

Tailoring a Mobile Banking Application to the Bottom of the Pyramid

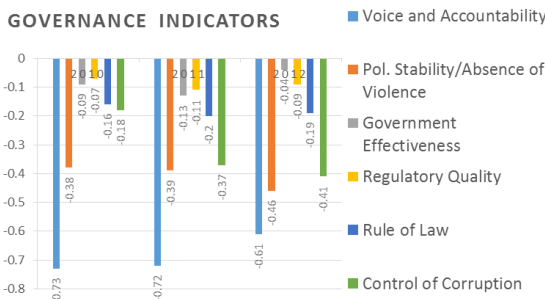
Al Barid Bank, Morocco

1. Development relevance

Economic and Poverty Context:ⁱ Despite difficult global economic conditions and political uncertainty affecting many Arab countries, the Moroccan economy proved resilient in 2013, boosted by internal demand and increased public investment, but also by a good agricultural year. The average GDP growth between 2009 and 2012 was 1,4%. Inflation was at 1,9% in 2013, compared to 1,3% in 2012. Trade deficit narrowed by 2,8% in 2013, as the economic slowdown reduced demand for imports. Remittances continue to play a significant role in supporting the economy, with receipts exceeding those from tourism and the phosphate industries. The average share of remittances to GDP from 2008 to 2012 was 7,18%, placing Morocco in the top 10 African countries.

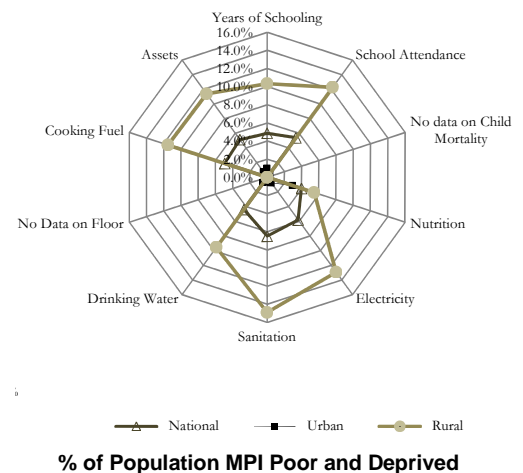
The most recent Economic Freedom Index (EFI) score of 58,3 ranks the Moroccan economy the 103rd freest in 2014.ⁱⁱ Its score decreased 1,3 points from 2013. Historical data over a 20-year period tracks a 5-point decline of Morocco's EFI score, among the 20 largest declines in the world. Challenges include corruption, an inefficient judiciary and high government spending. Morocco has managed to avoid large-scale political upheaval during the Arab spring, and underwent significant political change in 2011 as opposition groups formed. The government began to transition from a monarchy to a more democratic parliamentary system. According to the worldwide governance indicators (see figure), Morocco lands in the middle to middle-upper percentile when compared to other countries in the MENA region.

Economic Indicators	
Population (2013; in million)	33,01
GDP Growth % (average; 2010-2013 / 2003-2013)	3,7 / 6,1
Inflation % (average; 2010-2013 / 2003-2013)	1,5 / 1,8
Trade Balance (% of GDP) (2013)	-5,23
Foreign Direct Investment (net) (% of GDP) (2013)	2,6
Net ODA and Official Aid Received (% of GDP) (2012)	1,5
Workers' Remittances (% of GDP) (2013)	7,3
Economic Freedom Index (2014) (Rank among 185 countries)	103
Poverty indicators	
GDP per Capita (current USD) (2013)	3109
Gini Index (0= equality 100= inequality) (2007)	40,9
Multidimensional Poverty Index ⁱⁱⁱ (1=poor 0=not poor) (2007)	0,048
International (at 1,25 USD/day), National and Rural Poverty Headcount Ratio (2007; in %)	2,5 / 8,9 / 14,4



