



SWISS CAPACITY BUILDING FACILITY
Association for Income and Employment Generation



Feasibility Study – Morocco

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List of Abbreviations & Acronyms

ABB	Al Barid Bank
AML	Anti-Money Laundering
ANRT	Agence Nationale de Réglementation des Télécommunications
ATM	Automated Teller Machine
B2B	Business to Business
B2C	Business to Customer
BCP	Banque Centrale Populaire
BMCE	Banque Marocaine du Commerce Extérieur
CFT	Combating the Financing of Terrorism
CMI	Centre Monétique Interbancaire
CPA	Common Payment Application
CPG	Consumer Packaged Goods
CSR	Corporate Social Responsibility
EIB	European Investment Bank
EMV	Europay MasterCard Visa
ERF	Economic Research Forum
FBPMC	Fondation Banque Populaire Micro-Crédit
FINMA	Finanzmarktaufsicht
G2P	Governments to People
GIZ	Gesellschaft für Internationale Zusammenarbeit
IDC	International Data Corporation
IOB	Intermédiaire en Opérations Bancaires
ISO	Independent Sales Organization
LIB	Low Income Banking
MENA	Middle East and North Africa
MFI	Microfinance Institution
MNO	Mobile Network Operators
PCI	Payment Card Industry
POS	Point of Sales
PSP	Payment Service Provider
SCBF	Swiss Capacity Building Facility
SME	Small and Medium Enterprise
VAS	Value Added Services
VAT	Value Added Tax

Forewords

This feasibility study has been built in a way it can be of direct use of management for the launch of KiWi ePayment acceptance pilot in Morocco, with a clear objective of financial inclusion. It includes relevant information on market demand and existing offer, regulation, fraud & risks, highlighting the requirements in terms of product, business model, stakeholders and resources.

A strong emphasis of the study is on market assessment (qualitative study, done directly by the KiWi team), including testing of KiWi's prototype.

For a better understanding, readers who are not familiar yet with the project are recommended to start with the latest version of the Powerpoint document: "KiWi Pitch" available on request.

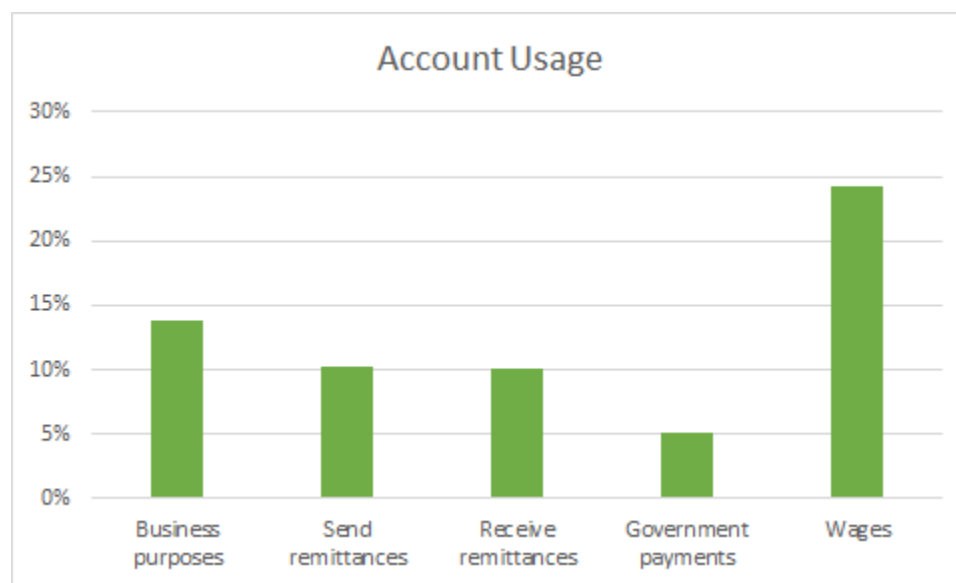
KiWi wants to warmly thank the Swiss Capacity Building Facility ([SCBF](#)) for its financial and technical contribution to this study.

Market characteristics

FINANCIAL INCLUSION

In Morocco, according to World Bank statistics, 39% of the population older than 15 have an account at a formal financial institution. Morocco can be considered as part of “middle income countries” in terms of financial inclusion, with better results than their peers in the MENA region, as well as countries like Mexico, but still below countries like Thailand or Brazil. Financial inclusion is a priority for the Central Bank (Bank Al-Maghrib) and the Ministry of Finance, with an objective of 66% people banked by 2014.

Great benchmarks can be found [here](#) (Center for Financial Inclusion), using World Bank databases. The following graph summarizes bank account usage in Morocco:



This weighting does not show any real country specificity, except the fact that “receive remittances” are not higher than “send remittances”.

We can forecast however a strong increase in G2P during the next few years as Morocco is switching from a “direct subsidy” (flour, gasoline) to “indirect subsidies”, targeting the low income population exclusively ([reuters](#)). We expect G2P and wages to be the 2 main factors of rapid growth of ePayments issuance at the bottom of the pyramid.

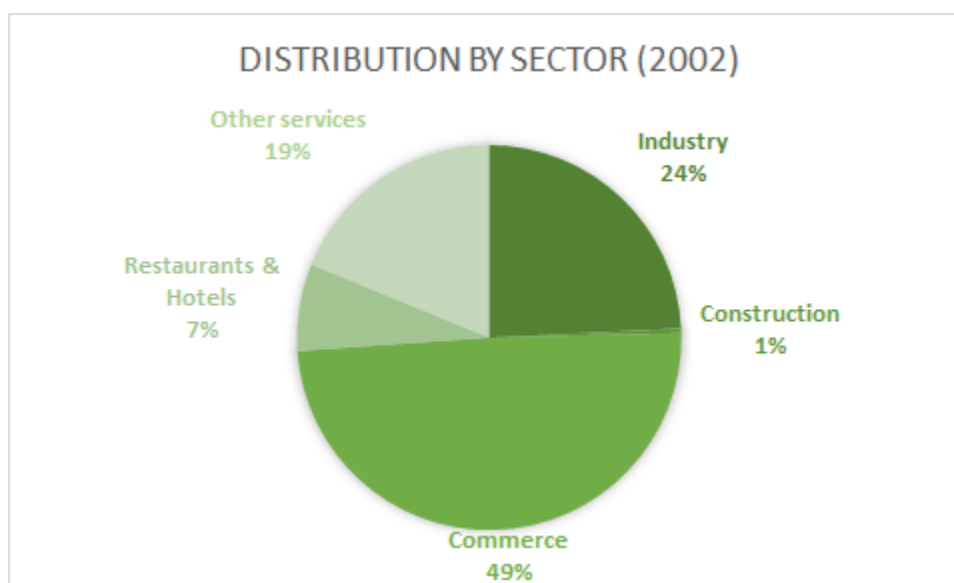
We have good reasons to believe that the objective of Bank Al-Maghrib will be achieved. Banque Centrale Populaire (BCP), a leading retail bank, launched a basic bank account ([LIB](#)) in 2008, with a cash withdrawal card, for a monthly maintenance fee of 5 dirhams (0.60 USD). We estimate the number of LIB clients to around 1 million people as of end of 2012. BCP uses its microfinance association (FBPMC) to originate new clients. Attijariwafa Bank, another leading retail bank, launched also in 2009 “Hssab Bikhir,” a service aimed at low-income users. This service was launched in partnership with their subsidiary WafaCash, the most successful agent so far in Morocco for bill payments, and correspondent banking.

