MENA DIGITAL PAYMENTS REVIEW

MOROCCO – LIBYA – WEST BANK – IRAQ

Revised Draft Final Report

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USAID ME Bureau Office of Economic Growth Middle East Economic Growth Best Practices Project (MEG)

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List of Acronyms

A2F	Access to Finance
ACC	Automated Check Clearing
ACH	Automated Clearing House
AFI	Alliance for Financial Inclusion
AI	Artificial Intelligence
AISP	Account Information Service Provider
AML	Anti-Money Laundering
AML/CFT	Anti-Money Laundering/Combatting the Financing of Terrorism
ANRT	Agence Nationale de Réglemantation des Télécommunications
ATM	Automated Teller Machine
B2B	Business to Business
B2G	Business to Government
BAM	Bank Al Maghrib
BIS CPMI	Banking for International Settlements Committee on Payments and Markets Infrastructure
BSP	Bangko Sentral ng Pilipinas
CBI	Central Bank of Iraq
CBL	Central Bank of Libya
CDD	Customer Due Diligence
CMC	Communications and Media Commission
CMI	Centre Monétique Interbancaire
COD	Cash on Delivery
DFS	Digital Financial Services
DP	Digital Payment
EIS	Expert for Integrated Solutions
EMI	Electronic Money Issuer
EMV	EuroPay MasterCard Visa
FATF	Financial Action Task Force
FIU	Financial Intelligence Unit
FMCG	Fast-Moving Consumer Good
FX	Foreign Exchange
G2B	Government to Business
G2P	Government to Person
GCC	Gulf Cooperation Council
GPSS	Global Payment Systems Survey
GSIMT	Groupement pour un Système Interbancaire Marocain de Télécompensation
ICT	Information Communications and Technology
IIMPS	Iraqi Interoperable Mobile Payment System

IMF	International Monetary Fund
INRS	Iraqi National Retail Switch
IQD	Iraqi Dinar
ITU	International Telecommunication Union
KII	Key Informant Interview
KYC	Know Your Client
LPFM	USAID Libya Public Financial Management Program
LPITC	Libyan Post, Telecommunications and Information Technology Company
LYD	Libyan Dinar
MAD	Moroccan Dirhams
MENA	Middle East and North Africa
MFI	Micro Finance Institution
MFS	Mobile Financial Services
MFW	Micro Fund for Women
MNO	Mobile Network Operator
MOU	Memorandum of Understanding
MPAS	Middle East Payment Services Company
MPoS	Mobile Point of Sale
MTIT	Ministry of Telecommunications and Information Technology
MTO	Money Transfer Operator
NCMC	National Communications and Media Commission
NFIS	National Financial Inclusion Strategy
NPC	National Payments Council
NPS	National Payment Systems
P2G	Person to Government
P2P	Person to Person
PCI-DSS	Payment Card Industry Data Security Standards
PCMA	Palestine Capital Market Authority
PI	Payment Institution
PISP	Payment Initiation Service Provider
PKI	Public Key Infrastructure
PKI	Public Key Infrastructure
PMA	Palestinian Monetary Authority
POC	Point of Cash
POS	Point of Sale
PSD	Payment System Department
PSD2	Payment Services Director 2
PSP	Payment Service Provider
PTRA	Palestinian Telecommunications Regulatory Authority
QR	Quick Response

RBA	Risk-Based Approach
RPSI	Retail Payment System Infrastructure
RTGS	Real-Time Gross Settlement
SIM	Subscriber Identity Module
SME	Small and Medium Enterprise
SSO	Single Sign-On
TA	Technical Assistance
TOR	Terms of Reference
UNCDF	United Nations Capital Development Fund
USAID	United States Agency for International Development
WB	World Bank
WCO	World Customs Organization

Glossary of Terms

Access Point: Location where end users can use their transaction account to withdraw cash, make purchase transactions, and send or receive remittance transfers. An access point can be physical (e.g., bank branch, ATM, post office, shop) or virtual (e.g., website, telephone). (CPMI-WB)

Acquirer: The entity or entities that hold(s) deposit accounts for card acceptors (merchants) and to which the card acceptor transmits the data relating to the transaction. The acquirer is responsible for the collection of transaction information and settlement with the acceptors. (CPMI)

Agent: There are two types of agents-payment agents and banking agents. A payment agent is a third-party operator that captures or distributes remittances or money transfers on behalf of a payment service provider. "Capturing" means receiving the money and instructions from the sender. "Disbursing" means giving the money to the receiver. A banking agent is a third-party such as a retailer, mobile network airtime reseller, exchange house, or public sector networks like the post office or national lottery, which banks contract to process banking transactions. (CPMI-WB)

AI Chatbot: Artificial intelligence or conversational chatbots are intent-based computer programs that use artificial intelligence to bring a conversational approach to customer service. Chatbots in financial services provide a range of services, including enhanced money/financial management tools, financial advice/comparison shopping, instant loan approval, insurance claim settlement, virtual assistant services, remote onboarding of customers, regulatory compliance, including consumer protection and complaint management, fraud detection, and financial literacy training and tools.

AML/CFT: Anti-Money Laundering and Countering the Financing of Terrorism are the processes used to uncover the illicit origin of the monetary proceeds from crimes and identify funds transfers for those with links to terrorism. An effective anti-money laundering/counter-financing of terrorism framework must, therefore, address both risk issues: it must prevent, detect, and punish illegal funds entering the financial system and the funding of terrorist individuals, organizations, and/or activities. (IMF)

ATM: An electromechanical device that permits authorized users, typically using machine-readable plastic cards, to withdraw cash from their accounts and/or access other services, such as balance inquiries, transfer of funds, or acceptance of deposits. ATMs may be operated either online with real-time access to an authorization database or offline. (CPMI)

E-money: Electronic money is broadly defined as an electronic store of monetary value on a technical device that may be widely used for making payments to entities other than the e-money issuer. The device acts as a prepaid bearer instrument that does not necessarily
involve bank accounts in transactions. E-money products can be hardware-based or software-based, depending on the technology used to store the monetary value. (ECB)

FinTech: Fintech refers to technology-enabled innovation in financial services (CPMI)

Interoperability: The technical or legal compatibility that enables a system or mechanism to be used in conjunction with other systems or mechanisms. Interoperability allows participants in different systems to conduct, clear, and settle payments or financial transactions across systems without participating in multiple systems. (CPMI)

Issuer: Issuer is sometimes used to refer to a financial institution that issues credit, debit, or prepaid cards and digital wallets.

Mobile money: Mobile money, as defined by the Global System for Mobile Communications (GSMA), includes transferring money and making and receiving payments using the mobile phone. Note that the term mobile money is a subset of electronic money, so e-money includes mobile money. (GSMA)

Non-bank financial service provider/institutions: A financial institution that is not defined as a "bank" (e.g., a financial institution other than a BIS credit institution in Europe or a depository institution in the United States). (CPMI)

Payment service provider: An entity that provides payment and/or remittance services. Payment service providers include banks, deposit-taking institutions, and specialized entities such as money transfer operators, e-money issuers, and payment operators. (CPMI-WB)

POS: This term refers to using payment cards at a retail location (point of sale). The payment information is captured either by paper vouchers or electronic terminals, which in some cases are also designed to transmit the information. Where this is so, the arrangement may be referred to as "electronic funds transfer at the point of sale" (EFTPOS). (CPMI)

QR Code Payment: QR code payment is a contactless payment method where payment is performed by scanning a QR code from a mobile app. This is an alternative to electronic funds transfer at point of sale using a payment terminal.

Trust Account: Account held by a non-bank payment service provider issuing e-money with a deposit-taking institution to deposit the outstanding e-money float. (CPMI-WB)

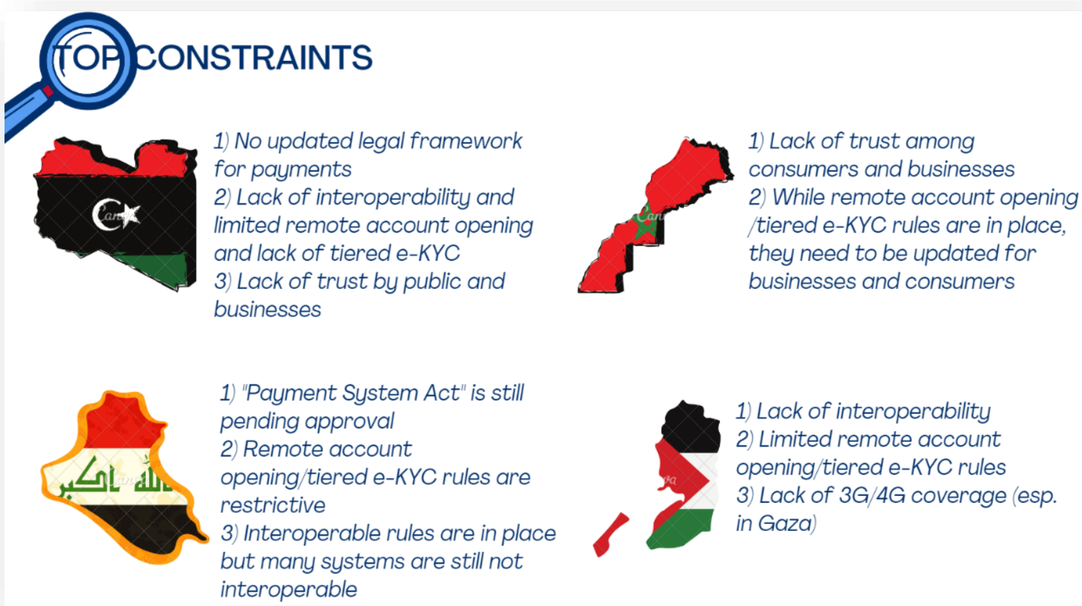
EXECUTIVE SUMMARY

The adoption of digital financial services (DFS) can promote economic transparency and efficiency, enhance financial inclusion for those currently excluded, or partially excluded from the current DFS environment, and expand opportunities for women. However, in the four jurisdictions under particular consideration in this report: Libya, Morocco, Iraq, and the West Bank and Gaza, the adoption of DFS by individuals and businesses, has been slower than expected, and these countries still rely heavily on cash.

This report provides an overview of the major pain points and opportunities for these countries to better embrace digital payments by both individuals and businesses, as well as to more effectively serve women and persons in rural areas. It also identifies critical items that need to be addressed to increase the use of digital payments across the entire ecosystem.

On a positive note, several jurisdictions in the region have prioritized financial inclusion by setting actionable and measurable targets under the Maya Declarations (a global initiative for sustainable, poverty-reducing financial inclusion launched in 2011). They have also been active members within the Alliance for Financial Inclusion (AFI). Moreover, the rise in the issuance of e-money products, including prepaid cards and digital wallets, has resulted in an increase in financial inclusion rates across all four jurisdictions.

At the same time, it is also worth noting that a major gender divide in access to digital payments/finance continues to exist, with men having significantly more financial accounts than women. This appears to be due to several socio-institutional factors, which could in part be addressed through improved remote account opening rules and tiered Electronic – Know Your Customer (eKYC) policies, as well as targeted financial literacy tools.



Policy/Regulatory Environment: An appropriate legal and regulatory enabling framework that is predictable, risk-based, proportionate, and transparent needs to be in place to support digital payments. While almost all countries in the MENA region have authorized and licensed non-banks to provide e-money services, Morocco has made the most progress among the countries in question by introducing regulations that promote competition, interoperability, e-money based payment services by non-bank payment service providers (PSPs), simplified due diligence of consumers, and merchants, and enhanced consumer protection requirements. Morocco has also developed a standardized framework for Quick Response (QR) codes.

Other countries in the region that have made significant progress in terms of regulatory policies promoting e-payments/finance include Jordan and Egypt, which have mandated interoperability, introduced tiered Know Your Customer (KYC) policies, and put functional regulatory sandboxes and innovation hubs in place. The West Bank and Gaza has also made tangible progress in key legal/ regulatory reform areas, and the PMA is expanding its efforts to enable a regulatory sandbox. While enabling policy progress has been limited in Libya, Iraq has made strides in digital payment accounts and started to list financial inclusion figures on their website.

Digital Finance Ecosystem: It is worth underscoring that the quality of relevant financial and payment system infrastructures is uneven for the four case-study countries included in this study. Across Iraq, Libya, and West Bank/ Gaza, there is limited availability of reliable ATMs and POS services. Moreover, there is no system-wide interoperability within their respective retail payment ecosystems.

This tends to create siloed effects that limit transactions between various financial institutions and digital Payment Service Providers (PSPs). Further, remote accounting opening procedures and KYC processes for consumers remain cumbersome. PSPs and financial institution partnerships, common in markets like Jordan, Egypt, and to a certain extent Morocco, are limited in Iraq, Libya, and West Bank/Gaza. Agency banking (3rd party provision of financial services outsourced by a bank) has not been implemented in Iraq, Libya, or West Bank/Gaza.

	Morocco	Libya	WBG	Iraq
% of people with transaction accounts (2020)*	53%	70%	44%	45%
Point of Sale Terminals per 100,000 (2020)**	100	182	165	16

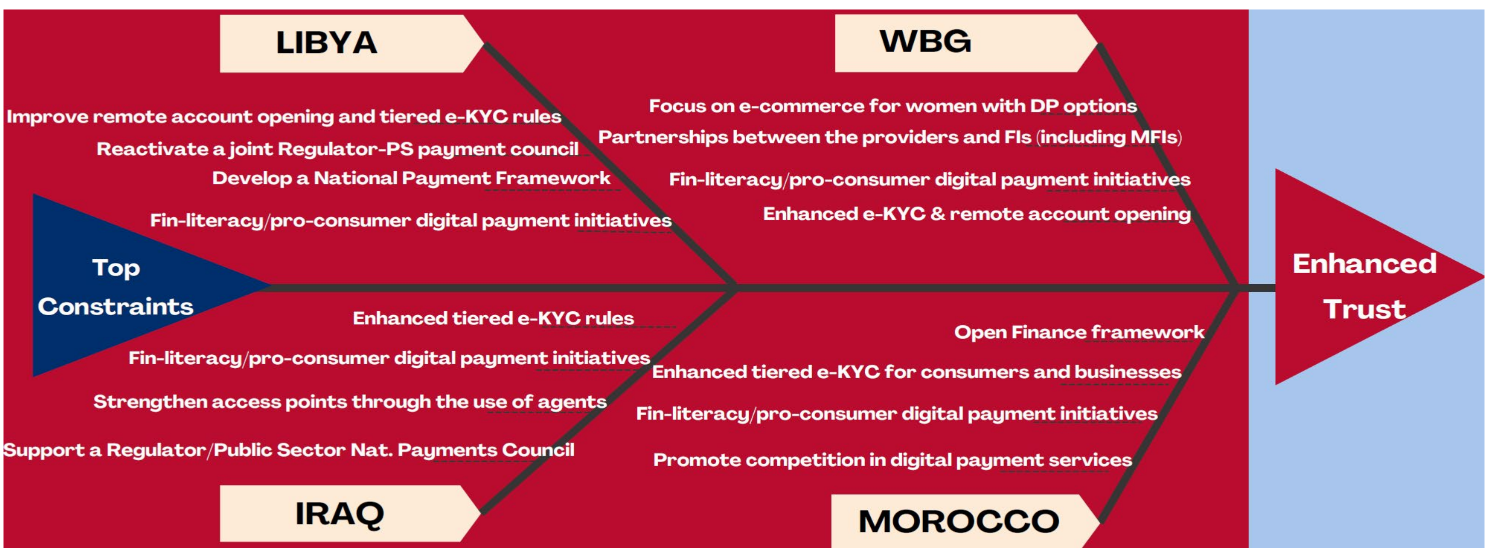
**From 2017 to 2021, the avg. rate of account ownership in developing economies increased by 8%, to 71%. It grew the fastest in countries that offered simplified and easy access to digital transactional accounts, especially e-money in countries like China where account ownership reached 89% and India which reach 78% (US was 95%, most of the EU, Japan, Singapore were all over 98%).*
***POS per 100,000 people indicates the access level for cards. Regional digital payment leaders Saudi Arabia and UAE have over 2,500/100,000 and 1,550/100,000 respectively.*

Attitudes & Trust: Acceptance of digital payments is low in all four jurisdictions, with Morocco having the best mobile network coverage in relative terms. E-commerce has emerged as an expanding – though still chronically underutilized - means of payment for goods and services during the pandemic for all the countries in question. Moreover, the gender gap in mobile phone/ internet access remains a challenge. Given that more than 80% of all e-commerce transactions across all four countries continue to be carried out on a cash-on-delivery basis, there is clearly potential to further leverage e-channels to promote digital payments - especially for women. Cash is the preferred payment instrument for retail payments due to habit, as well as comfort with cash as a payment method. The size and dominance of the informal economy also contribute. Low awareness of the benefits of digital payments, coupled with a lack of trust in the financial system and limited familiarity with digital technologies, are critical constraints as well.

Industry codes of conduct along with enhanced consumer protection regulations are also areas that can improve consumer trust. Given the high social media usage in MENA, artificial intelligence (AI) bots embedded through social media/messaging apps that support awareness, enhance financial literacy, allow for comparison shopping, and improve consumer complaint management represent high-impact, low-cost tools. These can significantly improve trust in digital payments. They can also provide consumers with the ability to rate financial service products and services and promote greater competition in the market. USAID has already supported interactive chatbot development in the area of digital financial literacy in markets like Mr. Finance in Myanmar and for financial consumer complaint management in the Philippines[1].

Ultimately the public needs to know that it will have adequate consumer protection recourse for addressing irregularities that may arise with reference to digital transactions. Within the context of the fragile governance frameworks across the MENA region, this requires a multifaceted strategy. Many critical reforms referenced above – resolving interoperability constraints, establishing a trust account and e-signature regulatory framework that protects transactional integrity, a well-publicized industry code of conduct, and AI tools that provide robust market intelligence –build confidence in the legitimacy of the digital finance ecosystem.

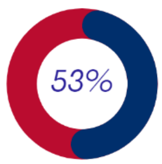
In addition, a structured consumer protection enforcement framework that monitors and protects consumer interests by responding to consumer complaints – as well as by coordinating with other regulatory bodies to encourage rigorous compliance with core digital payments/finance guidelines by market players – can serve to further buttress public confidence in the viability/integrity of digital transactions. Taken together, this network of digital finance policy/regulatory/institutional-strengthening reforms can, over time, help 'tip the balance' of consumer and merchant sentiment; and drive a major uptick in digital payments/finance coverage for the MENA region.



Mena Digital Payments Review: Opportunities

[1] See "R2A Chatbot Prototype Helps the Philippine Central Bank Sort and Resolve Complaints" https://bfaglobal.com/r2a/insights/r2a-chatbot-prototype-helps-the-philippine-central-bank-sort-and-resolve-complaints/

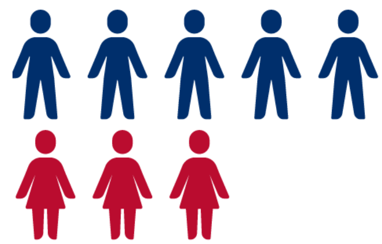
MOROCCO



53% of Moroccan adults have a financial transactional account (bank account or e-wallet account).

Background: According to updated data from the Central Bank of Morocco's (BAM's) Annual Supervision Report in 2021, 53% of Moroccan adults have a financial transactional account (bank account or e-wallet account). However, there was still a nearly 27 percent gender gap in account ownership. The banking sector is well established, with 30 foreign-owned and domestic banks and a network of 6510 branches and 7734 ATMs. To improve mobile payment uptake among consumers/merchants, BAM launched a national initiative in 2018 to promote an interoperable mobile payment ecosystem. This included banks, payment institutions, mobile network operators (MNOs), and the National Telecommunications Regulatory Authority.

Morocco is primarily a cash-based economy. However, due to the pandemic and the growing confidence in DFS, the number of electronic payments has increased. The upward trend of online payments is linked to the development of online bill payment services (telephone, water, electricity, etc.) and the increase in e-gov payments (tolls, tax, etc.). In addition, there has been dramatic growth in the volume of mobile e-money payments in 2021 as well. The number of mobile e-money accounts increased from 1.4M as of end-2020 to 3.4M by end-October 2021.



However, approximately for every five men, only three women have accounts.

Policy/Regulatory Environment: The Government of Morocco has initiated a number of targeted actions to promote DFS by encouraging mobile payment methods. This includes establishing a new type of payment service provider (Payment Institutions or PIs – 22 registered so far) under the Revised Banking Law of 2015. In addition, a comprehensive regulatory framework to ensure inter-operability has been adopted. The underlying infrastructure and new policy/regulatory framework provide an opportunity to increase the ubiquity of mobile payments as an effective replacement for cash.

At the same time, the policy framework could be modified further to encourage the use of digital transfers for salary, B2B, and bill payments (especially P2G and G2P payments). In addition, the business practices of banks and PIs need to evolve to support more customer-centric, transaction-focused revenue models. To improve the adoption of mobile wallets among consumers and merchants, BAM has introduced streamlined, tiered KYC requirements. However, additional simplification of these requirements could generate further uptake, while effectively supporting greater access for women.

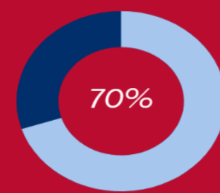
Digital Finance Ecosystem: To foment payment system diversity, BAM should consider an **Open Banking or Open Finance framework** that would allow a new type of "light" Payment Service Provider (PSP) license. Digital payments could also be grown by targeting certain types of merchant segments which are well-connected to the consumer base. These include retail chains, fast-moving consumer goods (FMCG) value chains, cooperatives, and expanded use of Quick Response (QR) codes. To facilitate behavioral targeting, it could prove useful to conduct market segmentation analysis to understand buying habits (especially for women/youth).

Attitudes & Trust: Lack of knowledge and awareness causes mistrust and avoidance, which is why incentives alone will not suffice. To build customer trust, there is a need to explain the benefits of digital payment (and broader digital financial services) and how to use these services. Artificial Intelligence powered chatbots that would provide well-targeted information and potential ranking of providers, as well as promote greater financial literacy, could help improve services in Morocco. In addition, clear information on consumer recourse channels at the regulatory level to resolve payment irregularities will likely prove very useful.

LIBYA

LIBYA

Large number of transaction accounts in Libya are explained by the fact that approximately 85 percent of the Libyan workforce is employed by the public sector, and of which, 70 percent receive their wages directly in bank accounts. Most bank accounts are limited to receiving wages only. 43 percent of private sector workers receive wages through bank accounts.



Background: It is estimated that bank account ownership in Libya effectively increased from 66% in 2017 to 72% in 2021. About 85 percent of the Libyan workforce is employed by the public sector, and 70 percent of wages for such employees are transferred via bank accounts. However, most bank accounts are limited to receiving wages, and this arrangement has not leveraged progress on access to other forms of digital financial services (including savings and credit). The Central Bank of Libya (CBL) intends to leverage FinTech-led technological developments and innovations in digital financial services (DFS) for purposes of strengthening its national payment system and improving financial inclusion.

Libya's financial sector is heavily dominated by a network of state banks. Moreover, at present, there is no system-wide interoperability within the retail payment ecosystem. This creates a segmented and inefficient e-payments transactional framework, inhibiting the growth of e-payment networks. However, despite political economy uncertainty and state-bank dominance, new FinTech and non-bank PSPs are starting to offer early-stage digital payment services. Overall, the share of Libyans using mobile phones to access their accounts remains low. Despite high account ownership, there are low levels of financial intermediation, and cash is the main payment instrument. Business reluctance to accept electronic payments is a barrier to usage.

Policy/Regulatory Environment: In March 2020, CBL issued e-payment regulations that included the licensing/supervision framework for e-payment service providers. While this is a major step forward, additional policy/regulatory improvements are still required to better support digital payments expansion. This includes the development of a National Financial Inclusion Strategy (NFIS), which effectively targets financial access in conflict-impacted areas (Eastern and Southern Regions).

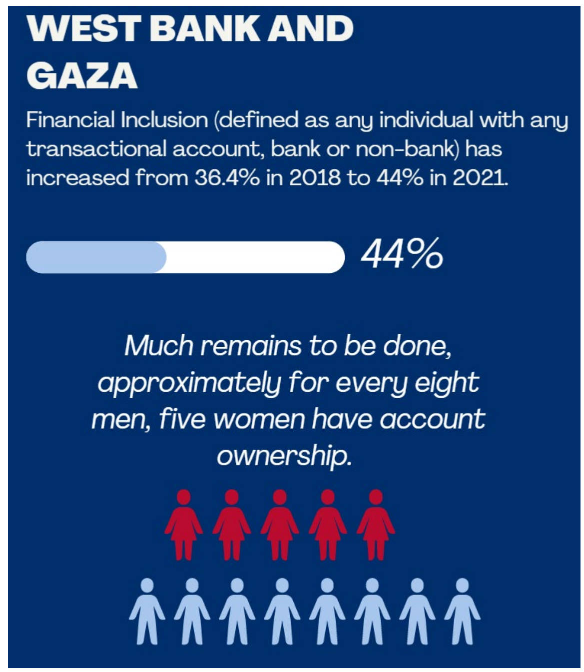
A complementary National Digital Payment Strategy should be considered; to better define/address key policy gaps inhibiting adequate digital payment access points and constraining inter-operability of digital payment systems. The National Payment Council (NPC) could be leveraged to align the strategic goals of key public/ private stakeholders and to enhance progress on inter-operability and e-signature issues. At present, these dramatically constrain the ability of merchants/end-users to complete e-payment transactions across distinct e-payment channels in a cost-effective/time-efficient/reliable manner.

Digital Finance Ecosystem: Under an updated national payment strategy, a more cohesive approach could be taken by CBL to introduce healthy competition and remove barriers hindering an integrated e-transactions system. Moreover, since KYC processes for consumers remain cumbersome, streamlining of KYC provisions for low-value, low-risk customers should be encouraged, and modernization of databases should be undertaken to facilitate easier KYC and customer onboarding. Consideration should also be given to linking access to CBL monetary resource transmission tools to commercial banks committed to providing efficient e-payment services. This, for instance, could entail gradually linking commercial bank access to potential rediscount line resources to progress in enhancing the provision of e-payment/finance services.

Attitudes & Trust: To ensure that digital payments usage can be further accelerated, time-bound financial incentives (discounts, repayments, points) could be explored that could be applied to sustain/expand the adoption of digital payments by commercial banks, merchants, and consumers. In addition, financial literacy/educational efforts, such as low-cost AI interactive bots that facilitate enhanced awareness of the convenient and reliable applications of e-payments/e-finance mechanisms and promote competition, can help build confidence in e-transactional tools.

WEST BANK AND GAZA

Background: As a fundamental step for adopting an effective national strategy for financial inclusion, the PMA, and the Palestine Capital Market Authority (PCMA) published the National Financial Inclusion Strategy for 2018 – 2025. Its strategic goal is to increase the level of financial inclusion from 36.4% to 50% by the end of 2025. Overall financial inclusion figures have since jumped to 44%. Although Palestine's financial sector has made important progress in recent years, much remains to be done. There are 13 regulated banks with a total network of 380 branches and offices operating within Palestine. There are also more than 710 ATMs and over 8,500 POS terminals. The total number of Licensed Money Changers is 245, the total number of Licensed Electronic Payment Services Companies is 5, and the total number of Specialized Lending Institutions is 8 (with 96 Branches).



