentives are maintained for those companies that are part of the electronic money chain, and allows them to continue benefiting from the commercial advantages they mutually enjoy.

In April 2017, the Alliance for Financial Inclusion (AFI) and Banco Central del Paraguay hosted the Interoperability and Interconnectivity of Electronic Payments Workshop. In this workshop, all participants recognized that interoperability was necessary to develop their business even further and ensure it is sustainable. They also identified the main steps to follow to increase interoperability in a market.

## A) INTEROPERABILITY AND INTERCONNECTIVITY OF ELECTRONIC PAYMENTS WORKSHOP

The objective of the workshop was to analyze how to increase the degree of interoperability of electronic payment systems in Paraguay. Experts in interoperability were invited who had participated in the design of payment systems in Peru, as well as executives in charge of the administration of electronic payment methods from the private sector and regulators of these systems in Paraguay.

The experts AFI invited to Paraguay for the workshop were: Daniel Schydrowsky, former Banking, Insurance and Pension Funds Administrators of Peru; Adrián Revilla, General Manager of the Association of Banks of Peru; Miguel Arce, Commercial Manager of Peruvian Digital Payments; Johanna Yancari, Consultant of the Capital Project in Peru and Carlos Alberto Moya, AFI Regional Manager for Latin America and Caribbean. From Paraguay, executives from banks, EMPEs, network operators, communication systems regulators, executives responsible for the administration of payments systems and executives from the Banking Superintendent also participated in the workshop.

At the workshop, participants from Peru and Paraguay exchanged experiences and lessons learned. The lesson from the Peruvian experience was how to develop a fully interoperable platform. Meanwhile, the Paraguayan experience conveyed an important lesson about how to get a higher degree of acceptance of electronic money.

Representatives of the Paraguayan industry gave presentations on the problems and challenges they are facing and proposed alternatives to tackling and resolving these challenges. They concluded with a vision of how the electronic payment system should function in Paraguay.

Experts on Peru's mobile payment system focused their presentations, first, on the experience of banks in Peru when they made the decision to participate in the payment ecosystem. Second, on the functions and advantages this participation offers and that, today, the payment system is completely interoperable. Finally, the financial regulator presented his vision on the decision to invest in a single platform and what is expected of the project in the years to come.

6 Central Bank of Paraguay (2014): "Paraguay - National Financial Inclusion Strategy 2014-2018", page. 43. <https://www.bcp.gov.py/estrategia-de-inclusion-financiera-i459>

7 Resolution 6, Act 18, March 13, 2014.

8 GSMA (September 2015), "Regulation and Policies for Mobile Money Market Dynamics and Industry Perspectives", [https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/11/2015\\_GSMA\\_Regulacion-y-Policas-para-el-Dinero-Movilen-Paraguay.pdf](https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/11/2015_GSMA_Regulacion-y-Policas-para-el-Dinero-Movilen-Paraguay.pdf)

The main difficulties and challenges identified by the companies in the Paraguayan market were the following:

- > **Relatively few payments are made by banking networks.** According to the Association of Banks card operator, Bancard, only nine percent of the Economically Active Population (PEA) uses a card to make payments, whereas the transactions performed by EMPEs reach approximately four million per month.
- > **Competition poses problems in the market.** There are certain inequalities in access to major brand cards such as VISA and MasterCard. As a result of buyouts and mergers, Bancard became the only supplier of these cards. The other operators feel they are at a disadvantage when offering electronic payment services, as they require specific approvals to receive payments with these brand cards in their sales terminals (POS).<sup>9</sup>
- > **There is a low level of payment digitization.** Electronic account users use these accounts mainly to make electronic money remittances that are later swiftly processed. However, the purpose of the EMPE is for these accounts to become instruments for making payments for shopping, paying bills, etc. To do this, the payment system must migrate from a model oriented toward money transfer activities to one which is mainly used to make electronic payments at retail outlets.
- > **The link between bank accounts and EMPE results from bilateral agreements.** This slows down the process of developing linked systems. Most accounts are linked after reaching the limit for electronic
- > **Money accounts stipulated in the EMPE regulations.** The policy forces the EMPE to open a savings account upon reaching 40 minimum journals in the electronic account (approximately \$540) or 90 days of inactivity. There are 64,000 electronic money accounts linked to financial institutions representing three percent of total existing accounts). The balance of 97 percent is electronic money transactional accounts, not linked to the banks that operate with the safeguard or trust accounts set up by the licensees.
- > **There are differences in the methods used to link accounts.** The transfer of funds from an electronic money account to a basic savings account is known as “overflow”. Currently there are two ways to do this. While Tigo only transfers the surplus over the 40 journals to a customer’s account, Personal allows all the existing funds in the electronic money account to pass over to the banking account. These two ways of implementing the “overflow” are based on whether the customer is affiliated with the EMPE or the financial entity.
- > **Need to do away with asymmetries in the collection of commissions.** There are differences in the way commissions are collected for the withdrawals between the EMPEs, banks and financial institutions. While the EMPEs have a right to charge commission for the use of their services to send money, banks and financial institutions are obliged to grant four monthly withdrawals at no cost from the basic savings accounts that would be linked to the electronic money accounts.