To mention just a few other examples, Al Barid Bank started with 4m clients in 2011 and planned to reach approximately 6m by the end of 2013. A few banks announced their intention to run a downscaling program (Technical Assistance program of GIZ – SCBF) and leading MFIs are considering upgrading (from NGO to bank) as a priority for the next few years.

MICRO-BUSINESSES

If we consider Micro-businesses as businesses with less than 10 employees, they represent 97.7% of all non-agricultural companies in Morocco, and are the main employer with 64.7% of labor¹. As of today, between 800k and 1m micro-businesses are active clients of MFIs ([Mix Market](#)). The same Mix Market highlights that the sector is targeting around 3.2m clients in 2020, which is probably close to be the maximum number of micro-businesses in the country. We estimate on our side that there are around 1m formal micro-businesses in Morocco and between 1.5 and 2m informal ones.

The following graph, also from Bachir Hamdouch, ERF Research Report, highlight the distribution by sector of micro- and small-businesses:



KiWi's target being essentially micro- / small- shops and restaurants, we could estimate that at least 50% of micro-businesses are potential clients as per sector segmentation, meaning around 1.5m points of sales.

¹ ERF RESEARCH REPORT, Bachir Hamdouch

As a very rough estimate, bearing in mind basic selection criteria, we could estimate that around 350,000 merchants can be considered as tier 1 target:

Microbusinesses	3,200,000
Commerce & Restaurants (56%)	1,792,000
Urban population (58%)	1,039,360
Age 20-39 (33%)	342,989

The urban population is targeted first as it is where the highest concentration of cardholders can be observed. Young merchants are targeted because adaption to change and technology absorption are key success factors to the project.

ePAYMENTS

The generally observed “distortion” in the ePayments ecosystem is particularly true in Morocco. Cards issuance is huge (10m cards, fast growth) and acceptance is extremely small, 30k POS, from which only 15K are active (at least 1 transaction per year). Mobile Money initiatives failed so far, with MobiCash (Maroc Telecom - 2010) as the most visible example.

Cash is king in Morocco, with a little but fast growing cards presence, and a little and stable checks presence. Smartphones are following emerging markets trends, with a fast growth and strong price reduction observed during the last 12 months:

Morocco is one of the most advanced countries in terms of ePayments in Africa, but with results still far below emerging markets such as Mexico:

(in millions, estimates)	Morocco		Mexico		Kenya		Worldwide	
# cards	10	31%	110	91%	11	26%	7000	93%
# M-S- business	3	9%	8	7%	3	7%	700	9%
# POS	0.03	0.09%	0.4	0.33%	0.02	0.05%	50	1%
# Smart-phones	3.6	11%	25	21%	4.3	10%	1300	17%

Mexico is definitely an attractive market for the ePayment acquiring business, as cards issuance is high and growing, while acceptance remains extremely low (500 POS for 100,000 habitants, compared to 1000 in Brazil or 3000 in Spain). This is why as of today, at least 10 to 15 mPOS providers are launching an acquiring solution with local banks in Mexico. Competition will be strong and consolidations are likely to occur already in the short term.

Kenya seems to have a weaker infrastructure than Morocco but in reality, Kenya's ePayment industry has now a bigger [mobile money](#) ecosystem than cards.

The attractiveness of Morocco for KiWi relies on the following aspects:

- It is not a mobile money country. First attempts failed. The examples of Mobicash from Maroc Telecom and Lilkoul from Méditel & BMCE are well described in a field study by [EIB research](#). Mobile Money will not be a credible alternative to cards in Morocco for a few more years at least;
- ePayments are growing very fast in Morocco. 211 Million ATM and POS transactions have been done in Morocco in 2012 (source: [CMI](#)). This represents a 16% increase compared to 2011, showing the dynamism of the industry.
- The only acquirer in Morocco has been CMI for years. This monopoly is ending right now, with 2 new acquiring licenses to M2M and ABB. Both are still far from being bullish, with no clear business model in mind yet. No mPOS solution is on the market neither. We expect a strong inertia and a lack of new business models, with a clear opportunity for KiWi.

Foreign cards represent 43% of POS transactions and 57% of ATM transactions. This particularity shows that in the short term, touristic areas should be targeted to reach a reasonable level of transactions. The only drawback here is the interchange rate for international cards (1.6%) while local brands are around 1.1% to 0.6% (applicable to groceries and kiosks).

The total value of transactions reaches 16.8b USD in 2012 in Morocco. It is slightly lower than Mexico, showing that the average ticket size in Morocco is very high. Numbers are estimates, from different sources, but it is still possible to point out that:

- CMI targeted more "travel agencies" kind of merchants than mom and pop's;
- There is no POS payment culture in Morocco, this should not be underestimated. The challenge is in changing habits, even more than in many other emerging markets.

From a field visit perspective, it is clear that the large majority of cardholders are in the biggest cities and touristic areas of the country. Rural areas are not deserved yet. However, semi-urban areas can already be considered as interesting for an acquiring perspective:



- City of 15,000 habitants
- 2 MFIs branches
- 3 Banks branches, with 1 ATM each
- 1800 Al Amana clients, 1/3rd with a bank account
- 6 Al Amana loan officers, collecting cash 30 times a week

SMARTPHONES

This section is highly inspired by [EIB](#) Study on Mobile financial services in Mediterranean Partner Countries, 2012. Morocco is a leading country of its region in terms of mobile phones per capita:

Mobile Phones Penetration	Rate
Morocco	109%
Algeria	99%
Tunisia	116%
Egypt	97%
West Bank & Gaza	97%
Jordan	116%
Lebanon	81%
Israel	130%

This is also above Mexico, whose penetration rate is still around 85%.

Smartphones are not well established yet, with 3.6m users (11% of the population), 2.8m of them using a 3G account. This is much less than in Mexico (21%) and similar to Kenya (10%). However, the number of smartphones is growing very fast: sales jumped 120% between 2012 and 2013 (IDC). The age of smartphone ownership peaks between 25 and 34 and falls as age progresses.