Policy/Regulatory Environment: While there exists, a reasonably sound enabling environment for digital payments, there are significant areas for improvement. Reforms that: (1) improve the regulatory framework for interoperability, (2) facilitate the utilization of e-signatures, and (3) establish a transparent e-commerce and related consumer protection regulatory framework, could play a major role in facilitating further e-payments/finance expansion. Such reforms would especially help women who are highly engaged in social e-commerce. These reforms can be leveraged through key private associative interlocutors, such as the Bankers Association, who could pursue needed priorities with the PMA and other relevant public decision-makers.

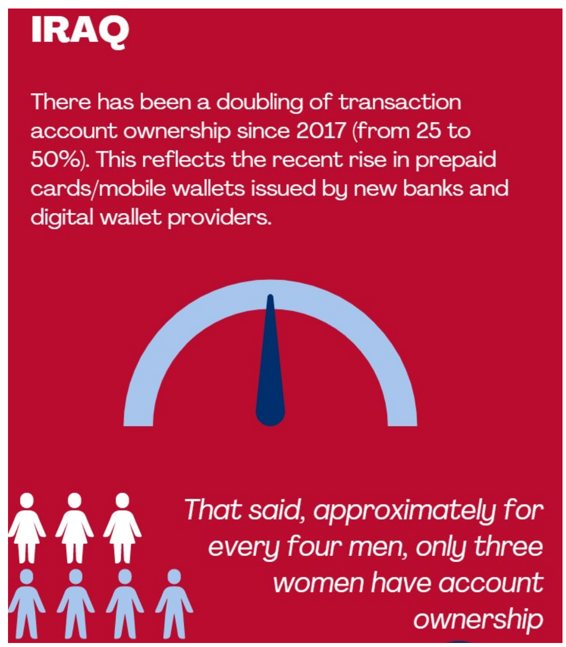
Digital Finance Ecosystem: PSPs have expressed great interest in partnering with progressive banks/MFIs to support the expansion of innovative digital payment/credit services. Moreover, the adoption of an industry code of conduct to better support DFS adoption and expansion can help promote public confidence. This, in turn, could help complement consumer protection measures adopted by the financial regulator. Existing KYC processes are complicated and inconvenient for customers, especially for women and those in rural areas. In addition, a major gap inhibiting DFS expansion is the lack of infrastructure to support a Digital ID.

Targeted support for Palestinian Mobile Network Operators to promote digital payments could help them jointly develop and deploy a digital ID/digital signature service based on SIM card usage. This service could then be used to secure both financial and non-financial electronic services initiated by approved Mobile Apps, thereby expanding population coverage – including within rural areas. The enhanced security provided by digital signatures would, in turn, increase public trust in MFS, while simplifying the eKYC process for those with digital IDs.

Attitudes & Trust: There remains a general lack of trust in and understanding of digital payments' benefits and how to use them. To address these issues, interactive low-cost AI bots could be implemented by a consortium of DFS players to build trust and expand e-payment usage, especially for women, youth, and those in rural areas. This tool could facilitate customer ratings to promote competition and better-informed choices among digital products and services.

Consumer complaint management services could also be effectively incorporated as a core feature of the chatbot as well; to improve consumer redress and trust. In addition, more rigorous consumer protection commitment and related industry commitment (through related industry code of conduct provisions) would further build public trust as well. It is worth noting that the Bankers Association has underscored its strong interest in promoting effective AI applications in support of expanded digital payments/finance coverage as well.

IRAQ



Background: Currently, there is no primary legislation for payment systems in Iraq. The National Payment Systems (NPS) Act has been submitted to the Shura Council for approval. Once the NPS Act is adopted, it will be critically important that the CBI enact sound complementary secondary legislation. This includes regulations on e-money, agent banking, and electronic fund transfers, for which initial drafts have reportedly been prepared.

The CBI operates the Real-Time Gross Settlement System (RTGS), the Automated Clearinghouse (ACH), and the national card switch -- integrated with a mobile money switch. There are 81 banks in total, of which 74 are privately owned, and 7 are publicly owned. Also, there is a growing presence of fintechs, with 14 licensed PSPs now operating in Iraq.

There has been a doubling of transaction account ownership since 2017 (from 25 to 50%). This reflects the recent rise in prepaid cards/ mobile wallets issued by neo banks and digital wallet providers. Several providers, including Zain Cash, are looking at merchant payments and e-commerce gateways to take advantage of the growth in e-commerce -- especially among women. At the same time, the lack of coordination between the CBI and the Communications and Media Commission (CMC) on the digital finance regulatory framework complicates the process of effectively integrating Mobile Network Operators (MNOs) into the digital payments sphere.

Policy/Regulatory Environment: Key policy/regulatory pain points that need to be addressed include: (1) Establishment of a tiered KYC policy and digital remote onboarding framework to increase access for women and rural residents; (2) Establishment of a formal digital payment data collection process by CBI, employing regulatory technology (RegTech) solutions to enhance data collection efforts with service providers; (3) Formulation of an action-oriented MOU by CMC and CBI to promote a harmonized regulatory framework for mobile finance channels in digital payment service provision; and (4) Expansion of the National Payment Council (NPC) to include more private sector stakeholders, and revamping of its oversight focus to include more direct action to expand digital payment coverage/acceptance.

Digital Finance Ecosystem: Iraq has been sluggish in leveraging value-added digital financial services (e.g., credit, loans, insurance). Limited availability of easy-to-use contactless payment technologies constrains digital payment options at present. New agent banking regulations could unlock low-cost agent banking networks and help banks expand into underserved areas. USAID has had a successful track record of helping banks utilize agent banking services and could help develop/apply an agent banking toolkit to fast-track development. Lastly, the rapid expansion of social media-enabled e-commerce (primarily by women) further underscores the opportunity of promoting digital payments usage through innovative e-commerce applications.

Attitudes and Trust: Limited consumer education, inadequate commercial bank outreach capacity, unreliable electricity services, and weak network connectivity have limited DFS expansion in Iraq. In this regard, a dynamic interactive AI-assistance tool could help educate consumers and provide financial and business advice (through illustrative use cases of digital payment applications). It could also promote greater public trust and strengthen competitive pressures through widely available consumer rating/scoring activities.

Moreover, the removal of remaining inter-operability constraints, and broadening of the digital service provider network to include trusted non-banking agents, can further enhance consumer trust in the reliability of digital services. Finally, strengthened consumer protection guidelines and enforcement will help strengthen public confidence in digital payments use as well.

MENA & THEMATIC REVIEW

This section provides a comparative review of the four countries, with a broader analysis of regional findings based on the main topics covered in this study.

FINANCIAL INCLUSION

On a positive note, several regional jurisdictions have prioritized financial inclusion by setting Maya Declarations (a global initiative that sets a measurable set of government commitments)[2]. They have been active members of the Alliance for Financial Inclusion (AFI), including Egypt, Jordan, West Bank and Gaza, Morocco, and recently Iraq. Additionally, the rise in issuance of e-money products, including prepaid cards and digital wallets, has increased financial inclusion rates in all four jurisdictions over the last 5 years.

Based on official statistics from Bank Al-Maghrib (the Central Bank of Morocco) and the Palestine Monetary Authority (PMA) and factoring in growth based on new bank and e-money accounts in Iraq and Libya, the following estimates are made for financial inclusion as of the end of 2021.

	FINDEX 2017	ESTIMATE FOR FINANCIAL INCLUSION IN 2021	PRIMARY CONTRIBUTORS
Morocco	28%	53%[3]	Increased number of e-money accounts issued by Payment Institutions in 2020 and 2021
Libya	66%	Estimate of 70%[4]	Large issuance of prepaid cards to previously unbanked populations to access foreign currency
West Bank	25%	44%[5]	Issuance of digital wallets
Iraq	23%	Estimated around 45%[6]	Increase in electronic payment accounts as well as e-wallets and bank accounts.

The gender gap is quite wide across the four jurisdictions in this study and other parts of the MENA region. This appears to be due to several socio-institutional factors, which could be addressed through improved remote account opening rules, tiered Electronic – Know Your Customer (eKYC) policies, and targeted financial literacy tools. Some interesting initiatives to support financial inclusion, especially the use of DFS, include Egypt, which has prioritized financial inclusion for women in its national financial inclusion strategy and is looking at bundling certain digital financial service products that target women to increase uptake and close the gender gap. A similar effort is now underway by Zain Cash in Iraq.

FINANCIAL AND PAYMENTS SYSTEM LEGAL AND REGULATORY ENVIRONMENT

The legal and regulatory framework for financial and payment systems should be predictable, risk-based, proportionate, and transparent. To facilitate innovation and expand the market, this framework should

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[2] See: A Quick Guide to the Maya Declaration https://www.afi-global.org/wp-content/uploads/publications/afi_maya_quick_guide_withoutannex_i_and_ii.pdf
[3] Source: Bank Al Maghrib annual supervision report
[4] Source: KII with local service providers
[5] Source: Palestine Monetary Authority Annual Financial Inclusion Data 2021
[6] Source: Extrapolated from the Central Bank of Iraq statistics and current adult population over the age of 15, which was 25.3 million at the end of 2021. Total electronic payment accounts have increased from 6.4 M in 2017 to 14.9 M in 2021; electronic wallets have increased from 222,000 in 2017 to 2.1 M in 2021; while bank accounts increased from 1.4 M to 6.7 M in 2021. While there is some overlap, we believe that the increase in electronic payment accounts is a good indicator of the growth in financial inclusion figures in Iraq and have likewise used this growth rate to estimate the total number of accounts as a percentage of the adult population in Iraq and have considered the overlap between different types of financial accounts.

allow the participation of new bank and non-bank entrants to participate in the national payment system; it should be technology neutral and not impose high compliance costs or significant barriers. Also, regulations should promote competition in the provision of DFS, especially digital payments, to address issues of concern such as interoperability, adoption of common standards, and support for a greater variety of services. Morocco has made the most progress in improving its enabling environment for DFS by introducing regulations that promote competition, interoperability, the provision of e-money-based payment services by non-bank payment service providers (PSPs), and simplified due diligence of consumers and merchants.

In addition, the Central Bank and the telecom regulator in Morocco have agreed to collaborate on infrastructure for mobile financial services, standards for cryptocurrency, and the use of DFS on 5G networks. Almost all countries in the MENA region have authorized and licensed non-banks to provide e-money services. Morocco has also developed a standardized framework for QR codes. Other countries in the region that have made significant progress in regulatory policies include Jordan and Egypt, which have mandated interoperability, introduced tiered KYC policies, and had functional regulatory sandboxes and innovation hubs in place. The West Bank and Gaza have also made some progress with key legal and regulatory reform areas, and the PMA is expanding its efforts to enable a regulatory sandbox. While the enabling policy environment is limited in Libya, Iraq has made strides in digital payment accounts, and some financial providers have started to list financial inclusion figures on their websites[7]. While some progress has been made for the issuance of e-money instruments, the overall legal and regulatory environment in Libya and, to a certain extent, Iraq still needs to be improved to support the growth of innovative payment products and services.

	PAYMENT SYSTEMS ACT	E-MONEY REGULATIONS	AML/KYC-RELATED REGULATIONS	ATM AND CARD-RELATED REGULATIONS	QR CODE STANDARDIZATION	AGENT BANKING REGULATIONS
Morocco	Yes	Yes	Yes	Yes (mainly to promote competition and interoperability)	Yes	Yes
Libya	Not standalone (it is part of central bank law)	Limited (a CBL Circular issued)	Yes	E-payments law issued	No	No
Iraq	Drafted. Waiting for parliamentary approval	Included in the draft payment systems law	Yes	ATM regulations issued	No	Initial framework drafted. Point of Cash merchants operating now
West Bank & Gaza	Yes	Yes	Yes	ATM regulation Issued	No	No

Source: Pragma research 2022

[7] See the financial indicators page on the Central Bank of Iraq website https://cbiraq.org/SubCategoriesTable.aspx?SubCatID=119

BANKING AND DIGITAL PAYMENT ECOSYSTEMS

Safe and efficient payment infrastructures are needed to effectively deliver DFS, especially digital payments. Infrastructures may be owned and operated by national authorities or by private sector players. The quality of relevant financial and payment system infrastructures is uneven across the four jurisdictions. Morocco, West Bank and Gaza, and Iraq have all developed critical, large value and retail payment infrastructures; including RTGS, ACH, and card switch services; however, Libya has not fully operationalized these systems, in part due to the emergence of dual central bank structures in the Eastern and Western regions of the country. Morocco has the most developed payment system infrastructure for low-value retail payments that are interoperable for cards and mobile payments. The level of interoperability is limited in Iraq (between card and mobile switches), Libya, and the West Bank and Gaza. E-commerce or mobile commerce platforms have taken off in MENA countries, even though most vendors still operate on a cash-on-delivery basis. Morocco, out of the four countries, has the most developed DFS ecosystem overall.

Egypt and Jordan have made significant strides in the region to expand their digital payment ecosystems. Egypt's Fawry, the largest of the payment service providers in the country, is providing bill payments and merchant supply chain payments via its mobile payment application and now boasts outreach to more than 29 million users processing more than 3 million transactions a day. Almost all banks and other financial institutions in Jordan offer digital payment services. In addition, the COVID-19 pandemic helped to encourage large numbers of Jordanians to shift to using digital payments.

The Micro fund for Women (MFW) in Jordan has introduced its e-wallet service to more than 63,000, mostly women clientele throughout Jordan. MFW and other financial players like them are making major strides in the push for digital payment adoption in Jordan.[8]

	INFRASTRUCTURES	ATM AND POS INTEROPERABILITY	MOBILE MONEY INTEROPERABILITY	OPEN BANKING[9]	NON-BANK E-MONEY ISSUANCE
Morocco	RTGS, ACH, Card Switch, Mobile Money Switch	Yes	Yes	No	Yes
Libya	Card Switch, ACH	Limited to banks participating in the switch	No	No	Yes
Iraq	RTGS, ACH, Card, and Mobile payment switch	Yes	Yes	No	Yes
West Bank & Gaza	RTGS, ACH, Card Switch	Yes	No	No	Yes

Source: World Bank Global Payment Survey 2018 and Pragma Research 2022.

[8] https://www.linkedin.com/pulse/jordan-reaching-its-tipping-point-e-payments-amjad-al-sadeq/

[9] Open banking is a financial services term as part of financial technology that refers to:

1. The use of open APIs that enable third-party developers to build applications and services around the financial institution,
2. Greater financial transparency options for account holders ranging from open data to private data.
3. The use of open source technology to achieve the above.

See https://en.wikipedia.org/wiki/Open_banking

TELECOM AND BROADER ICT SYSTEM LEGAL AND REGULATORY ENVIRONMENT

Mobile penetration is a key enabler of DFS. The GCC countries have the highest mobile penetration rates in the MENA region, with rates as high as 186 mobile subscriptions for 100 inhabitants in the UAE and as low as 54 per 100 inhabitants in Yemen. The presence of an independent regulator and the ability of private companies to invest in and operate telecom companies are two factors that are regarded as essential elements for the successful development of the sector.

Independent regulators are especially important in countries where the government owns part or all of one or more service providers. In such cases, an independent regulator can help to limit undue political influence in the development of sector policies and regulations and can also reassure competitors that the regulator will support a level playing field for all operators state-owned and private. An independent regulator can develop and enforce fair rules of competition for the sector and promote the build-out of infrastructure and services to areas that may be uneconomic to serve. Such universal service programs also permit the expansion of e-commerce and DFS to these areas and bring more of the population into the digital economy.

The private sector has dramatically transformed the telecom sector in countries worldwide. State-owned monopolies traditionally under-invested in the sector and failed to bring technical innovation.

Most countries in the MENA region have independent regulators, and almost all have one or more privately owned telecom operators. In the four countries that we are studying, the picture is more varied, however.

COUNTRY	INDEPENDENT REGULATOR	PRIVATE OPERATORS
Iraq	Yes	Yes
Libya	No	No
Morocco	Yes	Yes
West Bank & Gaza	No	Yes

Source: Pragma research 2022

Increasingly, the quality of mobile coverage affects the types of digital payments and financial services available to users. GSM, the 2nd generation mobile standard, is widely deployed throughout MENA, and the share of the population covered by 3G and 4G networks is steadily increasing. Simple financial transactions can be completed using a 2G network, but more advanced app-based services and e-commerce platforms require more advanced technology. The GSMA estimates that, throughout MENA, nearly 40% of mobile connections are 3G, and nearly 40% are 4G. This leaves approximately 20% still using 2G technologies. This has significant implications for financial inclusion because the older technology remains in use in less densely populated and less prosperous regions.

Across the four jurisdictions, mobile networks are expanding and modernizing, but at varying speeds. The following table shows the usage of telecommunications services in the countries under consideration:

TELECOM SERVICES	MOROCCO	LIBYA	WEST BANK	IRAQ
Mobile subscriptions	134%, 50M	91%, 5.8M	84%, 4.5M	70%, 27.3M

TELECOM SERVICES	MOROCCO	LIBYA	WEST BANK	IRAQ
Percentage of population covered by 2G	100%	78%	98%	100%
Percentage of population covered by 3G	99%	78%	55%	97%
Percentage of population covered by 4G	97%	40%	0%	Unknown as services were launched in 2021
Active mobile broadband subscribers	75%, 28M	36%, 2.3M	19%, 1M	44%, 17.1M
Fixed broadband penetration	5%, 2.1M	5%, 318,000	7%, 373,000	14%, 5.5M
Social media penetration*	59%, 22M	87%	60%, 3.1 M	4%

Source: Pragma research 2022

Finally, the GSMA reports that the gender gap in mobile ownership in the MENA region has remained constant at about 9% between 2017 and 2020. The gender gap in mobile Internet usage has also remained constant at approximately 17-19%. While these disparities are significant, they are considerably lower than the gender gaps for other regions (for example, a persistent gender gap in mobile Internet of 36-38% in Sub-Saharan Africa and a similar, though declining, gap in South Asia).[10] The gender gap in mobile ownership and especially mobile Internet usage will have a significant impact on the ability of women and girls to access DFS.

ACCESS AND USAGE OF BANKING AND DIGITAL FINANCIAL SERVICES

For retail payments, credit transfers, payment cards, checks, and digital wallets are all used in Morocco, Libya, West Bank, and Iraq; however, the adoption levels vary significantly between countries. In Morocco, ACH-based credit transfers constitute roughly half of all retail payments, followed by cards at 28% (an upward trend in terms of usage) and checks at 9% (a downward trend in terms of usage). With the introduction of mobile wallets in Morocco, the usage is increasing, but it is mainly restricted to person-to-person transfers. Debit cards are the most used payment cards in Morocco among the banked population.

Payment cards (debit and prepaid cards) are Libya's primary digital payment instrument. While debit cards are linked to bank accounts, prepaid cards are mostly used for disbursements of government benefits. Both checks and ACH credit transfers are also used to some extent, mostly for B2B transfers. Iraq has high usage of checks among the banked population despite the availability of credit transfers.

Debit and prepaid cards are also used by Iraqis, with the latter as the main instrument to receive salary payments, but their usage is mainly limited to ATM withdrawals. Digital wallets are becoming popular, and their usage is increasing for basic use cases of P2P transfers. Cards and wallets are restricted in usage due to a poor agent banking network. Debit and prepaid cards and digital wallets are also important payment instruments for the banked population in West Bank.

[10] Connected Women – The Mobile Gender Gap Report 2021, available at https://www.gsma.com/r/gender-gap/. The report does not provide numbers for the individual countries we have researched.

Acceptance of digital payments remains low in all four jurisdictions, with Morocco having the best network among the four countries. Due to cash shortages in recent years, many merchants in Libya have also started accepting digital payments but poor ICT infrastructures make the experience for merchants and consumers difficult. The focus of banks that enter into agreements with merchants to accept card payments (called acquiring banks) in all four is mostly on profitable merchant segments, and the availability of POS acceptance points is limited to large cities and high-volume merchants. Iraq also has many merchants that provide point-of-cash services as an alternative to ATMs for cash withdrawals.

E-commerce has emerged as an important means of payment for goods and services during the pandemic, but over 80 percent of all e-commerce transactions in the four countries are done on cash on delivery basis. Many small entrepreneurs, which are mostly women-owned businesses, are using social media platforms like Facebook and Instagram for selling goods and services. These services are mainly provided using cash on delivery method. Lack of knowledge of the benefits of digital payments and low trust in the financial system are the main barriers that prevent these entrepreneurs from expanding their business and using digital payments to drive more sales and revenues.

ATTITUDES AND PERCEPTIONS TOWARDS DFS

Cash is the preferred payment instrument for retail payments in Morocco, Libya, West Bank, and Iraq due to habit, trust, and comfort with this payment method. The size and dominance of the informal economy also contribute to high cash usage. Over 80 percent of retail payment transactions in all four jurisdictions are conducted in cash. Low awareness of the benefits of digital payments coupled with a lack of trust in the financial system and limited familiarity with digital technologies were seen as the primary reasons for low adoption. Except in Libya, where due to cash shortages in recent years, usage of digital payments increased, the other three countries have had low but rising levels of adoption.

Cash habits are also accentuated by the prevailing business practices in government, corporate, and banking sectors in these countries. Salary and transfer payments are mostly made in cash or checks. Even when salary payments are made using salary cards (Qi Cards in Iraq), cardholders withdraw cash immediately from their accounts. Banks also focus mostly on making it easier for customers to withdraw cash at ATMs or via agents.

Despite reasonably high mobile and internet penetration levels, most consumers in these countries still prefer to pay for online purchases with cash. Lack of a transaction account (bank account, payment card, or a digital wallet), distrust in product quality, lack of awareness of how to deal with redress issues, and for small merchants, concerns about taxation are the main barriers to using digital payments.

In the case of online payments, consumers in these markets have raised concerns about security and fraud, especially when entering payment information on an online payment gateway.

CONSTRAINTS & OPPORTUNITIES FOR DIGITAL PAYMENT EXPANSION

CONSTRAINTS	MOROCCO	LIBYA	WEST BANK	IRAQ
Strong preference for cash and low levels of DFS adoption	Constraint	Constraint	Constraint	Constraint
Banking practices and lack of government incentives make it convenient for consumers to use cash.	Some incentives and changes are happening	Constraint	Constraint	Constraint

CONSTRAINTS	MOROCCO	LIBYA	WEST BANK	IRAQ
Adoption of e-money and digital transactional accounts is low	Constraint	Constraint	Constraint	Constraint
Lack of competition for merchant-acquisition	Constraint	Constraint	Constraint	Constraint
Lack of simplified/tiered KYC and remote account opening rules	While a risk-based approach for customer due diligence to open new accounts for consumers and SME merchants has been adopted, the KYC procedures are still considered cumbersome for agents of mobile wallet operators.	Constraint	Constraint	Constraint
Limited ICT infrastructure	Partial constraint	Constraint	Partial constraint	Constraint

Source: Pragma research 2022

OPPORTUNITIES	MOROCCO	LIBYA	WEST BANK	IRAQ
A national-level strategy should be adopted that prioritizes the use of digital payments for key types of government payments.	Opportunity	Opportunity	Opportunity	Opportunity
Address the barriers related to the adoption of mobile e-money	Opportunity	Opportunity	Opportunity	Opportunity
Improve competition in the digital payments landscape	Improve competition in merchant-acquiring service provision area	Improve the competition issues in the digital payment landscape away from State-owned dominance	Opportunity	Opportunity
Use of financial incentives to grow usage of card and mobile wallet payments	In place and can be expanded	Opportunity	Opportunity	Opportunity
Implementation of simplified KYC rules	Exists for customers, but there is a need to focus on implementation with merchants and agents.	Opportunity	Opportunity	Opportunity
Overarching & enabling policy environment framework for digital payments and financial inclusion is needed.	Mostly in place in Morocco but some areas for improvement exist	Clear national policy needs to be in place	Partially in place	In draft stage
Address some of the gaps in ICT and payment systems infrastructure	In place but can be built on	Priority	Opportunity	Priority
Trust Account Regulation	In place	Priority	Priority	Priority
Launch financial literacy campaigns to build trust in DFS	In place, but some areas for improvement exist	Priority	Priority	Priority

Source: Pragma research 2022

COUNTRY REVIEW

MOROCCO

I. CURRENT STATE OF FINANCIAL INCLUSION

According to the updated data from the Bank Al Maghrib (BAM) Annual Supervision Report in 2021, 53% of Moroccan adults have a financial transactional account (bank or e-wallet account). However, there was still a gender gap of nearly 27 percent between men and women in account ownership[11].

Compared to MENA region averages, usage of transaction accounts is steadily increasing, both in terms of volume and value of transactions[12]. The main financial indicators monitored by BAM demonstrated steady progress, close to 10 percent per year on average. In 2018, according to BAM statistics, the number of transaction accounts was at 47 percent, with 56 percent of men and 33 percent of women having financial access. In 2019, the number of transaction accounts grew by 5 percentage points to 52 percent, with 62 percent of men and 37 percent of women having financial access. In 2020, account ownership grew to 53 percent, with 67 percent of men and 40 percent of women gaining financial access.

II. FINANCIAL AND PAYMENTS SYSTEM LEGAL AND REGULATORY ENVIRONMENT

Morocco has taken several positive policy, legal, and regulatory measures. In 2020, BAM actively worked with the Ministry of Economy/Finance to implement the National Financial Inclusion Strategy launched in 2019. Several key measures were adopted, including enacting a regulatory framework to govern the remote opening of accounts and simplifying procedures related to small accounts. Mobile payment services were launched by BAM in cooperation with the Agence Nationale de Réglementation des Télécommunications (ANRT) in 2017. Under this initiative, BAM licensed 16 payment institutions and, together with the banks, these players launched 19 "m-wallet" offers in the market. Another key initiative was that e-money services offered by banks and non-banks were interoperable at the time they were launched. To speed up the development of the mobile payment ecosystem, several tangible measures have been adopted, including tax exemption on all mobile payments for five years and the implementation of a pilot experiment to enroll merchants and m-wallet holders using the Conditional Cash Transfer Tayssir.[13]

In addition, in 2020, BAM actively promoted mobile payments by creating an Economic Interest Group (EIG), composed of representatives of all the banks and payment institutions issuing or supporting the use of m-wallets. This group is entrusted with further implementing the institutional communication strategy for mobile payments under the brand name "MarocPay" and developing the technical and functional rules of the mobile payment market. Several additional targeted measures were also initiated in 2020, including tax exemptions for local traders on sales made by mobile payments, easing regulatory

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[11] In developing economies, Findex reports an average gap of 9 percent between account ownership for men and women; globally, it is at 7%.

[12] Financial inclusion data note above is from Findex 2017. According to BAM data, during the last 3-4 years, there has been progress with an increase in transaction accounts and the number and value of transactions (rapports de la supervision bancaire).

