

COVID-19 has accelerated the digitalization of the most vulnerable

2020, a year for consolidating and expanding digital channels

The optimal plan we had drawn up for 2020 involved expanding digital channels, extending solutions that were already working in some of the BBVAMF Group's institutions to all the others. We have always understood that first the staff themselves must be comfortable with the digital world (loan officer mobility), then banking agents (bringing cash in/cash out to entrepreneurs), and finally our entrepreneurs. That is, digitalization from within (the loan officer) to outside the institution (client). However, the COVID-19 crisis set us new challenges, among them the need to speed up this digital journey.

This was how we found out that our entrepreneurs are much readier to cope with digitalization than we had thought, thanks to many of the solutions that we came up with spontaneously to respond to the problems caused by the pandemic. Therefore, the journey that we had expected to involve a plan across several years can be made much more swiftly.

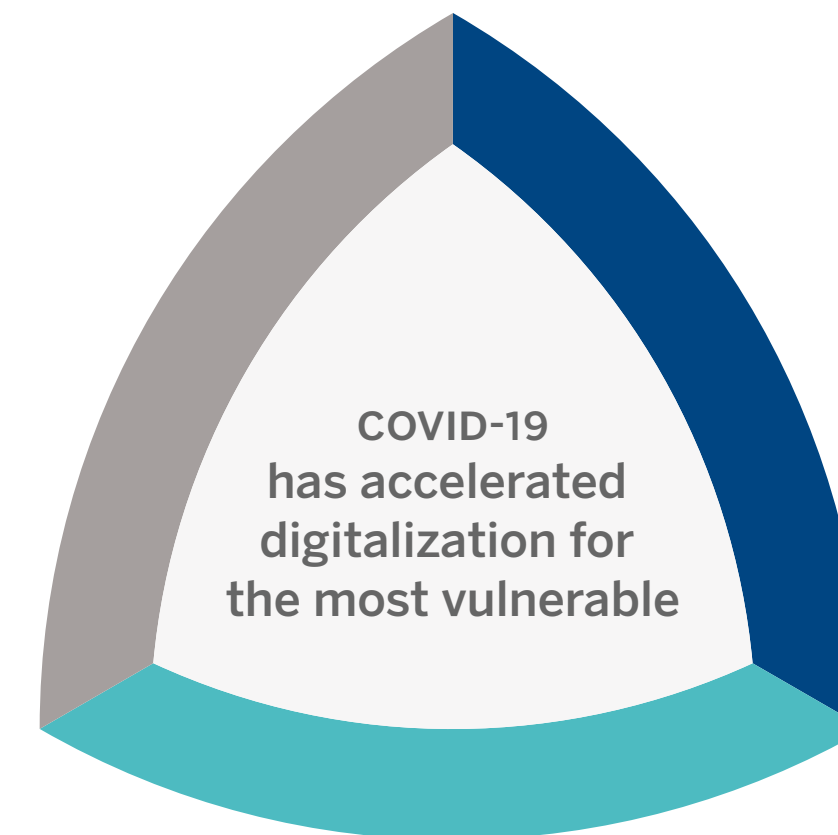
And, even more importantly, we realized that we were including a sector of society that was not yet participating in digital transformation. Our entrepreneurs are losing their fear of technology and change, and have made the first steps in this direction, while they have smoothed the way for the new transformation projects that are in the pipeline.

So, we have worked along two, complementary, pathways: the original direction, which helps us to continue investing in tailor-made digital solutions, and a new plan, which has allowed us to provide ad hoc responses to the intrinsic difficulties of our methodology: microfinance grounded in relationship banking.

