

A GUIDE TO DIGITALIZATION

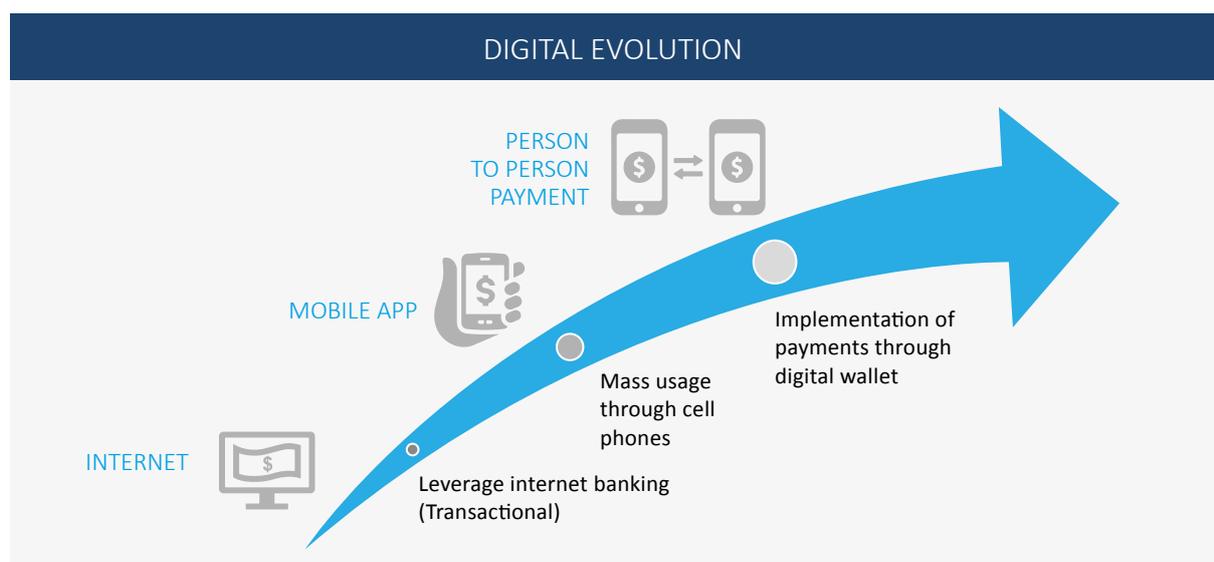
STEPS TO
LAUNCH
DIGITAL
FINANCIAL
SERVICES
WITH A
CLIENT-
CENTRIC
APPROACH

BACKGROUND

A client-centric approach is a fundamental strategy that consists of knowing the clients' specific needs, segmenting clients according to these needs, and adapting customer service to provide tailored, comprehensive financial and complementary non-financial services. Through these efforts, one can not only strengthen current clients' loyalty, but also open new markets and identify specific strategies for financial inclusion.

In Ecuador, this concept has been applied in the development and expansion of digital financial services through an Ecuadorian enterprise called Libélula Soft and its transactional platform NUVEM. A group of five microfinance institutions— cooperatives CAJA, CREA, CACPE Pastaza, OSCUS, and Mutualista Azuay—started the process with Libélula Soft and another seven followed in their footsteps. To date, all 12 institutions have managed to implement digital services. Based on their experience, this document presents a recommended process for the successful implementation of financial services digitalization using a client-centric approach.

The logic behind the digitalization of financial services is shown in the following chart which presents the phases of expansion to offer products and services through electronic channels.



1. **Transactional web page.** This phase consists of developing and deploying a web page with capabilities that permit the client to carry out some online financial transactions.
2. **Mobile application (App).** This phase consists of bringing services developed on the web page to other electronic channels, such as a smartphone or tablet application (App), for mobility and outreach.
3. **Digital Wallet payments.** This opens the door to an expansion process in which more services and products will be created leveraging electronic channels in future phases.

Implementation should be done in phases, starting with the transactional web page. This document shares detailed information regarding the first two phases, complemented with general information about some possibilities that can be launched in the third phase.

SETTING SOCIAL AND FINANCIAL OBJECTIVES

The digitalization of financial services, whether through a web page or an app, is an opportunity to create value both for the institution and the client. It opens the way for the identification of social goals at the institutional level and for the financial inclusion of marginalized populations (especially those who haven't had access to financial services). At the same time, it allows for greater benefits for current clients, such as reducing costs and providing services for a more comprehensive range of needs resulting in higher levels of satisfaction.