[13] Bank Al-Maghrib Annual Report – 2020 https://www.bkam.ma/en/Research?text=financial+inclusion. The Taysssir Cash Transfer program uses the Postal Office network to make electronic transfers to families to help them take children to and keep them at school.

requirements for opening payment accounts, and adopting electronic payments for social benefits. In this respect, a pilot is being implemented to disburse school aid under the Tayssir program, where users get cash transfers using the postal service channels.[14] Unfortunately, these transfers are disbursed and used in cash rather than in electronic form.

Moreover, to address the expansion of financial services in rural areas, BAM set up a specific action plan in collaboration with the Ministry of Agriculture, Maritime Fishing, Rural Development, Water and Forests. Its main lines of action focus on reinforcing the geographical coverage of rural areas by providing them with low-cost access points and supporting the rural population by granting them access to technical expertise and capacity building.

In summary, some of the key policy measures introduced were:

- Financial Sector Development Strategy (2020).
- National Financial Inclusion Strategy (2017).
- Digital 2020 agenda made Morocco the technology hub for West Africa (2016).
- Reform program for social and economic inclusion of underserved segments (2019).
- Policy to use the Unified Social Register (under construction) to encourage e-payments to make cash transfers to the poor.
- The Public Service Digitalization Policy aimed at dematerializing most of the paperwork, especially in key administrations such as Tax Services, Customs, Land Registry, and Local Governments, as envisioned in the National Plan for Administrative Reform 2018-2021.
- General Orientation Note for Digital Development in Morocco—Perspective (2025).

Some of the key legal and regulatory measures included:

- Implementing a governance body to monitor the implementation of mobile wallets and provide strategic direction to improve adoption by the end-users.
- Improving competition in payment services by breaking the acquiring monopoly of CMI[15] (the leading payment acquired and domestic switch) in 2014 and creating a switch for mobile and card payments (HPSS) in 2016.
- Introduction of Payment Institution regulations to allow non-bank FinTechs to provide payment services in 2015.
- E-money regulations included in the Banking Bill (and not as a standalone regulation).
- The general legal and regulatory framework supporting payment services is also included in the Banking Bill, which was further supplemented by regulations regarding m-wallets and mobile payments.
- Regulations for mobile wallets (e-money), including interoperability and same-day settlement.
- Simplified, tiered KYC requirements for consumers and merchants related to mobile wallets (e-money). These initiatives included new rules governing the remote opening of accounts to ensure the equivalence to the physical presence of the customers and to verify their identification documents, and simplifying the procedures for accounts with balances tiered at three different levels, with the first level at 2,000 Dirhams ($200) only requiring a mobile phone number and the second level up to 5,000 Dirhams ($500) only requiring a mobile number and national ID.

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[14] Ibid.

[15] https://www-cmi-co-ma.translate.goog/fr/presentation-du-cmi-centre-monetique-interbancaire-maroc?_x_t

- Remote merchant onboarding KYC requirements (introduced during the pandemic).
- Standardized framework for QR codes, including pricing and consumer protection, has been introduced.
- In 2007, Law 53-05 regulating the exchange of electronic legal data was passed.
- Law 55-19, promulgated in 2021, regulates the simplification of administrative procedures.
- In 2020, Law 43-20 was approved that regulates trust services for electronic transactions.
- Law 61-16 of 2017 regulating the setting up of the Digital Development Agency.
- As an incentive for digital payments, the 2020 Budget Bill offered a 25% reduction on the tax base for the turnover achieved through mobile payments, regardless of the amount, for 2020-2025.

III. CURRENT STATE OF BANKING AND DIGITAL PAYMENT ECOSYSTEMS

The banking sector in Morocco is well established, with 30 foreign-owned and domestic banks having a network of 6510 branches and 7734 ATMs. The banking assets are concentrated among the four largest banks – AttijariWafa Bank, GBP (Groupe Banques Populaires), BMCE Bank of Africa and Société Générale Maroc. Crédit Agricole caters to a rural population, especially through loans to farmers. These banks, in addition to Al Barid Bank (a subsidiary of Morocco Post), have the largest portfolios of non-cash payment instruments. According to the Annual Report of 2020, BAM now reports that the banking penetration rate has improved to 76 percent compared to the global average of 62 percent.

- There were 28.6 ATMs per 100,000 population in Morocco in 2020 and 17.33 ATMs per 1,000 square kilometers.
- The number of commercial bank branches per 100,000 people was 18 in 2020.

Source: IMF Financial Access Survey and BAM annual report on banking monitoring (2020).

Al Barid Bank (ABB), due to its extensive network of branches throughout Morocco, plays a major role in financial inclusion, especially in rural and underserved segments, by providing banking services to individuals with low or irregular incomes. The bank has over 927 ATMs and 2,567 branches that serve over 8 million customers, of which a large majority are in semi-urban or rural areas, including small towns and villages. ABB has recently become a payment card acquirer, but its market share is small (less than 1 percent). ABB launched its mobile application, Barid Bank Mobile, in 2018. In the post-COVID-19 environment, this channel experienced tremendous growth during the first five months of 2020, with over 10 million transactions, mostly direct transfers from Government to poor and low-income households, which increased by approximately 80 percent compared to the same period in 2019.

As an outcome of the Revised Banking Law of 2015, a new type of payment service provider in the form of Payment Institutions (PIs) was established. Since the passing of the Law, there have been 22 registered PIs in Morocco offering different types of payment services. PIs provide electronic money accounts exclusively used for payment transactions: money transfer (account to account, account to cash), cash in, cash out, transfer to and from bank accounts, issuance of payment cards, and bill payments.

The DFS infrastructures include clearing and settlement arrangements for cards, mobile wallets, and ACH-based payments. These include:

- CMI (Centre Monétique Interbancaire) – established in 2004 as a centralized switch by nine banks, replacing the four separate processing centers to process all interbank payment card transactions and promote interoperability in retail payments.
- In 2014, CMI's switching activity was separated and sold to HPS Switch (HPSS) through a measure introduced by the BAM. In the same year, the minimum requirements for managing a domestic switch were issued, leading to the authorization of three Switches: Visa, Mastercard, and HPSS. HPSS plays the role of the domestic switch for both payment cards and the newly introduced mobile wallets. Visa and Mastercard use HPSS for domestic switching purposes.
- GSIMT (Groupement pour un Système Interbancaire Marocain de Télécompensation) – clearing and settlement system for ACH based transactions that processes cheques, credit transfers and debit transfers.

To improve the uptake of mobile payment among consumers and merchants, a national initiative was launched by BAM in 2018 to promote an interoperable mobile payment ecosystem involving various stakeholders, including banks, payment institutions, mobile network operators (MNOs), and the National Telecommunications Regulatory Authority (ANRT). As part of this initiative, HPSS was designated as the interoperable mobile payments switch to facilitate the growth of mobile payments in Morocco. To ensure the interoperability between mobile wallets issued by various payment institutions, BAM issued several measures, including standardization of QR Codes and establishing a mobile payment switch run by HPSS to support the interoperability of mobile wallets issued by different payment institutions. BAM also developed the supporting regulatory framework and a new trade body to govern mobile payment transactions.

Mobile wallets are a new form of payments, issued either on a payment account held by a PI or a bank account held by a banking establishment. The holder of the m-Wallet can use their wallets for:

- Person-to-person fund transfers by simply entering the recipient's phone number for payment to accepting merchants displaying "Maroc Pay."
- Payment of water, electricity, and telephone bills, as well as payment of vignettes, taxes, and telephone top-ups.
- Fund withdrawals.
- Most banks have payment apps that are used to transfer money, pay bills, and make other transactions, to which the Maroc Pay feature is attached as a separate functionality.

IV. TELECOM AND BROADER ICT SYSTEM LEGAL AND REGULATORY ENVIRONMENT

The Moroccan telecom sector is governed by Law No. 24-96, "relative à la poste et aux télécommunications" (the Post and Telecommunications Law). This created the sector regulator, the Agence Nationale de Réglemantation des Télécommunications (ANRT). The law gives ANRT broad authority to license and regulate telecommunications networks and services. To avoid regulatory overlap, ANRT regulations do not cover the provision of digital financial services, which BAM directly governs.

Morocco has three nationwide mobile network operators (MNOs) – Maroc Telecom, Inwi, and Orange. Each of the three MNOs provides a mobile e-money service called mobile wallets (m-Wallets). ANRT does not license or regulate these subsidiaries, which are expressly licensed and regulated by BAM as Payment Institutions.

The MNOs' coverage of the population is reported to be very high – according to the International Telecommunication Union (ITU) and ANRT, 99% of the population is covered by 3G and 4G signals, which can provide advanced digital financial services, whether provided by the MNOs or by other DFS providers. The ITU also reports that 58% of the population has access to fixed broadband service that provides 2-10 Mbps, and 41% of the population has access to fixed broadband service of more than 10 Mbps. The ITU further reports that approximately 5% of the population, or 2.1 million people, subscribed to fixed broadband service in 2020, while 75% of the population, approximately 28 million, have an active mobile broadband plan. The overall mobile penetration rate is 134% or 50 million connections in 2020, according to the ITU. There are estimated to be 23.8 million social media users in Morocco as of January 2022.[16]

More importantly, ANRT and BAM signed a Memorandum of Agreement on February 9, 2022, to establish a framework for exchanging data and experiences in areas of common interest. This cooperation will allow both institutions to benefit and collaborate on overseeing technological developments in information and digital infrastructure. Cooperative actions will also include digital banking services' innovative means of payment and the aspects inherent to these two sectors. In addition, the agreement covers aspects related to crypto-asset trading platforms and the future of 5G and FinTech, [17] cybersecurity,[18] and data privacy.[19] ANRT suggested that the low uptake of mobile money services is likely due to a desire to avoid taxation since digital payments can be tracked and cash payments are anonymous.

V. ACCESS AND USAGE OF BANKING AND DIGITAL PAYMENT SERVICES

Morocco is primarily a cash-based economy. However, because of the pandemic and growing confidence in DFS, the number of electronic payments has increased in the past year: online payments with Moroccan cards reached 1.7 billion Moroccan Dirhams (MAD) in the first quarter of 2021, up 36.6%. Transaction volume was up 61.4% to 4.36 million.

Bank transfers (ACH-based) remain the most popular form of non-cash payment at 47% in 2020, followed by cards at 28% (increased by 4% in 2020), followed by checks at 9% (fell by 4% in 2020).

Debit cards make up approximately 99 percent of all payment cards issued in Morocco. According to BAM statistics, as of 2020, there were 17.2 million debit cards issued by 25 Moroccan banks, showing a 45.7 percent growth since 2015, when approximately 11.8 million cards were issued in the market. This substantial rise in card issuance over the last five years has been mainly due to a larger number of banks participating in issuing debit cards. Approximately 52.5 percent of all debit cards issued in Morocco are Visa branded, 24.5 percent are Mastercard branded, 20.7 percent are CMI branded, and the remaining 2.3 percent are private labeled cards. As noted above, the market is concentrated in favor of large banks and the top four issuers controlling 80 percent of the volume.

[16] See https://datareportal.com/reports/digital-2022-morocco?rq=Morocco
[17] Law No. 31-08 édictant des mesures de protection du consommateur, y compris la protection du consommateur en ligne.
[18] Law No. 05-20 relative à la cybersécurité.
[19] Law No. 09-08 relative à la protection des personnes physiques à l'égard du traitement des données à caractère personnel.

	2015	2016	2017	2018	2019	2020
Number of debit cards (in millions)	11.8	12.9	14.1	15.1	16.2	17.2
Debit card transaction volumes (millions)	34	42	56	70	76	81.7
Debit cards value (in millions of MAD)	16,223	19,329	24,088	28,744	30,876	32,100
The average ticket size for a purchase transaction (in MAD)	477	460	430	411	406	393
The volume of ATM transactions (millions)	237	256	274	297	316	284
Value of ATM transactions (in millions of MAD)	206,458	224,832	242,539	265,163	284,758	278,000
Average ATM withdrawal amounts in MAD	871	878	885	892	901	979

Source: Bank Al Maghrib 2022.

The number of card payments, including ATM and online payments, totaled 81.7 million transactions for a value of MAD 32.1 billion, which represents an increase of approximately 5.5% in volume and 3.2% in value compared to 2019, against an increase of 11% and 8% respectively a year earlier. Withdrawals, meanwhile, fell by 10% between 2019 and 2020 (from 316 million transactions in 2019 to 284 million in 2020) and fell by 3% in value (from 287 to 278 billion Dirhams between 2019 and 2020).
It should be noted that the evolution of card payments has been differentiated according to the payment channel. The number of purchase transactions at POS increased by 21% between 2019 and 2020 (going from 54.6 to 65.9 million transactions, representing a value of 26 billion Dirhams in 2020, the same value as in 2019), while the number of e-commerce payments increased by 46% (from 9.4 to 13.8 million transactions), the number of ATM transactions, on the other hand, fell by 28% in 2020, going from 2.8 to 2.7 million.

Regarding contactless payments (implemented in September 2019), its share of payments by POS has increased sharply, from 2.1% (in number) in December 2019 to 15% in December 2020 (representing 9.9 million transactions in 2020 compared to 1.2 million in 2019).

With 80.7% of all transactions carried out, POS-based transactions represent the bulk of payments made by bank cards in 2020, as was also the case in 2019 (82.7%). Of the 65.9 million payment transactions conducted via POS in 2020, 15% were carried out using contactless (compared to 2.1% in 2019). ATM payments, meanwhile, fell from a year earlier, falling from a 3.7% share of domestic payment transactions in 2019 to a 2.5% share.

E-commerce transactions increased by 46% between 2019 and 2020 (from 9.4 to 13.8 million transactions) and 30% in value. Online payments thus continued their upward trend, linked to the development of online bill payment services (telephone, water, electricity, etc.) and the increase in e-gov payments (tolls, tax, etc.). The significant increase in the number of transactions in 2020 is also explained by the health context, linked to the COVID-19 pandemic, which has reinforced online payments, particularly during the travel restriction period. Thus, in 2020, e-commerce transactions represented 16.8% of total payments (compared to 12.1% in 2019).

Despite having a high number of payment cards in circulation, in comparison to xx, the card activation rates are relatively low. According to BAM, an active card is a cardholder conducting one payment transaction per month. As of 2020, the number of active cards in the market stood at 3.35 million, or 20.7 percent of all cards.

As of December 2021, 22 of the 24 payment institutions licensed in Morocco had issued 3.5 million mobile wallets. However, the transaction volumes associated with these wallets are low. Since the passing of the new regulations in 2015 and again in 2018, 22 registered payment institutions (PIs) now issue mobile wallets in Morocco, and further PIs are in the process of entering the market. The registered PIs have also established interconnectivity with the mobile payment switch HPSS, and about 18 of the registered PIs have gained the approval of their QR-Code for accepting payments at the merchant level and for transfers of funds from person to person. Currently, there are 3.5 million registered mobile wallets in Morocco, with Wafacash as the largest issuer of mobile wallets, with a 40% market share. Whereas the number of mobile wallets has increased significantly by 153 percent between 2019 and 2020, the transaction volumes associated with these mobile wallets remained low. There is a consensus among the market participants that unless the issuance is ramped up significantly in the coming years, BAM's intended target of 6 million mobile wallet accounts by 2024 will not be achievable.

Based on reports from banks and PIs, the number of transactions carried out by m-Wallets in 2020 stood at 1.4 million transactions for a total amount of 443 million Dirhams (about $44.25 M). Nearly 51 percent of the volume of exchanges was carried out by m-wallets issued by payment institutions against 49 percent by m-wallets backed by bank accounts. In value, 35 percent of the transactions conducted by the m-wallets of payment institutions were recorded against 65 percent by those issued by banks.

Regarding the structure of transactions carried out by m-wallets issued by PIs, payments (merchants and invoices) represent, in number, the bulk of transactions carried out, with a share of 73 percent, followed by P2P transfers (27 percent). ATM withdrawals remain close to zero, with a share of 0.4 percent of total transactions. For m-wallets backed by bank accounts, payment by m-wallet remains predominant with 70% in number, followed by transfer with a share of 19 percent and ATM withdrawal (10 percent). Mobile wallets issued by different PIs have the same functionality and, so far, have struggled to gain traction beyond the basic use case of person-to-person (P2P) transfers or purchase transactions involving mobile top-ups. The market has many PIs operating identical business models for issuing mobile wallets to their customers.

Since 2018, new PIs have been established either as subsidiaries of banks to focus exclusively on the transaction business related to mobile payments or as extensions of the existing money transfer companies (MTOs), mobile network operators (MNOs), or Microfinance Institutions (MFIs), with mobile wallet issuance linked to their core business offerings (e.g., cash to cash remittances in the case of Wafacash), reports that during the last two years, only 10,000 interoperable P2P transfers have been made by consumers.

Funding the mobile wallet can be an issue in Morocco. Customers fund their wallets using bank transfers (using mobile banking apps to transfer funds to their m-wallets) or cash. Morocco has no stipulations to fund the wallets with government and corporate payments like salaries, social transfers, etc. The funds maintained in the mobile wallets are low, and these funds are cashed out at the earliest opportunity.

There has, however, been dramatic growth in the volume of mobile e-money payments that occurred in 2021, most likely due to the pandemic. The number of mobile e-money accounts increased from 1.4M at the end of 2020 to 3.4M by the end of October 2021. In terms of transactions, there were only 1.4M at the end of 2020 compared to a four-fold increase in the first six months of 2021, which saw the number of e-money transactions increase to 4,985,350.[20]

According to BAM statistics, 90 percent of cash transactions are person-to-person (P2P), person-to-business (P2B), or business-to-business (B2B) transactions.

VI. ATTITUDES AND PERCEPTIONS TOWARDS DFS

Negative attitudes towards electronic payments and banking services restrict adoption by consumers. While some unbanked people have strong attitudes toward being banked, others lack digital financial illiteracy. At the same time, a third category is reticent that digital transactions may lead tax authorities to track their informal commercial activities. Some key factors include not having enough funds to afford financial services and the fear of fees associated with digital payments at the merchant level.
Cash is still king in Morocco because it is seen to be safe and not subject to potential governmental tracking. It is also free compared to other means of payment. So, most of the supply chain is cash-based, and the retailers do not trust the financial system or are concerned about taxation and hence still prefer cash-based transactions. With cash-only transactions, there is no way to connect the real retailer's ID to his turnover for fiscal purposes. Moreover, while some merchants are unaware of the benefits of digital payments, others are wary of getting caught by the tax authorities who may track their informal financial transactions.

Across different consumer segments, the most popular financial service providers are agencies that facilitate bill payments, followed by money transfer agencies. People with bank accounts visit bank branches occasionally, but usually to withdraw cash at the ATM; however, more customers are now using mobile or internet banking to make transfers or digital payments.

During the last two years of the pandemic, there has been an increase in the uptake of e-commerce; however, payment for purchases made online remains mainly cash on delivery. People that make purchases online are usually under 35, live in urban areas, and are banked. While international purchases are largely card-based, national online purchases are usually paid on a cash-on-delivery basis. The main barriers to using electronic payments in online shopping are the lack of a bank account or payment card, as well as distrust in the product quality, and some complexity in electronic payment channels. It is possible that people do not trust leaving their card information online out of fear of online fraud.

In Morocco, less than 5 percent of registered merchants accept electronic payments, and most of these are in large cities or tourist centers.[21] Due to the prominence of the tourism sector in Morocco, many merchants accepting card payments are in the travel, entertainment, and tourism-related industries, including hotels, restaurants, airlines, travel agencies, and car rentals. In addition to the travel sector, high volume categories such as telecom and utilities, supermarkets, clothing stores, and quick service restaurants also have widespread acceptance.

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[20] Financial Inclusion Refresh, UNDP Report, January 2022

[21] Of the quarter million registered businesses and half million registered persons in Morocco only 35,000 accept digital payments.

Many merchant segments including retail chain stores and micro and small merchant segments, including cooperatives, lack acceptance of DFS. For card acquirers, these segments are costly to acquire (both hardware and ongoing costs for POS terminals). Acquirers prefer to provide these merchant segments with mobile point of sale (MPoS) capabilities leveraging new technologies that utilize digital devices (smartphones or tablets). However, there is a cultural barrier to adopting these innovations (including QR codes) as merchants prefer paper receipts, and these devices generate mostly paperless transactions or electronic receipts.

While 85% of trade is carried out through traditional means, via the 1.5 million corner retailers and 15% through big supermarkets, traditional merchants do not encourage the use of electronic payments by their customers, and cash remains the preferred payment method. Only a small number of merchants (one in five) are equipped with a POS, and only 1 in 20 are interested in mobile payment services (Wafacash). Customers also do not insist on electronic payments as the merchants are reluctant to use them (unless they risk missing an important sale). Some often declare that their POS does not work or refuse card payments below 100 MAD (~10 USD).

Utility bills and other recurrent charges are also largely paid in cash, but electronic payments are starting to become popular for consumers with access to digital wallets and cards. Most businesses in the informal sector and lower-income neighborhoods use cash to pay utility/bill payments; however, larger merchants in middle-income and upscale neighborhoods have increasingly switched to bank transfers and direct debit.

Currently, around 5 million m-wallets are registered on HPS, but m-wallet reloads, and transfer operations are still very low. Payment transactions are lower than other types of transactions, and mobile payment is still not taking off.

VII. CONSTRAINTS & OPPORTUNITIES FOR DIGITAL PAYMENT EXPANSION

Legal and Regulatory Environment

The Government of Morocco has initiated some targeted actions to promote DFS by encouraging the use of mobile payment methods: The 2020 Budget Bill offered a 25 percent reduction on the tax base for the turnover achieved through mobile payments, regardless of the amount for five consecutive years (2020-25). Helping to further promote this initiative with private sector retail groups (on a temporary/time-limited basis) could help to further expand the use of mobile payments. The underlying infrastructure and the legal and regulatory framework do, however, provide an opportunity to increase the ubiquity of mobile payments as an effective replacement for cash. Further, financial incentives can be implemented to grow card and mobile wallet payment usage.

For this, the legal framework could be modified further to encourage the use of digital transfers for salary, B2B, and bill payments (especially P2G and G2P payments). In addition, the business practices of banks and PIs should evolve to more customer-centric, transaction-focused revenue models. BAM can also consider the use of additional policy measures to disincentivize the use of cash by merchants and businesses; by making it more expensive to use cash or checks rather than accepting digital payments.[22]

[22] Effective April 1, 20214, Bank Negara Malaysia (the Central Bank of Malaysia) introduced a 50 sen fee plus a 15 sen surcharge tax for cheque clearing and reduced electronic funds transfers, internet banking and mobile banking interchange fees to 10 sen

As a countermeasure, temporary financial incentives for the use of electronic payments could be integrated with the registration process, which would be beneficial to the smaller merchants.

To improve the adoption of mobile wallets among consumers and merchants, BAM has introduced simplified, tiered KYC requirements with three levels for conducting simplified customer due diligence (CDD). For the lowest level or Level 1, the maximum limit of the account is capped at 2000 MAD (200 USD) and requires a valid mobile phone number. The next level or Level 2 payment account is capped at 5000 MAD (510 USD) and requires a valid ID. The highest level or Level 3 payment account is capped at 20,000 MAD (2038 USD), which requires full KYC. However, given the existing per capita income level of $3,127, the existing tiers are lower than other comparable countries and may need to be re-visited as the payment industry considers them a barrier to uptake.[23] This would also have a significant impact on bringing more women into the digital payment ecosystem as well since many women prefer to work at home. Easier remote account opening regulations and broadened tiered e-KYC levels would make it easier for women to open up accounts.

Improved payment system infrastructures and an enabling policy environment have so far not had the desired effect on the adoption rates for mobile wallets among consumers and merchants. Mobile wallets issued by many PIs have similar functionality, and as a result, they have so far struggled to gain traction beyond the basic use case of person-to-person (P2P) transfers. To promote innovation in the market, the CMI has been studying the potential to advocate for the licensing of a lower level of 'light" third-party payment providers similar to those introduced in the Europe Union and the UK under the Payment Services Director 2 (PSD2) and Open Banking frameworks. To support such initiatives, BAM could consider an Open Banking or Open Finance framework that would allow a new type of "light" PSP license. This would require these light PSPs to be backed by a financial institution without being a financial institution or a payment agent itself. This could include the implementation of an open banking (finance) framework that would allow third parties to provide specialized services in the DFS ecosystem. Consistent with regulations adopted in Europe (PSD2) and the UK, the open banking regulations would create new categories of payment service providers (PSPs) – Payment Initiation Service Provider (PISP)[24] and Account Information Service Provider (AISP)[25]. To become regulated as an AISP or PISP, the proposed regulations should consider requiring prospective applicants to go through a rigorous application process.

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to incentive the use of electronic payments and more effectively charge for the higher cost and inefficiencies of dealing with cash. https://www.bnm.gov.my/-/a-new-pricing-strategy-to-promote-greater-efficiency

[23] See *Identifying and Verifying Customers When are KYC Requirements Likely to Become Constraints* https://www.cgdev.org/sites/default/files/identifying-and-verifying-customers-when-are-kyc-requirements-likely-become-constraints.pdf

[24] PSIPs are authorized to initiate payments into or out of a user's account. They access a user's payment account to initiate the transfer of funds on their behalf with the user's explicit consent and authentication. Rather than only viewing data on an account, PISPs are authorized to make payments on behalf of a customer. PISPs do this by initiating transfers directly to or from the payer's bank account using the bank's own tools.

[25] AISPs are authorized to retrieve account data provided by banks and financial institutions. They provide consolidated information to a user on one or more payment accounts held by that user with other payment service providers. Firms that are registered or authorized to provide account information services can, with the explicit consent of the end consumer, access their bank account to provide the end consumer with new products and services.

Banking practices also make it convenient for consumers to use cash, especially due to the high availability of ATMs and access to cash at zero cost. The new PIs could innovate further and change the retail payments landscape; however, as of now, they also seem to limit the use of mobile wallets to P2P transactions and make it easy for users to cash out the funds in the digital wallets, and limit incentive es to encourage payments at merchants. There is also a lack of clarity in applying simplified merchant due diligence rules for merchants and agents, which limits digital financial access points.

While a risk-based approach for customer due diligence to open new accounts for consumers and SME merchants has been adopted, the KYC procedures are still considered cumbersome for agents of mobile wallet operators. Also, for account opening purposes, simplified due diligence allows for customer account opening but not so much for onboarding SME merchants. In addition, the lower-tiered KYC levels also inhibit those who could make larger payments but are prevented from doing so given the lower wallet limits.

Competition is not strong for merchant-acquisition purposes. CMI (the incumbent acquirer) has a 98 percent market share. Lack of effective competition in the market has resulted in a risk-averse culture in this area, with a focus on currently profitable merchant categories. The new acquirers lack the scale and investments to diversify into new categories and compete for the same merchants as CMI. There is an opportunity to improve competition in the provision of merchant-acquiring services by setting specific growth and investment targets for the acquirers, including specific merchant categories and geographic locations. Within this context, the business strategy of prospective entrants should be reviewed prior to issuing licenses to ensure that their business strategies are consistent with BAM's vision of growing the market.

