



Looking Inward, Outward, & Forward:

An Interim Impact Assessment
of JoPACC's First Strategy



The Jordan and Payments Clearing Company

**Looking Inward, Outward, & Forward:
An Interim Impact Assessment of JoPACC's First Strategy**

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Authors:

Enas Halaiqah, Jude Najjar, and Moayad Ghannam

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List of abbreviations

AML	Anti-Money Laundry
CAB	Cairo Amman Bank
CBJ	Central Bank of Jordan
CCU	Cyber Crime Unit
CDD	Customer Due Diligence
CFT	Countering the Financing of Terrorism
DFS	Digital Financial Services
eKYC	Electronic Know your customer
Fintech	Financial Technology
JEDCO	Jordan Enterprise Development Corporation
JKB	Jordan Kuwait Bank
JoMoPay	Jordan Mobile Payment Switch
JoPACC	Jordan Payments and Clearing Company
KYC	Know your customer
MFIs	Microfinance Institutions
mPSP	Mobile Payment Service Providers
MSME	Micro, Small, and Medium Enterprises
NFIS	National Financial Inclusion Strategy
NGO	Non-Governmental Organization
QR code	Quick Response Code
SDGs	Sustainable Development Goals
SME	Small and Medium Enterprises

Executive Summary

The Jordan Payments and Clearing Company (JoPACC) conducted an impact self-assessment of the progress made in implementing its first strategy for the years 2019-2022. Currently in the third year of its four-year strategy, JoPACC conducted this assessment to investigate the progress made so far in the interventions implemented under the pillars of the strategy. It plans to build on takeaways to enhance the company's overall performance and pave the way for the next strategy, capitalizing on captured insights and lessons learned. The high-level goal of this assessment is to maximize the impact of JoPACC's interventions and ensure they respond to market needs. The assessment focused on measuring the impact of implemented projects on increasing the uptake of digital financial services (DFS) by looking into the projects' outcomes and results, the dynamics of partnerships, the views and perspectives of partners, and future considerations. Assessing resource allocation and return on investment was not part of the scope of this assessment.

Eleven projects under four pillars of the five-pillar strategy have been assessed as per the below table. Pillar Four of the strategy, JoPACC's Governance and Capacity Building, was not included in this self-assessment as it is not directly related to the focus of the assessment, which is the impact of interventions on the uptake of DFS.

Strategic Pillar	Project
Pillar One: Increasing Access, Adoption, and Usage of Digital Payments	JoMoPay Governance and Enhancements
	QR Codes Implementation on JoMoPay
	The Mobile Wallets Gateway
	Enhancing Acceptance and Access on JoMoPay
Pillar Two: Improving Infrastructure, Digital Products, and Digital Platforms	CliQ Instant Payment System
	MFI's KYC assessment paving the way for the eKYC solution
Pillar Three: Compliance, Safety, Security, Risk Management, Fraud Detection	Fraud Analysis on JoMoPay
Pillar Five: JoPACC Branding, Marketing, and Awareness	Knowledge Products
	Awareness Efforts
	Digital Experiments
	Sector Consultations

The assessment included an internal review of interventions by JoPACC's project teams and an external review that has been conducted through project-specific surveys filled by project partners. 21 partner entities were surveyed, including financial institutions, system operators, regulators, governmental institutions, local entities, and international development agencies. In addition, knowledge products and sector consultation services were assessed through a mass survey, for which 72 responses were received.

Below is a summary of the key insights captured on JoPACC's position in the financial market and the assessed interventions under each strategic pillar:

JoPACC's Position in the Financial Sector

JoPACC enjoys a unique position in the financial and payments sector. This stems from its perceived role in accelerating the digital transformation of financial services and introducing consumer-centric financial products. JoPACC's partners believe it serves as a vessel for innovation in the financial sector and is leading the development of DFS in an informed manner. It is further perceived to be creating balance in the market, ensuring that the whole ecosystem is functional and its elements are harmonized. JoPACC's partners value JoPACC's unique role in raising awareness on DFS and believe JoPACC influences user behavior and is a pivotal contributor to financial inclusion in Jordan.

Regarding JoPACC's relationship with its partners, most surveyed partners stated it is strategic, strong, and smooth. Given the fast pace of developments JoPACC introduces, some find the relationship demanding yet perceive a growth-driven and goal-oriented relationship with JoPACC despite challenges and pressure. All partners stated they are satisfied with their professional relationship with JoPACC.