The country has one of the highest illiteracy rates in the Arab world and an imperfect education system with extremely high income disparity and gender inequality. GDP per capita has maintained a general upward trend since 2007, reaching 3'144 USD in 2013. An important challenge remains to foster increased and more inclusive growth by promoting reforms aimed at enhancing job creation, especially in under-developed areas. The official employment rate is 9%, but

according to the World Bank, 51% of Moroccans aged between 15 and 29 – accounting for 44% of the working age population – are out of school and unemployed, representing one of the highest rates among emerging economies. Moreover, 87% of employed youth in the country are in the informal sector. Women and girls are particularly vulnerable, with about 82% not being in schools and also out of labour force. Large disparities remain between the different regions and social classes of the country (see table below^{iv}). 75% of the 4 million people below the poverty line live in rural areas.^v



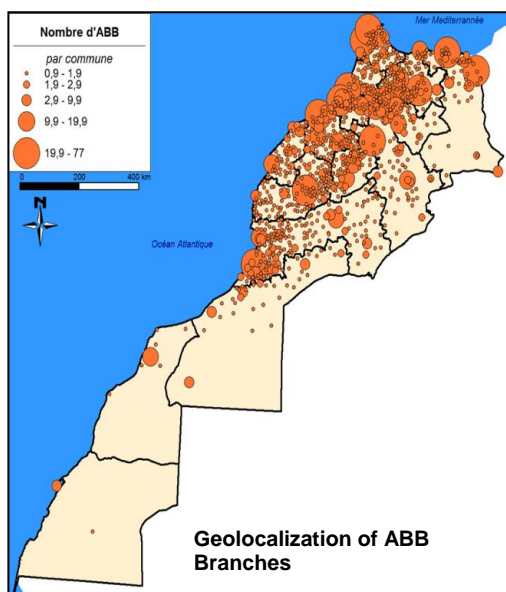
% of Population MPI Poor and Deprived

Region	Poverty index %	Vulnerability index ¹ %	Gini Index
Régions sahariennes	4.9	19.6	0.35
Souss - Massa - Draâ	12.1	20.1	0.40
Gharb - Chrarda	18.5	20.1	0.38
Chaouia - Ouardigha	0.9	20.9	0.31
Marrakech	12.5	18.6	0.42
Oriental	8.6	14.5	0.38
Grand Casablanca	3.3	8.1	0.37
Rabat - Salé - Zemmour -Zaër	6.1	11.3	0.46
Doukala - Abda	17.5	22.9	0.40
Tadla - Azilal	9.4	19.5	0.34
Meknès - Tafilalet	12.6	22.6	0.39
Fès - Boulmane	5.2	17.5	0.40
Taza - Al Houceima - Taounate	7.3	22.7	0.33
Tanger - Tetouane	5.6	15.9	0.47

Financial Sector Context: As microfinance began spreading throughout the MENA region and Africa, Morocco quickly became a model for microfinance in the Middle East. Present in Morocco since the early 1990's, microfinance received the backing of the government and successful pilot programs led to swift growth in the sector, characterized by local MFIs with thriving loan portfolios and impressively high client outreach. However, this rapid growth proved unsustainable, as microfinance institutions (MFIs) competed for clients by employing lenient credit policies, resulting in clients taking multiple loans simultaneously, often to pay for older ones. These developments lead to the large-scale credit defaults of 2009 and an overhaul of the industry. Structural reforms have led to a recovery, and today, the sector is again among the most

developed in the MENA region. Thanks in part to the government aiming at improving the legal and regulatory framework of the banking sector, the bancarization rate has followed global trends by increasing from 47% in 2010 to 56% in 2012.^{vi} With only 4% of the adult population having taken a loan from a financial institution in 2011 (World Bank), Morocco has a glaring need for more inclusive financial services. MFIs and the government have announced an ambitious strategy of reaching 2,3 million more beneficiaries by 2020, expanding the total national loan portfolio to 3 billion USD, or 1,8% of GDP compared to 0,6% in 2012 (1,45 billion).^{vii} Included in this strategy are plans to increase the amount of microloan agencies to almost 2'000, as opposed to the approximately 1'300 that exist today.