Review QR code use cases since there are reported cases of fraud with static QR codes, which is the reason CMI is reluctant to use them. However, they do see the value in the use of dynamic QR codes, which would require merchants to have a smartphone or tablet. A more effective approach would explore the risks inherent in each scenario and implement prevention measures to manage fraud.

Banks that provide merchants with card acceptance options (acquiring banks) mainly focus on high-volume merchant segments; micro and small merchants are costly to acquire and do not like to use the emerging mobile acceptance technologies due to a lack of paper receipts. Many merchant segments, including retail chain stores and micro and small merchant segments including cooperatives, lack acceptance of DFS. For card acquirers, these segments are costly to acquire (both hardware and ongoing costs for POS terminals). Acquirers prefer to provide these merchant segments with mobile point of sale (MPoS) capabilities leveraging new technologies that utilize digital devices (smartphones or tablets); however, there is a cultural barrier to adopting these innovations (including QR codes) as merchants prefer paper receipts and these devices generate mostly paperless transactions or electronic receipts.

Access & Usage

There is a strong preference for cash and low levels of DFS adoption by consumers and businesses. A large informal economy coupled with a high dependence on cash prevents mass adoption of non-cash payment instruments. There is an opportunity to grow usage of digital payments by targeting certain types of merchant segments that are connected to the largest consumer base. These include retail chains, fast-moving consumer goods (FMCG) value chains, and cooperatives.

Further, promoting the adaption of QR codes among MSME merchants serving low-income populations with access to smartphones can benefit them as it would only require entry-level, low costs smartphones and not need expensive terminals. This may also require increased incentives for smartphone adoption and educating customers on fraud prevention.

Lastly, to facilitate behavioral targeting of consumer segments, there is an opportunity to conduct market segmentation analysis to understand their buying habits (mainly women/youth/others). Based on the insights, specific incentives can be implemented to drive usage among the youth population and women with incentives to get them to use mobile payment (A lot of women buy and sell using social media with cash on delivery; women are also the household shoppers for groceries and other household items).

Attitudes & Trust

The impact of government policies is not yet widely felt. In addition, the lower cost associated with cash and checks to pay suppliers and the legal protections to use checks over e-payments remains an impediment to digital payment adoption. Mobile wallet adoption as an alternative to cards and direct transfers remains low. This is mainly due to low levels of awareness of digital payment services among the end-users and low availability of alternative use cases (e.g., P2M, bill payments, G2P, etc.) with many mobile wallet operators offering the same product to consumers focused on P2P transfers. It also reflects the lack of diversification beyond the basic use case of P2P transactions. The lack of knowledge and awareness causes mistrust and avoidance, which is why incentives alone would not suffice.

To promote trust also requires robust consumer protection mechanisms. BAM's capacity to support consumer protection enforcement and redress can also be enhanced. In addition, there is a need to explain the benefits of digital payment (and broader digital financial services) and how to use these services through an educational/digital financial literacy campaign that needs to be sustained over a long-time frame. Technical assistance and best practices could be shared not only at the regulatory level but also at the provider and consumer advocacy levels to support and improve responsible market practices.

VIII. STRATEGIC RECOMMENDATIONS

Context

Over the past decade, Morocco has made significant progress in building a safe and efficient digital financial services ecosystem. Bank Al-Maghrib (BAM) has made the use of digital payments a priority to promote financial inclusion as well as promotion of the digital economy. To support this objective, it has implemented a series of reforms aimed at improving the legal and regulatory framework for digital payments, improved competition in the market for payment services, promoted interoperability in payments infrastructures, and created a national scheme for mobile payments to support the use of low-cost DFS. In its latest strategic plan, 2019-2023, BAM has defined strategic objectives dedicated to the development of payments, focusing on supporting financial innovations for the benefit of the banking sector, the credibility of means of payment, and the implementation of a payments development policy.

However, despite these efforts, the use of digital payments remains below the expected level of use, and the use of cash remains preponderant at the level of the Moroccan economy. In addition, disparities persist in terms of access to payment services, between regions, genders, and different segments of the population. Furthermore, reforms in retail payments continue to accelerate throughout the world.

Navigating through the various challenges for implementing all types of reforms in Morocco in this area of the national payments system requires a comprehensive and strategic approach to address the constraints and opportunities identified above.

IX. INCREASE ACCEPTANCE OF DFS FOR CHAIN MERCHANTS AND COOPERATIVES

Background

In Morocco, less than 5 percent of registered merchants accept electronic payments, and most of these are in large cities or tourist centers.[26] Due to the prominence of the tourism sector in Morocco, many merchants accept card payments in the travel, entertainment and tourism-related industries including hotels, restaurants, airlines, travel agencies, and car rentals. In addition to the travel sector, high volume categories such as telecom and utilities, supermarkets, clothing stores, and quick service restaurants also have widespread acceptance. Many merchant segments including retail chain stores and micro and small merchant segments, including cooperatives, lack acceptance of digital payments. For card acquirers, these segments are costly to acquire (both hardware and ongoing costs for POS terminals). Acquirers prefer to provide these merchant segments with mobile point of sale (MPoS) capabilities leveraging new technologies that utilize digital devices (smartphones or tablets). However, there is a cultural barrier to adopting these innovations (including QR codes) as merchants prefer paper receipts and these devices generate mostly paperless transactions or electronic receipts.

Combined with targeted incentives and literacy efforts (see below), there is a need for a new approach to reach out to many registered merchants. Chain merchants and cooperatives[27] provide an easier entry point for acquirers to grow digital payment acceptance. Women-owned cooperatives could also be prioritized as part of this effort.

Objectives

- Conduct a short assessment of the acceptance landscape to analyze the merchant needs of the target segments and how well (or poorly) available (or potential) options respond to those needs. Consult with industry stakeholders to assess the appropriate technologies and business models that can be leveraged for acceptance growth, considering the incentives that drive or inhibit the adoption by merchants of digital payment modalities.
- Develop pilots to grow acceptance in the target segments.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	High	Long	High	High

[26] Of the quarter million registered businesses and half a million registered persons in Morocco, only 35,000 accept digital payments.
[27] There are approximately 28,000 cooperatives in Morocco, with a large number of them focused on the agricultural sector.

- Have more than 25-30 thousand additional acceptance points among the target segments by the end of 2023.

X. PROMOTE TRUST AND CONFIDENCE IN FORMAL FINANCIAL SERVICES

Background

Many medium and small merchants in Morocco operate their businesses primarily in a cash environment despite the availability of both POS and QR code acceptance tools. Some of these merchants also utilize e-commerce platforms to sell their products and services; however, this is done at a very basic level, and cash on delivery (COD) is the predominant means for accepting payments. The limited acceptance of digital payments is primarily due to a lack of awareness of the benefits associated with digital payments. While it is widely acknowledged that financial and digital literacy is needed for merchants, there are few ongoing initiatives that are effective in providing simple-to-use applications and tools that provide both merchants and consumers with a wide range of financial/payment topics to drive the adoption of the digital payments. Likewise, there is limited understanding of, or reliance on, consumer protection recourse mechanisms that could help protect both consumers and MSMEs (particularly those operating informally through personal accounts) from certain harms.

There is a need for simple-to-use applications/tools in the market to provide business, financial, and payment advisory services to merchants. One example initiative, at least at the provider level, would be to develop an AI-enabled chatbot to supply this sort of information. The platform could be available in both French and Arabic to increase outreach to different segments of merchants. If there is interest in other markets across the region, such as Iraq, Libya, and the West Bank and Gaza, a shared core platform in Arabic could be developed with customizable features available to consider different market characteristics. In addition, to further support more effective feedback and transparency, consumers' ability to rank and comment on providers that provide good or bad service via a chatbot can better encourage good practices in the industry.

Objectives

- In partnership with the Moroccan Banks Association and other relevant stakeholders, manage the launch of a Financial Literacy chatbot in French and Arabic that could be accessed by all consumers through social media platforms such as Facebook Messenger, and WhatsApp. The chatbot would take users through a short course designed to improve the way Moroccan merchants learn about financial responsibility as well as provide tools to use digital payments and expand the business. This could then be linked and shared with various banks and non-bank financial service providers to not only support digital payments but also show how digital payment platforms could facilitate broader access to DFS.
- Wherever possible, customized content should be offered for informal merchants who are the biggest users of cash and are mostly unbanked/underbanked. This bot would personalize the learning experience and would be easily accessed through common messaging apps or online. The chatbot would establish the level of financial knowledge of each user and guide them on their learning journey, to achieve financial literacy in a creative way.[28]

[28] USAID has successfully promoted chatbots to improve access and usage of digital payments and financial services in a variety of markets especially Myanmar with Mr. Finance and with the Bangko Sentral ng Pilipinas (BSP) in the Philippines to improve consumer complaint management. Recently, Bank Al-Maghrib also recently launched a digital financial literacy chatbot with the support of the UNCDF.

- To encourage participation, it is recommended that any merchant who registers for the chatbot course and completes it before a specified date will have a chance to win a smartphone, for example.
- Work with local consumer advocacy groups, and potentially with interested providers, to conduct studies or surveys of available digital payment services in the market that diagnose gaps or problems (e.g., term and fee disclosures; safety of services or customer data; suitability of the user-interfaces for digital payments products marketed to merchants and consumers). Facilitate discussions among industry stakeholders to discuss the findings and pinpoint concrete improvements in the product features or design aspects of the user interfaces of their products that, if resolved, would improve customer outcomes by augmenting any user's literacy level and thus, improve trust in DFS. This would increase the likelihood that testing of DFS services would translate to active, recurrent use.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	High	High

- Have more than 25,000 users of the financial literacy chatbot by Q1 of 2024
- Achieve an increase of 10% in the use of digital payments by the end of Q1 2024.

XI. IMPROVE KNOW YOUR CUSTOMER (KYC) REGULATIONS

Background

To improve the adoption of mobile wallets among consumers and merchants, BAM has introduced simplified, tiered KYC requirements. Based on the risk profile of Payment Institutions (PIs) and their target customers, CircularNo.7/W/2016 provides simplified customer due diligence (CDD) requirements for the identification of and account opening for payment account holders, depending on the maximum ceiling levels of these accounts. BAM has established three levels for conducting simplified CDD. For the lowest level or Level 1, the maximum limit of the account is capped at 2000 MAD (200 USD) and requires a valid mobile phone number. The next level or Level 2 payment account is capped at 5000 MAD (510 USD) and requires a valid ID. The highest level or Level 3 payment account is capped at 20,000 MAD (2038 USD), which requires full KYC. The existing tiers are not fully consistent with international standards and should be revisited to allow for alignment with the risk-based approach outlined in FATF standards and more innovation in the market.

Objectives

- Review examples from India, Mexico, Tanzania, Bangladesh, and Indonesia and identify appropriate KYC tiers limits that are supportive of BAM's goals to promote financial inclusion.
- Identify any gaps in current regulations, supervisory approaches, or industry implementation, and recommend ways to improve the risk-based approach with respect to KYC regulations and supervision.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Low	Medium	Medium	High

- A proposal is drafted to revise KYC tier limits by the end-2022.

XII. IMPLEMENT OPEN BANKING REGULATIONS TO PROMOTE INNOVATION IN DIGITAL PAYMENTS AND BROADER DFS

Background

To improve the adoption of mobile wallets, BAM should consider implementing open banking regulations. Open Banking and, now Open Finance, provides open access to financial data to third parties, especially digital payment providers, in a secure, standardized form from financial institutions using application programming interfaces (APIs). Consistent with regulations adopted in Europe (PSD2), the UK, and now Mexico and the Philippines, the Open Banking/Finance legal and regulatory framework could create new categories of payment service providers (PSPs) – Payment Initiation Service Provider (PISP)[29] and Account Information Service Provider (AISP)[30]. To become regulated as an AISP or PISP, the proposed regulations should consider requiring prospective applicants to go through a rigorous application process.

Objectives

- Using European, the UK, and new developments in Mexico and the Philippines, regulations, and legislative actions to support Open Banking/Finance as a benchmark, review BAM's existing plans to implement open banking in Morocco and identify any gaps in the regulatory and legal framework.
- Assist BAM in conducting a private sector assessment about opportunities, interests, and capabilities to offer Open Banking/Finance
- Propose a roadmap for implementation of Open Banking/Finance, including any regulations/laws that would need to be updated in Morocco.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Low	Medium	High	Medium

- Open Banking/Finance Framework and implementation roadmap by end-2023.

XIII. DEPLOYING A TARGETED PILOT PROGRAM

[29] PSIPs are authorized to initiate payments into or out of a user's account. They access a user's payment account to initiate the transfer of funds on their behalf with the user's explicit consent and authentication. Rather than only viewing data on an account, PISPs are authorized to make payments on behalf of a customer. PISPs do this by initiating transfers directly to or from the payer's bank account using the bank's own tools.

[30] AISPs are authorized to retrieve account data provided by banks and financial institutions. They provider consolidated information to a user on one or more payment accounts held by that user with other payment service providers. Firms that are registered or authorized to provide account information services can, with the explicit consent of the end consumer, access their bank account to provide the end consumer with new products and services.

The following section sets out an action-oriented and practical set of initiatives addressing the four key areas identified above: expand merchant acceptance for DFS in targeted segments, enhance financial literacy for merchants and consumers in Morocco, improve KYC regulations and implement Open Banking/Finance Framework to promote innovation and adoption of DFS.

1. **Increase acceptance of digital payments among chain stores and cooperatives**
    - Conduct acceptance assessment for the target segments to identify appropriate technologies and business models.
    - Present findings to BAM and industry stakeholders.
    - In coordination with industry partners, develop a pilot outreach plan focusing on the target segments.
    - Launch pilot program for targeted segments.
    - Conduct pilot evaluation and prepare a post-evaluation report.

2. **Promote Trust and Confidence in Formal Financial Services**
    - Conduct a market needs assessment and identify relevant existing financial products/services or social media platforms that the AI chatbot can be linked to.
    - Identify AI chatbot software/service provider for the development of the chatbot (possibly in collaboration with other Missions in the region or USAID/Washington).
    - Develop initial content for financial literacy chatbot based on the needs assessment.
    - Launch a pilot with a select number of merchants to test the concept.
    - Update content based on pilot results.
    - Produce a post-evaluation report that includes the process for regularly updating the content and using these services for different merchant segments.
    - Engage with consumer advocacy groups and other relevant stakeholders to research and diagnose the customer-centricity of available digital payment services offered to merchants and consumers, using the findings to encourage or assist providers in improving the quality of products and thus improving trust.
    - Assess the quality and effectiveness of consumer protection mechanisms for digital payments, both at the industry level and regulatory level, and develop recommendations for action to strengthen mechanisms to prevent harm and to ensure timely, equitable, and effective resolution of complaints as they arise.

3. **Improve KYC regulations**
    - Review international examples and develop a proposed framework for improving existing KYC regulations consistent with the risk-based approach.
    - Present findings to BAM and industry stakeholders to obtain feedback.
    - Update proposed framework to reflect BAM/stakeholder input.
    - Present final findings.

4. **Implement Open Banking/Finance Framework**
    - Consult with industry stakeholders to get preliminary feedback on the adaptability of open banking in Morocco, including its benefits to promoting innovation and growth in digital payments and broader access to DFS.
    - Conduct a benchmarking study using Europe PSD2, UK, Mexico, and the Philippines Open Banking/Finance Frameworks.

- Develop a proposal for BAM to implement Open Banking/Finance in Morocco.
- Conduct stakeholder workshops to study, develop and finalize the approach Morocco should take.
- Conduct a rapid post-evaluation assessment

XIV. TIMELINE FOR THE MOROCCO DFS ACCELERATION PROGRAM

Each of the initiatives outlined above may be integrated within an overall framework. This section brings the initiatives together and shows an integrated approach phased over 2-years in the following table. A more detailed project plan will need to be produced for each area of Technical Assistance after initial approval for the pilot is received.

ACTIONS	MONTHS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Morocco DFS Development Program																								
DFS acceptance growth among targeted merchants																								
Conduct acceptance assessment of target segments																								
Present findings to BAM/industry stakeholders																								
Develop a pilot plan with industry stakeholders																								
Implement pilots for targeted segments																								
Conduct pilot evaluation																								
Promote Trust and Confidence																								
Conduct market needs assessment.																								
Identify service provider																								
Develop initial content																								
Launch and test pilot																								
Update content based on pilot feedback																								
Monthly progress monitoring																								
Post evaluation																								
Improve KYC regulations																								
Review international examples/develop a proposal																								
Present findings to BAM/stakeholders																								
Update proposal based on stakeholder input																								
Present final findings																								
Update content based on pilot feedback																								
Implement open banking regulations																								
Industry stakeholder consultation on the feasibility																								
Conduct benchmarking study																								
Develop a proposal for BAM																								
Conduct stakeholder workshop																								
Update proposal to reflect stakeholder feedback																								
Conduct a post evaluation																								

LIBYA

I. CURRENT STATE OF FINANCIAL INCLUSION

Based on the anecdotal data obtained during the Key Individual Interviews (KIIs), it is estimated that transaction account ownership in Libya effectively increased by 6% from 2017, when the financial inclusion rate was estimated at 66 percent. This is primarily due to an increase in the number of prepaid cards issued for consumers interested in buying US dollars. Banks issue these cards using international scheme brands (Mastercard and Visa) to disburse a government allowance that permits individuals to purchase US$ 500 per person annually at the official exchange rate, further encouraging their opening among the unbanked populations.

It is estimated that about 85 percent of the Libyan workforce is employed by the public sector, and 70 percent of wages for such employees are transferred via bank accounts. However, most bank accounts are limited to receiving wages and do not help with access to other forms of digital financial services, including savings and credit. Private sector workers, on the other hand, receive wages primarily in cash. Only 43 percent of adult Libyan workers employed in the private sector receive wages through an account at a financial institution. The remaining workers are paid in cash. Despite the high account usage, the banking relationship is overwhelmingly for the purpose of receiving wages and cash disbursal, with most citizens withdrawing the cash and then acting as if in an otherwise cash-based economy.

The financial inclusion levels in Libya are impacted by migrants and refugees who are not included in the financial system. Due to the informal nature of their economic activity, most migrants and refugees work without contracts and are excluded from formal financial services. Wages are paid in cash due to the workers' inability to open bank accounts. Most financial services, including savings, borrowing, and remittances are carried out in cash. Discussions with stakeholders during the KIIs revealed that not much has changed for these segments, and they continue to be excluded from the DFS ecosystem.

II. FINANCIAL AND PAYMENTS SYSTEM LEGAL AND REGULATORY ENVIRONMENT

The Central Bank of Libya (CBL) intends to leverage FinTech-led technological developments and innovations in DFS for the purpose of strengthening its national payment systems and improving financial inclusion. However, so far, specific policy measures have not been defined. Nonetheless, CBL has introduced several important policies and legal/regulatory measures, which provide the foundational basis for the development of national payment systems, and this could ultimately support the expansion and usage of broader digital financial services.

In 2018, CBL took steps to strengthen the oversight of payment systems and improve cooperation and collaboration with various stakeholders in the retail payment systems ecosystem. In this regard, CBL established a separate department to oversee payment systems activities and created a National Payment Council (NPC), which is comprised of various stakeholders, including commercial banks, Moamalat, Libyan Insurance Company, and others.

In March 2020, CBL issued e-payment regulations that included the licensing and supervision framework for service providers providing e-payment services. Key aspects of the regulations include:

- The ability for CBL to issue licenses and supervise the e-payment sector; ensure safety and efficiency in the provision of e-payment services, and achieve integrity of the Libyan e-payment ecosystem by reducing risks and promoting financial stability.
- Defining the scope of licensing, including entities that can provide e-payment services, along with commercial banks (if there is no conflict with the banking law), payment service companies, payment systems operators, and mobile payment companies. For existing companies, a timeframe of 6-12 months has been provided to comply with the regulations, whereas new service providers are required to meet all requirements before going live to offer services to the public.
- Specifying the supervision of e-payment companies and the terms and conditions that must be met to maintain the e-payment licenses. The oversight of e-payments companies is managed by the Oversight Department at CBL in coordination with the National Payments Council.

Under Article 7 of the 2005 Central Bank Law, basic provisions on electronic transactions are included. In the last few years, CBL has issued a series of circulars to regulate emerging payment systems, and since 2018, these have been issued in consultation with the National Payments Council.

In 2017, CBL released a Circular on a Mobile Payment Service Operational Framework providing details of the licensing and operational procedures for mobile e-money operators.

Libya has a well-developed AML/CFT law. At the same time, its implementation and enforcement still need to be improved. The AML/CFT law, which was issued by the Presidential Council in October 2017, follows the FATF guidelines on definitions and prescriptions, including stipulating coordination with relevant global entities, and calls for the creation of a Financial Intelligence Unit (FIU) to collect relevant information and share with the authorities as deemed necessary. USAID's Libya Public Financial Management (LPFM) Program has recently provided targeted amendments to the law designed to further strengthen its core reporting of suspicious transactions.

The LPFM Program also guides enforcement requirements in a FATF-compliant direction; and aims to restructure and retrain the Financial Intelligence Unit (FIU) at CBL in a manner designed to strengthen institutional capacity to promote effective compliance with core AML/CTF requirements. It could prove important to incorporate within these support efforts a focus on simplified/streamlined AML/CTF reporting and tiered KYC requirements for small value low-risk accounts to support remote account opening and strengthen incentives for digital payments and broader digital financial service expansion/integration.

III. CURRENT STATE OF BANKING AND DIGITAL FINANCIAL SERVICES ECOSYSTEMS

Libya's financial sector is heavily dominated by banks, especially state banks. Currently, there are nineteen commercial banks representing over 80 percent of the assets in the financial sector. The banking sector is dominated by five state-owned banks, including Jumhouria, National Commercial, North Africa, Sahara, and Wahda, that hold approximately 90 percent of deposits mainly due to the government salaries channeled through them. As a result, consumer account penetration is high, given the salary deposits, but financial intermediation beyond salary transfers is extremely narrow. Private sector businesses are almost wholly excluded from the formal financial sector.

Due to the uncertain economic environment caused by the conflict, from a supervision and oversight perspective, CBL is split into two quasi-independent entities based in Tripoli and Bayda. Most commercial banks are headquartered in the West and report to CBL Tripoli. Banks headquartered in the East control about a third of banking activity and report to the central bank in Bayda. CBL (Tripoli) has limited visibility of its activities. All banks have operations in both East and West of the country, and they hold reserves at CBL Tripoli and in Bayda.[31]

There have been efforts to liberalize the banking sector, including new banking laws which allowed new entrants into the banking system. Most of the new entrants are very small and have so far not had a significant impact on financial intermediation. For most banks, the greatest part of income has been derived from transactional businesses, such as foreign exchange trading and transfers. In 2005, CBL launched the National Deposit Guarantee Fund, which covers up to LYD 250,000 for current accounts. No payout has been made since inception.

Financial intermediation has been impacted by the ongoing conflict and other factors such as a split between East and West, periodic lack of foreign currency, etc. Overall, growth has suffered due to endemically risk-averse behavior of the commercial banking institutions, periodic instability in macro-financial conditions (which promote cash hoarding by both banks and by economic actors), and has in the past been impacted by the large gap between official and black-market exchange rate (though this was addressed effectively in 2021). Weak rule of law has contributed to corruption and other risk factors, including the high incidence of cross-border smuggling and money laundering through manipulation of Letters of Credit, debit card fraud, and fake deposits through the manipulation of banking services.

The lack of citizen confidence in the legitimacy and stability of the commercial banking system in Libya limits activities that would lead to greater financial intermediation. This is reinforced by the lack of institutional capacity of most private sector banks to efficiently plan and implement banking and digital financial services for customer growth. In this regard, efficient strategic planning and risk management capacity in most commercial banking institutions is reportedly highly limited. This is further reinforced by acute market structure issues in the Libyan financial markets, with the sector dominated by a group of large and inefficient state-owned banks with limited capacity and interest in providing cutting-edge financial services to the population.

Within this overarching context, CBL launched its National Payment Systems Project in 2007 to improve the critical payment systems infrastructure in Libya. The project established key interbank clearing and settlement systems in Libya, owned and operated by CBL, including a real-time gross settlement system (RTGS), an automated clearing house (ACH), an automated check clearing (ACC), and a SWIFT Gateway Service. The project included upgrading the core banking systems at the five big state banks to facilitate interbank connectivity and electronic fund transfers. As a result, over 85 percent of banking branches throughout the country are now connected to their headquarters' core banking systems. The remaining 15 percent of bank branches are in the Eastern region and other remote areas and are not yet connected, primarily due to the ongoing conflict. This impedes an efficient clearing and settlement process for remote branches, and it can take several days to clear checks even within the same bank.

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[31] Proactive efforts are underway to facilitate an effective 'merger' of the two Central Banks under the core authority of the Central Bank in Tripoli – a number of the banking regulatory and monetary management reform support efforts being undertaken by USAID under the LPFM program are helping lay the groundwork for this process.

Check-clearing between banks using ACC is not fully automated and often faces manual bottlenecks. There is a lack of automatic check-reading technology, which results in manual processing and leads to increased processing time and errors. Checks of more than LYD 250,000 must, in any case, be cleared manually for security and fraud reasons. CBL has launched several initiatives to address this issue and fully automate ACC.

In 2016, a direct gateway to SWIFT was established to replace the routing of SWIFT transactions through Jordan or the UAE. Eleven banks, including all five state banks, are connected to the SWIFT gateway, and CBL is in the process of testing and operationalizing interbank clearing and settlements using the SWIFT gateway.

Since 2009, the Moamalat Financial Services Company has been designated as the Domestic Card Scheme under the NOMU brand and the National Payment Switch for Libya. The company provides a range of acquiring, processing, switching, card management, and settlement services to its nine participating banks. Moamalat was established by CBL and is owned by the largest state-owned banks in Libya. As of 2021, 10 out of 19 commercial banks in Libya participated in the ecosystem. Moamalat has a dominant position in the digital payments market and provides the following digital payment services to the participating banks: access to its POS and ATM networks for cardholders of NOMU branded cards; clearing and settlement services for all NOMU branded card transactions; and value-added DFS, including integration of mobile banking apps with digital payments, and ATM and POS management (for the banks). It also manages a rapidly growing network of POS terminals at merchant sites for the participating acquiring banks.

Despite uncertainty in the political economy and the dominance of state-owned financial and payments infrastructure, new FinTechs and non-bank PSPs are emerging to offer a range of digital payment services to different stakeholders. The unstable macro-financial situation in Libya has at times led to cash hoarding/shortages and, consequently, higher demand for digital payments. Several private banks and non-bank companies have stepped in to bridge the gap and are capitalizing on this opportunity to serve the needs of a growing market for safe, reliable, and customer-centric digital payment services.

Several private banks do not participate in the CBL-backed national switch (Moamalat), mainly due to the governance and competition challenges posed by the five state-owned banks that own the switch. Instead, they are leveraging the services of payment processing platforms of emerging FinTech companies to offer innovative digital payments previously not offered in Libya (e.g., chip and pin cards). The dominant position of Moamalat and the fact that all banks, especially smaller privately owned banks, are not part of its ecosystem creates a fragmented ecosystem for payment services in Libya. Also, the banks that use its services find that there are recurring ICT challenges and ATM/POS networks are frequently down.

