

Banco de Bogotá



Chapter 5

Innovation and Technology

We innovate to create modern, effective and safe user experiences, facilitating access to our products and services in an agile and timely manner.

Let's *innovate*

Banco de Bogotá 

5. Innovation and Technology

There is a new reality regarding financial services, which is being driven by five components:

- 1) **Technological capacity** is increasing and improving exponentially around the globe.
- 2) **Our Clients** are demanding a very high level of continued connectivity and suitable services, which goes hand in hand with the new social norms and modes of interaction.
- 3) **The Ecosystem** is realigning with the newcomer competition from real sector companies, technology and Fin-techs, which are undertaking new business models.
- 4) **Information** is multiplying, both in volume and importance, and we can now personalize and improve customer service.
- 5) **Regulations** are changing and adapting to the develop-

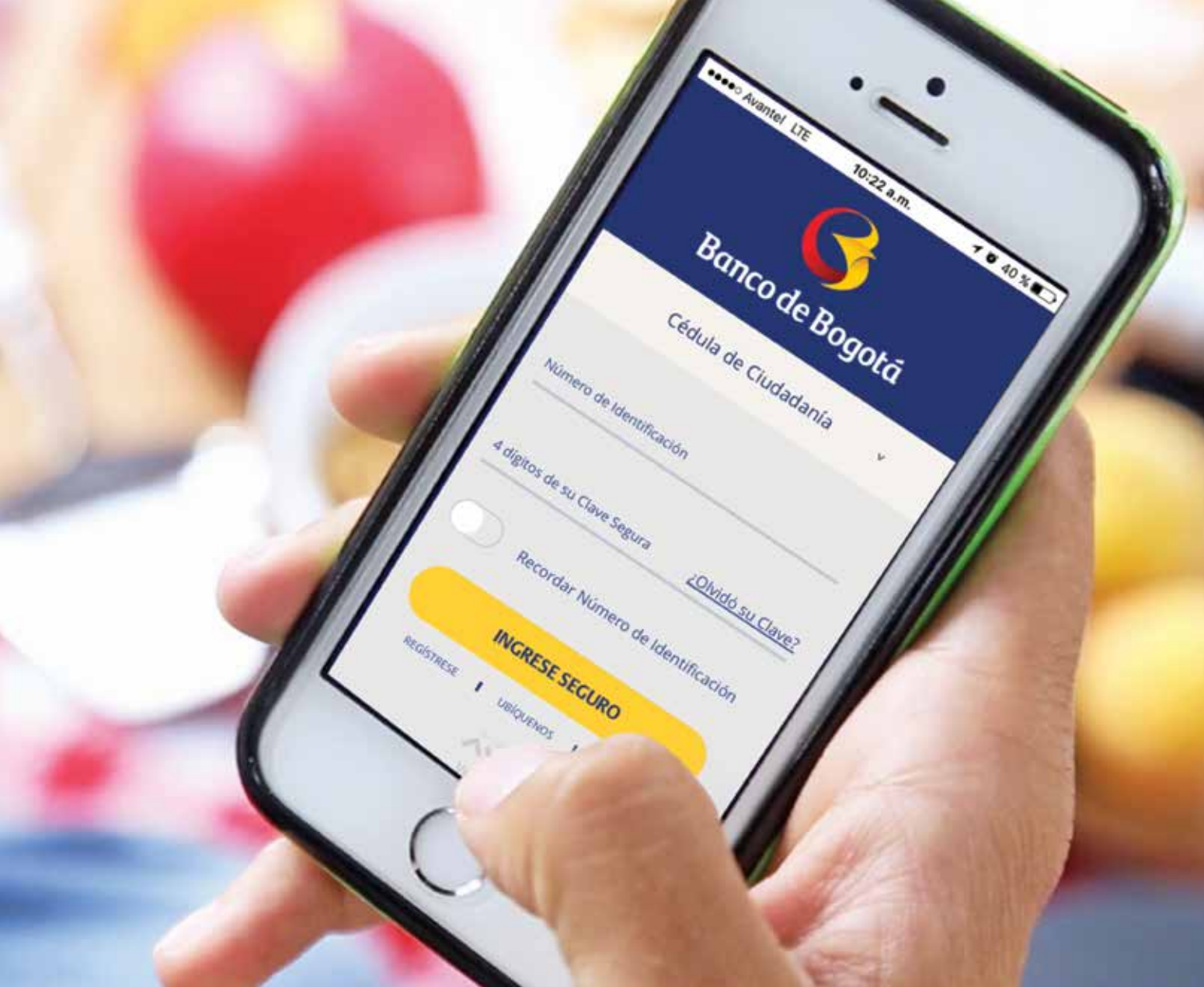
ment of these new trends which can now be implemented in a safe environment.