Financial Partner: Launched in 2010 as a subsidiary from Barid Al-Maghrib (Poste Maroc), Al Barid Bank (ABB) gathers all the financial products and services of Barid Al-Maghrib. At its creation, ABB inherited 4 million of clients from the spin off. Based on a network of more than 1800 branches all over the country, ABB plays an important role in financial inclusion. As a country in which 75% of the 4 million people below the poverty line live in rural areas,^{viii} where 2/3 of its branches are located, ABB will focus on reaching rural areas. ABB's mission is to give an easier access to financial services to all Moroccan citizens, especially the poorer and most marginalized ones – i.e. people with uncertain incomes, families that are largely subsidized by remittances, people without qualifications, including women living in remote areas. ABB is positioned to be the "Bank for all Moroccans" and aims to be the leader in the bancarization process of Morocco.



In 2011 and 2012, ABB gained more than 500'000 clients each year. It presently owns one third of client accounts in Morocco. The total amount of deposits in 2012 was about 36 billion Dirhams, shared equally between current accounts and savings accounts which represent 5% of the total of Moroccan deposits. The pace of the growth is 4% per month for current accounts and 12% for savings accounts. At the end of 2012, ABB had more than 1,5 million owners of cards and more than 600 ATMs machines. It was ranked 3rd for card owners and 4th for ATM machines in Morocco. In terms of credit (housing, consumption), ABB has presently a 1 billion Dirhams portfolio. Regarding remittances, ABB claims 80% market share for internal transfers in Morocco.

ABB	2011	2012
Total Assets (in million USD)	3'562	4'008
Total Deposits (in million USD)	N/A	4'091
Total Gross Loan Portfolio	N/A	N/A
National Transfer (emission and reception)	N/A	More than 10 million operations
International Remittances (reception)	N/A	more than 1,25 million operations
Total Staff	3'580	3'641
Total Branches	N/A	1'814

¹ Vulnerability index according to place of residence, educational level, household size and region.

2. Intervention approach and additionality

Capacity Building Needs: Between 2010 and 2013, the World Savings Bank Institute supported ABB in the development of a mobile banking interface in order to increase the outreach through new distribution channels. The aim of this cooperation was to introduce mobile banking that will allow ABB’s customers to perform transactions with their mobile phones. Nevertheless, the project did not take into account that mobile banking interfaces have to be adapted to the users, in this case the low income and rural people, who make up a majority of ABB clients. SCBF was approached to fill this gap through technical assistance by PlaNet Finance and allow low-income people to use the mobile service. This project is complementary to the 2013-08 project that aims at up-scaling the outreach of the mobile banking distribution channel for the delivery of social benefits (Government to People – G2P) through the creation of a payment agent network (11/13 – 11/14).

Intervention Approach: To facilitate the use of the mobile banking interfaces for the Bottom of the Pyramid (BoP) segment within a three-month timeframe (January to March 2013), PlaNet Finance implemented a two-step approach. First, PlaNet Finance and LMS-CSA (a consulting firm specialized in qualitative studies) conducted focus group discussions (FGD) to develop clear and comprehensive marketing strategy and materials adapted to the BoP needs and comprehension. PlaNet Finance also carried out a benchmark of worldwide marketing initiatives dealing with mobile payments that revealed interesting insights.

Consequently, 15 usability testing sessions were conducted by an external consultant with 30 participants² to test the mobile banking interfaces and the handling of the technology by the clients to eventually improve the application. Originally, 12 sessions were planned, but it rapidly appeared that 3 more sessions were necessary. Participants were first told to follow specific tasks representing different scenarios (e.g. “kindly try to transfer 1000 MAD to the number 0638014155”). Then they were asked what they thought about the words used and their feedback was collected through System Usability Scale forms in order to accurately understand their opinions.

Additionality: Mobile phone penetration is extremely high in Morocco, reaching 90%. This makes it an excellent method to extend financial inclusion in remote and rural areas where no financial institutions exist. The mobile banking application launched was the first broadcasted in urban and peri-urban areas, with rural areas the extended target of this project.

3. Results achieved

The project has: (A) made the BoP market understanding how the mobile application works and (B) upgraded the technical application in a way that it fits better to the BoP market.