The decision to launch into digitalization must be based on **generating value both for the institution and the client** since it requires a large financial investment in terms of staff's time and focus. Therefore, when weighing the decision to invest, it is important to ensure that the launch of digital financial services will create greater value than the cost of investment. This value can be generated through increased revenue or reduced costs. The benefit for the institution implementing digitalization must be converted both into internal benefits and into tangible benefits for clients. Typically, the value to clients will be associated with conserving resources (lower cost, reduced time, reduced losses or exposure to risk, increased security) and/or an increase in service quality (more tailored and timely services etc.). In order to conduct this analysis, the illustrative chart on page 4 can be used.

Digitalization is accompanied by a specific implementation plan in which the Board of Directors must make decisions regarding which alternative, provider, or service should be chosen in order to achieve both social and financial strategic objectives. These decisions must be guided by clear objectives. Financial services digitalization creates the opportunity to advance many **social and financial objectives**—but not all at the same time! Social goals that could be selected include:

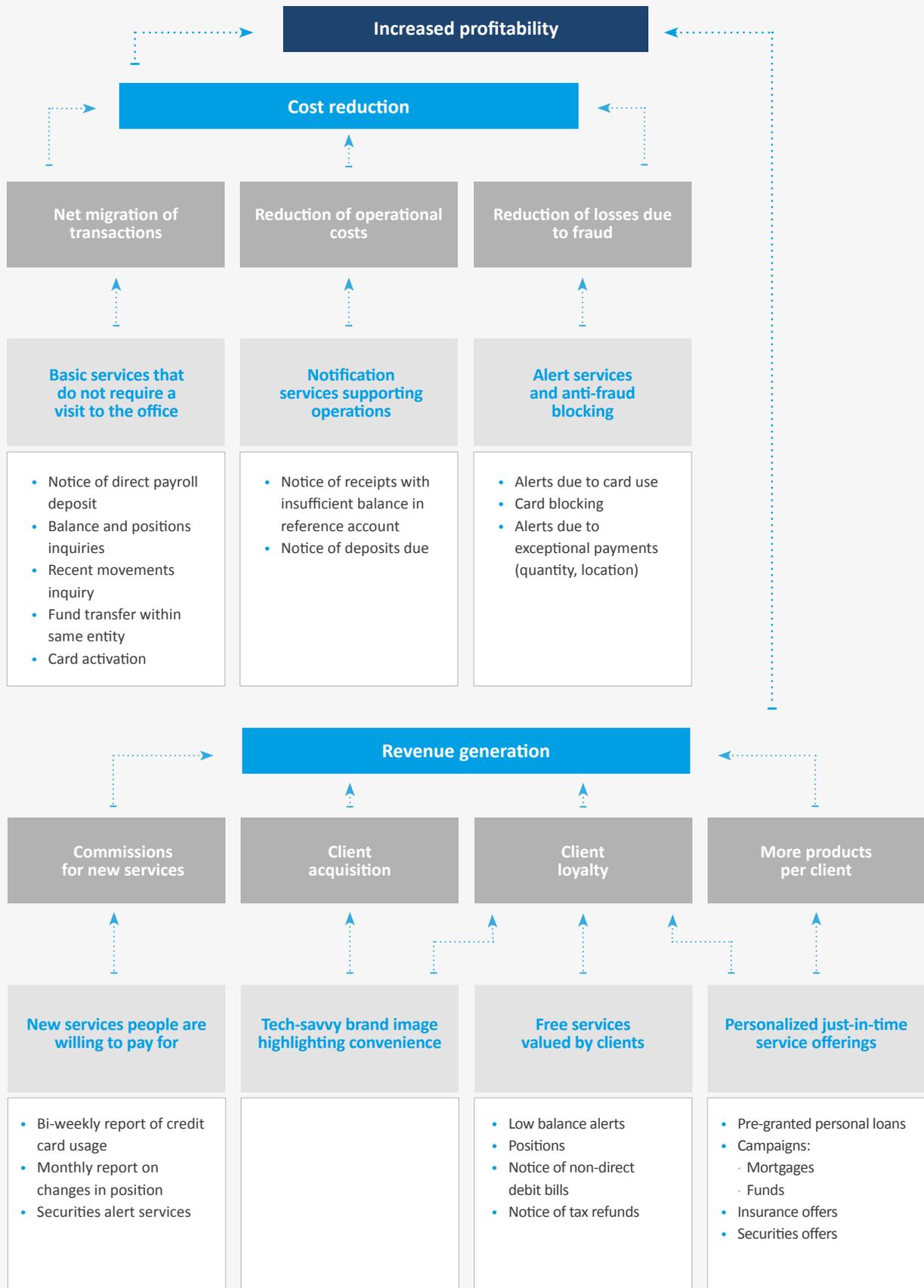
- Outreach to a larger percentage of excluded populations (youth, rural sector);
- Tailor products according to clients' needs (online payments and transactions; receiving virtual financial education; online product contracting);
- Develop online channels for the evaluation of satisfaction and complaints;
- Publish information and contracts in advance for review; and even
- Collect information to determine impact on the client's business (mostly for recurring credits, information entered in their credit application is assessed).