The likelihood to find smartphone owners among micro-merchants in 2014 is relatively low, while the situation will change very quickly from 2015. This means that KiWi will have to find a partnership with the smartphones industry, which could lead to joint offerings. Smartphones can already be found at a price of 100 USD and prices will drop within 2014. As per EIB, Maroc Telecom, the historical player, is still market leader with 47%; Méditel, who started in 2000, follows with 33%; and Inwi gets 20% after only 6 years of operations.

A target of young merchants is probably a good bet both in terms of agility with technology and ownership of a smartphone.

Field work has been encouraging in the smartphones area. Even in small towns, several kiosks were selling smartphones, and it was relatively frequent to see people in the streets with a smartphone.

The overall connectivity of the Moroccan MNOs (Maroc Télécom, Méditel and Inwi) is very good, not only in the biggest cities. In Sidi Bouknadel, the connectivity of smartphones was very good and no network problem could prevent transactions from being sent by data networks. Of course rural areas might be more challenging but experts confirmed us that connectivity is good almost everywhere and purely rural areas are not in KiWi's agenda in the short term.

It is still not clear if merchants with a Smartphone will automatically go for a data plan.

Merchants

KiWi conducted a field study in Casablanca, Rabat, and peri-urban cities, in order to assess opportunities and challenges directly with merchants. This section highlights key findings.

PRICING

Information collected on pricing was very different from one merchant to the other, and apparently highly overestimated. This is probably due to merchant's lack of understanding of financial services, but also to the a) complexity and b) lack of transparency of the current pricing of CMI to final users (merchants). Some merchants even think that the discount rate is around 10%.



Mustapha, a kiosk owner, find the commission rate very high:

"I make 5% on cigarettes, 6% on airtime and 12% on newspapers.

If I have to pay 3 or 4%, how can I survive?"

A transaction fee of 3% to 3.5% seems to be affordable in general, but remains too high for certain products. Another merchant, selling fabric, is a CMI inactive merchant because of the 3% to 5% commission he was charged.

Instead of going into a reduction of the discount rate for certain industries, or even products, a well-targeted rewards program could offset the above-mentioned challenge on affordability. It will also be important to target merchants whose business generates higher margins, like in services.

INDUSTRIES SPECIFICITIES

Cards are not positioned in Morocco as a day-to-day payment tool. It is mainly used for products like plane tickets or online purchases, with a high ticket size. Kiosks and Groceries for example do not feel that their business fit with ePayments.

Taking this statement into account, two non-exclusive options could be considered by KiWi:

- 1) No fixed fee, % only, with strong marketing on this to merchants and cardholders;
- 2) Focus on industries with a ticket of + 10 USD



Retailers and restaurants are much less reluctant to accept cards, the well positioned and big ones already being targeted by CMI. The following came from discussions with relatively small entities:

- Average ticket size approximating 150 MAD (18 USD), a ticket that themselves describe as interesting for cards payments;
- Tourists frequently ask and insist to pay by card;
- Customers are more and more aware of payments cards advantages, mainly because of a) the social class that frequent this places; b) the growing reward programs of issuers;
- Customers' fear of theft when walking with cash.

Discussions with restaurants led to the conclusion that once a restaurant accepts cards, its sales by cards reach quickly around 50% of total sales. Same conclusion with clothes shop owners, telling us that "cards are well understood and accepted today in Morocco". However, for kiosks and groceries, growth of ePayment vs. cash is much slower.

Said produces and sells leather clothes in a touristic market.

He accepts payment for his shop but many other shops come to him to use his terminal.

“If you send the tourist to an ATM, the chance to see him back with the money is very low”



TAXES

One of the main reasons why merchants prefer cash to ePayments are taxes. ePayments make incomes traceable, with a potential impact on both VAT and income tax. This is why a project like KiWi is of high potential in the challenge of formalizing the economy at the bottom of the pyramid. The challenge for KiWi is then to show more advantages than drawbacks in accepting cards payments.

VAT issue

The % of VAT can be considered as one of the country selection criteria for a project like KiWi. VAT in Morocco is comparable to EU rates: 20%, with reductions to 7%, 10% or 14% depending on the industry.

Pending question: VAT

It is still unclear if the issue with VAT is a lack of understanding / complexity, or if the financial impact is really strong for micro-merchants. If it is the former, KiWi could include a good VAT management tool in its solution. If it is the latter, the ROI for merchants should be carefully recalculated. More investigation at merchant level is needed to see how much VAT they (could) charge and also deduce.

Incomes tax issue

Corporate tax in Morocco is about 30%. Incomes tax is an issue if 100% of sales are made by card, which is obviously not the case with micro-merchants. We expect merchants to do 5% to 10% of their sales by card (except restaurants), meaning that this will not affect their income tax in the short term.

Formalizing incomes tax will be progressive and will not affect micro-merchants. However, they still believe it will be a strong burden for them, meaning that a clear message on taxes will have to be included in the sales pitch.

If taxes become a strong issue, it will be important to target industries that cannot play too much in the black market, like travel agencies for example, formally issuing plane tickets, working with airlines.

SUPPLIERS

Most of groceries and kiosks cash out at least 3 to 4 times a day to pay suppliers:

- It takes approximately five minutes per operation with an average ticket size of 1000 MAD (120 USD) for groceries, mainly for dairy products and soft drinks.
- Kiosk average ticket size is higher, mainly for newspapers for around 180 USD in average per day, or for cigarettes, lottery and airtime, for around 3000 – 4000 USD per week.
- Restaurants pay their suppliers around three times per day, mainly for food products and soft drinks, with an average ticket size of 2000 MAD (240 USD).

Payments to suppliers are both a huge challenge and a huge opportunity:

- A challenge because merchants need cash to pay their suppliers: “I don’t accept cards because I have cash expenditures all along the day”. Accepting cards reduces cash in hand; but cash in hand is required to buy from the vast majority of suppliers;
- An opportunity for an ePayment solution including payments to suppliers. Not only because the number of transaction and ticket size are very good, but also because it reduces merchants’ cash requirements, and further incentivizes them to accept their customers’ cards.

OTHERS

Other relevant information came from interviews, and led to the adaption of KiWi’s solutions. Collected information also served to develop the key messages to support the difficult change of habits required from micro-merchants.

