*Let's **innovate***

Chapter 5

Innovation and
Technology

145 Years Innovating

With a commitment to make a positive impact on the quality of life of the clients we serve, we design solutions that add value to our financial services.

5. Innovation and Technology

Improving the service experience is at the heart of our Bank's technological transformation and innovation strategy, resulting in the development of tools in the first semester of 2015 for improving the internal and commercial processes, as well as solutions to improve the efficiency of our management.

Technology at the service of our customers

Mobile Banking

We implemented cellphone top-ups, certificate consultation and improvements to reliability and security by way of the data encoding between the mobile application, the central system and event-based control and identification. In addition, we designed the new SMS Mobile Banking platform, through which all clients can consult their balances across our products.

New Version – Mobile Token Stage II

We led the second implementation stage of the Mobile Token application, which is intended to replace the physical devices currently distributed to individual clients. The application is currently being developed prior to its launch in the various smartphone stores.

We completed stage II of the Mobile Token application, which is intended to replace the physical device distributed to individual clients.

Universal Access Secure Key

We made the necessary developments to implement this initiative, which enables unification of the different accesses to electronic channels for individuals (PB, Servilínea, Mobile Banking) through a single code.
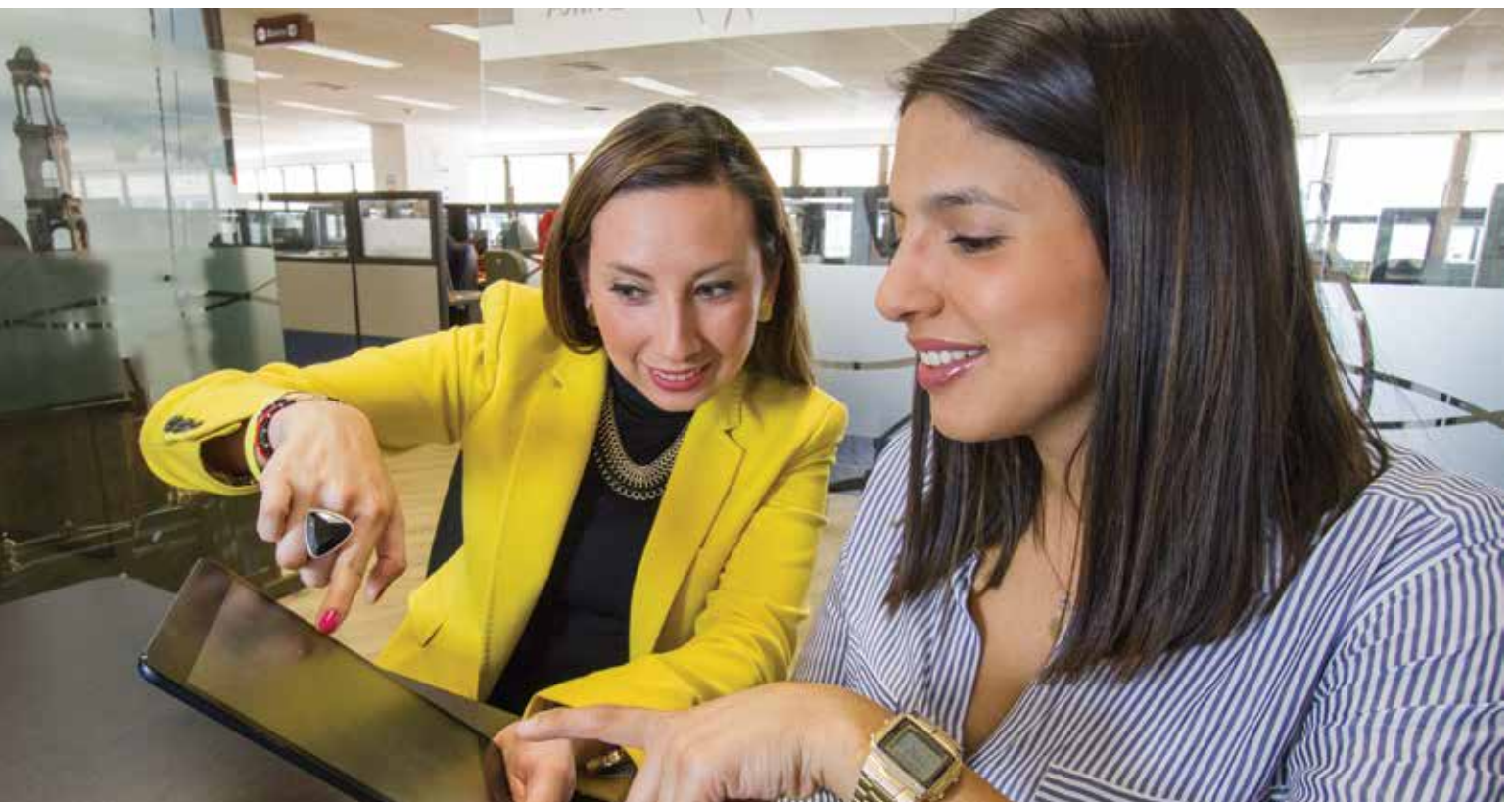
Secure Purchases