Digital innovation

Digital channels

- **Loan officer mobility**
 - On-line loans
 - Document manager
 - Virtual visits
- **Own banking correspondents**
 - CICO transactions
 - Non-financial transactions
- **Mobility for clients (app & web)**
 - Self-service finance
 - Onboarding using biometrics
 - Near-real time security
 - Multi-saving
- **Digital signature**



Data & added value

- **Information in the cloud**
- **CRM**
- **Geolocation**
- **Non-financial services**
 - Entrepreneur community
 - Tailoring insurance

Foundational architecture

- **Shared banking core**
- **Collaborative environment (Google Workspace)**
- **Implantation of Agile methodology**
- **Collaborative tools**
- **Business architecture**
- **Business process optimization**

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A pandemic that has set us challenges

Like other microfinance institutions, we quickly made alterations to our core banking to mitigate debt: grace periods, restructuring and refinancing. These developments have to a large extent been shared across the institutions comprising the BBVAMF Group thanks to the fact that they use the same core banking, shared experiences and coding lines (software and programs). By July 2020 around 59% of the portfolio had benefited from relief measures, which has entailed a significant investment in development hours by our technical teams.

We have also worked to resolve the problems inherent to security and on minimizing contact between people, given the mobility restrictions generated by the pandemic. This has manifested itself in virtual trips by loan officers to clients' businesses, virtual committees to analyze and approve transactions, using tools such as Google Meet and WhatsApp and other measures such as extending the limits of cash withdrawals that clients can make in our own correspondent banking outlets. Furthermore, all communication is stored in a document manager, thus digitalizing the microfinance institutions' internal processes.

Bancamía

Transactions by digital channels

mobile
70%

64% Transfers

15% Phone top ups

11% Payment for services

9% *Dreaming together*

1% Installment payment

0.03% Disbursement

PSE
25%

100% Payments

Virtual office
5%

65% Transfers

20% Dispersal of resources

11% Payment for services

2% Phone top ups

2% Installment payment

These solutions, that have helped to provide an agile response to the new reality forced on us by COVID-19, will be thoroughly put through their paces in 2021. Furthermore, we will integrate them into the business processes and mobility apps optimally, enabling us to get the most out of this pilot experience imposed on us by the circumstances.

From a perspective that is more aligned with our pre-existing strategy, in Financiera Confianza (Peru) the corporate solution app *Cliente* has been installed, with functions such as internal and external transfers, payment and installment programming, together with client product consultations. These are all contained in the chat format which has had such good results in other entities such as Bancamía (Colombia).

From September to December, the more than 17,000 registered users of Financiera Confianza's *Cliente* app have completed over 6,000 transactions for a total value of PEN 3.3 million, mainly transfers and payment obligations. Thus, despite the lockdowns and restrictions, we have been able to respond to our clients' self-management needs.

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In the case of Bancamía, whose client solutions were published in the App Store and Google Play Store markets the year before, the number of digital clients - that is, users of digital channels - is approaching 172,000. If we include all the digital channels (the *Cliente* app, virtual office and *Pagos Seguros en Línea* [Secure Online Payments]), there are over 925,000 operations a month (both consultations and monetary transactions). The monetary transactions alone number around 30,000.

Both Banco Adopem (Dominican Republic) and Fondo Esperanza (Chile) are using the same solution, with similar functionalities, ready to launch on the market at the beginning of 2021.

The initial plans did not involve Fondo Esperanza working on the client (actually partners, in this case) app during 2020. However, since the partners were taking up the technology at speed, and given the need to provide them with a self-service solution as soon as possible, they swapped their priorities, putting emphasis on the mobility of the partner before that of the officer, whose usage and new functionalities did not expand substantially over the year.

All the institutions mentioned above have worked on the web solution for entrepreneurs, minimizing the developments and using the same platform to launch the application through a browser. The aim is for the client to have the same user experience both in the app (*Bancamóvil*) and on the website (*BancaWeb*). These are the solutions that are being worked up to achieve as much self-service functionality for entrepreneurs as possible before they have to go to a branch office.