Topic	Impact	Monitoring
Fixed phone line required	+	Not required by KiWi. Getting a smartphones is easier (aspirational product).
Complicated contractual process	+	KiWi’s material is tailored to micro-merchants
Contracts get cancelled by CMI if a minimum turnover is not achieved	+	Highlight that once a merchant owns a KiWi solution, it cannot be taken back
A fee per transaction might go against religious beliefs . This does seems to be even less problematic than for interest rates but has to be carefully reviewed	-	See if there is any Islamic banking practice on that matter and evaluate feasibility
It takes at least 30 minutes for merchants to deposit their cash in their bank account, everyday	+	KiWi reduced cash in hand

Value added services are very interesting for kiosks and groceries, but not at all for restaurants and clothes stores.	-	VAS (in other words, new incomes) cannot be the only strategy to make merchants like KiWi's solution.
Merchant's customers don't like to check if the money they get in return is fake or not	+	Pay the exact amount by card
Merchant's customers don't like ATMs that much because a) they can be expensive (0.7 USD per withdrawal in average); and b) they are a favored place of thieves	+	Highlight security improvements generated by KiWi solution
Merchants provide credit to their clients, to a higher extent than what is done in other emerging markets	+	KiWi eKiosk can help them monitoring credit.
Merchants report that they get their money on the bank account 1 or 2 days after a transaction is made, and are happy with it	-	Probably not possible to use the float for risk or profitability reasons.

As a conclusion to this chapter, it is clear that the biggest competitor of KiWi is **Cash**. Merchants find cash extremely convenient as everybody understand how it works, no additional fees are charged, ATMs are well established with Morocco's cities. However, some signs show a certain readiness for change:

- "Cash can be fake"
- "Cash can be stolen"
- "Cash means travels to get some money and deposit money"
- "Cash is not the favored mean of payment of tourists, and it is less and less appreciated by the local medium class"
- "It's hard to control expenses and incomes with cash"
- "More and more customers go to shops that accept cards because of their cards loyalty programs and payment options"

Key Stakeholders

During the study, KiWi met different stakeholders, at Headquarters level (CEOs) as well as field level (branches and clients interviews...). The main objective was to understand better the positioning of each of them, in order to develop the right partnerships and position well KiWi within the industry.

ACQUIRERS

Up until recently, there was only a single acquirer in Morocco, named Centre Monétique Interbancaire ([CMI](#)). Founded by 9 major banks of the country, CMI is the historical acquirer. Before that, 4 partially interoperable centers were responsible for processing the card transactions of 12 banks.

In the current landscape, CMI will continue to offer its service and two other players are in the process of getting an acquiring license from Al-Maghrib, the central bank, namely [Al Barid Bank](#) and [M2M Group](#).

CMI



CMI is currently offering free POS solutions to its clients with reasonably low discount rate, on both local and international cards. CMI is also responsible of the maintenance and support of the POS, from preventing and correcting malfunction to extensive support, e.g., delivering paper recharges for printing the receipt. CMI manages a 30K POS park all over Morocco, with half of them considered as inactive (a POS is considered active when at least 1 transaction per year is processed).

CMI accepts EMV cards: VISA, MasterCard, Maestro, Diners Club International, JCB and CPA card: cmi (a debit brand that is local to Morocco and sponsored by the CMI).

CMI is present in large cities, with large and medium retailers, or SMEs such as travel agencies or touristic restaurants. As the business model is a free POS and 50% of them are already inactive, CMI carefully select merchants and is very conservative in its distribution. Even though, 70% of transactions are below 70 MAD (8.5 USD).

The point of view of the CMI on the market, as of today, is that the problem comes from cards issuance, not from acceptance. Basically, their 15,000 active POS, placed in the best locations, are barely sustainable. Therefore, the number of transactions per POS with the next 50,000 merchants would not make the business sustainable. Out of the 10 million cards in the market, only 1.2 million are used on POS. The vast majority does ATM operations only.

CMI already works with aggregators. Their current offer is to give 0.2% per transaction to aggregators. An aggregator must have a secured line between its back-end and CMI, at a cost of around 360 USD a year.

As of today, CMI contracts require a merchant bank account and a collateral (90 USD for restaurants). However, for micro-merchants, it is totally plausible for CMI to consider a settlement on a prepaid account; easier to open, and cheaper, with costs of around 8 USD per year or 12 USD every two years.

The discount rate (55% goes to the issuing bank, 45% to the acquiring bank) charged by CMI is as follows (estimates):

- 1.5% medical sector (drugstore, etc)
- 0.9% for small shops (grocery stores, etc)
- 0.7% large retailers
- Nothing or almost nothing for oil

Contractual information for CMI merchants can be found in Appendix of this study. Note that in terms of pricing, information received directly by merchants did not fully correspond to numbers provided by CMI (see merchants section [here](#)).

Experts we met also highlight the fact that banks offer CMI POS solutions to their clients. Two elements are key to understand the position of CMI:

- 1) The banks own CMI with the objective of getting a cheap price / high quality service
- 2) Banks offer POS solutions to their good clients, not with an acquiring business in mind, but as a value added service to their best clients, generating profit out of other products such as loans.

CMI is open to a potential partnership with KiWi as an aggregator. The challenge would be to find a viable business model (the current fee paid to aggregators is very low), but also to make sure that CMI would accept to test new models and ideas. As per today, the acquirer seems to prefer a conservative position, waiting for a stronger issuance before any real POS expansion.

Al Barid Bank

Al Barid Bank is a subsidiary of Barid Al-Maghrib (Poste Maroc) and was launched in 2010 with around 4 million customers inherited from the post, reaching around 6 million customers by the end of 2013. They have launched a project of Mobile Banking in 2013 (developed by [Saphir](#)) – working solely with Al Barid Bank clients. They are in the process of becoming acquirer to compete with CMI. Technically speaking, they are relying on Visanet, and are awaiting authorization from the central bank.

Al Barid Bank could become a strong acquirer, due to its size in terms of clients (6m) and branches (1800, 1/3 of all banks branches of the country, well expanded in rural areas). ABB does not include the acquiring project into its financial inclusion activities, targets being more Medium- and upper-end Small businesses. The bank is very interested in both technical and commercial outsourcing, and is open to a potential partnership with KiWi as an aggregator. Challenges here would be to see if the bank is able to put the required resources to the project, due to several other priorities running, such as Mobile

Banking. Another question pending would be to see if the bank would accept to run on the back of another brand (KiWi).

M2M Group

Created in 1990, M2M Group is a global software solution provider for secure electronic transaction management. Today more than 300 institutions in more than 50 countries use M2M solutions. 80% of the turnover comes from outside Morocco.

M2M Group applied and received the acquiring license in Morocco. The group founded the company NAPS in 2013 and hired a leading MasterCard manager to run the business (Q3). The acquiring business model is still under construction, however M2M knows that they enter this side of the business to make a big difference. Some certifications are still pending with CMI (as an issuer and switch) as well as card schemes. This could delay M2M's entry as an acquirer.