3.1. Client level

The adapted mobile banking interface was launched in September 2013 through its promotion in a few twenty branches. The global roll out has been carried out by ABB early 2014. It is too early to draw conclusive results concerning overall impact but early feedbacks suggest that mobile banking allows ABB’s clients to make fewer trips to bank branches. Mobile Banking succeeded in enrolling more than 12’000 clients (new and existing clients) between September 2013 and by the end of 2013. A study carried out in January 2014 by PlaNet Finance and ABB (2013-11) revealed that clients with bank accounts have to travel to branches more than twice a week. Therefore, following benefits for poor clients are assumed:

- Ability to use and transact on their accounts from their homes or any other location via mobile phone therefore not needing to leave and close their store when having to make a financial transaction.
- Avoiding transportation expenses and reducing the risk of robberies when transporting money.
- Women in rural areas can access to their accounts remotely and anytime with this interface.

Outreach	Y0	Y+1
Number of clients	5 980 000	n/a
Clients according to income level		
Moderate Income (below MAD1000)	1 178 000	n/a

3.2. Partner financial intermediary level

PlaNet Finance & LMS conducted 12 FGD dedicated to the tailoring of marketing materials. Key insights were:

² Participants were chosen accordingly to the following classification: age: 20 – 34 (13), 35 – 45 (17); gender: women (16), men (14); localisation: rural (12), peri-urban (10), urban (8); status: ABB clients (8), Banked but not at ABB’s (16) and not banked (14).

Tested material		Feedback from the participants.
1	TV Advertising	Participants have clearly understood the concept of transferring money through mobile phones but they have concerns on how to register to this service and how to successfully conduct transaction. Lack of information on the tariff leads them to think that this service was free of charge.
	General	
	How to register	
	How to transfer money	
	How to conduct a cash in and cash out	
	How to pay bills & airtime	Bill payment and airtime top-up was clearly understood by the participants.
2	Tutoring flyer	Participants found out that this leaflet is important to conduct a transaction step by step. Most recommendations were about lexical misunderstanding.
3	Naming of the offer	Participants gave their feedback on different submitted logos and ranked them by preference.
4	Meditel Cash	Participants have mostly not understood the Meditel Cash campaign. After having listened to a radio spot, they have not clearly understood the products and services.

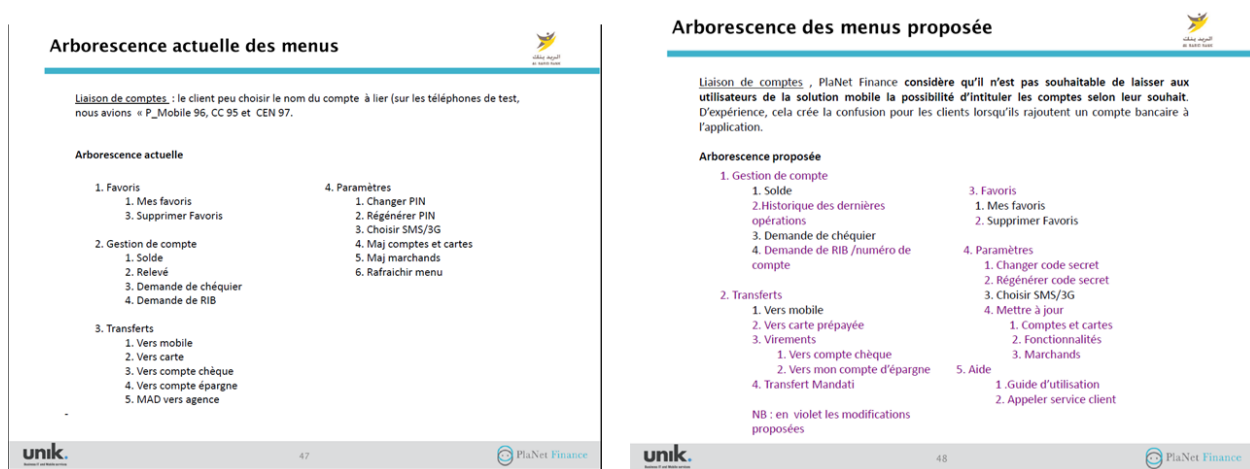
These insights have permitted to adapt the tutoring leaflet (which is available in all the ABB branches and handed over to clients of “Barid Bank Mobile”), to choose the name of the service (Barid Bank Mobile) and to adapt the TV advertising (abstract of the report below). The figure below shows the evolution of the leaflet (draft version on the left with PF comments and final version on the right handed out in ABB branches):