FinTech companies like Tadawul Tech and Tafani Telecom and Technology are providing services to privately owned commercial banks. Tadawul is directly addressing the infrastructure and technology limitations for card and e-wallet acceptance in Libya, which was having an impact on digital payment adoption due to poor customer experience at the retail point of interaction. Initially, Tadawul grew its operations by issuing and accepting e-vouchers. As a result, its network of POS terminals reached 700 by 2016. The e-voucher-based value-add service provided a revenue stream for the merchants each time they would top up the e-voucher linked to a prepaid card. During this initial period, Tadawul used its e-voucher operation to educate the merchants on the benefits of digital payments.

To address the persistent cash shortages in Libya and to promote wider adoption of digital payment services, CBL granted e-payment licenses to Tadawul and three other e-payment companies to develop digital payment platforms for banks. After obtaining their license, Tadawul launched a closed loop, co-branded card product with a private commercial bank using the Tadawul brand. Tadawul's e-payment platform provides an acceptance network (1,200 POS terminals at the time of the product launch) and issuer processing services. Other banks have also been seeking such issuer processing solutions, and as a result, 7 other commercial banks have since joined. In 2020, Tadawul's acceptance network had grown to 6,300 POS throughout Libya, in 48 different locations, including cities and villages.

Tadawul recently upgraded its cards and POS terminals to be EMV-compliant. Additionally, they have launched an e-wallet solution using contactless, NFC-based technology and are currently working on becoming an e-commerce gateway, enabling card acceptance for online merchants and a local e-commerce marketplace. Looking forward, they are in the process of introducing QR code acceptance, as well as laying the foundation for a Tadawul marketplace for e-commerce. Tadawul also enables 3D-secure validation for cards to conduct transactions online. Their card products can be used at approximately 50 ATMs belonging to the banks using the Tadawul platform. Another important development that can help with the adoption of digital payments among the merchant community is the same-day settlement service that allows merchants to receive the payment on the same day as opposed to 1-3 days later.

In 2017, Almadar was granted a license to provide mobile e-money services in Libya. Almadar runs SADAD, a mobile e-money service that enables consumers to transfer funds from their bank accounts into a mobile wallet that is tied to their phone number. It allows wallet holders to purchase goods and services at participating merchants (Person-to-Business or P2B payments), make bill payments, conduct person-to-person (P2P) transfers, and electronic top-up vouchers of Almadar. An additional service that is much needed in Libya is the B2B payment, where merchants can pay wholesalers and importers directly -- without using cash. This is an evolving service, but it can fill an important gap in the market. In 2020, the Ministry of Economy signed an agreement with Almadar to use their merchant network for the collection of government payments.

In an important development, the Ministry of Economy is working with the telco to leverage their merchant network to collect government payments. Another notable player for mobile e-money is Watba, a closed-loop service that allows customers of the Bank of Commerce and Development to send money to each other using an app developed for this purpose. The volume of transactions of this service is over 10bn LD, which is five times larger than the volume of transactions that are processed through the national switch.

Participation in international card schemes is limited in Libya because of Mowasalat's dominant position in the market. Until the start of the conflict in 2011, cards issued under the brands of international payment companies (such as VISA, Union Pay, American Express, Mastercard, and Diners Club) were accepted in hotels and some other merchant categories. However, with the conflict and the resulting currency controls, international cards are no longer accepted. Moamalat is now working on re-establishing interconnectivity between the National Payment Switch and global card schemes. This interconnectivity will allow international scheme branded cards to be accepted at POS and settle these transactions domestically.

IV. TELECOM AND BROADER ICT SYSTEM LEGAL AND REGULATORY ENVIRONMENT

Libya does not have an independent telecom regulator, although the Ministry of Communications and Informatics proposed a law that would have created an independent regulator in 2014. There are three MNOs in Libya – Almadar Aljadid, Libyana, and Libya Telecom and Technology. Of the three, Almadar Aljadid has a mobile e-money service that allows users to purchase goods and services, pay bills, transfer money, and top up their mobile accounts. It has been reported that the share of Libyans using their mobile phones to access their accounts is comparatively low.

Much of the telecom infrastructure in Libya was either stolen or destroyed in the civil war, but efforts to rebuild networks are underway. Estimates of service penetration are low by global and regional standards. The ITU reports the mobile penetration rate to be 91% of the population, but as in all countries, this figure is likely to overstate the actual number of Libyan citizens that have mobile subscriptions as many people have multiple SIM cards from different operators. Moreover, the ITU reports that, as of 2017, the latest year for which data were available, 36% of the population -- approximately 2.3 million people -- have active mobile broadband subscriptions, and 5% have active fixed broadband subscriptions. Seventy-eight percent of the population was covered by 2G and 3G networks, but only 40% were covered by 4G as of 2017. The social media penetration rate was reported to be 86.8% of the population, or 6 million people, as of 2021, according to datareportal.com.

The telecom sector remains completely state-owned through the holding company Libyan Post, Telecommunications, and Information Technology Company (LPTIC). In November 2021, however, the Prime Minister publicly called for the privatization of the sector and the introduction of competition. The Prime Minister has complained that prices are too high, and services are too basic and of poor quality, particularly when compared with neighboring countries. He has emphasized the importance of seeking to encourage competition by privatizing the sector in the remaining time his government has in office.

V. ACCESS AND USAGE OF BANKING AND DIGITAL FINANCIAL SERVICES

POS statistics for Libya

YEAR	POS TERMINALS	VALUE (MILLIONS LYD)	NO. OF POS TRANSACTIONS (IN MILLIONS)
2016	782	120.7	1.0
2017	3,026	821.0	6.2
2018	5,864	1,840.0	11.5
2019	8,994	2,003.5	13.0
2020	12,488	2,113.4	15.7

Source: CBL 2022

ATM Statistics for Libya

YEAR	ATMS	VALUE (MILLIONS LYD)	NO. OF ATM TRANSACTIONS
2016	373	NA	NA
2017	397	89.0	735,759
2018	406	112.3	650,622
2019	423	155.2	832,848
2020	436	89.9	369,887

Source: CBL 2022

As of the end of 2020, there were a total of 1.3 million cards in Libya, of which 700,000 are debit cards, and the remaining are prepaid cards. Of the total, about 500,000 were active and used multiple times in a year.[32] Many inactive cards fall in the category of gift cards and other single-use prepaid cards. The credit card market is largely nonexistent in Libya. In terms of consumer spending on debit cards, grocery stores, pharmacies, and healthcare providers are the most important merchant categories. The uptick in card usage in Libya is linked to cash shortages in Libya. During periods when cash shortage was an issue, most of the consumer spending was made using cards.[33] This has enabled cardholders to make use of their salary deposits that had otherwise remained inaccessible due to cash withdrawal caps that had been put in place by the banks.

As of 2020, there are 12,488 POS terminals with the annual amount of transactions valued at 2.1 billion Libyan Dinar (LYD) (USD $1.57B). The table above provides the value and volume of POS transactions growth since 2016 and the resulting rise in POS terminals. Consistent with the trends in other countries in the MENA region, banks have been targeting high-volume merchant categories such as food and groceries, pharmaceuticals, and health clinics, which provide the highest transaction volumes to the acquirers.

Over 7,000 of the Libyan POS units are connected to the National Switch operated by Moamalat, enabling debit and prepaid cardholders to transact through the switch. The POS units are also heavily geographically concentrated: more than 63 percent of POS machines are in the Tripoli metropolitan area, and, together with nearby Zawiya, the northwest strip holds almost 80 percent of all POS devices. However, POS terminals outside the network served by the national switch are not interoperable and only allow for closed-loop transactions. FinTech Tadawul provides one such private, non-interoperable network. It is a hybrid system with multiple settlement accounts, each held with a different partner bank. This has enabled them to build a multibank network outside of the National Switch.

Moamalat is targeting further growth in the number and geographical distribution of POS terminals to improve the adoption of e-payments. The current rate of 2,000 POS terminals per 1 million population

[32] Active card is defined as having one or more POS transactions per month.
[33] It should be noted, however, that several people interviewed including bankers and payment providers see card payment usage as a temporary fix until physical cash becomes more widely available. So, this issue will need to be addressed to sustain a broader shift and acceptance of a cash-lite economy and ecosystem in Libya.

is low compared to the adoption of e-payments, and the projected target is about 50,000 POS terminals by 2023. This will equate to about 3,000-4,000 POS terminals per 1 million population.

Large banks dominate the ATM network. Jumhouria operates 45 percent of all ATMs in Libya. The concentration of ATMs is also disproportionately skewed towards Tripoli, with over three hundred ATMs, the majority in the system. In other parts of the country, bank tellers are the primary access point to obtain cash. ATMs have made inroads into Libyan cities, but their popularity has been declining due to unreliable ICT connectivity, frequent cash shortages, and poor maintenance. ATM transaction volumes have declined during the same period, and the spending is shifting to debit cards.

However, while debit card usage has made gains in recent years due to cash shortages, as physical cash has become more available, people are again reverting to cash usage. This became evident in 2020, where the ATM average ticket size was the highest in the last five years, and the average ticket size of POS was lower than the last five-year average, meaning that people have been reverting to cash usage as opposed to POS usage. Large withdrawal amounts from ATMs are also an indication of cash hoarding. Consumers have relatively become used to using e-payments, and efforts should be made to improve infrastructural access and consumer experience so as not to reverse the trend (as well as further enhance overall macro-financial stability and improved monetary policies).

The share of Libyans using their mobile phones to access their accounts is comparatively low. The transition to digital payments is slowed by regulatory and licensing hurdles. Banks, telecom companies, and other FinTech providers must acquire a license from the CBL to operate electronic payment services -- in a context where the regulations have not kept up with the pace of expansion of these services. While there have been several regulations relating to cards, mobile banking, and electronic payments issued by CBL as circulars, there is still no central legal framework in place for national payments. Despite the hurdles, the use of mobile banking and electronic payments has been rising. This was also spurred by the liquidity crisis as digital payments did, to a certain extent, replace cash payments. Services provided by Watba and SADAD were also picking up traction in Libya.

VI. ATTITUDES AND PERCEPTIONS TOWARDS DFS

Libya has one of the highest account ownership rates in the MENA region, mainly because a very large portion of the workforce (85 percent) is employed in the public sector and receives their salaries through bank accounts. However, financial intermediation depth is quite low, and banking relationships are primarily for cash disbursement purposes (and not to save or spend the funds using debit cards at POS). In contrast, only 43 percent of non-governmental workers receive their salaries through bank accounts, and the remaining 57 percent are paid in cash.

The reluctance of businesses to accept electronic payments is a barrier to usage. While the consumers are keen to use e-payments at POS, it is not the same level of enthusiasm for the merchants. Merchant supply chains are also predominantly cash driven. It is also important for the B2B value chain to be encouraged to embrace e-payments; so that there will be more interest on the side of merchants. This will provide transparency to CBL and will motivate merchants to accept e-payments.

VII. CONSTRAINTS & OPPORTUNITIES FOR DIGITAL PAYMENT EXPANSION

Legal and Regulatory Environment

The regulatory environment is restrictive and needs to be updated to better enable innovative digital banking products, including payments, as well as financial access channels. KIIs provided information on how smaller, private banks find it difficult to obtain the necessary licenses to operate businesses and/or to introduce new, innovative products. There are also restrictions on amounts that can be transferred through digital channels (e.g., P2P transfers).

There are significant competition issue related to the provision of digital financial services. The e-payment landscape is dominated by the national switch that operates many services on a quasi-monopolistic basis, including settlements, acquisition/integration of digital payment service providers, and other value-added services. Lack of effective competition in the market has impeded the growth of other private sector e-payment companies besides Tadawul, which has managed to create a scalable business due to innovative outreach approaches. International payment companies have also held back investments due to their inability to increase the acceptance of their brands by local merchants.
CBL wants to leverage technological developments and innovations in e-payments for the purpose of strengthening its payment systems infrastructures and improving financial inclusion. It recognizes the strong role innovations in e-payment technologies can play in improving the safety, security, and cost efficiency of the DFS ecosystem. These innovations can also play an important role in providing transaction accounts to the unbanked Libyans. To achieve these objectives, CBL recognizes that the private sector FinTechs and e-payment companies will play a strong role in the development of new and cost-efficient e-payment services, which can directly address the unmet needs of Libyan consumers and businesses.

The Libyan Bankers' association has not been effective in pushing for policy changes. Further, small innovative banks are not allowed to participate in the National Payments Council (NPC). The governance of the NPC should be re-evaluated to include smaller banks and FinTechs. This should be aligned with the overall vision of the CBL in leveraging FinTech to better support the introduction of new technologies, products, and access modes.

In addition, an overarching and enabling legal and regulatory framework for digital payments and financial inclusion is needed. Key areas of focus should include developing a National Financial Inclusion Strategy (NFIS) that targets financial access in areas affected by the conflict (Eastern and Southern Regions) as well as address gender gaps in access to financial services including digital payments. A complementary National Digital Payment Strategy should be considered to better identify and addresss current policy gaps and areas for improvement of the digital payment access points and interoperability of digital payment infrastructure. The National Payment Council (NPC) could be leveraged for the purpose of aligning the strategic goals of different public and private sector stakeholders.

Looking at other countries[34] that have effectively addressed this challenge, it becomes clear that this will require a multi-pronged approach including:

[34] See https://www.betterthancash.org/news/learning-series-government-ownership-and-leadership-over-digitization-critical-to-driving-and-scaling-up-digital-payments

- Conduct a national survey of consumers and businesses that is updated regularly to understand the actual uses and challenges of using digital payments with a breakdown by gender.
- In addition, a national digital payment strategy should be developed with a medium-term horizon to shift towards greater use of digital payments (most countries have adopted 3–5-year strategies with clear targets
- Include discussions with the government and private sector to work out plans to make and receive payments digitally
- Develop in-house capacity and ensure proper data collection from the banking and payments sector to track the use of digital payments following the updated BIS Red Book guidelines[35].

Financial Services Infrastructure & Industry

ICT infrastructure and other barriers continue to hinder progress in improving ATM and POS coverage outside of Tripoli. Geographically, most of the acceptance infrastructure is in the West (89 percent in the West in Tripoli and surrounding areas, 6 percent in the East, and 5 percent in the South). This is partly due to the conflict; however, poor ICT infrastructure and connectivity are important factors for low coverage in areas outside Tripoli. Frequent power failures also shut down systems temporarily, but enough to cause disruptions for consumers and merchants. POS are connected through mobile networks, and the network and coverage are poor outside the main cities. In addition, because all the telecom operators are state-owned, there is no competition in the provision of mobile money service, which could be expected to spur innovation and greater demand for the service.

There is no system-wide interoperability within the retail payment ecosystem. The ecosystem is dominated by Moamalat. Tadawul acts as a parallel network mainly serving smaller, private banks, and FinTechs. This situation limits the growth of private banks and e-payment companies and results in additional market fragmentation, as well as a lack of interoperability between the dominant scheme and other proprietary systems closed-loop systems. Under an updated national payment strategy, a more cohesive approach taken by CBL to introduce healthy competition would benefit the growth of the FinTech sector. It could also enable the introduction of new technologies, access modes, and products in the market. System-wide interoperability should also form part of this updated national strategy.

The core banking systems of the dominant banks are outdated, and as a result, their services are frequently down. This, in turn, prevents the usage of debit cards at POS terminals and ATMs, as the cards are not authorized by the processor due to transactions timing out. Consequently, transactions fail, and it creates distrust in the e-payment system for consumers.

Consideration should also be given to potentially linking the implementation of CBL monetary transmission mechanisms to the enhanced capacity of commercial banks to provide efficient and cost-effective e-payment services. This, for instance, could entail linking commercial bank access to potential FX auction and/or rediscount line resources to progress made by commercial banks in enhancing the provision of and client access to e-payment services as well as supporting broader use of digital financial services.

Access & Usage

[35] See https://www.bis.org/cpmi/publ/d00a.htm

The KYC processes for consumers remain cumbersome. As with other bank-backend systems, the customer databases are old and have not been updated for some time. For many users, banks do not have the right National ID or contact information (phone numbers), which delays or prevents consumers from getting bank accounts. This also has an impact on card activation rates as the phone numbers are inaccurate, and SMS texts sent to activate new cards are not received. As a result, approximately 50 percent of cards are not activated -- due to the wrong contact information or similar issues.

The merchant process for KYC appears to function more effectively, as merchants provide their passport and the certificate of commercial registry from the Ministry of Economy. In addition to the simplification and streamlining of KYC provisions for low-value, low-risk customers in accordance with FATF guidelines to support financial inclusion[36], bank and non-bank service providers should be encouraged to modernize their databases to facilitate easier KYC and customer onboarding. This can also effectively support improving the existing gender gap in terms of access and usage of digital financial services, especially by women.

Merchant supply chains are predominantly cash driven. A national payment strategy should also incentivize a B2B electronics payment value chain, which will help generate more interest generated from merchants. This would provide greater transparency and motivate merchants to accept e-payments.

Attitudes & Trust

Poor ICT infrastructures and lack of interoperability in retail payment systems have contributed to the slow or unreliable digital payment services resulting in failed transactions as well as limited use cases within the digital payment ecosystems. This has been a major contributor to a lack of trust in digital payments. During the KIIs, it was often mentioned that when the cash shortage was eliminated, people would go back to using cash for face-to-face transactions event though many have become accustomed to using cards.

To ensure that the previous gains made towards achieving high usage of digital payments during the cash shortages are not reversed, there are opportunities to explore time-bound financial incentives that could be applied to sustain the current adoption of digital payments by commercial banks, merchants, and consumers. In addition, as in the examples of other countries in the region, financial literacy/educational efforts that utilize a low-cost, sustainable means to reach large numbers of clients, such as artificial intelligence-enabled chatbots, should also be considered. Enhanced consumer protection measures that are enforced by the CBL would also be key to delivering trust. More importantly, consumer redress and the ability to push providers to improve services can also be supported through the use of chatbots and tools that would allow consumers to rank and comment on services provided to them, which could then be made available through Facebook, Google or similar online dashboards that could utilize a chatbot.

VIII. STRATEGIC RECOMMENDATIONS

Context

Despite the progress made by the CBL and the digital financial services industry in recent years, many weaknesses and challenges remain in Libya. These hamper further growth of the financial sector, which

[36] See https://www.fatf-gafi.org/media/fatf/Updated-2017-FATF-2013-Guidance.pdf

in turn affects financial intermediation and uptake of digital financial services. There are noticeable gaps in the enabling environment, sector governance, and stakeholder coordination which hampers the achievement of national policy goals. Further notable constraints in the field of digital payments include skills weakness, both among the banks and within the central bank, limited interoperability in payments, and a generally weak uptake of diverse use cases for payment services such as e-commerce.
Based on the research conducted in Libya, it is proposed that the following areas are supported in the form of a comprehensive pilot program to build capacity within CBL, within the digital payment industry, and within other stakeholders. It is also envisaged that the pilot will implement appropriate measures to strengthen the payment infrastructure, build trust in digital payment platforms and facilitate a broader shift to the use of digital financial services.

Areas proposed for support include:

- Capacity building within CBL and the digital payment and broader financial services industry for better financial and payments data collection, analysis, and reporting. This capacity-building effort could be anchored by specific policy objectives or gaps (e.g., capacity to promote financial integrity, to fulfill supervisory responsibilities, to promote consumer protection in DFS)
- Improving the structure of the NPC to include a broader set of stakeholders from the industry and aligning its objectives to promote innovation in and growth of digital financial services.
- Improving interoperability in and access to centralized payment platforms to support greater usage of DFS by accountholders.
- Improving uptake of e-commerce by small entrepreneurs by providing financial literacy tools geared towards the formalization and expansion of business activities and the greater use of digital payment instruments.

In the following sections, each of these key areas is explored in more detail. The chapter then continues by defining a pilot that may be implemented over a period of about two years to address these key areas.

IX. IMPROVE CAPACITY WITHIN THE CENTRAL BANK OF LIBYA FOR FINANCIAL AND PAYMENTS DATA COLLECTION, MONITORING, AND REPORTING

Background

The scarcity of information on key financial and payment indicators is a challenge in Libya. Lack of quality data hinders the CBL's monetary and fiscal policy-building, and it is planning more generally for promoting the adoption of DFS. It also inhibits the CBL from promoting trust in formal financial services (DFS or otherwise) through the adoption and implementation of robust consumer financial protection mechanisms. The lack of broader economic and demographic information, typically from other government departments, hinders CBL's policymaking. The CBL is currently focusing on improving its own data collection and information management. The current structure of CBL's information management includes three functions: (i) data collection, (ii) research, and (iii) quarterly central bank reports.

CBL's information management is impeded by limited IT infrastructure and technical capacity overall. CBL lacks a robust data gathering infrastructure and a comprehensive system for data recording and data management along the lines of a data warehouse. This limits the ability to perform robust analyses of trends, develop detailed segmentation and profiling studies, or even effectively plan for and manage a national digital payment strategy.

With the assistance of international organizations (the IMF and World Bank in particular), the CBL has invested in raising the capacity of its staff and of its systems. But CBL still needs significant strengthening, particularly in the areas of financial and payments data collection, monitoring, and reporting as well as management of monetary policy and exchange rates. A diagnostic survey should be conducted to identify the key areas to be monitored and how the CBL can improve its institutional capacity (IT systems, staff capacity, strategies, and approaches) to effectively use the data in relation to its mandates (i.e., consumer protection, market supervision, financial integrity). The survey should include a collection of both demand and supply side data elements that can be used for monitoring and reporting on digital financial services, especially payments. Areas of study should include household surveys to assess access to and usage of DFS, especially data collection on digital payment usage.

Objectives

- Assist CBL in conducting a diagnostic survey of its current capacity for data collection, monitoring and reporting for digital payments, monetary policy and balance of payments, and other key data components that are critical for sound policymaking and pursuit of policy objectives of relevance to digital payments (i.e., consumer protection, market supervision, financial integrity).
- Assist CBL in developing the framework for conducting regular surveys to assess the demand for and supply of digital financial services. On the demand side, establish a process for conducting regular surveys to understand the consumer preferences for obtaining transaction accounts and their usage, as well as the potential collection, analysis, and resolution of customer complaints. On the supply side, provide support to establish a framework and procedures for obtaining DFS data for the bank and non-bank PSPs overseen by CBL.
- Develop an action plan to assist CBL in enhancing its capacity for improved data collection, monitoring, and reporting in line with the Banking for International Settlements Committee on Payments and Markets Infrastructure (BIS CPMI) revised Red Book statistics[37].

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	Medium	Medium

- Data collection, monitoring, and reporting framework will be developed and adopted by CBL by mid-2023.
- Regular demand side studies are conducted to assess the usage levels of digital payments as well as broader DFS, as well as better visibility on customer complaints.
- Surveys and quarterly reports are produced by CBL starting Q4 2023 for better monitoring of the digitalization process in Libya and for improved policymaking, especially for digital payments, broader DFS, and even improved tracking of the money supply.

[37] https://www.bis.org/cpmi/publ/d168.htm

X. IMPROVE GOVERNANCE STRUCTURE AND OPERATIONAL EFFECTIVENESS OF THE NPC

Background

The Libyan National Payment Council (NPC) is chaired by the Governor of CBL. It should be an active voice in promoting digital payment services. However, matters related to the digital economy go beyond the policy areas covered by CBL, and the current scope of NPC activities is limited and not fully aligned with the broad-based national strategy to promote digitalization and uptake of digital payments. Therefore, the NPC needs a higher level of political support to push for reforms impacting the digitalization agenda in other areas of government, including the telecommunications regulatory body for improving ICT infrastructure, the Ministry of Economy, and other key stakeholders.

On the industry front, NPC is dominated by the large state-owned banks, and there is no representation from smaller banks and FinTechs that are currently driving the growth of digital payments in Libya. Lastly, the NPC could also formalize the process for developing a National Payments Strategy along with CBL and other key government agencies and a National Financial Inclusion Strategy that could be centered on promoting cashless payments and digital financial inclusion.

Objectives

- Leverage NPC to develop a comprehensive National Digital Payment Strategy that strengthens various policy as well as related infrastructure components of the national retail payments system that is critical for digitalization efforts.
- Evaluate NPC governance arrangements and organizational and operational structure against examples of national payment councils in other markets such as Egypt and the Philippines[38] and propose an expanded structure to include relevant government and industry stakeholders, including smaller banks and FinTechs, for a bigger strategic impact.
- Propose expansion of NPC to launch sub-committees to address the emerging priorities of the government and CBL for digitalization. Specify a detailed organizational/operational structure for each sub-committee, including objectives, meeting frequency, members, etc.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	Medium	Medium

- Draft a National Digital Payment Strategy for approval by the CBL six-nine months from the start of TA activities (by Q1 2023). The strategy to address ICT and payment infrastructure constraints that impede progress with the digitalization of DFS in Libya, including ICT connectivity, ATM/POS interoperability, and other areas.
- Submit a proposal to the NPC for an enhanced organizational structure by Q4 2022. The proposal should provide inputs for achieving better alignment with relevant stakeholders to

[38] USAID supported the development of the National Retail Payments Systems framework and the development of the Payment Systems Management Body that was based on similar efforts in South Africa. Likewise, in the region, Egypt now has a good example of a National Payments Council.

promote a national agenda on the digitalization of payment services and better usage by end-users.

XI. IMPROVE THE INTEROPERABILITY OF PAYMENT INFRASTRUCTURE

Background

There is a lack of interoperability between the national switch Moamalat and other processing platforms provided by FinTechs such as Tadawul. Each payment platform maintains its own network of ATMs and POS terminals that are used by banks participating in the respective networks. Further, MNOs also run their mobile money programs in closed loop environments, and there is no central switch that provides interoperability to the MNOs. The lack of interoperability between the dominant payment platform (Moamalat) and other proprietary platforms owned by FinTechs and MNOs restricts the choice for consumers and the adoption of DFS.

Objectives

- Evaluate barriers to interoperability for ATM, POS, and mobile payments using international benchmarks, develop an action plan for CBL to address these challenges in a strategic manner, and propose the best way to leverage the NPC for the purpose of promoting interoperability for cards and mobile payment as well as fair and equal access to both bank and non-bank service providers to the interoperable platforms.
- Develop an implementation plan for CBL to sequence the desired policy reforms leading to full interoperability, including tools for measurement of progress to drive greater choice for consumers at a reduced price and greater coverage.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Low	Medium	High	High

- Deliver an action plan to CBL that provides them with a road map and technical assistance support for the implementation of interoperable ATM, POS, and MFS by Q1 2023.

XII. PROMOTE TRUST AND CONFIDENCE IN FORMAL FINANCIAL SERVICES

Background

Large numbers of small formal and informal entrepreneurs, many of them women, use e-commerce and s-commerce[39] platforms to buy and sell products and services. However, most of them are using these platforms at a very basic level and are accepting cash on delivery (COD) for payments. There is a lack of understanding of how digital payments work, how to develop an online presence and how to optimize sales. There is a lack of trust in the banking/payment services, which also prevents them from accepting electronic payments for goods/services sold through these platforms.