In addition, **financial goals** may be set, such as:

- Reducing operational costs;
- Generating new income from transactions;
- Absorbing fixed costs due to increased transactions through the new channels; and,
- Offering new revenue-generating products, etc.

The setting and prioritization of objectives will have an impact on the implementation plan at all levels—from market study to service design, technology and channel selection, and scaling up. Once objectives have been set, approved, and communicated to all levels in the institution, the next step can be taken.

USING DIGITAL CHANNELS TO GENERATE VALUE FOR YOUR INSTITUTION



MARKET STUDY

When using the client-centric approach as a foundation, a market study needs to be conducted in order to prioritize the identification of specific needs and optimum channels to better meet the client's needs and provide efficient solutions to identified needs in order to ensure their use among the highest demand segments. Starting with a transactional web page and then moving to a mobile app represents a process of delving deeper in the digitalization of products and services. The reduction of direct and indirect costs and the value-added products and services will result in increased loyalty.

Ideally, the market study design should take into account the entire spectrum of digital evolution so that this effort can be leveraged to collect the necessary information for the design of services both for the web page as well as for mobile channels. The study must focus not only on current clients but also on potential clients or those excluded within the target market, as determined by the institution's social and financial objectives. The research must determine, among other things:

- The client's socioeconomic characteristics;
- Distance to conventional financial services access points (branch, ATM, agent);
- Financial product needs (savings, credits, investments, transfers);
- Desired characteristics for these products (amounts, frequency, term, price);
- Access to potential electronic channels (computer, cell phone, Smartphone, internet);
- Electronic channel preferences (web, SMS, app, card, correspondent, smart ATM, etc.);
- Interest in new products and services (micro-insurance, digital transfers, virtual marketplace, financial education, mobile apps, agritech).

With the information obtained, cross tabulations should be run on the variables to ensure an appropriate segmentation of clients and potential clients to be included. This information allows you to design the appropriate channel, product and service customization and a comprehensive service strategy to achieve customer satisfaction and loyalty. Electronic channels to be developed and products and services to be offered for each electronic channel can be determined here.

Phase 1: TRANSACTIONAL WEB PAGE DESIGN AND IMPLEMENTATION

4.1. *Characteristics that a transactional web page should have*

Since the web channel is the beginning of a digitalization process, it is important to ask any provider for certain specifications that will allow you to continue the process in a second phase – by transferring online services to a cell phone app and later making P2P (person to person) payments through an electronic wallet, a mobile POS and other technologies. At a minimum, the following technical specifications should be considered:

- *Straight Through Processing*, which allows ease and speed of use;
- 100% portability, works in multiple browsers and devices;
- Omnichannel—a client that starts a transaction in one channel can continue said transaction through another channel;
- High security levels, complies with information security standards from the country’s regulator based on international good practices;
- Flexibility to integrate with the institution’s core financial systems (middleware);
- Service availability. Ability to work in the cloud (e.g. the solution profiled in this case works in AWS – Amazon);
- Flexible platform that allows integration with other transactional networks (banking networks, remittance networks, public and private service payment, purchase of services, etc.) and for adding more services quickly, thus facilitating digital transformation, and one that allows easy integration with channels and authorizers to broaden the service portfolio.
- Localized solution that complies with country’s applicable regulation as well as international standards.

In addition, it is important to make sure that each selected provider is able to meet the security standards established by international best practices and national regulations. In general, national authorities (Banking Supervisory Authority) issue financial security regulations for electronic transactions that financial institutions and, thus, their providers must comply with. Usually, these regulations have ISO quality certifications that respond to international standards and must guarantee security in authentication processes (password management and authentication access such as fingerprints, verification code through SMS, tokens), as well as data protection. It is important that any solution proposed by your provider is certified by authorities according to national and international standards. In the Ecuadoran case, the Bank Supervisor and the Superintendency of Popular Economy and Solidarity rate auxiliary service providers and publish a list of registered providers that comply with the regulations.

4.2. Customizing transactional web page to meet the needs identified for products and services

The selection of products and services to be offered through the web page is based on the needs, preferences, and priorities of clients and potential clients as identified by the market study. The definition of the design parameters whilst maintaining the “straight through processing” criterion is done in a participatory manner between provider and institution, primarily involving the marketing and operations areas, in addition to other work teams deemed relevant.