Pillar One: Increasing Access, Adoption, and Usage of Digital Payments

Projects under this pillar have been focused mainly on the JoMoPay system, one of two digital payment systems operated by JoPACC, with the other system, CliQ, still in the process of being fully launched. The completed projects focused on increasing access to, adoption, and usage of DFS via JoMoPay. This was attempted by enhancing the system to improve efficiency and performance, provide better services to end-users, and increase interoperability between mPSPs. Most surveyed partners and stakeholders believed that these projects were relevant to their current and future business plans and were satisfied with their outcomes. This indicates that JoPACC's projects under this pillar were concordant with the market's needs and have yielded tangible results with a positive impact on the goals of the pillar. That said, some challenges have hindered fostering the trust of users in services, such as technical issues with ATM cash-in/cash-out, and are to be considered in future interventions.

Several external factors have potentially affected pillar one projects and led to their successful implementation. Among those factors are the CBJ's support and mandates, cooperation of the involved mPSPs and entities, and the COVID-19 pandemic that expedited the transition to DFS. These external factors have complemented JoPACC's work and played a positive role in yielding the desired results.

Pillar Two: Improving Infrastructure, Digital Products, and Digital Platforms

JoPACC is working to introduce new digital products and platforms that benefit entities operating in the financial sector and their customers and meet their needs. Some of these products are also aimed at improving existing services in the market, such as the CliQ instant payment system. Two projects have been assessed under this pillar, which are CliQ and the MFI's KYC assessment.

CliQ was appreciated by most surveyed entities, who indicated that it was relevant to their current and future business plans and believed that it was worth the investment they made to join it. The success of the project's outcome can be further corroborated by the growing number of users and transactions on the system, which shows the

project's relevance to end-users. The CBJ's mandate aided the project, but most surveyed entities said they would have implemented the project regardless. This further shows that JoPACC's projects align with the needs of the financial institutions it aims to serve. As for the MFI's KYC assessment, the project reflects JoPACC's interest in understanding and meeting the needs and interests of Jordan's financial institutions before launching any new digital products to maximize the benefit to end-users.

Pillar Three: Compliance, Safety, Security, Risk Management, Fraud Detection

Most of the projects undertaken by JoPACC under this pillar were internal, so they were not within this assessment's scope. The only project that the assessment team could evaluate was the collaboration with the CCU to conduct fraud analysis on JoMoPay. The partnership was successful, and the CCU used the analysis's results to track down fraudsters on the system. Since the implementation of the project, both JoPACC and the CCU have reported fewer fraud cases, and there were fewer inquiries made by the CCU about potentially fraudulent transactions. These results contribute to the system's safety and are expected to increase consumers' trust in the system. This project led to another partnership with the CCU on raising awareness of users against fraud attempts, which is covered under pillar five.

Pillar Five: JoPACC Branding, Marketing, and Awareness

JoPACC's efforts in knowledge production and dissemination, awareness-raising, market analysis, and sector consultations are a novel addition in the payments sector. JoPACC's partners on all projects under this strategic pillar were satisfied with the implemented interventions, have benefited from their outcomes, and are keen to see them expand and grow in scale. Partners believe all interventions were relevant, had a tangible impact, and carried sustainable benefits. These interventions included awareness sessions and products, in addition to analytical reports of the payment ecosystem. They further encompassed guidance provided to local and international entities seeking access to digital payments or researching the Jordanian market to plan interventions and partnerships to empower local communities and cater to their needs.

While efforts under this pillar are appreciated, both JoPACC and its partners believe undertaken efforts have a limited reach and need to be maximized and expanded to reach a wider audience and create a broader impact. To do so, JoPACC needs to diversify the tools used to cater to different audiences and increase their engagement. The demand by partners to receive knowledge products more frequently, their request to address specific topics, and the increase in entities approaching JoPACC for guidance are all indicators that JoPACC has gained the trust of the financial sector and other sectors in the kingdom. Moving forward, JoPACC needs to set a comprehensive strategy for communication, outreach, marketing, and awareness.

Conclusion

JoPACC enjoys a strategic position in the financial sector and plays a key role in advancing the payments sector and ensuring customer-centricity in doing so. Moreover, JoPACC enjoys strong relations with sector players, regulators, governmental entities, and other local and international players, which are leveraged to raise the level of coordination and expand influence. JoPACC's interventions were

mostly aligned with those of its partners and with the needs of the market. Partners were satisfied with their cooperation with JoPACC and the results it bore. Given that JoPACC is a young company, the impact of its interventions cannot yet be measured in the long term. Still, short-term goals have been achieved, setting JoPACC on the right track to achieving long—term outcomes. Moving forward, JoPACC should expand some of its projects to increase their reach and engage with its prospective project partners at an earlier stage to ensure their readiness and buy-in.