The following are the key insights from the 15 Usability Testing Session on Ergonomics. Know-how of the consultant who had lead the usability testing sessions was transferred to one ABB staff member and to one consultant from PlaNNet Finance who participated in those sessions.

Mobile interface		Recommendations
Java		
Steps	Activation	Activation step is unclear and difficult. We recommended using other terms (confusion between the PIN code of the SIM card and the Mobile Application). Furthermore, participants do not assimilate the necessity to enter their phone number in an international code (+212)
	Bookmarks	It is difficult to bookmark an operation; we recommended to ask this step after each important transaction.
	Account information	Those operations have been clearly understood by the participants. At this step, we have recommended to use clearer terms.
	Transfers	Participants have successfully conducted transactions. The complexity at this step is to understand what does the transactions stands for.
	Settings	Participants do not understand how to change the PIN code of the application. We recommended gathering all fields of this operation on one screen (instead of two).
IOS		Participants achieved to conduct transaction. Java recommendations also stand for the IOS application. In addition to those, we have also suggested to adopt clearer lexical terms.
Interactive Vocal server		No comprehension problems have been noticed there.

Following the usability testing sessions, the team developed the scheme of the new mobile banking interface and validated its recommendations with ABB’s marketing department. The figure below shows the evolution of the Mobile Banking interface (initial version on the leaflet and proposed interface on the right):



Al Barid Bank’s marketing department (three people) have benefited from a benchmark on how worldwide mobile money and mobile banking initiatives tutor their clients on conducting transactions.

3.3. Financial sector level

As competition between banks is increasing, it is crucial for ABB to develop an expansion strategy to reach unbanked populations wherever they live and to maintain ABB’s leading position in the bancarization of low-income people. The successful mobile banking might become an example to follow for competitors.

4. Lessons learnt and further challenges

Lessons learnt: When very concrete needs arise from the field, very short and extremely precise projects like this one are the ones that bring more value to money spent. It is effective to have a 1-2 year general agreement with specific activities, and if need be, complemented by additional short-term interventions.

This intervention confirmed the importance of product testing with targeted clients in mobile banking. Required changes brought by the project on the application and marketing will probably play a key role in a smooth launch of the mobile banking solution. We have learnt that fine-tuning of the interface is primordial if the financial institution wants low-income people to use it. Marketing materials should also be detailed and targeted in a way that this particular segment easily understands how to use this service.

Our French-speaking experts got frustrated while having to depend on the translation of our Arabic-speaking experts. Finding a good mix of international and local expertise is especially important when international experts do not speak the local language.

Further challenges: The main challenge will be to reach a critical mass of active mobile banking users. Today, half of the mobile banking client base are very basic users of financial services and as such do not frequently conduct transactions. One of the challenges of ABB will be to keep a database with as many active clients as possible.

ⁱ Where not stated differently, sources of section 1 are: <http://www.worldbank.org/en/country/morocco/overview> and <https://www.cia.gov/library/publications/the-world-factbook/geos/mo.html> (retrieved June 2014).

ⁱⁱ <http://www.heritage.org/index/country/morocco> (retrieved August 2014).

ⁱⁱⁱ <http://www.ophi.org.uk/wp-content/uploads/Morocco1.pdf> (retrieved August 2014).

^{iv} <http://www.ruralpovertyportal.org/country/home/tags/morocco> (retrieved June 2014).

^v Haut Commissariat au Plan 2007.

^{vi} Bank Al-Maghrib, 2012.

^{vii} FNAM (National Federation of Microfinance Associations).

^{viii} <http://www.ruralpovertyportal.org/country/home/tags/morocco> (retrieved June 2014).