This difference in the ability to charge commissions makes it difficult to link a formal bank account with an electronic bank account, because the majority of banks are not keen to link their services to EMPE services.

## B) A SINGLE PLATFORM FOR INTEROPERABILITY IN PARAGUAY

The problems stemming from low interoperability of payment systems is the greatest challenge faced in the development of electronic payment channels in Paraguay. Despite a large number of users, they are not able to access networks to which they do not belong. This means that EMPE users cannot make payments at a POS, nor are card users able to make payments to EMPE users; thus, users of debit cards issued by different card operators that do not bear the brand are not able to make payments to each other. The lack of interoperability makes competition difficult among operators of electronic payments, resulting in dominant positions that may slow the growth of these modes of payment.

During the workshop, participants identified two alternatives to increase interoperability and link payment networks to the two platforms available in Paraguay:

- > **Use of a single platform.** This is the proposal from Bancard and the Association of Banks of Paraguay. They consider it best to establish themselves as an open electronic centre for all electronic payment market participants. They intend to become the platform that will handle most electronic payments in the country.
- > **Use of a switch between EMPE and other payment processors.** This proposal by EMPE and Bepsa would use the switch to achieve initial interoperability between the EMPEs, and later to add on other electronic payment processors.

All workshop participants agreed on the vision of increasing the level of interoperability of existing payments systems. They all recognized that the services offered by financial institutions, EMPEs and payment operators not only compete for users, but quite often they complement each other. Competition between the parties coexists today with a need for coopeartion.

In Paraguay, a significant level of access to financial services has been achieved. However, there is room for growth in service usage, as greater access does not necessarily translate into more usage.

<sup>9</sup> This happened when Bancard bought Procard shares and positioned itself as the only supplier of branded major credit cards Visa and MasterCard in 2012. In the meantime, Bepsa, the second largest operator, sees the dominant position of one sole operator as a cause of friction.

To increase usage, we need to build better ecosystems. Interoperable systems will allow providers of traditional and non-traditional financial systems to reach more clients, thus achieving the required scale to finance the cost of developing these services. The way to build these ecosystems is for providers to partner to offer their services. The interoperability of the systems creates the possibility for the participants of the ecosystem to expand their customer base. Increasing the scale of services offered leads to a reduction in fees and commissions collected for these services.

The pending task in Paraguay is to partner and share customers to interoperate. Remaining in closed systems currently means benefiting from exclusivity and commercial differentiation of the companies providing the service. In this case, they do not share their customers and concentrate on protecting their margins and commissions, blocking the chances of getting more transaction traffic than if they opened their network.

Financial education is essential for users to demand interoperability and, in turn, increase usage. In Paraguay, the lesson learned was that unsophisticated users prefer simple services where they handle less information and have less of a formal link with the banks.

### Two different interoperability strategies: the case of Peru and Paraguay

Electronic payment systems have evolved differently in both countries. Peru developed more than 30 issuers of electronic money with an interoperable platform that allows payments between all the organizations participating in it. In Paraguay, the companies that participate in the electronic money market developed their systems independently and adapted these services with a certain degree of interoperability through partnerships.

In Peru, there is one unique platform, considered optimal for interoperability, as all participants can make and receive payments. However, the model has approximately 160,000 users, which is expected to grow in the near future. The benefit of the Peruvian model is interoperability and the possibility for sustainable growth. The challenge they face is that they must expand further so that electronic money is accepted and used by more people.

In Paraguay, the model was developed independently by EMPEs, card operators, banks, financial institutions and other payment facilitators. The model was adapted to market needs to make it possible to increase users. Due to these features, the payment systems expanded and increased scale without requiring interoperability between them. The EMPEs noticed that their clients wanted to send money in the cheapest way. This model led to EMPEs in Paraguay opening up to two million accounts in 2017. This represents 42 percent of the adult population. However, a higher degree of interoperability must be achieved in these systems through specific partnerships.

### C) ROAD MAP TO INCREASE INTEROPERABILITY IN PARAGUAY

One of the most important outcomes of the workshop was creating a road map to increase interoperability of payment systems in Paraguay. Table 1 shows the list of activities identified by participants at the workshop. To reach consensus, the participants were divided into three groups. The first group was comprised of bank and financial institution representatives.

The second group included EMPEs, other electronic payment companies and operators. The third group included regulators from Banco Central del Paraguay. Each of the three groups discussed one of the first three points in the table. The rest of the activities identified are those each group needs to carry out to increase interoperability of electronic money payment systems (from their perspective).