In the first semester we developed the Secure Purchase system to enable and disable credit card use for e-purchases by cellphone. The goal of the project is to deploy this functionality in the second semester of 2015.

Expansion of E-Wallet and Terminal Codes

Given the demands of the business, we are adopting a new solution to encode the terminals operated by banking correspondents, ATMs and ATH POS. Moreover, for the e-wallet project, the Bank's clients can carry out transactions in commercial establishments through a smartphone application alone, without the use of a card.

Fraud Control

The fraud control system feeds the transaction database to generate alerts in case of suspicious activity. In addition, we began our analysis prior to implementing the Real Time system, which will allow transactions to be rated in real time and declined if deemed risky. In addition, we implemented online transaction reports involving credit and debit cards, as well as savings and current accounts.

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Identity Administration System

We conducted tests on the Self-Service Portal to manage identity administration flows and integration with the Chan-

nels-Offices application. Moreover, we developed the Mobile Token service activation and registration model at ATMs.

My House Now (Mi Casa Ya) Program

We carried out the necessary developments on the ALS and Mantiz Housing flow in order to implement and launch the governance program to provide access to housing solutions equivalent to between 40 and 135 minimum monthly legal salaries (SMMLV, for the Spanish original). It's main characteristic of is allocating subsidies and the benefits of the FRECH rate for households earning between two and four times the SMMLV.

Employees Campaign

We equipped the Call Center channel to support employee scheduling by improving accounting practices, reduced the number of documents required, designed a single applications channel for the mobile force regardless of the product on offer, implemented the internal self-management model for all loan products, and set up the help desk to provide ongoing support to the sales force.

We implemented the self-management model for the development of our commercial campaign among employees.

Moreover, in the first semester we carried out other actions:

• The US Foreign Account Tax Compliance Act (FATCA).

We made the necessary developments to comply with this legal requirement of the United States government in order to identify individuals with tax obligations in that country, and those who hold accounts in financial institutions based in countries under different jurisdictions.

• In response to the recommendations made by the Aval Auditor to the CSC Bogotá responsible for Business Banking Operational Management, we developed the International Operations Workflow for Agencies and Subsidiaries; a pilot program will be conducted in the second semester of 2015.

• Likewise, we have worked alongside the Business Continuity area of the Banking Services Management to develop and implement the Communication Systems Tool that will allow

employees to ascertain the command lines to address the processes and procedures required.

• We developed notification feature to inform clients each time they use their construction loans. In addition, the consultation of usage certificates through BBS was activated.

In this period, we created a module to centralize the administration of inquiries for SOX audits, speeding up information acquisition and improving executions.

Optimizing Our Processes

• Development of the Argus component used in password administration and protection, available for other projects such as IDM. This is a centralized component administrated by Information Security that interacts with our Bank's Service Bus so that other applications can be accessed securely.