[39] Buying and selling using social media platforms such as Facebook and Instagram.

Lack of trust and knowledge is a barrier to adoption among both merchants and consumers. One inhibitor is limited financial or digital literacy. To address this, one example initiative, at least at the provider level, would be to develop an AI-enabled chatbot to supply this sort of information. This chatbot could provide business, financial, and payment advisory services to small entrepreneurs. By enhancing the financial literacy of individuals and SMEs, a significant stimulus should be provided to electronic payments in Libya. Note that if there is interest in other markets across the region, such as Iraq and the West Bank and Gaza, a shared core platform in Arabic could be developed with customizable features available to consider different market characteristics. In addition, trust is limited by the fact that consumer financial protection mechanisms, as they might relate to financial services offered via digital means, are weak or non-existent. This means that merchants and consumers cannot necessarily rely on any meaningful or effective recourse if something goes wrong or if the provider engages in irresponsible or illegal market conduct. It should be noted as well that the chatbot can provide a means of public feedback that could also be transparently shared with others to encourage better practices and proactively improve consumer redress mechanisms as well.

Objectives

- Work through the bankers association to develop, manage and operate a Financial Literacy chatbot that could be accessed by all consumers through Facebook Messenger, WhatsApp, or other messaging apps on a mobile phone. The chatbot would take users through a short course designed to improve the way Libyans learn about financial responsibility as well as provide tools to use digital payments and expand business. This could then be linked and shared with a variety of banks and non-bank financial service providers to not only support digital payments but how digital payment platforms could facilitate broader access to DFS.
- This bot would personalize the learning experience and would be easily accessed through common messaging apps or online. The chatbot would establish the level of financial knowledge of each user and guide them on their learning journey, to achieve financial literacy in a creative way. Wherever possible, customized content should be available for women entrepreneurs who are the biggest users of s-commerce platforms and are mostly unbanked/underbanked.[40]
- To encourage participation, it is recommended that some sort of gamification and rewards be offered for Libyans who register for the chatbot courses and complete them on an ongoing basis.
- Work with universities or consumer advocacy groups, and potentially with interested providers, to conduct studies or surveys of available digital payment services in the market that diagnose gaps or problems (e.g., term and fee disclosures; safety of services or customer data; suitability of the user-interfaces for digital payments products marketed to merchants and consumers).
- Facilitate discussions among industry stakeholders to discuss the findings and pinpoint concrete improvements in the product features or design aspects of the user interfaces of their products that, if resolved, would improve customer outcomes by augmenting any user's literacy level and thus, improve trust in DFS. This would increase the likelihood that testing of DFS services would translate to active, recurrent use.

[40] USAID has successfully promoted chatbots to improve access and usage of digital payments and financial services in a variety of markets especially Myanmar with Mr. Finance and with the Bangko Sentral ng Pilipinas (BSP) in the Philippines to improve consumer complaint management. Recently, Bank Al-Maghrib also recently launched a digital financial literacy chatbot with the support of the UNCDF.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	High	High

- Have more than 25,000 users of the financial literacy chatbot by Q1 of 2024
- Achieve an increase of 10% in the use of digital payments in e-commerce/s-commerce by the end of Q1 2024.

XIII. DEPLOYING A TARGETED PILOT PROGRAM

The following section sets out an action-oriented and practical set of initiatives addressing the four key areas identified above: improve data collection, monitoring, and reporting at CBL; improve governance structure and effectiveness of NPC; improve interoperability in digital payments; broaden use cases of digital payments to include broader use of digital financial services and enhance financial literacy in Libya.

1. **Data collection, reporting, and monitoring**
   - Develop an initial framework for the improvement of data collection, monitoring, and reporting of digital payments and monetary policy data. Use Bank of International Settlements Committee for Payments and Market Infrastructures (CPMI) statistical guidelines used for CPMI countries to establish benchmarks.[41] Also, review existing support provided by the IMF and the World Bank to CBL and determine gaps, if any, for further technical assistance by USAID.
   - Develop an initial proposal for a supply-side data collection process. For this purpose, World Bank's Global Payment Systems Survey (GPSS) can serve as a template for developing the data collection process for CBL.
   - Develop an initial proposal for a demand-side data collection process/study, including frequency, coverage, and analysis. Examples from Morocco, the Philippines, and Pakistan could be leveraged to develop the initial template.
   - Obtain preliminary feedback from CBL on the proposed frameworks.
   - Develop a final proposal for TA, including an implementation timeline for capacity building at CBL. The proposal would also include templates and processes for collecting demand and supply side data.
   - Conduct a workshop for CBL for knowledge transfer and to obtain feedback.
   - Implement TA activities identified under the proposal.
   - Develop a post-evaluation report.

2. **Improve NPC governance structure and operational effectiveness**
   - Assess the current structure of the NPC, review international examples from Egypt, Morocco, Jordan, the Philippines, South Africa, and other markets, and develop a proposal to restructure the NPC.
   - Obtain preliminary feedback from CBL and other stakeholders on the proposal.
   - Finalize the proposed structure based on the feedback.
   - Conduct a workshop for CBL and other stakeholders to review the expanded NPC focus areas, operational structure, and governance of sub-committees.
   - Provide technical assistance to support these recommendations

[41] https://stats.bis.org/statx/toc/CPMI.html

- Develop a post-evaluation report.

3. **Improve the interoperability of payment infrastructures**
   - Evaluate barriers to interoperability using international benchmarks from BIS and neighboring jurisdictions such as Morocco, Egypt, and Jordan and develop an action plan for CBL to address these challenges in a strategic manner.
   - Propose how to leverage the NPC for the purpose of promoting interoperability.
   - Develop access rules for banks and non-banks in interoperable platforms.
   - Obtain CBL feedback on the proposals.
   - Develop a final report including an implementation plan for CBL to sequence the desired policy reforms.
   - Conduct a stakeholder workshop to discuss the main outcomes of the report.
   - Prepare a post-evaluation report, including guidance for CBL on monitoring and evaluation.
   - Provide relevant technical assistance to CBL

4. **Support Broader Use of Digital Payments to Expand Adoption of Digital Financial Services**
   - Conduct a review of current practices of digital payment service use cases that support digital financial services, such as greater access to credit, by comparing practices in Libya with other countries in the region, especially Egypt.
   - Based on the review, develop an action plan to Integrate efforts to encourage the adoption by banks of digital payments/finance tools with implementation of monetary planning strategy – i.e., through conditioning access to new CBL rediscount mechanisms to demonstrate commercial bank commitment to digital inclusion strategies/mechanisms especially the use of digital credit products and services.
   - Provide technical assistance to a select group of banks to develop digital finance outreach services that can be replicated and scaled.

5. **Promote Trust and Confidence in Formal Financial Services**
   - Conduct a market needs assessment and identify relevant existing financial products/services or social media platforms that the AI chatbot can be linked to.
   - Identify an AI chatbot software/service provider for the development of the chatbot (possibly in collaboration with other Missions in the region or USAID/Washington).
   - Develop initial content for financial literacy chatbot based on the needs assessment.
   - Launch a pilot with a select number of small entrepreneurs to test the concept.
   - Update content based on pilot results.
   - Produce a post-evaluation report that includes the process for regularly updating the content and using these services for different merchant segments.
   - Engage with consumer advocacy groups and other relevant stakeholders to research and diagnose the customer-centricity of available digital payment services offered to merchants and consumers, using the findings to encourage or assist providers in improving the quality of products and thus improving trust.
   - Assess the quality and effectiveness of consumer protection mechanisms for digital payments, both at the industry level and regulatory level, and develop recommendations for action to strengthen mechanisms to prevent harm and to ensure timely, equitable, and effective resolution of complaints as they arise.

XIV. TIMELINE FOR THE LIBYAN ACCELERATION PROGRAM

Each of the initiatives outlined above may be integrated within an overall framework. This section brings the initiatives together and shows an integrated approach phased over 2-years in the following table. A more detailed project plan will need to be produced for each area of Technical Assistance after initial approval for the pilot is received.

ACTIONS	MONTHS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Libyan DP Development Program																								
CBL Data collection, monitoring & reporting																								
The initial framework for CBL monitoring/collection																								
Proposals for demand/supply side data collection																								
Feedback from CBL																								
The final proposal for CBL																								
Conduct workshop																								
Implement TA activities to support data collection																								
Post evaluation																								
NPC governance and organization restructure																								
Propose a new structure for NPC																								
Obtain CBL feedback																								
Finalize recommendations on the new NPC structure																								
Conduct a workshop with NPC stakeholders																								
Implementation recommendations																								
Improve interoperability in DP																								
Evaluate barriers and develop an action plan for CBL																								
Proposal on leveraging NPC																								
Access rules for bank and non-bank PSPs																								
Obtain CBL feedback																								
Develop final recommendations and implementation plan																								

ACTIONS	MONTHS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Libyan DP Development Program																								
Conduct stakeholder workshop																								
Implement TA activities																								
Post evaluation																								
Broaden Digital Payments to include DP Use Cases																								
Conduct an assessment of current practices and compare regional DP use cases																								
Develop an action plan to Integrate efforts to encourage the adoption by banks of digital payments/finance tools																								
Provide technical assistance to a select group of banks for pilots that can be replicated and scaled.																								
Post evaluation report																								
Promote Trust and Confidence																								
Conduct market needs assessment.																								
Identify service provider																								
Develop initial content																								
Launch and test pilot																								
Update content based on pilot feedback																								
Monthly progress monitoring																								
Post evaluation																								

WEST BANK AND GAZA (WBG)

I. CURRENT STATE OF FINANCIAL INCLUSION

The strategic goal of the PMA is to increase the level of the financially included adult population from 36.4% to 50% by the end of 2025. Although WBG's financial sector has made important progress over the past four years, progress has been slower than expected. The PMA and the DFS providers believe that there is still much to be done to make financial inclusion a reality for the vulnerable, poor, women, and youth.

INDICATOR	MALE	FEMALE
Percentage of adults with at least one type of regulated deposit bank account.	60%	29%
Percentage of adults with at least one type of regulated credit account.	15%	4%

Source PMA 2021

While there is limited access to gender-based data on the use of formal financial products and services, it is widely recognized that women have more limited access to and usage of digital financial services when compared to their male counterparts.

II. FINANCIAL AND PAYMENTS SYSTEM LEGAL AND REGULATORY ENVIRONMENT

Despite difficult circumstances, there have been several positive policy, legal and regulatory developments in the West Bank in the recent past. These have included:
The adoption of the National Financial Inclusion Strategy (NFIS) for Palestine 2018-2025[42]
The development of the PMA's strategy 2020-2025; includes several key objectives:

- Financial stability strategic objectives:
  - Maintain the safety and soundness of the financial system
  - Enhance resilience and efficiency of the payment system
  - Establish the foundation for strong digital financial services
- Monetary policy strategic objectives:
  - Promote diversification of government funding
  - Prepare for currency independence
  - Regulate immediate issues impacting monetary and financial stability
- Economic growth strategic objectives:
  - Promote financial inclusion
  - Facilitate financial support for strategic sectors
  - Promote measures for inward investment

In 2010, the National Payment Council (NPC) was established to advise and guide the payments industry and to assist the PMA in the establishment of national policies and strategies for the development of the Palestinian payment system.

[42] http://microfinance-mena.org/wp-content/uploads/2019/01/NFIS_en_layouted.pdf

The 2005 eGovernment Strategic Plan has been published by the e-government unit of the Ministry of Telecommunications and Information Technology (MTIT), and some steps have been taken to implement the plan. However, there were few tangible achievements until 2021, when the government launched the electronic payment gateway in direct coordination with the PMA.

In January 2021, the Palestinian government signed an agreement to develop and operate the "electronic payment" project, which constitutes the nucleus of digital transformation and electronic services in WBG. The project is an alliance between the Middle East Payment Services Company (MPAS), formed by the electronic payment companies (Madfooatcom) and Expert for Integrated Solutions (EIS). The project consists of 4 basic components: a unified Single Sign-On (SSO) login system, a unified smartphone application called "My Government," a unified portal for eGovernment services, and an eGovernment payment portal. Implementation of this project is currently envisaged by approximately the middle of 2022.

The PMA established the Payment Systems Oversight Unit on 28 February 2013. This has been formed to effectively define the legal and legislative framework and plan the policies and strategies of the PMA in managing payment system risks, expanding payment services, providing a competitive environment for payment services, and coordinating with the banking system and payment providers.

From 2015-2021, the PMA embarked on a series of payment system reforms that have had a significant impact on the development of digital payment services in the West Bank/Gaza.

In 2015 these included:

- The publication of Presidential Decree Law on Anti Money Laundering/ Combating Financing of Terrorism (AML/CFT);
- The launching of the National Switch for ATM services (the "194" switch); and,
- The publication of the Pricing Regulation for the National Switch participants.

While in 2017, the PMA published Decree-Law No. (15) Regarding electronic transactions followed by the certification of Compliance of Payment Card Industry Data Security Standards (PCI-DSS) and the promulgation of the Payment Services Companies Licensing regulation in 2018.

Then in 2021, the PMA launched its Electronic Clearing System and published the Payment Service Providers (PSP) regulation which included regulations governing:

- Outsourcing.
- Payment Services Companies' ability to provide e-wallet services.
- The payment of bills through the government services portal.
- The Relationship of Payment Services Companies with users.
- The Relationship of Payment Services Companies with Agents; and,
- The ability of Payment Services Companies to issue prepaid cards.

A Trust Account Regulation is currently being studied for publication soon, and an Instant payment or Mobile switch service is also being studied for implementation soon.

III. CURRENT STATE OF BANKING AND DIGITAL FINANCIAL SERVICES ECOSYSTEMS

The PMA has confirmed that, as of December 2021, there are 13 regulated banks with a total network of 380 branches and offices operating within WBG. There are also more than 710 ATMs and over 8,500 POS terminals. The total number of Licensed Money Changers is 245, the total number of Licensed Electronic Payment Services Companies is 5, and the total number of Specialized Lending Institutions is 8 (with 96 Branches).

Given that the population of WBG in February 2022 was 5,354,656 (West Bank at 3,188,387 and Gaza at 2,166,269) based on the Palestinian Central Bureau of Statistics, banks installed 617 ATMs in the West Bank and 93 in Gaza. There are approximately 13.25 ATMs per 100,000 people in WBG, with 19.35 ATMs per 100,000 in the West Bank and 4.29 ATMs per 100,000 in Gaza. Morocco had about 28.61 ATMs per 100,000 people in 2021, and in 2018 (the last time the World Bank undertook a global survey), the world average in 2018 based on 167 countries was 53.51 ATMs per 100,000 adults. So, current figures from Palestine indicate the need to increase the number of ATMs and work to distribute them in an efficient manner to increase coverage on a per capita basis.

The number of POS terminals currently deployed is about 165 per 100,000 people. Compared to Libya, Morocco, and Iraq, this represents a relatively high penetration of POS terminals. Given that mobile-based and QR Code-based payments appear to be more cost-effective to implement than traditional POS networks, it is highly questionable whether it would be prudent for WBG to invest further in additional POS terminals. It may well prove more cost-effective, in fact, for the digital payment providers to focus their efforts on the fields of Mobile Financial Services (MFS) and QR code payments.

The PMA owns and operates the ACH, RTGS, electronic cheque clearing systems, and the national ATM and POS switch. The World Bank has highlighted that[43], since the PMA owns and operates payment facilities, a conflict of interest may arise between its different responsibilities as owner/manager and overseer, leading in turn to weak incentives for oversight. In essence, the regulator is regulating and overseeing itself. Further analysis should be undertaken to document what practical options the PMA has for the optimum future operation of retail payment systems, including planning its own disengagement from areas that can be better filled by the private sector.

IV. TELECOM AND BROADER ICT SYSTEM LEGAL AND REGULATORY ENVIRONMENT

The Law (no. 3) for Telecommunications (the Telecom Law) was adopted in 1996 by the Chairman of the Executive Committee of the Palestine Liberation Organization and the President of the Palestinian National Authority. Article 2 of the Telecom Law states that the "telecommunications sector shall be owned by the Palestinian National Authority and subject to its stipulated provisions," although, as will be seen below, private companies have been allowed to operate. The Telecom Law gives all administrative and regulatory functions to the Ministry of Telecommunications and Posts, which has been renamed the Ministry of Telecommunications and Information Technology (MTIT).

In 2004 MTIT and the Palestinian Authority started a process to draft a new legal and regulatory framework to oversee the reform of the market. This would include the establishment of an independent Palestinian Telecommunications Regulatory Authority (PTRA), which would assume all

[43] "The Oversight of the Payments Systems: A Framework for the Development and Governance of Payment Systems in Emerging Economies," published in July 2001 by Biagio Bossone and Massimo Cirasino.

responsibilities held by MTIT for the telecommunications sector. MTIT has informed us that a law, based on the 2004 draft law, was approved by the President in October 2021 and is awaiting implementation. This new law would create an independent regulatory authority, the Telecommunications and Information Technology Regulatory Authority. MTIT stated that the structure of the independent regulator is still being decided but did not indicate when it would be operational.

Today, approximately 64% of the Palestinian population is covered by 3G services. In addition, Israeli operators, who offer both 3G and 4G services, are estimated to have approximately 20% of the mobile broadband market in the West Bank.[44]

There are two mobile operators in WBG – Jawal and Ooredoo Palestine (formerly Wataniya). Jawal has launched a mobile money service, Jawal Pay, which offers various services, including cash-in through agents, money transfers, payments to merchants, bill payments, and mobile top-up. Ooredoo does not have a mobile money service in WBG at this point.

Mobile and Internet use is established, growing, and provides the basic infrastructure for the roll-out of digital payments and broader DFS. There were 3.65 million internet users in WBG in January 2021. This is an increase of 399 thousand (+12%) from 2020, and Internet penetration in WBG stood at 70.6% in January 2021. There were 4.35 million mobile connections in WBG in January 2021 – this is an increase of 13 thousand (+0.3%) from January 2020 – and the number of mobile connections in WBG in January 2021 was equivalent to 84.2% of the total population.[45] The ITU reports that 98% of the population was covered by 2G, and 55% of the population was covered by 3G service as of 2020, but there was no 4G service. Seven percent of the population, or 373,000 people, had fixed broadband connections in 2020, according to the ITU. There were 3.1 million social media users in WBG in 2021, according to datareportal.com, which is approximately 60% of the population.

Nevertheless, it is important to note that Palestinian mobile network operators face unique hurdles to providing robust broadband service, and these may hinder their ability to support DFS. First, in Gaza, only 2G service is available. While 2G service is sufficient for the simplest services, it cannot support advanced digital services. In addition, in both the West Bank and Gaza, MNOs are dependent upon Israel for access to spectrum, and spectrum allocations to the Palestinian MNOs have been very limited, even for 2G and 3G.

As we have noted, there has been no spectrum allocated for 4G service, much less 5G service, in the West Bank or Gaza, even as Israeli operators have been assigned spectrum for 4G and 5G. Moreover, the Palestinian MNOs must purchase international capacity from Israeli companies and do not have access to submarine cables, nor are they permitted to own an international gateway switch. All these policies of the Government of Israel significantly increase costs for Palestinian MNOs and limit revenue opportunities.[46]

[44] Palestinian Digital Economy Assessment, World Bank, Feb. 2022, at 26-28
[45] https://datareportal.com/reports/digital-2021-palestine
[46] Palestinian Digital Economy Assessment at 30

V. ACCESS AND USAGE OF BANKING AND DIGITAL FINANCIAL SERVICES

The following table sets out some key access and usage statistics:

SECTOR	FIELD	INDICATOR	VALUE
The Banking Sector	Usage	Percentage of adults with at least one type of regulated deposit account	44%
The Banking Sector	Usage	Percentage of adults with at least one type of regulated credit account (Banks)	7%
The Banking Sector	Usage	Percentage of adults with at least one type of regulated credit account (Banks + MFI)	10%
Microfinance Institutions	Access	Number of access points per 10,000 adults based on the total number of MFI branches	0.3
Microfinance Institutions	Usage	Percentage of adults with at least one type of regulated MFI credit account	3%
Payment service providers	Access	No. of DFS agents per 10,000 adults	8.9
Payment service providers	Access	No. of merchant Payment per 10,000 adults	15.2
Payment service providers	Usage	Percentage of the adult population with registered DFS accounts	3%

Source: PMA 2020

Generally, consumers and businesses in Palestine have a strong preference for cash and low levels of DFS adoption, with banking practices and a lack of incentives making it convenient to use cash.

The percentage of adults with a deposit account at a bank is relatively low, indicating that there is scope for improvement. Credit accounts are even less popular. Debit, prepaid cards, and digital wallets are important payment instruments for the banked population.

Microfinance institutions (MFIs) reach a limited number of customers in part because of their low number of consumer access points (0.3 per 10,000 adults), with access points being generally concentrated in more central areas. This limited reach is one of the factors resulting in a low percentage of the population having an MFI account.

Contrastingly, the Payment Service Providers (PSP) have reasonably broad coverage of the population (8.9 per 10,000 adults). However, this has not translated directly into more people having PSP accounts than MFI accounts. The percentage of adults with accounts is 3% in both cases.

VI. CONSTRAINTS & OPPORTUNITIES FOR DIGITAL PAYMENT EXPANSION

Legal and Regulatory Environment

Overall, the PMA has developed an appropriate enabling environment for digital payments, but there remain significant areas for improvement. KYC and related Customer Due Diligence (CDD) and the use of e-KYC should be improved to expand and facilitate greater access and usage of digital payments in line with updated FATF guidelines.[47] Additionally, a legal and regulatory framework for e-commerce should be adopted along with improved consumer protection regulations.

To address KYC options, countries such as Estonia and Turkey have successfully established digital ID using SIM card registration. In these markets, Public Key Infrastructure (PKI) is utilized to support a digital ID as well as to generate digital signatures to support digital payment transactions. There is an opportunity to learn from other regions and to test this approach in the West Bank, potentially via the PMA's regulatory sandbox at first and which could be approved for KYC purposes.

In addition, e-commerce is expanding rapidly and offers significant opportunities to utilize digital payments and support inclusive economic growth, especially for women. E-commerce is still largely unregulated in the West Bank and can be supported by the development of an improved regulatory and legal framework that could be developed in partnership with feedback from industry players and build on regional experiences in other countries. A proper legal and regulatory framework that facilitates a simple online registration process for buyers and sellers, rules to govern e-commerce platform providers, and ensure consumer protection practices should be included in the framework.

The development of trust accounts and the use of escrow arrangements and appropriate charge-back policies can help build trust and make digital payments more attractive than Cash-On-Delivery (COD) payment methods. In the mid-to-long term, it is recommended that the PMA should develop regulations to cover the use of Trust Accounts and Escrow Accounts. An escrow account may be created by PSPs for the protection of deposits made with them. This high-visibility protection for customer funds will increase trust in e-commerce. While regulations could help to strengthen the use of escrow accounts, current contract laws could be used to support the use of escrow accounts at this time.

The establishment of Trust Accounts, however, would require an enhancement to Palestinian laws but would provide additional security, assurance, and trust for digital payments. In addition, consumer protection regulations should be enhanced considering digital financial services, especially digital payments, to better protect consumers and improve trust.

In relation to PSPs, PMA should review registration processes and consider tiered licensing for different types of PSPs. This could include the creation of new categories of PSPs, such as Payment Initiation Service Providers (PISP)[48] and Account Information Service Providers (AISP)[49]. In addition, current

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[47] See https://www.fatf-gafi.org/media/fatf/Updated-2017-FATF-2013-Guidance.pdf

[48] PSIPs are authorized to initiate payments into or out of a user's account. They access a user's payment account to initiate the transfer of funds on their behalf with the user's explicit consent and authentication. Rather than only viewing data on an account, PISPs are authorized to make payments on behalf of a customer. PISPs do this by initiating transfers directly to or from the payer's bank account using the bank's own tools.

[49] AISPs are authorized to retrieve account data provided by banks and financial institutions. They provide consolidated information to a user on one or more payment accounts held by that user with other payment service providers. Firms that are

capital requirements and guarantees are very burdensome for non-bank PSPs, and these capital requirements and guarantees could be reviewed considering a potential tiered PSP framework.
The PMA is planning the introduction of direct debits to reduce reliance on checks. It is also working on evaluating offers from several providers of bill presentment and instant payments systems, aiming to implement and operate these systems within a period of one to two years.

Financial Services Infrastructure & Industry

While there are limitations to cross-border payments and e-commerce platforms, PSPs are interested in partnering to with other financial institutions to support initiatives such as digital credit via partnerships with banks or MFIs.

To support digital financial services, including digital payments, DFS players in other countries have come together to adopt an Industry Code of Conduct for digital payments and broader digital financial services.[50] No industry-led Code of Conduct exists in the West Bank at this time. This tends to contribute to a lack of consumer trust in DFS. A collaborative effort by the private sector to develop, publish and adopt a broad DFS Code of Conduct that would include digital payments will enhance consumer and SME trust in digital payments and broader DFS, leading to an increase in its use.

Access & Usage

The existing KYC processes are complicated and inconvenient for customers, especially in rural areas. The lack of any infrastructure to support a Digital ID is holding back the widespread use of digital payments as well as broader DFS.

Point of sale transactions has been introduced to the national switch, which has helped reduce the cost of transactions significantly. This is expected to help increase the use of cards through points of sale and reduce reliance on cash.

Attitudes & Trust

The interviews and research undertaken to draft this report indicate a general lack of trust in Payment Service Providers (PSPs), especially for mobile financial services (MFS). This tends to limit the use of electronic payments in general and MFS. Interviews also suggest that one factor contributing to the relatively low take-up of digital payments is that many people do not understand the benefits of digital payments and do not understand how to use them.

VII. STRATEGIC RECOMMENDATIONS

Based on the above-noted opportunities and constraints, the following three key areas have been selected as priority initiatives that could be supported in the next 18 months:

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registered or authorized to provide account information services can, with the explicit consent of the end consumer, access their bank account to provide the end consumer with new products and services.

[50] See https://btca-production-site.s3.amazonaws.com/documents/212/english_attachments/DigitalGuidelines-withMemo-MECH-Update1d.pdf?1504714863

1. Developing trust in digital payments
2. Building innovative partnerships between third-party payment service providers and financial institutions
3. Enhancing financial literacy

In the following sections, each of these key areas is explored in more detail. The chapter then continues by defining a pilot that may be implemented over a period of about two years to address these key areas.

VIII. DEVELOPING TRUST IN DIGITAL PAYMENTS

Background

Interviews with participants in WBG's DFS ecosystem consistently revealed the opinion that a major constraint to the further growth in both the volume and value of electronic payments was a lack of trust in the payment services and in the PSPs. The lack of trust is based largely on a lack of legal protection for individuals and SMEs.