Framed in these opportunities, and considering the challenges, the Bank defined its Digital Strategy for the next five years. We aim to be the digital benchmark in the market, offering the best customer service and implementing the highest efficiency to our processes. To achieve this vision, we are working on initiatives such as our portfolio of digital products and services, and the migration of transactions to automatized channels. These are cross-cutting changes which require a transformation of the organizational culture, which we have been implementing. Technology is no longer considered a bank department, instead it is becoming the essence of our organization.

In view of this, we advanced in various fronts in the second half of 2016, which resulted in the following actions:

Innovation Team. Calima, Bogotá, D.C.





Information Governance Model

Information governance and management are fundamental pillars of business processes, differentiation strategies, decision-making and regulatory compliance. Because of that, in the second half of 2016 we implemented the new Information Governance Model, which gave way to the creation of the Information Governance and Quality Office that ensures compliance with the policies and procedures necessary to guarantee the Model's sustainability.

As part of this strategy, we advanced in the implementation of the first three information domains (Client Records,

Catalog of Products and Services, and Employee Records), creating the corresponding domain structures, and ensuring that every business area is included in the Governance Model.

As a result of the work by these teams, we empowered and incorporated the setting to quality management in the different domain structures, which will facilitate client contact, resulting in better business management, efficient collection management, and improved client communication.



Mobility

Mobility is one of the pillars that supports the productivity strategy of our sales force, and for that reason we developed new tools for the Vehicles Unit, which allowed the Bank to have better and more participation at the last International Car Show.

Similarly, we optimized the document management process which is done in the Vehicles Unit. Now the documents are populated and generated with information captured in the system, thereby reducing the use of physical documents and improving process times.

Mobile Banking

Consistent with the strategy of providing multiple service channels to our clients, we closed 2016 with 307,893 active clients in the Mobile Banking channel, and 41.8 million transactions were processed during the second half of the year.

We also enabled the version of the app for Windows Phone and IOS10, and implemented new transactions on the channel like investment and divestment, cellphone credit and balance queries for Grupo Aval entities.

At close of 2016, **Mobile Banking reported 307,893 active clients** and 41.8 million transactions.

Digital Wallet – Aval Pay

Seeking to expand the possible uses of AvalPay, a mobile wallet that makes purchases without the need for a physical card, we included the option of paying with a debit card at businesses through Credibanco payment terminals, and launched the interoperability pilot for payment through Redeban payment terminals.

Internet portal for SMEs

As a result of Grupo Aval's corporate strategy which includes enabling an Internet portal for small and medium-sized companies, we launched the ICBS system, which includes 118 services from consultations, transactions, administration and customer service, and also launched the client migration phase from the current BBS portal, with a total of 108 clients migrated as of December 2016.

AmeriTr@nsfer

As part of the Bank's strategy to integrate transactions with its International Affiliates and Agencies and with BAC Credo-

matic, we are testing the functionalities to authorize the use of inter-bank accounts, receiving payment orders in dollars for online transfers from BAC Credomatic accounts, and sending and receiving payment orders to disburse payroll and supplier funds between banks.

FacilPass

As a result of Grupo Aval's corporate strategy, we enabled electronic payment means to pay tolls in Colombia, as well as new channels and means of payment for individuals in the pre-paid modality, functionalities of service registration and phone recharges from the Individual Portal, Mobile Banking and Aval Payment Portal.

Headquarters' Collaborators.



ATMs

As part of the strategy to strengthen and update automatic teller network technology, we updated the operating system for 154 tellers and changed the satellite communication method at 160 tellers. We also launched the anti-vandalism kit, allowing a faster reaction time in restoring service for problems due to vandalism in card readers. In addition, we developed a pilot for the new family of peso bills (COP 50,000 and 20,000), and migrated 20 tellers.

Banking Correspondents

We expanded coverage of banking correspondent network with the connection of 356 new correspondents and 94 establishments in all Credibanco, Redeban and ATH systems.

Credit Cards

We continued with the process of updating the new platform for credit card processing, and migrated a portfolio of 308,052 OpenCard credit cards to the new FirstVision app. With this migration, we added a portfolio of COP 465,000 million to the system and enabled 15 additional products in the new app.





Transformation of processes

We continue to work every day to provide a better experience for our clients. For that reason, we implemented the mobility system to register requests involving 120 Mobile Sales Force Advisors for the credit card sales and delivery process in the second half of 2016. Accordingly, we have been able to manage pre-approval on-site for 63% of card requests.

Similarly, through the continued use of mobility systems at different banks, we were able to implement 20% in Premium, 25% in SME, 60% in Public Network, 8% in Branches, and 40% in Corporate, Business, Official, Institutional and Social Banking, allowing managers to make online consultations, and guaranteeing more efficient operations and better service for our clients.

Thanks to Mobile Biometrics with laptops, we enrolled Grupo Aval's payroll by means of the online and on-point Biometrics process for member users.