The specific product and service portfolio to be offered will vary from one institution to the next depending on their objectives and market. Having said that, the great majority of institutions should have the following in their portfolio of potential products and services to be offered through the web page:

- Login: Security layers, information encryption and passwords, number of attempts, authentication factors;
- Balance inquiry: account selection, dates;
- Detail of movements and transactions;
- Investment, credit, amortization table consultations;
- Internal transfers with identification, authentication, notification processes;
- Interinstitutional transfers (banks, cooperatives, others) with identification, authentication, notification processes;
- Credit card payments with process;
- Transaction notification (email, push notification, SMS);
- Management of payment role accreditation for institutions;
- PIN/password change;
- Payment of utilities and refill of prepaid cards; account selection, services to be paid, token authorization;
- Purchase of or access to complementary services: micro-insurance (life, health, car, housing, etc.), access to related websites (online purchase, remittances, product sales, payment button);
- Encryption: passwords, connections;
- Protection against cyberattacks;
- Secure passwords;
- Auditing records and logs;
- Security blocks;
- Registry of device used;
- Historical register of operations;
- Online notification to clients: push, email; and,
- Channel blocking and unblocking, definition of parameters for maximum and minimum amounts for transfers, reloads, and payments; definition of parameters for session expiration.

Taking into account the market research, the different segments of the target market can be identified in order to set social objectives per segment (access to services, satisfaction through immediate surveys, transparency of information sent, filing complaints, etc.) and specific targets to be achieved—both socially and financially.

4.3. Test launch of web page for trusted individuals

Once parameters have been established in the web page and it has been adapted according to the decisions made by the institution, there is an internal launch so that it can be used by the institution's staff and people close to the institution, such as relatives, vendors or trusted clients, as a pilot test to receive feedback and identify potential errors. In this phase, the user's experience will be assessed in order to receive suggestions for improvement and functionality. In order to encourage its use, transactional costs may be reduced or incentives can be provided each time the page is accessed and a transaction is made.

4.4. Pilot test in branch(es) with clientele with the highest demand profile

Based on the data obtained from the market study, the institution should choose the branch(es) in which the client profile is most suitable for the use of the selected electronic channel (in the case of the web page, mainly those who have a PC or tablet with internet available), to launch a pilot test of the product and monitor its use.

This will be accompanied by a market strategy that should include a training and support component, as well as incentives that encourage its use, such as the accrual of points for using the web channel. Said points can be exchanged for promotional items (daily planners, notebooks, shirts, caps, personal items, headsets, etc.), tickets for raffles, etc. The advantages of using the new channel should be emphasized.

Information will be collected on usage behavior, profile of users, transaction levels, effectiveness of marketing strategies, as well as feedback mechanisms for product improvement.

4.5. Mass use of web application

With information obtained during the pilot test, the marketing strategy will be fine-tuned, adjustments will be made to the product, and it will be rolled out to the entire institution. In this phase, it is essential that all employees are engaged in the social and financial objectives established for the digitalization initiative. On one hand, the training that employees receive must ensure that they understand the technology needed to achieve the objectives (reach new segments of the population or provide more services, decrease costs, generate income, etc.), and, on the other hand, it must teach them how to train clients and explain the use of the new technology to achieve its effective dissemination and use. Monitoring, evaluation, training, and online assistance are essential to monitor the behavior and use of the channel and products.

Once the web channel and its products and services have been stabilized, you can begin to develop a strategy to explore new channels to offer the newly developed products and services, such as a Smartphone App, or you can start the development of new products and services by using the same web channel. You may also implement the two strategies simultaneously.

Phase 2: SERVICE DIGITALIZATION IN A SMARTPHONE OR TABLET APP

5.1. *Analysis of clients' needs and preferences*

In order to learn for what market niches or segments offering digital financial services through an app is appropriate, the information obtained from the market study must be segmented again, emphasizing client segments with the following characteristics:

- Young and middle-aged clients;
- Clients who expressed preference for electronic channels, especially those who prefer an App;
- Clients with access to potential electronic channels, especially a smartphone.

For these segments, the following information needs to be analyzed in detail:

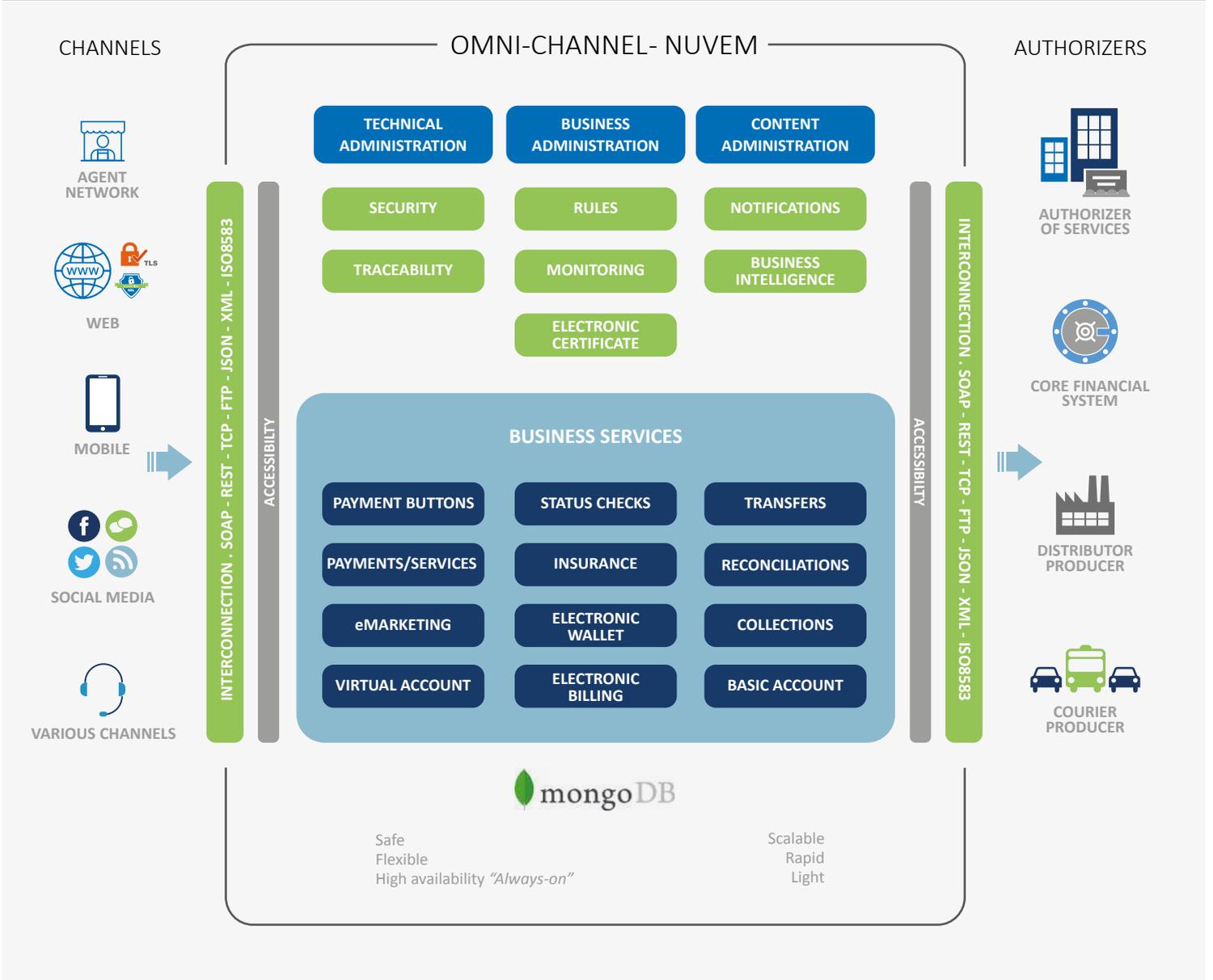
- Distance to conventional financial service access points (branch, ATM, agent);
- Needs for financial services (savings, credit, investments, transfers);
- Characteristics of the desired product (amounts, frequency, term, price); and
- Interest in new products and services (micro-insurance, digital transfers, virtual marketplace, financial education, mobile apps, agritech).

With the information obtained, variables should be cross-tabulated in order to: 1) identify potential areas of coverage, 2) geographic concentration of clients with the desired profile, 3) branches with highest number of clients in the target profile, and 4) marketing model (networks, internet etc.).

5.2. *Characteristics that the mobile app should have*

The technical specifications to be requested of any technology provider for the mobile app must include the same as for the web page, since the app is only an “electronic channel.” Just like the web page, it must be interconnected to the central platform, which allows centralized administration where transactions, products, and services for the business are provided according to the “omnichannel” model. This allows integration and adaptation to different types of channels, the integration of companies that authorize transactions (payments, transfers, remittances) with the institution’s core financial systems in order to record transactions in the accounting system, as well as integration with companies that provide related services. Graphically, the operational structure is established as follows:

OMNI-CHANNEL PLATFORM STRUCTURE



As described above, these characteristics allow the transition from transactional web to mobile app, and later to P2P (person to person) payments using electronic wallet, mobile POS, social media, among others.