The other challenge for M2M will be to migrate from a "back end" identity to a "front end" business, as an acquirer. The opportunity working with M2M is that the company owns the most advanced ePayment acquiring technologies, with positive impact on risk management as well as VAS. As per example, M2M airtime platform would be a "ready to use for KiWi".

Working with an aggregator like KiWi makes particularly sense for such an organization, whose first opinion on a partnership was positive. M2M would be an interesting partner for KiWi as the acquirer's value proposition includes processing and VAS solutions. It will be important to estimate well when M2M will be ready to operate as an acquirer (they forecast Q3 2014 but it could be later).

AGENTS

Agents / Correspondents are not directly competitors or partners of KiWi, but they have an impact on ePayment acceptance:

- They are the champions of value added services "VAS". If an extensive network for bill payment exists, then offering to merchants the possibility to accept bills becomes less relevant;
- They are even better than ATMs. Meaning that cash becomes even more convenient with them, further increasing the challenge of POS transactions.

This chapter briefly describes the 2 main players in Morocco, [WafaCash](#) and [Tasshilat](#).

WafaCash

Operates a network of 350 franchised outlets and 1.200 access points offering cash transfer services, boasts 30% of the international remittance market and has an aggressive plan to extend the network to 1.000 outlets, including partnerships with MFIs, such as below with Al Amana:



On the top of money transfers, WafaCash offers different services such as cash payments for e-commerce orders (websites), or deployment of prepaid cards:



- Deployment of CMI prepaid card [Floussy](#)
 - Card price: 99 MAD (12 USD)
 - Refill price: 10 MAD (1.2 USD)
 - Card validity: 2 years

Note that this card could potentially replace the merchant account.

KiWi could also become a distributor of this CMI card or equivalent (a M2M/ABB card for example).

M2T (Espace Tasshilat)

WafaCash branches are mainly dedicated to WafaCash products and services. The processor [M2T](#) chose a lighter model that fits with smaller shops, potentially micro-merchants, who will see Tasshilat as a way to diversify incomes and bring more clients to the shop.

Characteristics of Tasshilat are:

- Settled at kiosks and groceries stores;
- More than 800 Tasshilat vendors in Morocco, growing fast from 2013;
- Decision to affiliate a new agent is taken at M2T head office. 3 days after reviewing the forms filled by the agent, it takes around 3 days to M2T to send a delegate to inspect the merchant store. If approved and once a guarantee is paid, the agent is registered and get a terminal (computer) to process transactions.
- The average commission made by an agent is 1 MAD per transaction (12cts USD).
- In order to use the service the merchant need to be sure that no other merchant uses the service in the neighborhood area

The rapid growth of Tasshilat is contrasted by the unmet expectations of enrolled agents like Hassan, telling us:



“With 1 MAD per transaction I am not interested anymore”

“I feel that I spend most of my time attending clients for a few dirhams, leaving aside my traditional customers”

“It is wrong that people coming to pay for electricity will then buy something else”

Agent models are not challenging merchant models as they will always have a limit in terms of number of agents, while every single merchant could get a POS. However, agent models are interesting to see what works or not in terms of VAS, highlighting needs or on the contrary showing what will quickly become an obsolete VAS.

MFIs

As per Mixmarket, the MFIs landscape of Morocco is as follows:

MFI's - most recent data	Report date	Loans	Borrowers
Al Amana	6/30/2013	237,182,257	314,878
ATTAWFIQ Microfinance	6/30/2013	199,026,891	223,551
FONDEP	2012	81,599,046	128,620
ARDI	3/31/2011	25,461,490	105,708
Al Karama	6/30/2012	4,050,300	15,845
Attadamoune	6/30/2013	5,364,470	13,508
INMAA	6/30/2013	2,385,030	5,793
AMOS	2010	709,029	2,779
ATIL	2009	653,485	1,376
AIMC	2011	374,177	1,329
Zakoura	2010	171,458	455

Compared to Africa generally speaking, this can be considered as a large market. Compared to Asia and Latin America, it would be a small to medium market, highly concentrated (4 leading MFIs, with a huge gap with following entities).

KiWi visited [Al Amana](#) during the feasibility study, head office (Rabat) and a small semi-urban town between Casablanca and Rabat ([Sidi Bouknadel](#)). See detailed information in Appendix. The MFI is interested in becoming a KiWi distributor and sees a strong value added for their customers.

Starting from their current portfolio, they evaluate the number of potentially interesting merchants to 60-70,000, meaning around 20%. This is a relatively low number but it makes sense bearing in mind that the MFI is essentially rural.

CPGs



The Consumer Packaged goods industry is very interesting to KiWi for both loyalty programs (boost transactions) and distribution (access more merchants).

Most of merchants' suppliers (see above) are CPGs, who are working with a network of hundreds of thousands of small groceries, kiosks and restaurants in Morocco.

Brands like Coca Cola, Nestlé, P&G, L'Oreal, represent strong potential partners for KiWi.

Collaboration with CPGs will have to be further analyzed in the short and medium term. The value proposition to CPGs so far could be described as follows:

- Payment: Merchants use KiWi solution to pay their suppliers
- Orders & Logistic: KiWi organizing purchases from merchants to CPGs (currently done on paper by an employee)
- Loyalty programs: CPGs products sales are increased through rewards for cardholders at KiWi merchants stores (B2C), or through direct rewards to the merchants themselves (B2B)
- BI: Analytics from KiWi from collected data
- CSR: showing CPG's interest in improving the quality of life of micro-merchants and their families

Regulation & Compliance

REGULATION

As per EIB [research](#), Morocco has probably the most favorable regulation to mobile financial services in the region:

Regulations	E-money	Agent	Payment Service Providers	Mobile Financial Services	Regulatory Framework
Morocco	Yes	Yes	Yes	Yes	Evolving
Algeria	No	No	No	No	Does not exist
Tunisia	No	No	Yes	Yes	Restrictive
Egypt	Yes	Yes	Yes	Yes	Enabling
West Bank and Gaza	No	No	No	No	Does not exist
Jordan	No	No	No	Yes	Enabling
Lebanon	No	No	Yes	No	Restrictive
Israel	No	Yes	Yes	No	Enabling

As per EIB research, Bank Al-Maghrib has clear authority over payment systems. The national Telecommunications Regulator (ANRT) recognizes such authority and expressed no interest in getting involved in regulating mobile financial service.

All experts met during the study confirmed that Bank Al Maghrib has financial inclusion high in its agenda. Recent press releases tend to confirm this support: “[fondation marocaine pour l’éducation financière](#)”. The central bank’s own [strategic plan](#) makes clear that financial inclusion is one of its 4 main axes of work.