• Anti-fraud Project with Monitor Plus: we developed the entire integration layer for sending notifications of the different transactions generated by the channels in order to feed the new Monitor Plus application, which supports the audit planned as part of the anti-fraud project.

• On base integration with Active Directory: we have carried out developments for the integration of these two applications in an effort to comply with information security and user-friendly policies, implementing a single authentication password for both. The pilot program remains ongoing, and the involvement of ten branches per region is planned.

• Alongside Architecture and Technology, we began developments so that the entire Business Productivity Portal and its applications work with the HTTPS protocol.

• We began implementing company projects such as Online Banking Security (OBS), Disc Encoding, the Digital Material Strategy (commercial mass-mailing campaigns), and the Contents and Queuing System, with a goal of generating significant savings for Grupo Aval.

• We decided on the design, development and initiation of testing of Password Self-Generation for credit and debit cards through electronic channels (IVR and Personal Banking), to improve security, implement client password reminders, and reduce costs.

• We established the Electronic Services Assurance Model (secure data registration).

• We decided on security systems for Mobile Banking-supported purchases (secure online purchasing, Mobile Withdrawal, Virtual Card, and Touch ID).

• We established the Architecture, and through Technology Management, we are implementing the new duplication system for the Bank's Service Bus Platform to guarantee operating continuity of the applications that use the SOA Integration services.

OPERATING EFFICIENCY

Process Transformation Project

In the first semester of 2015, we continued to carry out short-term initiatives, whereby processes involving individual clients were improved by implementing the prefill of financial service applications, in enrollment data updates and a redesigned form (decreasing fields from 76 to 46). Through these initiatives, we succeeded in reducing client waiting time to 20 minutes for opening an account (from 26 minutes) and to seven minutes for

*During the semester, **we implemented initiatives for improving processes involving individual clients.***

updates at platforms (from 14 minutes).

In the case of CDs, we continued with improvements in opening and automating the registration book, and in the analyses to redesign the process that allow us to increase product availability by dematerializing it in each branch.

Moreover, at the start of the semester we prioritized the following processes: approval of Commercial Loans, Payroll Loan Developments and Payments, Private Equity and Credit Card Sale and Activation.

For commercial loans, we identified a number of initiatives related to documentation, change of address forms and checklists, process standardization, and design of web solutions for process automation. As for payroll loans, we focused on the

initiative to automate the application of payments and developments, as well as information generation for companies. In doing so, we hope to improve service and process efficiency and reduce risks.

For private equity, the developments required in the applications were established to identify all equity through unique assigned numbers. In regards to credit card sale and activation, the initiatives implemented (improvements in sales call management, less documents for card approval, among others) led to an increase in the number of cards issued.

In the post-sales process, we launched a review of the entire process for companies to identify the first initiatives to be worked on. We developed the flow for issuing cashier's checks in other branches and continued to develop clear transactional support for clients. Also on this front, we worked on improving credit card renewals, leading to quicker delivery times, less calls received at the call center, and more cards activated in the first month; by the third month, this had increased from 77% to 81%.

On the other hand, in the long term we continued developing work flows for enrolling companies and approving mass credit. Towards the end of the semester we launched the companies pilot program, which included client enrollment, approval of liability products, access to the business portal and prefill of forms. We also continued with the cross-cutting developments required for greater automation and digitalization (biometry, on base, signatures, mobility and reports).

Moreover, in mobility we conducted pilot programs for the approval of individuals for liabilities and ADN, and in pre-approval for payroll loan units and mobile sales forces. We also enabled access for other applications required by the business and SME banking commercial force. We expect to expand the pilot program to other commercial units in the second semester.

Finally, to ensure the sustainability of the transformation model the Process Management and Transformation Management area was created, the core focus of which is to continue implementing the Agile process redesign methodology for developments, maintain the digital route of transformed processes, and implement management routines.