In addition, we standardized payroll loan processes at the Unit and PMP Bank, at stages of analysis, collaterals, disbursement and liability substitution, which will result in significant savings for the Bank in resources set aside for that work.

On the other hand, we enabled new services in the workflows for enrolling businesses, which has allowed us to improve cross sales of products and services, and to give the client a comprehensive offer.

During this period we continued to enable and optimize channels to update individuals' data, taking advantage of any client contact to that end.

Advancing in the Operational Efficiency Strategy

We continued with the strategy of supporting the business management, putting emphasis on operating efficiency, product optimization and a focus to improve client experience. The Operating Productivity Office handled 3.6 million transactions related to loan disbursements in the SME, Mass, Preferential and Premium segments, in addition to credit card issuance and activation and attention to petitions, requests, claims and suggestions in every segment.

Recorded as significant accomplishments in the optimization of operational processes, we highlight the 40% reduction in processing times for issuing credit cards resulting from the centralization of document review processes and credit card activation, plus consumer loan disbursements, thereby re-

ducing administrative costs and achieving greater control over processes.

Meanwhile, in order to expedite and improve response quality, we classified the attention to priority requests by complexity level. We also implemented changes in the process of creating consumer agreements (payroll loans, vehicles, student loans, and free loans), reducing handling time by 25%.

In the second half of 2016, we continued using the Corporate Bank preferential attention model through our ten Service Centers, distributed by Corporate, SMEs and Lease. We supported our target segments' special businesses through custom-made processes in the Corporate Bank Operations Office where we assist and support clients' operations in processes like National Collection Service, Acquisition, Corporate Credit Cards, Payroll and Payroll loan Coordination Unit, Social Security Payments, Affinity Debit Card, Factoring and Triangula-





Advancing in Technological Infrastructure

tion, Coffee Grower's Card and others having special impact in the development of financial operations in the country.

Our service centers located in Bogotá, Medellín, Cali, Bucaramanga and Barranquilla remodeled their offices to provide more comfort and speed in serving clients, suppliers and users, turning the offices into key points for our clients' financial interactions.

Finally, we migrated 90% of Leasing operations to the loan platform of the banking core (ALS), granting our clients and internal departments a better interaction and transaction data availability.

At the close of 2016, we made investments in technology totaling USD 43 million, which allowed us to make significant progress in strengthening and renewing the technology infrastructure.

Some of the most important investments include the change in the mainframe computer that serves the core business applications. We now have equipment with increased capacity to handle transactions, and it is updated with the latest version of the certified operating system.



We also updated the information backup equipment for key equipment and desktops, and acquired new equipment for the central storage systems. In addition, we are currently working on a project to renovate the telecommunications network core equipment and to implement the latest-generation technology for virtual voice and data networks.

We continue to improve the technology platforms with solutions for server virtualization and central databases, and also at the branch network, which allow implementation of improved high-availability systems, reducing downtime during system failures or events, and reducing costs for associated software licenses.

We also launched a new network (DWDM Technology) to link the administrative buildings in Bogotá, thereby increasing their capacity to link and transmit data. As a result of contract renegotiations, we attained significant

savings in telecommunications contract costs, as well as in those related to broadband expansion, to double capacity in most cases, aiming for communication and improved response times.

We made **investments in technology totaling USD 43 million**, which allowed us to make significant progress in strengthening and renewing the technology infrastructure.

Advancing in the Security Strategy

As part of the corporate strategy to enhance security systems for clients, we implemented approval of operations order requests by corporate sector clients through the e-mails with a digital signature.

Moreover, to enhance the PSE transaction security system, we launched the pre-notification and validation rules on prevention lists and included a transaction verification message, modifying the business registration logic to not validate the payment amount. In addition, we enable the PSE payment registration transaction on the Business and Corporate Portal. Finally, in the area of fraud prevention and management, we implemented the first phase of the internal fraud module to monitor events related to bank employees which allows us to identify irregular situations preventively, with initial coverage in five apps.