As per EIB research, the financial authorities of Morocco have made significant efforts to adapt both the regulatory environment and promotion of banking initiatives. Examples of these efforts are: the creation of Al Barid Bank (Formerly La Poste Services Financiers); the change in the regulatory context of the microfinance sector, and the current banking law changes allowing institutions providing payment services to issue e-money.

That said, it is important to understand well the impact of the current regulation on KiWi’s business model, bearing in mind that KiWi is the master-merchant of an acquirer, managing sub-merchants, offering an ePayment acceptance solution as well as value added services. Considered VAS are:

- a) Airtime topup
- b) Bill payment
- c) Loan repayment

KiWi does not need a banking license, neither a “Payment Service Providers” license, thanks to its partnership with an acquirer. The acquirer itself could be a bank or a PSP. As per our understanding so

far, M2M applied for a PSP license to become both an acquirer and an issuer. An amendment to the Law N°34-03 will allow M2M to issue electronic money payments. As per EIB report: “These modifications, currently being drafted, should be passed by the end of 2013 according to the Central Bank and will increase substantially the competition in the payments market currently controlled by the banks”.

The [new law](#) “projet de loi relatif aux établissements de crédit et organismes assimilés” has been adopted in January 2014. The law mentions “établissements de paiement” (Art. 15) for organisations who are performing the following activities:

(Art. 16):

- Les opérations de transfert de fonds
- Les dépôts et les retraits en espèces sur un compte de paiement
- L'exécution d'opérations de paiement par tout moyen de communication à distance, à condition que l'opérateur agisse uniquement en qualité d'intermédiaire entre le payeur et le fournisseur de biens et services
- l'exécution de prélèvements permanents ou unitaires, d'opérations de paiement par carte et l'exécution de virements, lorsque ceux-ci portent sur des fonds placés sur un compte de paiement

On entend par compte de paiement tout compte détenu au nom d'un utilisateur de services de paiement et qui est exclusivement utilisé aux fins d'opérations de paiement.

Becoming an “établissements de paiement” requires an “agrément” from Bank Al-Maghrib. As per Art 32.2 :

Les demandes d'agrément pour exercer en tant qu'établissement de crédit, soit en qualité de banque, soit en qualité de société de financement, soit en tant qu'établissement de paiement doivent être adressées à Bank Al-Maghrib qui s'assure notamment:

- Du respect par la personne morale postulante des dispositions des articles 35, 36, 37, 38 et 44
- De la qualité du projet envisagé et son adéquation par rapport aux moyens humains, techniques et financiers de la personne morale postulante ;
- De l'expérience professionnelle et de l'honorabilité des fondateurs, des apporteurs du capital, des membres des organes d'administration, de direction et de gestion ;
- De la capacité du postulant à respecter les dispositions de la présente loi et des textes pris pour son application ;
- Que les liens de capital pouvant exister entre la personne morale postulante et d'autres personnes morales ne sont pas de nature à entraver le contrôle prudentiel.

A chapter of the law is also dedicated to intermediaries. However, articles mention rules for “établissement de crédit” only, not mentioning if “établissements de paiement” are included or not:

Article 161

Est intermédiaire en opérations effectuées par les établissements de crédit toute personne qui, à titre de profession habituelle, met en rapport les parties intéressées à la conclusion de l'une des opérations prévues à l'article 1er ci-dessus, sans se porter ducroire. L'activité d'intermédiaire ne peut s'exercer qu'entre deux personnes dont l'une au moins est un établissement de crédit.

Article 163

Les intermédiaires en opérations effectuées par les établissements de crédit exercent leur activité en vertu d'un mandat délivré par un établissement de crédit. Ce mandat mentionne la nature et les conditions des opérations que l'intermédiaire est habilité à accomplir.

Pending questions: Regulation

Many questions remain open with regard to regulation. Most of them will be answered by card brands (MasterCard / Visa), the chosen acquirer, or directly Al-Maghrib. It seems unlikely to find an established local lawyer specialized in this topic. First meetings have not been conclusive, both in terms of price and know-how. Managers at MasterCard confirmed that a lawyer is probably not the right person to help solving most of those questions in Morocco.

- What kind of entity is KiWi for Al-Maghrib?
 - Etablissement de paiement?
 - Intermédiaire en opérations bancaires?
 - Intermédiaire “Etablissement de paiement”?

Our understanding (needs confirmation) is that KiWi will be a bank agent, (IOB, Intermédiaire en Opérations Bancaires), acquirers being authorized to outsource financial services through partnerships with commercial institutions. The partnership needs to be approved by the central bank. IOBs may only be legal entities established as SAs or SARLs.

With an acquirer like ABB it seems to be straightforward, would a PSP and/or “établissement de paiement” also be allowed to work with an intermediary?

- Once this question is solved, will the regulation be different for KiWi depending on which services are provided? Will KiWi require another kind of authorization for airtime? For bill payment? It will be important to understand well the difference between a pure “merchant” business compared to an “agent” business.
- Can KiWi use distributors such as MFIs and CPGs? How are they considered by the regulator? As ISOs? (Independent sales organization)? Does the central bank have to validate the partnership?

The questions above will probably not be answered yes/no by any local specialist. The proposed business model is innovative and does not exactly fit in any formal category. That said, the central bank is very open to innovation since it supports the goal of financial inclusion.

With that in mind, KiWi's best will probably be:

- 1) Check with MasterCard and Visa locally, ask them as much support as possible for registration and set-up (it is part of their functions);
- 2) As the partner bank to work with its legal team on what can be done or not, bearing in mind that it is the bank's responsibility to verify that KiWi is an authorized partner as an aggregator;
- 3) Go twice to Al-Maghrib:
 - a. once with a general presentation and pending questions
 - b. a 2nd time to initiate a formal presentation of the project

Other questions:

- Can MFIs issue prepaid cards?
- Customer protection: what is owned by the merchant, by KiWi, by the acquirer? Can KiWi use collected data for Business Intelligence? For credit scoring?
- Merchants with POS observed during the field visit frequently charged their clients for the transaction fee. A travel agency for example charges 3.5% additional to clients paying by cards vs. by cash. Is this legal in Morocco? Is it a compliance issue with card brands? Any risk on the aggregator?
- As per Article 39, does KiWi need a habilitation from FINMA or other Swiss entity?

Article 39

Lorsque la demande d'agrément émane d'un établissement de crédit ayant son siège social à l'étranger, soit pour la création d'une filiale, soit pour l'ouverture d'une succursale au Maroc, cette demande doit être accompagnée de l'avis de l'autorité du pays d'origine habilitée à délivrer un tel avis.

Other questions related to regulation can be found on the business model section.

COMPLIANCE

Compliance here is meant as the obligations of KiWi vs. third parties, mainly card brands (Visa / MasterCard / CMI) and the acquirer.