Furthermore, COVID-19 has demonstrated the importance of correspondent banking in covering the last stage of CICO (Cash In-Cash Out) transactions and thus avoiding the need for unnecessary traveling to branches. This channel engages the microfinance institution with the community, forging those intangible links that do a great deal to keep entrepreneurs faithful to the entity. We have worked on expansion plans for the solution - which has proprietary technology developed by BBVAMF - in three of the institutions:

- Bancamía has one of Colombia's most extensive correspondent banking networks. In 2020 alone it has onboarded 125 new correspondents, bringing the number working exclusively for Bancamía to 500 across the nation (in 418 municipalities). This network of exclusive correspondents is supported by the wider network of independent correspondents. Between the two they account for around 9% of all the bank's transactions. The aim is that they should manage between 50% and 60% of all transactions a year, thus freeing up branch staff for other activities
- Although Financiera Confianza (Peru) did not increase the number of its correspondents this year, it plans to reach 150 during 2021, depending on the growth in functionalities to be covered.
- In 2020 Microserfín (Panama) rolled out the pilot phase of the app with a small number of correspondents. The good results will enable the institution to enlarge the numbers over the course of 2021.

The future of this channel lies in increasing the number of correspondents and expanding their functionalities, both in CICO (inter-banking transfers, service payments, etc.) and in non-financial functions (referrals and prospective new business, among others).

The Bancamóvil and BancaWeb apps offer entrepreneurs an optimal user experience without having to go into a branch office.

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Digitalization 2020 in figures

Key transaction figures for our corporate channels in each of the Group’s institutions, key indicators: amounts, absolute & relative numbers for measuring channel usage and for identifying measures to encourage further use.

	Bancamía	Financiera Confianza	Banco Adopem	Microserfin	Fondo Esperanza
Loan officer’s mobile phone					
# Loan officers	1,400	1,200	576	Beginning 2021	309
MInstallment payment total (USD)	USD 7,700,000	USD 2,266,936	—	—	
MoSum disbursed (USD)	—	USD 276,033,090	USD 90,697,128	—	N/A**
% digitalized credits	84%*	42%	100%	—	
Client’s mobile phone					
# Registered users	↑ 191% 172,335	17,500	Beginning 2021	—	Beginning 2021
Active users (last 6 months)	66,125	—	—	—	—
# Transactional Total (MA***)	925,330	—	—	—	—
# Monetary transactions (MA***)	28,781	3,303	—	—	—
Total Transaction Sum (MA***)	USD 3,634,900	USD 605,000	—	—	—
Movilidad corresponsal					
# Banking agents	503	3	147	3	—
# Total transactions over the year	405,686	—	133,031	—	—
Transactions over the year, sum	USD 30,373,022	—	USD 8,110,173	—	—
Withdrawals over the the year, sum	USD 2,505,883	—	USD 540,090	—	—
Installment payments over the year, sum	USD 24,439,252	—	USD 7,321,402	—	—
Deposits over the year	USD 3,427,887	—	USD 788,231	—	—

* January, February 2020.

** Fondo Esperanza uses a different system when collating operational information, collecting socio-economic indicators instead of operating ones, which are channeled elsewhere.

*** Monthly Average.

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Onboarding, digital signatures and geolocation for delivering state subsidies

In order for a client to start using the *Cliente* app, they need to visit a branch office so that they can be identified, securely and without risk of error, and then onboarded. While the digital onboarding was being developed, to provide a response to the disruption caused by the pandemic, alternative solutions have been thought up using call centers or telephone calls that have appropriate levels of security, mitigating to some degree this point of friction.

Almost simultaneously, the final adjustments are being made in three institutions (Banco Adopem, Bancamía and Financiera Confianza) in order to enroll entrepreneurs using biometric facial recognition. Thanks to AI technology it is possible to confirm their authenticity with a selfie and a photo of the identity document, without the risk of identity theft; a user experience that is, moreover, simple and safe.

Of course, the strategy is to carry on making progress with these digital solutions, thus reducing the occasions when the entrepreneurs have to go to the branch office, avoiding the waste of time involved in their physical trips to formalize transactions, pay installments and withdraw cash.

Returning to the credit process, in order to make it totally virtual, we are moving ahead with both digital signatures and delivering electronic money. For the digital signature, we are working in parallel

on several local initiatives, designing pilot programs that will make the different stages of the process easier: multi-title owner signature, embedding a fingerprint in a document to eliminate possible client rejection, as well as storing documents and making them available to the institutions that need this. These pilot programs will serve as a testing lab for the definitive solution, that will be adopted across the group.