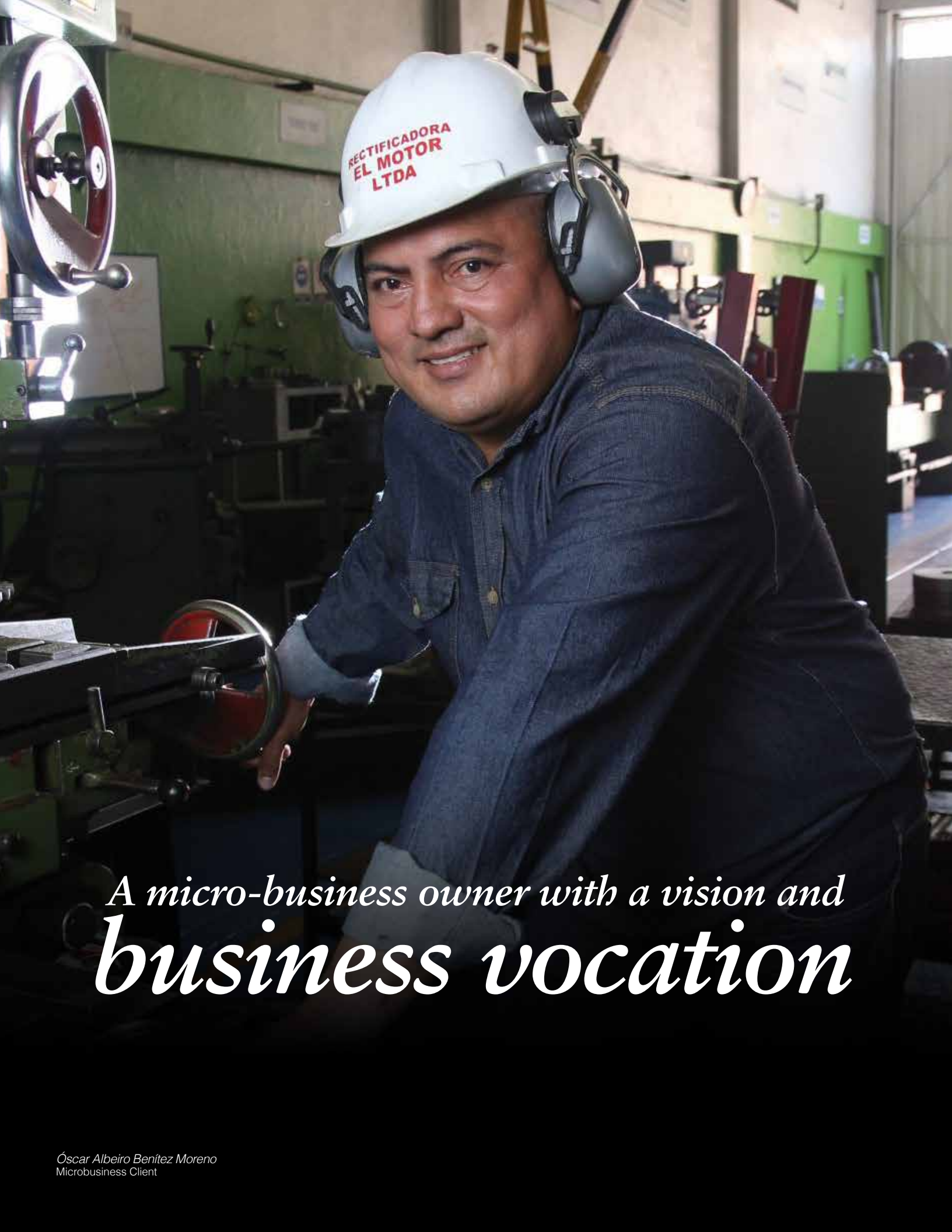
Fraud Risk Mitigation

Thanks to our efforts, we were able to prevent the occurrence of fraud on electronic channels, offices and cards totaling COP 130,500 million; in exchange for compensation for COP 1,460 million; and we recovered COP 57 million through acquisition management.

Optimization of Cash Transactions

At Grupo Aval we led the *Eliminación de comprobantes en las oficinas* (Zero Receipts at Offices) project, which was implemented last November, moving from generating five transaction receipts to just one, which reduces stationary costs and improves client service times.





*A micro-business owner with a vision and
business vocation*

“Inasmuch as I have kept up with my loan installments, Banco de Bogotá has loaned me more and more. Their support has been very important and very helpful.”

Entrepreneurship was Óscar Albeiro Benítez Moreno’s dream. This 44-year old from Acacías, Meta, spent his time learning about car repairs and maintenance, and with his skills, he worked at this trade for a long time. Thanks to his knowledge of the field and his business vision, he soon set up his own repair shop.

Benítez says that Banco de Bogotá believed in him, and in 2013, the institution granted him a micro-loan for COP 15 million. With this capital, he bought machinery and tools to open his shop, which was located near Campo Rubiales.

“After the loan, the Bank offered me a personal loan with very good interest rates. With that, I got the line of spare parts for my shop, which helped me grow some more”, he stated.

And he added that “inasmuch as I have kept up with my loan installments, Banco de Bogotá has loaned me more and more. Their support has been very important and very helpful”, he claimed with satisfaction.

His dedication and commitment to work drove him to fulfill a new goal, which was to open a second repair shop. With his business, he helped his children pursue technical careers, and today they are gainfully employed in the local petroleum industry.

This micro-business owner works with several petroleum companies, providing maintenance to their vehicles.

Through its Micro-business segment, the Bank serves 154,418 clients from different productive sectors around the country, with financial solutions that meet their needs.