**TABLE 1: ACTIVITIES IDENTIFIED BY THE ELECTRONIC PAYMENT METHODS MARKET PARTICIPANTS TO INCREASE INTEROPERABILITY.**

FINANCIAL INSTITUTIONS	LICENSED ELECTRONIC MONEY ISSUERS (EMPEs), CARDS AND PAYMENT OPERATORS	REGULATORS
Paraguay should avail itself of existing systems. The alternatives that have been identified are to converge to a sole switch, or converge directly to the platform provided by Bancard (the main operator of cards in the country)		
Asymmetries in fees must be addressed. Define asymmetries or differences, such as those related to commissions and minimum standards of security and compliance.		
Standardize the “overflow” procedure. Consider the amount of overflow and methodology, and the number of basic accounts opened this way. The existing alternatives are: a) that only the overflow goes to the bank account b) that 100% of deposits goes to the bank account.		
<ul style="list-style-type: none"> <li>&gt; Information gathering of operational structure (EMPEs, networks, banks).</li> <li>&gt; Analyze connexions and take note of differences between networks.</li> <li>&gt; Define existing compatibilities.</li> <li>&gt; Analyze the commission schemes of telephone companies.</li> <li>&gt; Evaluate the impact of new players entering the market.</li> <li>&gt; Define technological connectivity</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Continuity of the ENIF Payment Working Group.</li> <li>&gt; Create incentives in stages for electronic payments, for example: tax incentives, charge for cash deposits, prohibit cash payments during certain hours, and require all units to accept electronic payments, etc.</li> <li>&gt; Develop educational campaigns on electronic payments. These should be steered by the regulator.</li> <li>&gt; The content of the campaign should be agreed upon by the electronic payment operators.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; To secure competitive mechanisms.</li> <li>&gt; The regulator must lead the working groups to increasing interoperability.</li> </ul>

Note: This list is the transcription of activities by the working groups that took part in the workshop. The participants in the groups were representatives from financial institutions, electronic payment companies and regulators of Banco Central del Paraguay.

## SUMMARY

This case study traces the experience of Paraguay with the implementation of electronic money accounts. These accounts reduced costs and waiting times to send money, and increased the traceability and security of transactions. The initial phase of implementation and development took place between 2008 and 2014. The country's stable macroeconomic outlook played a major role in the development of the business. The people of Paraguay were enjoying higher income levels and most adults had a mobile phone. However, infrastructure was still limited and financial inclusion levels were low, with 42 percent of the population not having any financial service whatsoever. This environment was conducive to the development of electronic money accounts in Paraguay.

Mobile phone operators found an efficient way to send money and make payments through a network of agents that sold airtime to their mobile services. Even so, in their initial versions, both mobile operators chose to offer services that were quite complex for the average user in Paraguay, which delayed widespread acceptance of these financial services.

Tigo Cash was the first product launched by Tigo in 2008. It was a multifunctional electronic wallet to send remittances between users and electronic payments to commercial partners.

Later, this product was simplified to meet the demands of the population. The adapted product led to the creation and launch of Giros Tigo in 2010, which offers electronic accounts without a link to bank accounts and over-the-counter transactions. By 2017, the service had reached 1.3 million active customers.

In 2008, Personal launched electronic money accounts linked to bank accounts. This product had all the features to facilitate an electronic money wallet linked to a bank account. Nevertheless, it was not accepted as hoped. From 2012, Personal decided to offer the services of an electronic money account without links to banks, complemented by over-the-counter transaction services. After this change, the number of opened accounts reached 700,000 in 2017.

The development of local transactions was based on the expansion of the network of commercial mobile phone agents. In 2017, there were more than 4,000 active agents receiving services from a supplier at least three times a week. These agents may offer their services to more than one EMPE and are located in areas with higher population density.

Banco Central del Paraguay decided not to regulate the activity of electronic money remittances and payments during the initial stages. Instead, the regulator concentrated its efforts on monitoring the development of the industry. Once it had reached a considerable volume of customers, Banco Central del Paraguay issued Resolution 6, the regulatory framework formalizing the electronic money business for mobile phone operators.

The Resolution defines the conditions for market participation, determines the guarantee of deposits, specifies due diligence and customer identification, sets distribution and third-party outsourcing procedures and sets customer protection and transparency measures. It also includes a mechanism that promotes financial inclusion for unbanked users and defines the central bank's capacity to regulate interoperability.

Paraguay is currently facing the challenge of increasing the degree of interoperability of remittances and payment networks. In 2014, ENIF identified interoperability as an important goal. However, the Paraguayan model has developed with a limited level of interoperability that is only present in a few EMPEs, banks and financial institutions, card operators and electronic payment facilitators.







**Alliance for Financial Inclusion**

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