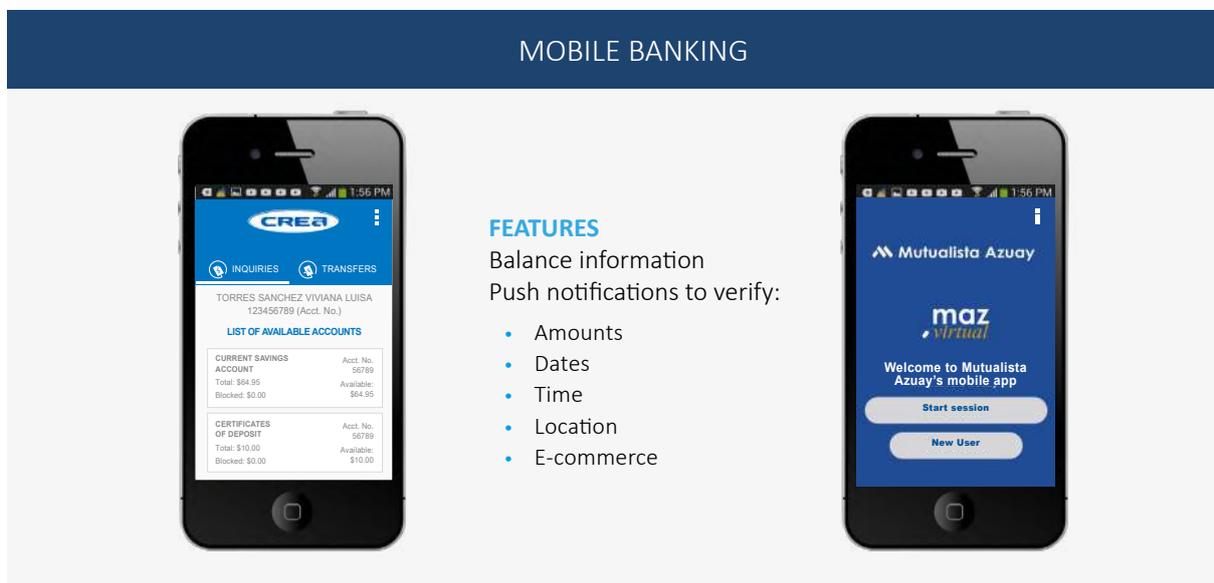
Just like the transactional web page, the mobile app must comply with security standards, regulations, and approval by the regulatory body. In addition, globally, the PCI-DSS (Payment Card Industry Data Security Standards) are used to protect the data and devices that are used to make electronic payments. There are also ISO standards, which describe the procedures needed to implement the industry's best practices, such as ISO-27001 requirements for the information security administration system.

5.3. Customization of mobile app to meet the identified needs for products and services

Just as with the development of the web page, the group of services selected for the mobile app channel will depend on the needs of clients in the target segment and institutional objectives. As a starting point, we recommend that the potential portfolio of products and services to be offered through the mobile app should include at least the following:

- Registry of accountholders according to the regulations;
- Session login: security layers, encryption, password, number of attempts, PIN for transfers;
- Balance inquiry: by account, date, or transaction;
- Implementation of security layers and encryption;
- Current investment's status inquiry;
- Current credit account status inquiry;
- Amortization table, credit account statement;
- Credit card balance inquiry;
- Transfers between internal accounts;
- Transfer between institutions in the financial system;
- Payment of utilities and prepaid services reload;
- Credit card payments;
- Transaction notification through email and SMS;
- Additional information buttons (branches, news, relevant information);
- Back-office functionality: channel blocking and unblocking; module enabling and disabling per client; setting parameters for maximum and minimum amounts in transfers and reloads; setting parameters for session expiration; reconciled, unreconciled, and conforming transaction checks; and, list of non-conforming transactions (transactions with inconsistencies which must be reviewed).

Setting design parameters whilst maintaining the “straight through processing” criterion is done in a participatory manner between provider and institution, primarily involving the marketing and operations areas, in addition to other work teams deemed relevant, obtaining customized products as a result, as seen below:



5.4. *Launching of mobile app test with trusted individuals*

Just as in the process described in 4.3 for the launching of the web page, once parameters have been set and the mobile app has been adapted, a test with trusted individuals is recommended in order to collect feedback on the user's experience before mass distribution.