COMPLIANCE
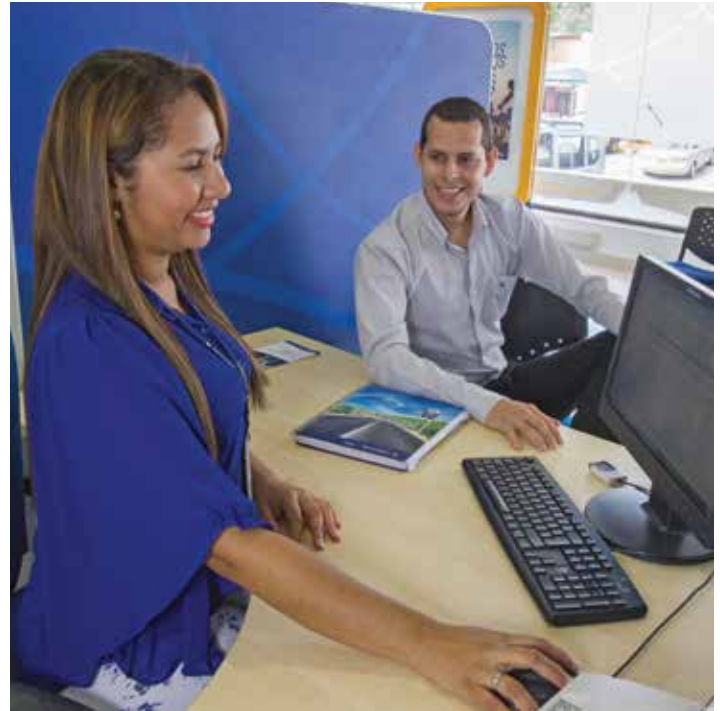
Environmental and Social Risk Analysis

To ensure the sustainability of the transformation model, in the first semester of 2015 *the Process and Transformation Management area was created.*

(ESRA) System

We participated in the implementation of this process as an analysis tool, the main objective of which is to assess social and environment impact from enrollment, with the aim of processing the payout of Findeter rediscount operations while minimizing the prospects of assuming the costs transferred by these risks in accordance with the guidelines set out in legal Decree 2041 / 2014.

Víctor Castillo Mantilla
Cardiac Surgeon, President of the Colombian Cardiovascular Foundation
Business Banking Client - Corporate Segment
Bucaramanga, Santander

Colombian Cardiovascular Foundation
Helping from
the Heart

Over its years of providing services to people with heart conditions, the Colombian Cardiovascular Foundation has heightened with each passing day its desire to help the entire country – one of the planks on which its mission is founded. As a leading authority on many areas relating to cardiovascular diseases, transplants and pacemakers, what moves them most are

the children born with heart conditions. It's for this reason that the Instituto del Corazon Clinic is a member of the Foundation that has increasingly sought to increase its impact throughout Colombia.

"Cardiovascular diseases are becoming more common with time. The number of people who suffer these conditions is infi-

nite, and as a heart doctor my great desire is to save lives, help these patients and give them hope to keep going, taking into account specific forms of care," remarks Dr. Castillo.

Committed to improving health in the country, the Instituto del Corazon Clinic applied for a loan from Banco de Bogotá to open a hospital equipped with consulting rooms and all the infrastructure required for outpatient operating rooms. This investment soon came to save Colombian lives. "Banco de Bogotá has been our ally. It has always believed in us and has supported us in all areas of institutional development."

With the desire to keep on growing and expand its services, the Foundation plans to establish 50 specialized hospitals throughout the country, increase the number of beds from 200 to 1,200 in Bucaramanga and from 700 to 1,700 nationwide, and enhance many of the institution's other units. This is a dream pursued alongside their employees and, as they themselves say, their loyal partner, Banco de Bogotá.

Thanks to Banco de Bogotá loans, the Cardiovascular Foundation now has an airplane ambulance and a helicopter.

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T R A B A J A N D O   J U N T O S

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