Introduction

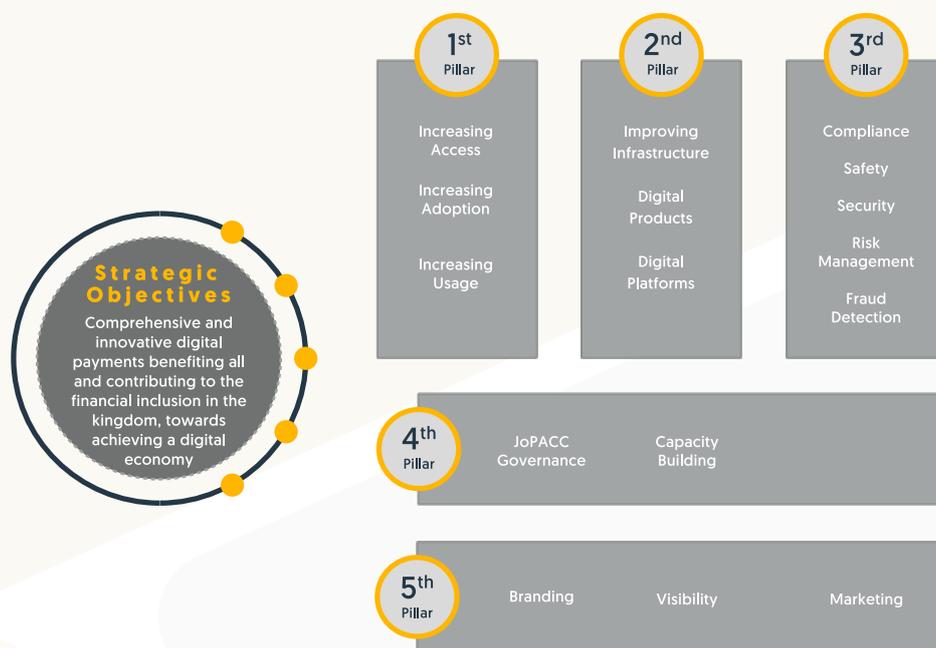
The financial sector in Jordan is considered stable and developed. It is well regulated and is constantly evolving to enhance processes and offered services. On the strategy and regulatory framework level, the Jordan 2025 National Vision and Strategy recognized the importance of financial services for the Jordanian economy's overall growth and sustainable development. The Strategy articulated Jordan's commitment towards creating the infrastructure necessary for broader and better access to financial services for all Jordanians. Moreover, the Central Bank of Jordan (CBJ) launched the National Financial Inclusion Strategy (NFIS) in 2017, setting two high-level goals; to increase the level of financial inclusion from 33.1% in terms of account ownership by the adult population in 2017 to 41.5% by 2020, and to reduce the gender gap from 53% to 35% by 2020. The NFIS is committed to enhancing three industries and their products: microfinance, digital finance, and SME finance. The NFIS has identified the following as crucial, cross-cutting enablers of achieving its objectives: Fintech, data and research, consumer protection, and laws, regulations, and instructions. The Strategy aims to serve everyone living in Jordan and dedicates a particular focus on youth, women, refugees, and the bottom 40% economically. The 2017 Global Findex data of the World Bank, which was published in 2018 and is issued every three years, shows that the financial inclusion rate in Jordan is 42%, with one of the highest gender gaps in the world. To ensure that the financial inclusion rate increases, the gender gap narrows, and different areas of the financial sector grow, coordinating efforts between all players in the industry is pivotal. Such coordination is expected to lead to the efficient utilization of resources and ideas and alignment of efforts, ultimately achieving the set targets.

The Jordan Payments and Clearing Company (JoPACC) started its operations in 2018 with the objective of enabling comprehensive and innovative digital payments benefiting all and contributing to the financial inclusion in the kingdom, and achieving a digital economy. A private shareholding company owned by the CBJ and the 23 commercial banks in the country, JoPACC's mission is to ensure that digital payments in the kingdom are safe, efficient, interoperable, accessible, and up to international standards. JoPACC's mission and objectives are aligned with the NFIS's goals. It deliberately aims to contribute to the realization of the SDGs in all its interventions and efforts.