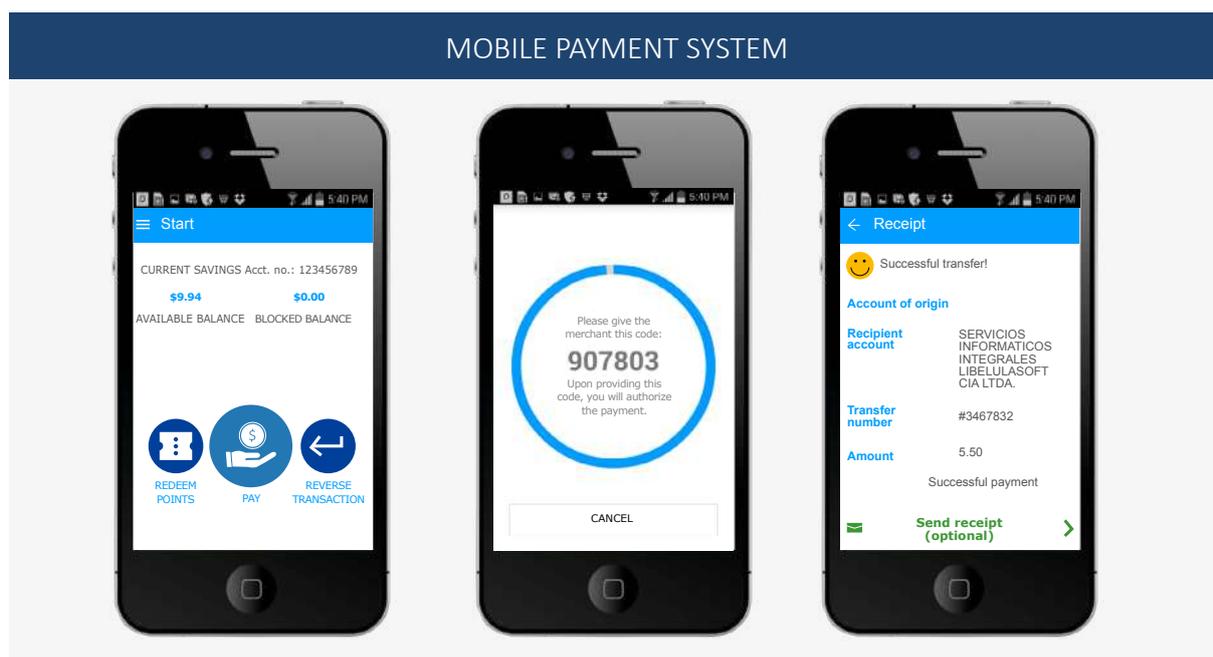
5.5. *Roll out of mobile app*

After adjusting the product, it can be made available in "Play Store" for Android or "Apple Store" for iPhone. A differentiated marketing strategy should be implemented for the target audience, which would include traditional channels, but also social networks and the internet. In addition to promoting the advantages of the channel and its products, incentives to encourage the target market to use the new channel should be created. These may include points, promotions, discount coupons, etc. At the beginning, transactions can even be free. A successful roll-out will require constant monitoring of how many users download the application, how many activate it, and transactional use by product and service as well as ongoing access to online help and a complaint channel.

Once the mobile app has been implemented with the services that were validated in the transactional web page, the new electronic channel allows the possibility to expand the offer of products and services thanks to portability, internet access, and client demand, as shown in the cases below.

Phase 3: IMPLEMENTATION OF MOBILE PAYMENTS, ELECTRONIC WALLET, AND OTHER SERVICES

Through third-party applications integrated into the institution's mobile app, complementary services such as payment reception and delivery can be developed. For this purpose, a token is generated as means of payment authentication, which responds to an individual and autonomous algorithm with high levels of security. Payment is immediate and money is debited from the payer's account to the account of the business/shop/individual who is selling the product or service. In addition, it allows the revoking of payment within a specific timeframe in case a mistake was made. The client receives a push notification of the transaction, which can also be cancelled within a specific timeframe.