From the point of view of geolocation, we have found some very interesting cases of usage that justify the effort that the Group has been making for some years to store the coordinates not only of entrepreneurs' homes, but also the places from which they conduct certain operations. Thanks to this app, commercial intelligence analysts construct maps pinpointing where recipients of the solidarity income provided by the Colombian government are located. The program has made it possible for these people to be banked and thus receive assistance payments in a single step by opening accounts in *Officer Mobility*. This has enabled 110,000 people to receive their social assistance payments.

Furthermore, initiatives such as *Multiple Saving* and *Entrepreneurial Community* have been thought up. The former encourages saving and financial literacy, while the latter creates an ecosystem where entrepreneurs can display and sell their products on a secure platform that encompasses the entire product cycle. These initiatives are, in functional terms, ready to be rolled out in each of our institutions, depending on their needs.



By managing Requests, Complaints and Returns [PQRs in the original Spanish], we are facilitating another communication channel with their institution for entrepreneurs to efficiently resolve their questions and complaints. This will avoid frustrating episodes and make the client relationship with the institution a closer one. This new channel will use the facilities that tools such as JIRA (used internally to manage projects) offer to create processes.

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For 2021 we will be innovating in product and service lines that encourage inter-channel crossovers and improve security and the user experience, such as including QR codes generated from the *Cliente* app, which make it possible to operate in the Correspondent app. By giving these codes to the banking correspondent, the client can carry out operations swiftly, easily and securely, choosing where, when and how much to pay from their *Cliente* app. What more can you ask? We will also generate digital tokens so that transactions can be signed securely, avoiding the need to send SMS with one-time passwords, thus saving on any associated costs. We will be looking into different chat-bot systems integrated in the channels that improve our client relationships.

Connectivity in remote areas

The aim of one of the projects in 2021 is to take internet to municipalities with insufficient or no coverage, but with a high development potential, to offer our financial and non-financial value offering, as a way of pushing ahead with financial and digital inclusion. With the support of satellite and terrestrial technology (using TV white space, TVWS) provided by a number of suppliers with whom we will set up partnerships, we will roll out the infrastructure necessary for our products and services.

Our initial approach will be to establish a banking correspondent with a booth who, as well as running their own operation, will provide the option for the microfinance loan officer to work online with the entity's app to reach new entrepreneurs.

From there onwards, using our digital channels and educational platforms, entrepreneurs will be able to develop digital dexterity in administering their money, incorporating technology into their business, making the most of social media to promote it, finding new suppliers and accessing raw materials at good prices.

The advantages are many. Given that the use of technology has a high positive correlation with economic development and reducing inequalities, thanks to this initiative, we expect to improve economies in these remote regions. The digital gap is one of the barriers to development facing our entrepreneurs; by bringing connectivity closer to them we can guarantee that rural entrepreneurs are not left out of the digital revolution.

In 2021 we want to take internet to municipalities that are currently without coverage but have a high development potential, to achieve their financial and digital integration.

Cybersecurity, a concern that is shared throughout the BBVAMF

While we are aware that cyber attacks will take place, we don't know when, so the Group is rolling out a shared strategy for identifying possible risk and reducing the vulnerabilities in our ICT systems. We are therefore implementing a cybersecurity framework that has been proposed by the United States' National Institute of Standards & Technology (NIST) which brings together best practices both in managing information security and in cybersecurity itself.

We are working around several principles based on functions in the NIST framework, which seek to anticipate - a key term in cybersecurity - by identifying and prioritizing the various activities and infrastructures that ought to be monitored.

The first principle, protection, sets out which critical infrastructures may be affected by existing risks in the sector and the possible vulnerabilities in the systems (information leaks, unauthorized access to infrastructures in the cloud, non-availability of the banking core or operations that are vulnerable through new apps). This principle is based on operational risk policies and has been adapted to new realities such as working from home.

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The second principle, monitoring, uses shared tools to detect any abnormal activity, as well as controls that regulate actions, services and infrastructures that have been defined as critical. Resilience, the third principle, encompasses response and recovery actions in the event of an attack: a response template for anticipated incidents, damage limitation protocols and defining and executing recovery plans aligned with business continuity plans.