Building trust in the ecosystem will play a vital role in increasing the acceptance of digital payments on the demand side and will stimulate the provision of services and transactions on the supply side. Developing an interoperable infrastructure is a significant component in the enhancement of Palestinian DFS and the broadening of trust in electronic transactions. Integration with other PSPs in Israel, Jordan, and the region will facilitate, for example, the transfer of salary payments from overseas Palestinian workers. In addition, an interoperable e-wallet service in WBG should supercharge the use of e-wallet payments in-country.

PKI Secured MFS

If WBG had an easy-to-use and widely available Public Key Infrastructure (PKI) generating electronic signatures and digital IDs, access to digital payments and broader DFS would be easier, and customers would feel more secure when using DFS. Now, many Palestinian residents and citizens in Israel ("Arab Israelis") use SIM cards issued by Israeli MNOs. These SIM cards cannot be used for MFS within WBG. However, the ability to load Palestinian PKI certificates onto these phones, along with a virtual SIM card, will allow many Palestinians to easily participate in Palestinian digital payments, leading to an increase in the volume and value of electronic payment transactions. As noted, this approach has already been piloted. Countries like Estonia and Turkey have successfully established a digital ID through the MNOs without the need for the direct involvement of the government during implementation, although the PMA's approval to proceed should be required.

In the medium term, it is recommended that the PMA should develop a regulation to cover the use of Trust Accounts and Escrow Accounts. An escrow account may be created by PSPs for the protection of deposits made with them. This high-visibility protection for customer funds will increase trust in e-commerce. The establishment of Trust Accounts will require an enhancement to Palestinian laws but would provide additional security, assurance, and trust for digital payments.

To develop repeated and consistent use of digital payments, it is recommended that PSPs develop a series of incentive programs that reward their customers for consistent participation in the Palestinian digital payment ecosystem. These incentives may include loyalty points or discounted transaction fees, for example.

Consumer Protection

Currently, the level of consumer protection provided by PSPs' customer contracts is generally weak. Introducing new clauses or enhancing existing text will lead to an increase in the consumers' legal protection. In turn, it is anticipated that this will translate directly into an increase in the trust consumers have in DFS, stimulating its use.

Industry Code of Conduct

In tandem with improving consumer protection practices, a collaborative effort by the private sector to develop, publish and adopt a broad DFS Code of Conduct which would include digital payments, will enhance consumer and SME trust in digital payments and broader DFS, leading to an increase in its use.

PKI-Secured Digital ID/Digital Signature Objectives

The objectives of this initiative are to:

To deliver technical assistance to the Palestinian MNOs (i.e., the private sector) to help them jointly develop and deploy a digital ID/digital signature service based on SIM cards. This service could be used to secure both financial and non-financial electronic services initiated by approved Mobile Apps, reaching most of the population – including rural areas. The enhanced security provided by digital signatures will increase the public's trust in MFS. Furthermore, the proposed digital ID/digital signature service will make the eKYC process quicker and easier for people in possession of these digital IDs.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON TRUST IN DFS	IMPACT ON FINANCIAL INCLUSION
Mandatory	High	Long	Medium	High

- Introduce digital signatures for electronic payments by the end of Q4-2024.

Consumer Protection Objectives

The objectives of this initiative are to:

Assist PSPs in providing appropriate levels of consumer protection in their customer terms and conditions, leading to enhanced legal protection for all consumers of payment services (individuals and SMEs). Using existing Contract Law, clear and reasonable protection may also be built into the PSPs' contracts, enhancing the level of trust in electronic payment services.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON TRUST IN DFS	IMPACT ON FINANCIAL INCLUSION
Voluntary	Low	Short	Medium	Medium

- 20% of PSPs in WBG publish enhanced Ts & Cs before the end of 2023.

Code of Conduct Objectives

To provide support to the PSPs so that they may draft and promote an industry Code of Conduct. This will require final approval by the PMA, but the document should be owned by the industry's representatives to ensure its effectiveness. The Code of Conduct will be a visible sign that consumer protection is a priority for the industry and that the industry is now offering an enhanced level of protection for all participants.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON TRUST IN DFS	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	Medium	Medium

- A Code of Conduct is published before the end of 2023.
- Enhanced trust in digital payments leading to a 2% reduction in cash transactions by the end of Q4-2024

IX. BUILDING INNOVATIVE PARTNERSHIPS

Background

Developing partnerships between third-party payment service providers (PSPs) and financial institutions, whether banks or micro-finance institutions (FIs), is expected to stimulate greater access to digital payments as well as provide the rails to access additional services such as digital savings and credit. Such partnerships will open the door for more services that attract and target the unbanked and underbanked, for example, MSMEs, the youth, and women. This may be achieved by the partnerships developing products and services that meet the needs of these customer segments.

Objectives

The objective of this initiative is to function as a catalyst to encourage the formation of PSP and FI partnerships. A key component of this initiative will be to share examples of successful PSP/FI partnerships from around the world with stakeholders. Based on research to date, a rapid assessment could be conducted among interested PSPs, banks, and MFIs to sign an MOU to embark on partnership pilot initiative(s). Technical assistance could then be provided to develop products and services that could be developed and evaluated over a 12-month period (see the targeted pilot section below for details).

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON TRUST IN DFS	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Low	Medium	High

- The selected partners sign an MOU before the end of 2022.
- Product or service, developed, assessed, pilot tested, and ready for launch
- Enhanced financial inclusion increasing the number of active e-wallets by the end of Q3-2024.

X. ENHANCING FINANCIAL LITERACY

Background

This research indicated that a lack of knowledge and understanding of electronic payments is a barrier to their adoption. By enhancing the financial literacy of individuals and SMEs, a significant stimulus should be provided to electronic payments in WBG.

To answer questions from SMEs and individuals 24*7*365, it is recommended that a chatbot is constructed.

Objectives

The objectives of this initiative are to:

Deliver a Financial Literacy chatbot that could be implemented by a consortium of DFS players, and that would be accessible through Facebook Messenger and via a Web Interface. The chatbot would take users through a short course designed to improve the way Palestinians learn about digital payments as well as how these could be used to access broader digital financial services including credit and savings.

This bot would personalize the learning experience and would be easily accessed through common messaging apps or online. The chatbot would establish the level of financial knowledge of each user and guide them on their learning journey, to achieve financial literacy in a creative way.

To encourage participation, it is recommended that a gamification and reward strategy be implemented to encourage Palestinians to register and complete courses.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON TRUST IN DFS	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	High	High

- Achieve an increase in the use of digital payments by the end of Q3-2024.

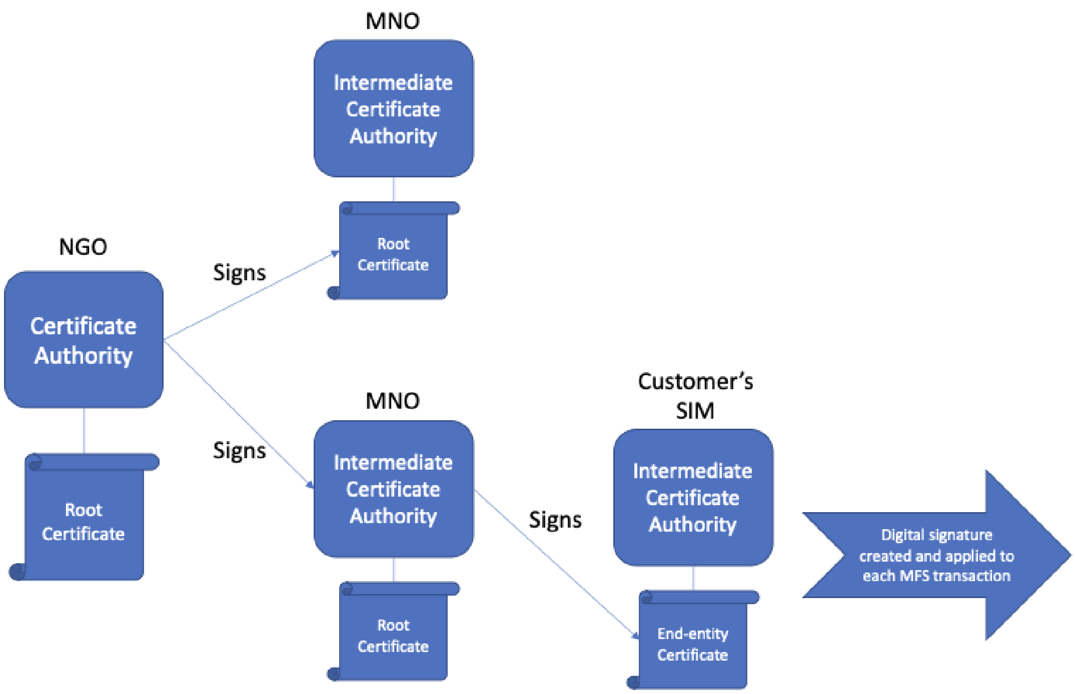
XI. DEPLOYING A TARGETED PILOT PROGRAM

The following section sets out an integrated set of action-oriented and practical initiatives addressing the three key areas of developing trust in digital payments, enhancing financial literacy, and building partnerships:

BUILDING TRUST IN DIGITAL PAYMENTS

PKI Infrastructure to build trust in DFS

The PMA should provide initial approval of this initiative so that a digital ID/digital signature infrastructure, managed and deployed by the private sector, can be used to secure electronic transactions initiated from mobile phones with digital security certificates residing on the consumer's SIM card. The SIM card may be a physical SIM or a virtual SIM. These digital certificates would provide companies with a secure and easy means of performing eKYC validations and consumers with a secure means of transacting. The following diagram shows at a high level the anticipated structure of this PKI:



The business and technical requirements must be defined in partnership with the MNOs and PSPs and approved before the software is selected through an open tender. A non-government, industry-led organization should be established to manage the PKI service. It is envisaged that this NGO will be established by the industry with approval from the PMA.

The chosen software would be tested and deployed on a pilot basis with a limited range of services and customers. Once the digital ID/digital signature infrastructure had been proven, a wider roll-out of services to the whole population would take place. The pilot digital ID/digital signature initiative would conclude with a report summarizing the lessons learned and making recommendations for enhancements to the service.

Deliverables: Business requirements, technical requirements, a national digital ID/digital signature pilot service involving all Palestinian MNOs, and establishing a private sector governing body.

Enhancing Customer Ts & Cs

A 1-hour workshop should be held with all PSPs and the PMA as an observer. The workshop would cover:

a. An introduction to the problem and a statement of the expected benefits.
b. A presentation of example text that PSPs may include in their e-Commerce Ts & Cs and,
c. An open discussion.

After the meeting, workshops, under the guidance of a senior advisory team, would help each stakeholder privately discuss their individual circumstances and to enhance their Ts & Cs.

At the end of the process, the consultants would produce a report summarizing the initiative, and the achievements realized.

Deliverables: One workshop for the industry, multiple workshops (one with each participant), and one end-of-exercise report.

Support the development of an Industry Code of Conduct

Discussions would be held with all PSPs, including banks and other financial service providers in the DFS ecosystem. The workshop would cover:

a. An introduction to the problem and a statement of the expected benefits.
b. A presentation of an example Code of Conduct for the payments industry as well as the broader DFS ecosystem players; and,
c. An open discussion.

After the general workshop, meetings would be held with DFS players under the guidance of a senior advisory team so that each stakeholder could privately discuss their individual circumstances and thoughts on enhancing a national Code of Conduct.

A second workshop should be held with all DFS players and the PMA as an observer. The workshop would cover:

a. A presentation of the draft Code of Conduct that includes all DFS providers' comments.
b. A detailed walk-through of the draft Code of Conduct with a vote being taken on each proposed change; and
c. Production of the final draft Code of Conduct.

To conclude the exercise, the final draft Code of Conduct would be sent to the PMA for approval and publication, and a report would be produced documenting lessons learned.

Deliverables: Two workshops, one Industry Code of Conduct for the PMA to approve, and an end-of-project report.

BUILDING INNOVATIVE PARTNERSHIPS

PSP/FI partnerships

A half-day workshop will be curated with speakers representing several successful PSP/FI partnerships and DFS consultants. The speakers will share practical "dos and don'ts" from their experience of building and/or operating PSP/FI partnerships to develop DFS services that can utilize digital payment platforms, such as digital credit services. Interested PSPs, banks, and MFIs can then rapidly be assessed. This would be followed by intensive follow-up technical dialogue/work with promising and committed potential institutional partners; and the development of an MOU(s) to be signed between the parties (i.e., a paired PSP and commercial finance institution); with targeted technical assistance to be provided under the auspices of USAID throughout the product development and initial outreach phase.

The phases of this assistance would include:

1. Working with the PSPs and their partner(s) on the joint products and services that could be developed (of particular interest were digital credit products for individuals and SMEs, especially those engaged in e-commerce)
2. Conducting rapid market assessments of the market along with targeted focus group discussions with potential clients
3. Development of a product/serve concept paper
4. Application/testing of the product under the PMA's regulatory sandbox
5. Institutional partnership-based digital product/service provision over a 12–18-month period
6. Monitoring of product uptake in pilot areas or clientele group
7. Assessment and review of product/service
8. Updating product/service for eventual larger role-out along with marketing approach
9. Final product development report

Deliverables: Workshops, MOUs signed, and a period of technical assistance to develop and test the business models over an 18–24-month period. The result would be developing strong DFS products and services that would be pilot tested through at least two sets of institutional partnerships; and ready to be expanded to achieve further scale.

ENHANCING FINANCIAL LITERACY

Financial Literacy Chatbot pilot

The TA team would work with a consortium of local PSPs and broader DFS players to define the business and technical requirements for the chatbot, considering international best practices such as Mr. Finance, the first interactive financial education app purpose-built for Myanmar with the support of USAID. The consortium would also reach out and coordinate with PMA.

The chatbot software would then be developed and tested before being deployed for pilot use with an accompanying set of "How to use" instructions and FAQ.
The pilot initiative would conclude with a report summarizing the lessons learned and making recommendations for enhancements to the chatbot.

Deliverables: Business requirements document, technical requirements document, and an initial version of the chatbot to deliver a pilot service.

The Chatbot could be made available to other countries following the principle of "build once, use many times." This would make the investment in the Chatbot highly cost-effective.

XII. TIMELINE FOR THE WEST BANK AND GAZA DFS ACCELERATION PROGRAM

Each of the pilot initiatives outlined above may be integrated into an overall digital payment acceleration initiative. This section brings the initiatives together and shows an integrated approach phased over an 18–24-month period:

ACTIONS	MONTHS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Palestinian DP Development Program																								
PKI Infrastructure for DP																								
Regulatory approval & initiation workshop																								
Stakeholders produce Business & Technical requirements with Technical Assistance.																								
Industry establishes CA with Technical Assistance (TA)																								
Procure & implement CA software																								
Service testing & implementation																								
Run pilot service																								
DP Consumer Protection in Ts & Cs																								
Stakeholder workshop																								
Stakeholders update their Ts & Cs with Technical Assistance.																								
DP Consumer Protection in a Code of Conduct																								
Stakeholder workshop																								
Stakeholders finalize the Code of Conduct with TA.																								
Building PSP/FI Partnerships																								
Stakeholder workshop for effective partnerships																								
Implementation of selected institutional partnerships designed to expand the provision of digital payments/finance services																								
Financial Literacy Chatbot																								
Conduct market needs assessment.																								
Identify service provider																								
Develop initial content																								
Launch and test pilot																								
Update content based on pilot feedback																								
Monthly progress monitoring																								
Evaluation review & report																								

IRAQ

I. CURRENT STATE OF FINANCIAL INCLUSION

In 2017, less than a quarter of adults in Iraq had opened accounts at a financial institution. This occurred largely because bank branches were too far away, financial services were seen as too expensive, and there were few other alternatives to access transaction accounts other than those provided by the banks. Even if Iraqis had access to financial services, their usage was low due to a lack of trust in financial institutions. During the last five years, the situation has improved in Iraq based on information received during the KIIs. It is estimated that there has been a 100 percent increase in transaction account ownership since 2017 to 46%.[51] This has been mainly because of a rise in prepaid cards and mobile wallets issued by neo banks and digital wallet providers such as Zain Cash and AsiaCell.

II. FINANCIAL AND PAYMENTS SYSTEM LEGAL AND REGULATORY ENVIRONMENT

Currently, there is no primary legislation for payment systems in Iraq. The National Payment Systems (NPS) Act has been drafted and submitted to the Shura Council for approval. However, until the time NPS Act is enacted, there remains a gap in the legal and regulatory framework. As a result, the legal foundations for payment systems in Iraq comprise the CBI Act and accompanying secondary legislation noted below. As the former only passingly deals with the issues relevant to the payment systems, the latter (CBI regulations) is where most of the legal definitions and rules governing relationships between the regulators and NPS participants are covered.

The secondary legislation that covers payment systems-related issues includes:

- Central Bank of Iraq Regulation (28/2/1994);
- Central Bank Law (56/2004);
- Banking Law (94/2004);
- Financial Investment Companies Regulation (6/2011);
- Central Bank of Iraq Regulation (611/14 of 2019)
- Central Bank of Iraq Regulation (1/2018) as amended by Regulation 30/12/2019.

Once the NPS Act is adopted, complementary secondary legislation will have to be enacted by the CBI. This includes regulations on e-money, agent banking, and electronic fund transfers, for which the texts have already been prepared. Based on the needs of the market and discussions within the National Payments Council (NPC), the issuance of further regulations is also being considered around interoperability.

While there is no primary legislation dedicated to the development of payment systems, there have been several improvements in the policy and regulatory framework since 2017 that have helped with the uptake and usage of digital financial services. These include settling public sector employees' salaries (including allocations and benefits) through an electronic payment system; issuing regulations for ATM networks; e-signature and e-transactions Law (78/2012); and Electronic Payment Services System Regulation (3/2014). In December 2021, CBI issued Circular No. 458/7/9, which outlined requirements

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[51] This estimate is consistent with figures extrapolated from CBI data on their website which documents that total electronic payment accounts increased from 6.4 M in 2017 to 14.9 M in 2021; electronic wallets also increased from 222,000 in 2017 to 2.1 M in 2021; and the number of bank accounts increased from 1.4 M in 2017 to 6.7 M in 2021.

for the digital onboarding of clients through digital channels operated by the banks. The Circular also announces the intention that CBI is evaluating the ability to accept e-signature.

The CBI is the sole authority regulating the work and issuing licenses to mobile payment service providers (MPSPs). By regulating the work of MPSPs, the bank aims to "achieve higher financial inclusion, especially to the youth and to remote areas of the country." The CBI regulations ensure the legal status of such services and are designed to help prevent them from being used in illegal activities and money laundering schemes. This also gives assurance to the end-user that their funds are guaranteed by the central government. When mobile payment services are regulated and users are reassured, Iraqis will presumably have little reason to avoid conducting their financial transactions on their devices. There are now four mobile e-money providers in Iraq: AsiaHawalla, FastPay, NassWallet, and ZainCash.

As set forth in Decision 14/611 of 2019 on governance and institutional management of information and communication technology in the banking industry, the Central Bank of Iraq has adopted a favorable stance toward financial technologies (fintech). When interacting with cloud computing service providers, this Decision establishes certain standards that banks, financial institutions, and other licensed institutions must follow. Furthermore, the Electronic Payment Services System Regulation (3/2014) allows non-bank payment service providers to offer electronic payment services, subject to a license from the CBI.

In terms of promoting financial inclusion, the CBI has adopted a well-defined financial inclusion framework in its strategic plan 2021-2023 and is focusing on inclusive digital financial services by:

- Preparing for an electronic Know-Your-Customer project by adopting the use of digital identification for opening bank accounts and digital onboarding of customers.
- Obligating the banking sector to use digital applications, such as mobile applications and internet banking services, in accordance with international best practices.
- Contracting a consulting company to assist in the implementation of various digital services projects relating to fast payments, digital currencies, innovation centers, sandboxes, and quick response (QR) codes.
- Establishing a threat intelligence platform to develop early warning technologies for cyber threats in the financial and banking sectors.
- Applying open banking services and electronic platforms to increase efficiencies and transparency from services provided by the banking sector.
- Determining the requirements of licenses for digital banks.

III. CURRENT STATE OF BANKING AND DIGITAL FINANCIAL SERVICES ECOSYSTEMS

The CBI operates the Real-Time Gross Settlement System (RTGS), the Automated Clearinghouse (ACH), and the national card switch, integrated with a mobile money switch. The national card switch is called the Retail Payment System Infrastructure (RPSI) and was launched in 2014. The ACH processes credit transfers, direct debits, and check truncation, with transactions denominated in Iraqi dinars and US dollars.

RPSI processes card transactions at ATM and POS terminals, as well as transactions with mobile wallets. The former service is called Iraqi National Retail Switch (INRS), and the latter service is known as the

Iraqi Interoperable Mobile Payment System (IIMPS). All banks are connected to the ACH and RPSI (some institutions are connected to RPSI through other commercial switches).

The INRS is a processor that connects all banks operating in Iraq, enabling interoperability for card payments and ATM withdrawals. A total of 47 commercial banks are participating in the system, in addition to PSPs. The IIMPS is responsible for linking e-wallet companies to enable interoperability between e-wallet payments. There is, however, no interoperability between mobile and card transactions; thus, it is currently not possible to route a payment with a mobile phone to a merchant acquired by a traditional bank. This is being addressed by the CBI and the switch vendor, and the central bank expects that interoperability between RPSI and IIMS will be introduced shortly.

RPSI infrastructure is being considered to implement the faster payments scheme (supported by GIZ). None of the retail payment systems currently in operation in Iraq enables consumers to effect account-to-account credit transfers that could be credited 24/7. RPSI could potentially provide the necessary infrastructure for such a service; however, it is currently not used in this manner. Tokenization and other new technologies may demand that RPSI extends the range of its services. Currently, the switch does not handle QR code-based transactions and does not provide card tokenization services.

The payments market is dominated by banks. There are 81 banks in total, of which 74 are privately owned and 7 are publicly owned. Of the private banks, 30 are considered Islamic banks, 24 are locally owned commercial banks, and 20 are foreign-owned commercial banks. There is also a growing presence of non-banks. There are 14 licensed fintechs and non-bank PSPs. Their participation is mostly in bill aggregation and payment services. In terms of market share, the seven state-owned commercial banks have over 90% of the market share. Whereas the privately-owned banks are generally perceived as more technologically astute, their limited market penetration and scale of operations act as a hindrance to the deployment of innovative digital payments, as well as broader DFS expansion. This is one of the primary reasons for the low utilization of DFS, as well as the low levels of account ownership.

Digital payments and broader DFS are still not common in the country. Not all banks issue cards or acquire merchants, and the number of cards in circulation, as well as the number of ATMs and POS terminals, remains comparatively low. In addition to Visa- and Mastercard-branded cards issued by commercial banks, a closed-loop system known as QiCard is operational in the market, almost exclusively handling disbursements of government salary and pension programs. In addition, there are three non-bank e-money issuers (mobile network operators) providing mobile money services under the brands Zain Cash, NassWallet, and Asia Hawala.

These mostly focus on providing channels for P2P payments but are also used for disbursements of cash benefits to some refugees and internally displaced persons by organizations providing humanitarian assistance. However, it should be noted that several of the providers, especially Zain Cash, are looking at merchant payments and e-commerce gateways to take advantage of the growth in e-commerce, especially among women. In fact, Zain Cash is developing a feature within their wallet specifically to target women customers.

Due to a lack of regulations to support agent banking, banks have not explored this option. However, with new regulations expected to be issued shortly, agent banking may help not only expand banking services -- but more importantly -- digital payments. Non-bank PSPs have fared better, yet the largest agent network operator (QiCard) has not been fully compliant with CBI directives, while the footprint of others remains limited. Agents of remittance service providers do not provide other financial services beyond cash pick-up and currency exchange.

IV. TELECOM AND BROADER ICT SYSTEM LEGAL AND REGULATORY ENVIRONMENT

The telecom sector is regulated by the National Communications and Media Commission (NCMC), which was established in 2004 pursuant to Coalition Provisional Authority Order No. 65. Although there have been discussions of adopting a new telecom law since 2004, Order No. 65 -- which gives NCMC broad authority to license and regulate telecommunications and media companies -- remains the extant law. Order No. 65 does not mention mobile e-money, as this is exclusively covered by the Central Bank of Iraq regulatory framework. Iraq has three national MNOs – Asiacell, Korek, and Zain – and several regional operators in the Kurdish region. Each of the three national MNOs has mobile e-money services, respectively AsiaHawalla, NassWallet, and Zain Cash. All of these are licensed and overseen by the Central Bank of Iraq.

The ITU reports that, as of 2020, mobile penetration in Iraq was 70%, or approximately 27.3 million users. According to the ITU, in 2020, 100% of the population was covered by 2G and 98% by 3G. 4G services were launched in 2020 and expanded in 2021, and now cover the main cities in the country. While 44% of inhabitants --17.1 million -- had active mobile broadband connections and 14% -- or 5.5 million -- had fixed broadband (according to ITU figures in 2020), this number has expanded significantly in the past two years. As a result, at present, more than 30 million are now able to access the internet. There were also more than 21 million social media users in Iraq in 2021, with the vast majority (17 million) using Facebook, according to datareportal.com.

V. ACCESS AND USAGE OF BANKING AND DIGITAL FINANCIAL SERVICES

Cash usage is dominant in the economy. Compared to payments made in cash, volumes and values of electronic payments are very small with respect to most payment use cases (Person-to-Person—P2P, Person-to-Business—P2B, Person-to-Government—P2G, Business-to-Person—B2P, Business-to-Business—B2B). Out of the 536 trillion IQD transactions made in 2020, 432 trillion IQD (81%) were cash-based. At the same time, the true cost of cash—considering the cost of cash-in-transit, provision of banknotes by the central bank, and indirect costs such as the cost of fraud and errors—is largely unknown, whether in absolute terms or in relation to other competing payment instruments.

In 2022, according to information received during the KIIs, there has been an improvement in transaction account access rates due to an increased number of digital wallets, prepaid cards, and bank accounts – at 46%, compared to 23% in 2017. The CBI data documented the significant growth in total deposit accounts from 1.4 million in 2017 to more than 6.7 million by 2021.[52] Nonetheless, there are many Iraqis who still lack access to financial services.

The total number of digital payment accounts also more than doubled growing from 6.4 million accounts in 2017 to more than 14.9 million in 2021.[53] Despite the proliferation of digital wallets in recent years,

[52] See Central Bank of Iraq table on total bank accounts by year https://www.cbiraq.org/SeriesChart.aspx?TseriesID=410

[53] See Central Bank of Iraq table on total electronic cards by year https://www.cbiraq.org/SeriesChart.aspx?TseriesID=415

the account ownership rates are still low, and the barriers preventing people from opening them are perceived as high. These include direct and indirect costs, lack of awareness, and cumbersome onboarding and KYC procedures. It should be noted, however, that the CBI has been actively leveraging regulations to expand financial access. For instance, reduced KYC requirements have been introduced for prepaid cards, while the sponsorship requirement for bank account opening has been removed. On the other hand, some commercial banks may still require proof of formal employment before completing the account opening process.