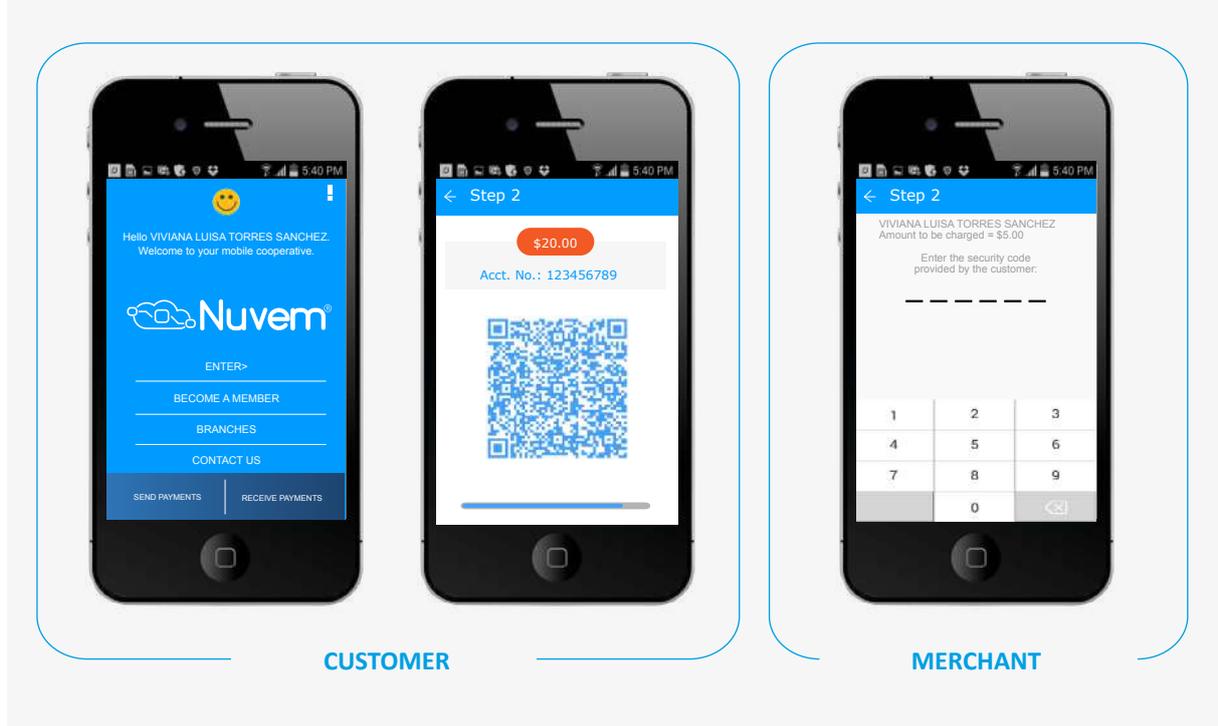


This process issues a receipt or voucher, which may be printed by a portable printer or sent by email immediately.

The possibilities are high for applying this example of a complementary service, as you may 1) sign agreements with specific clients and business partners, 2) develop an agent network, or 3) develop channels through the financial institution to market products with strategic partners.

The idea of product evolution through a mobile app entails the creation of constant disruption with the integration of new concepts and avant-garde technology. An example of this is the direct reading of QR codes (Quick Response, an evolution of the barcode which allows access to a large amount of information just by scanning with a smartphone) through a smartphone, instead of opening screens and manually entering keys, amounts, codes, etc., thus completing transactions in less time with high security:

USE OF QR CODE



By simply generating the transaction and QR code from a device, the code can be scanned and accepted at the same time by the other device to complete the transaction, thus saving time and avoiding the risk of passwords being hacked or of making mistakes when entering the transaction causing the user to re-enter the transaction.

This technology could also be integrated into initiatives like virtual markets for supply and demand of products from microenterprises. Having a virtual payment method that is highly effective opens up the possibility of online buying and selling. This would correspond to a third phase in the development of products, services, and channels, which would follow the phases of developing digital services through a web page and developing an app, as described in this document.

FINAL THOUGHTS

Digitalization offers many opportunities to strengthen responsible treatment of clients and increase transparency. It can greatly strengthen the relationship with the client. In order to achieve those benefits, the product's adaptation needs to be as tailored as possible to ensure its acceptance and use; if it fails to provide added value to the client, the client simply will not use it or will erase it from the smartphone.

It has the potential to improve transparency since the same channel used to provide products and services can be used to provide greater access to information regarding the terms and conditions of products and services offered such as through queries or push messages that inform clients of the cost to be paid for the transaction or use of the service and also request confirmation that the client would like to proceed. If several institutions use digital channels, the client may have access, through the web or the app, to inquiries regarding costs and prices allowing the comparison of products from several institutions. This creates increased competition in the market and the setting of fair prices, since the client will be able to choose the best options if all the information is at hand.

In order to achieve an appropriate level of transparency, the terms of use for the channel should be accepted for the activation of username and password through a specific contract that must be regulated by the supervisor. Access to immediate inquiries and historical reports or account statements instills trust and provides sufficient information of payments or charges, as well as information on the use of products and services. In order to maintain trust, privacy and security of transactions must be guaranteed by monitoring digital channels. With appropriate monitoring, the digital channel helps detect irregularities in the use of the database or clients' information.

In addition, when the client is online, process automation allows automatic inquiries to the credit bureau to learn if the client has other credits in the system and permits the use of risk scoring based on information provided by the client online, thus preventing over indebtedness. Finally, the app must also include a section so that the client can express his/her satisfaction with the service and file a complaint.

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Example from the Field: Launching DFS in Practice in Ecuadorian Cooperatives

All twelve Ecuadorian institutions included in this project managed to implement phases 1 (transactional web page) and 2 (mobile app) successfully. From November 2019 to February 2020, the Oscus, Pastazas, and 29 de Octubre cooperatives have seen an average of 13,000 to 18,000 transactions a month with an average monthly value between \$2.3 and 5.1 million dollars (USD). These three institutions have implemented services according to the process described in this case. This solid foundation has allowed them to advance faster than other institutions in the innovation of several additional services, such as those included in phase 3: electronic wallet, online payment of cards and services, and online credit applications. In addition, they have taken advantage of technology to launch some services for companies, such as payment of salaries; control of roles and authorization limits; and approval of online financial transactions by staff role. Some of the cooperatives in the project have also implemented facial recognition technology to improve the security of mobile transactions for their clients.