This section might be further described in the future. As of today, both Visa and MasterCard confirmed their willingness to support the creation of KiWi. This means that their specialists will support KiWi in every step of developing a fully compliant solution. This includes AML and CFT compliance, PCI, EMV and other certifications. A good overview of mPOS compliance can be found on MasterCard [website](#).

What can be said here is that KiWi is going for the safest technological solution. A full EMV solution will for example waive any liability shift, meaning that issuers remain in charge of investigation in case of fraud, until the responsibility of a merchant is not proven.

Core product

Bearing in mind the preliminary studies done in Morocco, KiWi built a minimum viable product with a) a starter kit to improve customer adoption & usage; b) a hardware accepting payment cards and enabling the payment in a secure way and c) a software installed on the merchant's smartphone acting as an electronic Kiosk.



- An **affordable** card reader & app that works on her phone
- Targeted offer including financial **education** best practices
- An eKiosk generating new **incomes** from day 1
- Access the KiWi starter kit through trusted **suppliers**
- **Loyalty** programs for herself, customers and suppliers

STARTER KIT

Financial education is key to guarantee the success of technology at the bottom of the pyramid. This is true for products such as solar lamps, cookstoves, microcredit, microinsurance, and of course mobile money and ePayments. The first step of an efficient financial education is a carefully designed solution that will make user experience as smooth and natural as possible.

On the top of an ergonomic hardware and software solution, KiWi designed a starter kit that will further improve merchant's adoption:



- Merchant contract, reviewed through focus groups with micro-merchants;
- User kit, "4 steps cartoon" for activation
- Troubleshooting kit
- KiWi community stickers for merchants
- Pocket book (emergency ticket solution)
- Bank account application form
- Smartphone and 3G pack application form

In addition to of the starter kit, merchants will also have access to videos directly on their smartphones. It is also worth mentioning that a specialized call center answers their questions 7/7 – 24/24. KiWi's customer care staff is also dedicated to onsite support. KiWi negotiates attractive packages with banks and MNOs for their merchants.

HARDWARE

The card reader accepts payment cards with chip and magstripe. The dongle, being EMV II compliant, will accept chip & PIN transactions, meaning that a PIN pad is provided on the dongle itself. (In the near future, it will be possible to enter the PIN directly on the smartphone, but for the moment, the regulations do not allow this). The dongle is connected to the smartphone with a jack connection (headphone connection) or via bluetooth. KiWi is currently in final discussions for a “jack” device, Bluetooth being difficult to manipulate for merchants (as per field study results). In case of fallback to sign (chip & sign or swipe & sign), the signature is made on the smartphone of the merchant.

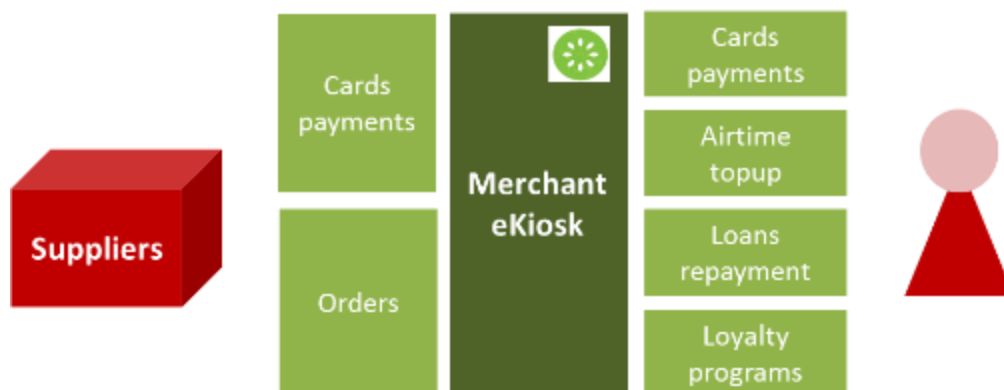
All the private and sensitive information about the payment is encrypted by the dongle itself and sent to the payment gateway handling from authorization to settlement with the acquirer in compliance with highest security standards (PCI). As of today PCI-P2PE is not mandatory.

No printer is included in the minimum viable product. Tickets will be available for cardholders through:

1. SMS
2. Email
3. Pocket book (if SMS or email does not work for the cardholder).

eKiosk

The merchant application running on the merchant’s smartphone is named the eKiosk. It is a KiWi application targeting micro-merchants offering them to sell its products and also new services, bringing him new sources of revenues and/or reducing his expenses:



The eKiosk is a register for both cards and cash transactions. Merchants can reference their products and detail their sales and purchases. To keep it as simple as possible, they can also easily avoid this function while keeping a reasonable tracking of their sales and purchases:



The front-end is divided into 2 main sections: supplier side, and customer side.

Customer side

The minimum viable product includes four components within the customer side section:

1) Card payments



The first function of the customer side is card payments. It allows customers paying by cards in a minimum number of clicks, providing them with relevant information and electronic ticket once the transaction is confirmed.

The eKiosk is an app designed and customized especially for micro-merchants. This app relies on a payment application or module for executing the payment, relying the encrypted information from the dongle to the back-end, i.e., payment gateway.

The revenue model is described in a subsequent [chapter](#).

2) Airtime topup



The second function on the “customer side” is airtime topup. The eKiosk provides to merchants a quick way to recharge prepaid accounts. This works with the 3 mobile operators.

Acquirers like M2M are willing to act as wholesalers, buying airtime from operators and selling it to merchants.

Wholesalers get 6-7% from MNOs;

Merchant get 5-6% from wholesalers;

KiWi will charge 0.5% per topup to wholesalers for the airtime platform provided to its merchants.

3) Loans repayment

KiWi’s loans repayment functionality is under development. Final investments will be subject to:

- Final recommendations related to the regulation of financial intermediation
- Formal agreement with Al Amana or other relevant MFI, confirming their interest in this branchless solution
- Detailed workflows showing a way for KiWi not to get into liquidity management, funds being immediately transferred from the merchant to the MFI once the money is cashed-in.

4) Loyalty programs



KiWi deals directly with CPGs on behalf of its merchants to get them the best rewards as possible.

That way, merchants can reward their clients without having to disburse anything, the program being financed by others.

2 functions exist:

Reward merchant’s customers (traditional)

Reward merchants directly (new)

The reward to customers will come in a version 2, including an eFidelity application for KiWi merchants’ customers.

KiWi charges a fee to CPGs for every merchant who achieves the weekly or monthly objective (this fee can be waived through a distribution agreement).

Supplier side

The supplier side is also divided into 2 components: 1) card payment and 2) orders.