Among the banked population, checks are more prevalent than modern payment methods. Many individuals and businesses still use checks in situations where the use of credit transfers might be more appropriate. Self-service and remote channels are rarely used. Few banks offer internet or mobile banking services, and equally, few customers use them on a regular basis. As a result, a significant share of credit transfers is still managed at bank branches. Customers, therefore, do not enjoy the more tangible benefits of electronic payment instruments, such as speed or convenience.

Overall, the acceptance of electronic payments remains very low. There are in this regard approximately 4,000 POS terminals throughout Iraq (16 POS terminals per 100,000). Most merchants do not accept card or mobile payments; those who do may discourage their clients from using them. Moreover, paying through electronic means is still strongly associated with the high-income consumer segment. Thus, nearly no merchant catering to the lower-income population accepts anything but cash.

Point of cash (POC) is quite common in Iraq, and there are approximately 36,000 POC access points. In this respect, a form of agency banking already exists in Iraq as arrangements with merchants acting as POCs. However, their main purpose is cash disbursements as opposed to other accounts or banking services. POCs are located all over Iraq and are mainly used by salaried Iraqis who receive their monthly wages on debit cards (17% of private sector wages are received in such accounts). Outside of POCs, there are too few access points for cash-outs and account opening purposes.

There are only 1,000 bank branches, and the bank branch penetration per 100K is very low at 4. There are also very few ATMs available for cash withdrawals, and they are seldom located outside large cities. In 2020, there were 1000 ATMs throughout Iraq or 4.1 ATMs per 100,000. Branches are also not always conveniently located; their opening hours make it difficult to access during the week, as many of their customers are at work.

The average fee charged by POC agents is estimated at 0.6% of the value of cash withdrawal; however, these fees are not regulated. With limited options for cash withdrawals for cardholders, this is an expensive proposition for cardholders, as other options for usage or cash withdrawals are limited. CBI has minimum oversight of POCs and their fee structure, and there is no recourse for the consumer if the agent overcharges.

VI. ATTITUDES AND PERCEPTIONS TOWARDS DFS

Trust in the banking system, and digital payments remain at low levels, and as a result, more than 90% of all transactions are conducted in cash. Visiting bank branches in person is the most common form of interaction with the banking system, but aside from the two largest state-owned commercial banks (Rasheed and Rafidain), their numbers are low -- especially outside Baghdad. Memories of bank failures and currency devaluations, the ongoing threat of terrorism and armed conflict, as well as the ongoing experiences of liquidity shortages at branches and overall unreliability of the banking system, further reduces citizen trust and confidence when dealing with the financial system. As a result, most Iraqis are unwilling to open accounts or inquire about financial services.

The lack of trust in digital payments is the most critical issue that must be addressed. Low levels of consumer education, unreliable supply of electricity, and network connectivity -- coupled with low capacity of commercial banks -- have resulted in businesses and individuals avoiding the uptake and usage of digital payments and broader DFS. Restoration of consumer confidence will be the key task facing the CBI and the industry stakeholders. This was also evident from the KIIs held with women entrepreneurs that reported that many of them -- even those having formal e-commerce businesses -- preferred to receive cash on delivery for sales made on social media and e-commerce platforms.

The implications for CBI and the industry are twofold: First, through policy measures and through innovative design, robustness, and reliability of digital payments, progress toward electronic payments needs to be prioritized over prevailing practices. Second, close cooperation is needed between participants within the DFS ecosystem, with particular emphasis on supporting the "weakest links" in the systems, such as financial and digital literacy, keeping in mind that problems faced by one bank or payment service provider will ultimately affect the perception of and the trust in the system as a whole. Such cooperation could be fostered through the National Payment Council.

VII. CONSTRAINTS & OPPORTUNITIES FOR DIGITAL PAYMENT EXPANSION

Legal and Regulatory Environment

Up until 2022, no primary legislation focused on national payment systems development, although one is now pending. Hence, there are currently legal and regulatory gaps that need to be addressed to foster innovative payment products and services. Of particular importance are the KYC rules for account opening for consumers and merchants due to the lack of a tiered KYC structure. Although rules have been simplified for prepaid cards, transaction accounts offered through banks still go through a stringent process requiring many documents. Lastly, the regulations for e-KYC and digital onboarding are not developed, making the opening of transaction accounts for low-risk customers cumbersome as they cannot be remotely onboarded. It is generally perceived by our interviewees that Iraq has complex and inconsistent KYC processes.

Financial Services Infrastructure & Industry

PSPs in Iraq have not sufficiently leveraged partnerships with other financial providers to facilitate value-added digital financial services (e.g., credit, loans, insurance), and there is limited availability of easy-to-use payment technologies (NFC, QR Code), which reduces the options for digital payments. Moreover, many banks have either no core banking systems or outdated systems. This significantly constrains their ability to offer and support a wide range of DFS.

Banks face high costs in opening bank branches and maintaining ATM and POS networks, which makes them reluctant and/or unable to invest in this infrastructure. New agent banking regulations currently being drafted may, however, unlock the potential to utilize low-cost agent banking networks that can help reduce the costs for the banks to expand in underserved areas. This could, for example, start with digital payments like bill payments and offer other DFS services.

Currently, e-wallets and prepaid cards offer only limited payment functionality. There is a lack of interoperability for e-wallets, and most of these work on the closed loop systems provided by Zain Cash, Asia Cell, and Qarag. Prepaid cards are interoperable due to domestic switch issues.
There is, in this regard lack of a payment gateway in Iraq. According to the League of Banks in Iraq, this is a major area of investment to promote the growth of e-commerce. Another major need is to establish aggregation services for person-to-government and bill payments. Currently, there are few opportunities to pay taxes, government fees, or utility bills using digital payments, as the CBI or private sector-owned infrastructure is not ready to offer aggregated bill payment services. The introduction of a bill payment aggregator – such as that used in Jordan or Egypt (Fawry) -- was suggested as a major potential DFS innovation during the KIIs.

Access and Usage

Across the country, there is limited availability of reliable ATMs and POS services. The unreliability of the electricity supply and telecommunications infrastructure contributes to low service levels. Research also suggests that even when available, merchants are generally reluctant to accept digital payments (possibly to avoid tax obligations). This leads to cash-centric supply chains that limit options for digital payments. Furthermore, there is a low level of financial education among SMEs.

In Iraq, there is a cultural preference for human interaction (POC) over machines (ATMs or POS). Over 5 million public sector salaries are disbursed on cards, but employees reportedly prefer to cash these out at POCs or ATMs right away. The shortage of ATMs -- combined with limited distribution outside urban centers -- causes significant access bottlenecks. To expand access and to facilitate merchant value added-use cases for POS adoption, supporting a cash back at POS initiative could prove important.

CBI is interested in this type of arrangement, and we understand in this regard that the World Bank will be providing a concept note on how cash-back incentives can be implemented in the country. It appears that there is a notable lack of remote channels (e-commerce) that would promote the expansion of DFS and would allow new customers to be onboarded conveniently. Cash on delivery is over 90% of e-commerce transactions. The ongoing explosion among social media users using that platform for e-commerce purposes (mainly women sellers) further underscores the importance of promoting the transition to the use of digital payments.

Attitudes and Trust

Iraq is a cash-based economy, where trust in the banking system and electronic payments has remained at low levels. According to various estimates, even 90% of all transactions are conducted in cash. This was confirmed during the KIIs, during which most respondents agreed that there is a general lack of trust in banks (especially private banks) and in DFS in general. Lack of trust is exacerbated by a low understanding and awareness of DFS among both consumers and SMEs.

VIII. STRATEGIC RECOMMENDATIONS

Context

Iraq has made progress on several fronts to improve the landscape for DFS, including implementing the RTGS, ACH, a card switch (RPSI), and starting the operational processes to initiate the development and implementation of an Instant Payment System. In its recent strategy document, CBI has outlined several initiatives to improve the adoption of DFS. This includes implementing agency banking to increase the number of access points for DFS (including broader facilitation of digital payments); enhancing the structure of the national payments council; driving financial inclusion among women and youth -- as well as other underserved population segments -- through improved financial literacy measures, improving data collection and monitoring efforts, and developing a National Financial Inclusion Strategy (NFIS).

Another area requiring further attention is to facilitate better coordination between the financial and telecommunications regulators. A pilot project to establish an MOU between the Central Bank and the Communications and Media Commission would, in this regard, help to improve coordination between the two regulators; and lead to improvements in the regulatory framework for digital payments (and, to the extent necessary, for the telecom industry overall).

Based on the research conducted in Iraq, the following areas should be considered for support in the form of a potential pilot program to improve the regulatory environment in Iraq; build capacity within CBI for data collection, monitoring, and reporting; improve availability the access points for DFS and reduce dependence on cash; build trust in the digital payment platforms and facilitate a broader shift to the use of digital financial services. Targeted support areas could include:

- Development of Agent Banking toolkit for service providers.
- Targeted financial literacy support (development of chatbots - USAID support Mr. Finance in Myanmar, initiatives by Bank Al-Maghrib and Bangko Sentral ng Pilipinas).
- Increasing National Payment Council expertise and operational capacity.
- Improving data collection in digital payment and related financial inclusion indicators.
- Development of a Memorandum of Understanding (MoU) between the financial and telecommunications regulatory authorities.

IX. AGENCY BANKING TOOLKIT

Background

The limited availability of bank branches, coupled with a lack of alternative payment channels, limits customer reach and the ability to promote financial inclusion in Iraq. To address this issue, the Central Bank of Iraq is considering the use of alternative channels such as agency banking and is developing appropriate regulations (expected to be implemented by the end of 2022). At the same time, the limited level of understanding on the part of service providers constrains the effective development of an agent network. At present, this is focused on providing cash-in cash-out services but needs to be broadened such that it could serve as an access point network to promote broader digital payments – for instance, including bill payments and basic DFS.[54]

Objectives

[54] It should be noted that USAID has had a long history successfully supporting agent banking, especially in markets such as Colombia https://www.usaid.gov/sites/default/files/documents/1862/ATTACHMENT%207.a%20USAID%20SUPPORT%20FOR%20FINANCIAL%20DEVELOPMENT%20IN%20COLOMBIA%202004-2013.pdf

- Review examples from banks using agent banking in markets such as Colombia, Brazil, Kenya, and India, and develop a detailed guidance note for banks to develop and implement agency banking in Iraq. This, in turn, can promote access points for digital payment services and broader DFS in underserved areas and increase financial access and usage.
- Develop a detailed related training and capacity-building module for service providers.
- Promote optimization of agency banking as an alternative to banking services for the promotion of financial inclusion.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	High	High

- Draft an agency banking toolkit for banks based on an understanding of the new regulations coming out from CBI and which reflect learning experiences from relevant models in other markets -- such as Colombia, Brazil, India, and Kenya (by Q1 2023).
- Conduct training and capacity building for service providers within the first year of TA activities.

X. ENHANCE FINANCIAL LITERACY

Background

Large numbers of small formal and informal entrepreneurs, many of them women, use e-commerce and s-commerce[55] platforms to buy and sell products and services. However, most of them are using these platforms at a very basic level and are accepting cash on delivery (COD) for payments. There is a lack of knowledge needed to develop a strong online presence and optimization of sales. There also remains a lack of trust in banking/payment services, which limits readiness to accept electronic payments for goods/services sold through these platforms. Within this context, it could prove useful to apply targeted applications/tools in the market that utilize Artificial Intelligence (AI) to provide virtual business, financial, and payment advisory services to small entrepreneurs.

Objectives

- In partnership with the Iraqi Banking Association and PSPs, manage the development and launch of a Financial Literacy chatbot that could be accessed by all consumers through social media platforms such as Facebook Messenger, WhatsApp, and others via a mobile phone. The chatbot would take users through short courses designed to improve the way Iraqis learn about digital payment use cases and digital business planning tools, as well as the benefits of DFS and how digital payments can expand business opportunities. This could then be linked and shared with a variety of banks and non-bank financial service providers in a manner that not only supports digital payments, but also demonstrates how digital payment platforms could facilitate broader access to DFS.
- Wherever possible, customized content should be offered for women entrepreneurs -- who are the biggest users of s-commerce platforms and are mostly unbanked/underbanked. This bot would personalize the learning experience and would be easily accessible through common

[55] Buying and selling using social media platforms such as Facebook and Instagram.

- messaging apps or online. The chatbot would establish the level of financial knowledge of each user and guide them on their learning journey, to achieve financial literacy in a creative way.
- To encourage participation, it is recommended that a gamification and reward system be put in place to encourage Iraqis to register and use the chatbot courses.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	High	High

- Generate at least 25,000 users of the financial literacy chatbot by Q1 of 2024
- Achieve an increase of 10% in the use of digital payments in e-commerce/s-commerce by the end of Q1 2024.

XI. EXPAND EXPERTISE AND OPERATIONS OF THE NATIONAL PAYMENT COUNCIL (NPC)

Background

The NPC, led by the CBI, exists to promote cooperation between digital payment market participants and the regulator. However, the scope of NPC operations is limited and has not been used as an effective platform to promote the broad adoption of digital payments within Iraq. The recently completed CBI Payment Systems Strategy concludes that there is a need to expand the NPC to include more stakeholders from the private sector, and its operational structure should be revamped to include oversight of key digitalization efforts (acceptance development, electronic bill payment, and presentment, etc.).

Objectives

- Based on relevant international examples (e.g., Egypt, Philippines), propose the expansion of NPC to include sub-committees on emerging priorities such as QR code adoption, bill payment, agency banking, merchant payment acceptance, etc.
- Specify detailed organizational/operational structures for each sub-committee, including objectives, meeting frequency, members, etc.
- Leverage NPC to develop a comprehensive National Digital Payment Strategy that strengthens the policy framework for digital payments/finance expansion, as well as promotes the development of infrastructure-related components of the national retail payments system that are critical for digitalization efforts.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	Medium	Medium

- Draft an NPC restructuring proposal for approval by the CBI (by Q4 2022).

- Submit a proposal to the NPC for the development of the National Digital Payment Strategy (Q1 2023). The strategy should address emerging DFS development priorities in Iraq, including QR code adoption, bill payment, agency banking, merchant payment acceptance, etc.

XII. IMPROVE DATA COLLECTION FOR DFS AND FINANCIAL INCLUSION

Background

Currently, the CBI has limited capacity to collect financial inclusion and payments-related data. There is no established mechanism to collect payment systems and payment services data from the bank and non-bank service providers (supply side data). There is also a gap in knowledge of consumer preferences and attitudes towards financial inclusion and digital payments (demand side data) and limited gender-disaggregated data available.

Objectives

- Provide support to CBI to establish a formal financial inclusion and digital payment data collection process that includes gender-disaggregated data (supply side). Explore the possibility of leveraging RegTech solutions for implementing data collection efforts with the service providers.
- Establish a process for conducting regular demand-side studies to understand the consumer preferences for transaction accounts and digital payments including gender-disaggregated data (demand side).

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	Medium	Medium

- Data collection framework is established and adopted by CBI by mid-2023.
- Regular demand side studies are conducted to assess the usage levels of digital payments by mid-2023.
- Surveys and quarterly reports are produced by CBI (starting Q4 2023), designed to promote better monitoring of the digitalization process in Iraq and for improved policymaking for digital payments.

XIII. ASSIST CBI AND THE COMMUNICATIONS AND MEDIA COMMISSION IN THE DRAFTING AND NEGOTIATION OF AN MOU

Background

Based on best practice experience in other markets, improving inter-regulatory coordination is key to supporting digital payments and broader access to financial services. This necessarily included effective coordination between the telecommunications regulator and the financial regulator. There is in this regard frequently confusion about the roles and responsibilities of these entities, especially as they relate to mobile financial services. Hence, the International Telecommunications Union (ITU) has worked to document successful collaborative efforts to support inter-regulatory coordination between telecommunications regulators and financial service regulators; and prepared a template Memorandum of Understanding (MOU) and action plan tool kit to facilitate this process.[56]

Based on interest from CMC[57], such an initiative would be welcome in Iraq. The ITU MOU template represents a good starting place for an agreement between the CBI and the CMC. As an initial supportive action, targeted technical assistance could be provided to help the parties draft a sound MOU which frames relevant DFS regulatory issues for purposes of driving a robust consultation with stakeholders in the digital payment industry, especially as it relates to mobile financial channels. This would allow the parties to identify areas of particular concern to stakeholders on which the two sector regulators need to collaborate. Ultimately, the key point of the exercise – and of negotiating an MOU between the CBI and the CMC – would be to create a more effective regulatory framework for digital payments, ensure a more secure system, avoid cyber security risks, and strengthen public trust in digital payments and broader MFS. This would, in turn, help further promote financial inclusion aims. This could then be followed by tailored technical/training support for the drafting of new/revised regulations designed to foment digital payment/finance product development and service provision.

Objectives

- Assist CBI and CMC in negotiating a Memorandum of Understanding that will promote collaboration between the two regulators.
- Identify any gaps in current regulations and ways to improve the regulation of digital payments via mobile channels.

Impact Assessment

APPROACH	COMPLEXITY	DURATION	IMPACT ON DIGITALIZATION	IMPACT ON FINANCIAL INCLUSION
Voluntary	Medium	Medium	Medium	Medium

- An MoU is drafted and negotiated between the authorities by mid-2023.

XIV. DEPLOYING A TARGETED PILOT PROGRAM

The following section sets out an action-oriented and practical set of initiatives addressing the five key areas identified above: developing an agency banking toolkit and a training program for service providers, improving the collection and analysis of financial inclusion data; improving the governance structure and effectiveness of NPC; enhancing digital financial literacy in Iraq, and establishing an MoU between financial and telecommunication regulators to improve coordination and help build trust.

1. Agency Banking Toolkit and Training

- Review agency banking models from Colombia, Brazil, India, and Kenya and develop a toolkit and related training program for service providers in Iraq. The training is expected to be conducted in workshop-style sessions.
- Develop the training and capacity-building workshop agenda/plan.

[56] See https://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/09_2016/Regulation%20and%20the%20DFS%20Ecosystem.pdf
[57] Interview with CMC's general manager

- Develop content and provide experts to conduct the training.
- Identify relevant service providers (and personnel) to attend the training/capacity-building workshop.
- Conduct a training/capacity-building workshop for bank and non-bank service providers.
- Finalize a practical toolkit for implementation of an agency banking program in Iraq.
- Produce a post-evaluation report.

2. **Data collection, reporting, and monitoring**
   - Develop an initial proposal for the supply side data collection process, including the use of RegTech solutions. For this purpose, World Bank's Global Payment Systems Survey (GPSS) can serve as a template.
   - Develop an initial proposal for the demand-side data collection process/study, including frequency, coverage, and analysis. Examples from Morocco and Pakistan could be leveraged to develop the initial template.
   - Obtain preliminary feedback from CBI on the two proposals.
   - Develop final proposals for demand and supply side data collection projects.
   - Conduct a knowledge transfer workshop for CBI and other stakeholders.
   - Implement DFS data collection activities.
   - Develop a post-evaluation report.
3. **Improve NPC governance structure and operational effectiveness**
   - Assess the current structure of the NPC, review international examples from Egypt, Morocco, Jordan, the Philippines, South Africa, and other markets, and develop a proposal to restructure the NPC.
   - Obtain preliminary feedback from CBI and other stakeholders on the proposal.
   - Finalize the proposed structure based on the feedback.
   - Conduct a workshop for CBI and other stakeholders to review the expanded NPC focus areas, operational structure, and governance of sub-committees.
   - Develop a post-evaluation report.
4. **Enhance Financial Literacy**
   - Conduct a market needs assessment and identify relevant existing financial product/services or social media platforms that the AI chatbot can be linked to.
   - Identify AI chatbot software for the development of the chatbot
   - Develop initial content for financial literacy chatbot based on the needs assessment.
   - Launch a pilot with a select number of small entrepreneurs to test the concept.
   - Update content based on pilot results.
   - Produce a post-evaluation report that includes the process for regularly updating the content and using these services for different merchant segments.
5. **MoU between CBI and Telcom Regulator**
   - Present draft template of MOU to CBI and CMC.
   - Assist CBI and CMC in preparation of framework regulatory reform issues for discussion with stakeholders.
   - Conduct stakeholder consultation.
   - Present revised MOU to reflect stakeholder input.
   - Identify areas of needed regulatory changes and support the development of needed regulatory reforms.

XV. TIMELINE FOR THE IRAQI DFS ACCELERATION PROGRAM

Each initiative outlined should be integrated within an overall pilot implementation framework. The following table reflects an integrated implementation effort over a 2-year period:

ACTIONS	MONTHS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Iraq DFS Development Program																								
CBI Data collection, monitoring & reporting																								
Proposals for demand/supply side data collection																								
Feedback from CBI																								
The final proposal for CBI																								
Conduct workshop																								
Implement TA activities to support data collection																								
Post evaluation																								
NPC governance and organization restructure																								
Propose a new structure of NPC																								
Obtain CBI feedback																								
Finalize recommendations on the new NPC structure																								
Conduct a workshop with NPC stakeholders																								
Implement recommendations																								
Agency Banking Toolkit and Training																								
Evaluate country examples and develop a TA proposal																								
Develop a training plan for providers																								
Develop content and identify experts																								
Identify service providers to receive Training TA.																								
Conduct training of service providers																								
Finalize agency banking toolkit																								
Post evaluation																								

ACTIONS	MONTHS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Iraq DFS Development Program																								
Enhance financial literacy																								
Conduct market needs assessment																								
Identify service provider																								
Develop initial content																								
launch and test pilot																								
update content based on pilot feedback																								
Monthly progress monitoring																								
Post evaluation																								
MoU between CBI and Telcom Regulator (CMC)																								
Develop and present template to CBI and CMC																								
Assist CBI/CMC in discussion with stakeholders						`																		
Conduct stakeholder consultation																								
Update MoU to reflect stakeholder feedback																								
Provide regulatory reform support in areas identified as gaps																								
Post evaluation																								

ANNEX A – STAKEHOLDER INTERVIEWS

MOROCCO

Interviews were conducted with the following:

NAME	ROLE & ORGANIZATION
Mr. Haziem Sebbata	Director General of CashPlus and President of the Professional Association of Payment Institutions (APEP)
Mr. Mikael Naciri Ms. Samirah Nafakh Lazraq	Directeur du Pôle Ventes & Distribution chez WafacashFormer Director General of the Interbank Money Center (CMI) (2012-2021)
Ms. Samira Khamlichi	Former Director General of Wafacash (2006-2022)
Mr. Amine Zarouk	President of the Moroccan Federation of Information Technologies, Telecommunications and Offshoring (APEBI)
Mr. Ismail Bellali	Director General of the Interbank Money Center (CMI)
Mr. Az-El-Arabe Hassibi	Director General of the National Agency for Telecommunications Regulation (ANRT)
Ms. Hakima Alami	Director of Payment Systems and Instruments Oversight and Financial Inclusion Directorate at Bank Al-Maghrib (the Moroccan Central Bank)
Mr. Sami Romdhane	Director General of VISA Morocco
Mr. El Hadi Chaibainou	Director General of the Professional Group of Banks of Morocco (GPBM)

LIBYA

Interviews were conducted with the following:

NAME	ROLE & ORGANIZATION
Haithem Elyacoubi	Head of Quality Assurance, Banking Supervision, Central Bank of Libya
Tamim Aziz	Customer Care Supervisor, Tadawal Tech
Maotasem Elhassi	Cash Program Manager, ACTED
Sahmeh Guider	Director of Electronic Cards & Payments, Bank of Commerce & Development
Mohammed Altaleesi	Deputy Director E-Payments, Islamic Bank
Pierre Séguin	Banking Supervision Advisor to Central Bank of Libya
Nabil Masri	AML/CFT Advisor to Central Bank of Libya
Zuhair Al Khadi	Financial Programming Advisor to the Central Bank of Libya
Mongi Safra	Senior Balance of Payments & Data Collection Consultant to the Central Bank of Libya
Mario Makary, Salvador Perez Galino, Omar Shoukry	Regional Management Team for VISA

WEST BANK

Interviews were conducted with the following:

NAME	ROLE & ORGANIZATION
Dr. Feras Milhem	Governor of the PMA
Mr. Samir Hulileh	CEO of the PSP "Maalchat"
Mr. Ammar Aker Mr. Abdul Majeed Melhem	CEO and board member of Palestine Telecommunications (Paltel) Group GM for The National Electronic Payment Company "Jawwal Pay"
Mr. Anwar Aljayosi	CEO for Faten MFI
Mr. Said Baransi	Chairman of the Palestinian American Chamber of Commerce
Mr. Samer AbdelJaber	Country Director of the World Food Program (WFP)
Bashar zaroor	Fintech manager at PCMA
Baraq Nablsi	General director of the PCMA
Anwar Jaber	Head of the digital transformation department at PMA
Fares Hindi	Head of the payment system department at PMA
Fadi Murjani	Head of the e-Government department at MTIT
Moath Haj	MTIT
Salam Turkman	MTIT
Ibrahim Khamash	GM Jawwal Pay (PSP) (E-wallets and digital cards)
Muath Badawi	Head of operation Jawwal Pay (PSP) (E-wallets and digital cards)
Ahmad Zaroor	Head of commercial department Jawwal and Jawwal Pay
Mohammad Hamad	Head of VAS and digital partnership supervisor at Ooredoo
Iyad Abu Asbah	Head of Business Transformation at Ooredoo
Mowaya Qawasmi	GM Palpay payment service provider (e-wallet, POS, and cards)
Mohamad Helles	GM MEPS (PSP) Issuance of prepaid cards, hosting, processing, and management of cards and POS acquirer
Basem Maraqa	Chief Information Technology at the bank of Palestine
Mohamad Shubair	e-Payments and Cards System at Bank of Palestine
Firas Hantash	Application manager at Arab bank
Haitham Najar	The national bank GM assistant
Adel Hasan	Head of ICT and development department at the national bank
Salah Hania	Palestinian society for consumer protection
Rania Kheri	Palestinian society for consumer protection
Mohamad Musleh	Ministry of Entrepreneurship
Thomas Rahn	GIZ Head of Project Alternative Approaches to Financial Inclusion of SME (A-FIN)
Bashar Yasin	Banks association
Nijim	Palestine investment bank/VISA Department Manager
Fadi Hazboun	Jordan Ahli bank
Jehad Afaneh	Safa Islamic bank
Anan Yousef	Cairo Amman bank

IRAQ

Interviews were conducted with the following:

NAME	ROLE & ORGANIZATION
Mrs. Abir Hashim	Marketing Research Manager at Zain Iraq and owner of an online business
Mohammad Sinno	Commercial Director at NEO Iraq
Mustafa Muhanad Al-Mulla	Business Development Manager at Zain Iraq
Ali Tariq	Executive Director at Iraqi Private Banks League
Delvin J. Ahmed	Startup Support Manager at Five One Labs
Zahraa Alabdali	Founder of FixIT
Mohammed Jamal	Research and Development Project Manager at KAPITA
Abduladeem M. Saleh	Commissioner at The National Communications and Media Commission
Ahmed Al Gailani	Head of Operation Division at Central Bank of Iraq
Mario Makary, Salvador Perez Galino, Omar Shoukry	VISA