1) Card payment

Card payment is using the same front end than on the customer side. The difference is in the fact that the merchant uses his own prepaid or debit card and that the money is routed to the suppliers' account.

KiWi will partner with prepaid or debit card issuers to include it in the packaging. KiWi will get a commission per card issued, as a simple ISO.

2) Orders

This functionality, developed in partnership with a local sales force automation specialist used to CPGs, is a key asset of KiWi's solution. Suppliers will save a lot of time and money: no need to collect cash anymore, no need to equip staff with mobile POS neither.

The solution is at no cost to merchants. KiWi will get a fee per order from CPGs (this fee can be waived through a distribution agreement).

Business Model

A solution targeted at micro-merchants such as the one proposed by KiWi relies on multiple suppliers and partners. First, every transaction at a merchant with a card will have to go through multiple technology layers until the merchant receives the money. Second, there is some real technology, as opposed to virtual, that not only needs to be distributed to the merchant (see previous chapter), but this technology needs to be actively maintained and supported and there is also a need for continuous education on its usage, development and providing incentives to use and continue to use.

KiWi is defined by the ePayment industry as an aggregator (other terminologies found are “payment facilitator” and “master-merchant”). The following scheme gives an overview of the ecosystem:



Taking the ePayment value chain into account as well as the Moroccan context, KiWi is proposing the following framework. This “Aggregator” model has been discussed with all stakeholders and will serve as a basis for the formalizing of agreements among parties. It will then be tested and fine tuned during the pilot phase.



Appendix

APPENDIX A: CMI'S TEMPLATES

Centre Monétique Interbancaire
S.A. AU CAPITAL DE 98.200.000 DH - Siège Social : 8, ANGLE AVENUE MOULAY RACHID ET RUE BAB EL MANSOUR 20050 CASABLANCA
TEL : 022 94 23 73 (L.G.) - FAX : 022 94 24 00 - R.C. : 107713 - I.F. : 1032578 - PATENTE : 35607251

Adhésion au Système de Paiement par Carte
Conditions Particulières

N° commerçant N° point de vente MCC ☐ Création ☐ Avenant

COMMERÇANT

Nom ou raison sociale du commerçant

Secteur d'Activité Acronyme

Adresse du point de vente

Ville Code postal

Registre de commerce Patente Quartier

POINT DE VENTE

Adresse d'envoi du relevé (si différente)

Ville Code postal

Nom du représentant légal

Fonction CIN

Téléphone Fax GSM

E-mail Acronyme

LISTE DES COMPTES DE DOMICILIATION

	C.Banque	C.Ville	Numéro de compte	Clé RIB	Devise	(1)
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

Compte à activer à la création ☐ Répartition du chiffre d'affaire en % 1 2 3 4

(1) C : Création, A : Annulation

SYSTEMES ACCEPTES ET CONDITIONS

VISA **MasterCard** **cmi** **JCB** **Diners Club International**

Plafond FAR (Autorisation au 1er DH) Frais de location TPE DH / TPE / mois (TTC)

Taux de commission Visa/Mastercard/JCB (HT) Taux de commission Diners (HT)

EQUIPEMENTS

Nombre de FAR Nombre de TPE Grappe* ☐ Autonome ☐

* une grappe est un ensemble de TPE(s) reliés à un serveur chez un même commerçant.

Je soussigné, adhère par le présent contrat au Système de Paiement par Carte, proposé par le Centre Monétique Interbancaire, aux conditions particulières indiquées ci-dessus et reconnais avoir pris connaissance des conditions générales du Système de Paiement par Cartes figurant au verso de ce contrat et déclare les accepter sans réserve.

Fait à le

Signature de l'adhérent précédée de la mention " lu et approuvé " Date et Signature Autorisée du Centre Monétique Interbancaire

APPENDIX B: DASHBOARD AL AMANA OCTOBER 2013

A-Ressources	2009	2010	2011	2012	Fin Oct 2013
Effectif Siège	241	218	180	175	176
Effectif Réseau	1 892	1 866	1 923	1 879	1 969
Effectif Global	2 133	2 084	2 103	2 054	2 145
Nombre de points de vente/Rural	191	191	193	189	191
Nombre de points de vente/Urbain	221	225	244	256	267
Véhicules Guichets	29	29	29	51	88
Réseau global	441	445	466	496	546
Fonds Propres(DH)	537 930 798	508 655 038	544 336 896	607 698 798	704 757 838
Encours Dettes(DH)	2 208 333 424	1 942 854 446	1 687 843 638	1 343 992 761	1 270 217 510
Fonds Propres/EncoursDettes	24%	26%	32%	45%	55%
Fonds Propres/EncoursCrédit	20%	21%	27%	31%	35%
B-Activité					
B-1:ActivitéMicrocrédit	2009	2010	2011	2012	31/10/2013
Nombre de Prêts Débloqués de l'année	304 538	217 812	196 170	211 481	184 088
Volume de Prêts Débloqués de l'année(DH)	3 051 919 128	2 274 058 114	1 855 172 436	1 891 312 008	1 709 100 612
Nombre global de PrêtsActifs	407 201	339 927	296 454	307 274	326 566
Nombre global de PrêtsActifs/PI	238 561	249 441	200 539	203 615	219 030
Nombre global de PrêtsActifs/PS	168 640	93 181	95 915	103 659	107 536
Nombre global de PrêtsActifs/Urbain	201 506	222 363	152 780	161 308	174 152
Nombre global de PrêtsActifs/Rural	205 695	117 564	143 674	145 966	152 414
Nombre global de PrêtsActifs/Homme	240 647	202 966	174 991	181 492	192 405
Nombre global de PrêtsActifs/Femme	166 554	136 961	121 463	125 782	134 161
EncoursCréditGlobal(DH)	2 736 114 724	2 430 428 211	2 001 716 412	1 944 189 524	2 029 344 535
Taux d'endettementcroisé	15%	13%	13%	10%	10%
B-2:ActivitéTransfertd'Argent	2009	2010	2011	2012	31/10/2013
Nombre de Transactions				23 425	277 866
Volume de Transactions(DH)				50 700 954	596 173 021
B-3:ActivitéMicroassurance	2009	2010	2011	2012	31/10/2013
Nombre de clients Bénéficiaires Produit Assistance				40 471	181 845
Nombre de SinistresTraités				30	736
C-RisqueCrédit	2009	2010	2011	2012	31/10/2013
Coût de Risque	6,0%	7,1%	5,0%	3,6%	2,2%
PAR30J Production de l'année(DH)	59 437 123	46 150 027	17 819 291	16 952 502	12 800 876
%PAR30J Production de l'année	1,95%	2,03%	0,96%	0,90%	0,63%
Taux de Provisionnement du PAR30J	67%	81%	80%	89%	91%