JoPACC has three main work areas: the first is the operation and development of retail payment systems, the second is the introduction of innovative digital payment solutions, and the third is knowledge extraction, management, and dissemination in addition to business analytics. JoPACC's systems include JoMoPay for mobile payments (operated by JoPACC), CliQ for instant payments and transfers (operated by JoPACC), eFAWATEERcom for bill presentment and payment (outsourced to Madfoatcom), the Automated Clearing House and the Electronic Cheque Clearing System (both of which are currently operated by the Central Bank and are expected to be handed over to JoPACC). To realize its objectives, JoPACC works closely with banks, mobile payment service providers (mPSPs), microfinance institutions (MFIs), regulators, governmental institutions, development agencies, and non-governmental organizations (NGOs).

JoPACC's Strategy 2019-2022

JoPACC's first strategy (2019-2022) capitalizes on the current developed digital payment infrastructure in the kingdom, which aims to reduce costs, reduce risks, increase efficiency and Fintech innovations, that will enable convenient and appealing financial services. The strategy is aligned with the NFIS (2018-2020) and Reach 2025. The strategy focuses on Usage, Access, and Quality and the future needs of payment systems and the economy. Furthermore, the strategy aims to contribute to reducing the dominance of cash usage and promoting low-risk non-cash-based instruments of exchange. Finally, the strategy seeks to capture and test PayTech and related FinTech innovations emerging in today's modern world, thus enhancing the international recognition of Jordan as a viable, internationally recognized financial hub. The strategy is structured in five key pillars.



- ### Pillar One: Increasing Access, Adoption and Usage of Digital Payments

This pillar is geared towards enhancing access, usage, and the quality of digital payments while considering the future needs of customers, partners, and stakeholders, leading to reduced dependence on cash. By adopting tailored, innovative digital payments, users' trust can be increased, and their needs are addressed, encouraging an increased uptake of financial services and increasing financial inclusion in the kingdom.

- ### Pillar Two: Improving Infrastructure, Digital Products, and Digital Platforms

This strategic pillar focuses on benefiting from the technological developments and advancements in payments to improve JoPACC's digital payment platforms while ensuring full interoperability. Consequently, the affordability of digital payments shall be improved, and the payments infrastructure will be strengthened and enriched.

- **Pillar Three: Compliance, Safety, Security, Risk Management, Fraud Detection**

This strategic pillar focuses on safety, security, and data protection and privacy to encourage the adoption of digital payments. Under this pillar, JoPACC strives to promote trust and confidence, increase cyber resilience, and build informative data for policy settings, contributing to advancing financial inclusion in Jordan.

- **Pillar Four: JoPACC Governance and Capacity Building**

This pillar aims to ensure that proper governance and organizational structure are in place to govern the management and operational procedures of JoPACC. It also targets building the capacity of JoPACC's human resources and ensuring they are on the right growth path.

- **Pillar Five: JoPACC Branding, Marketing, and Awareness**

This pillar focuses on analyzing services and financial market trends and producing and disseminating knowledge that informs decision-making among sector stakeholders. It further aims to raise awareness among DFS users and provide a comprehensive information center that ensures the responsible and active usage of services. This pillar also covers sector consultations, awareness programs, and partnerships.

Objectives of the Strategy Impact Assessment

Currently in its third year of the four-year strategy, JoPACC firmly believes that regular assessment of progress and project outcomes is essential to ensure efficient delivery of the desired impact and yield benefit for the financial sector and all users of financial services.

This assessment aims to investigate the progress made so far in the interventions implemented under the strategic pillars and build on takeaways related to challenges, successes, and future outlooks with the objective of **enhancing the company's overall performance**. This comprehensive performance self-assessment will serve as foundation for the development of the following strategy aiming to **maximize the impact of JoPACC's interventions and ensure they continue to cater to market needs**. The critical question this assessment seeks to address is whether and how JoPACC's interventions have contributed to enhancing the payment infrastructure. It further looks into JoPACC's contribution to the offering of comprehensive digital payment solutions and the provision of knowledge that informs decision-making, ultimately contributing to increasing financial inclusion in Jordan.

Internal projects and interventions have been excluded from this assessment, such as security, governance, and capacity building. This is because this assessment aims to investigate the impact of JoPACC's interventions on the development of DFS and the users' experience and financial inclusion.

Assessment Approach

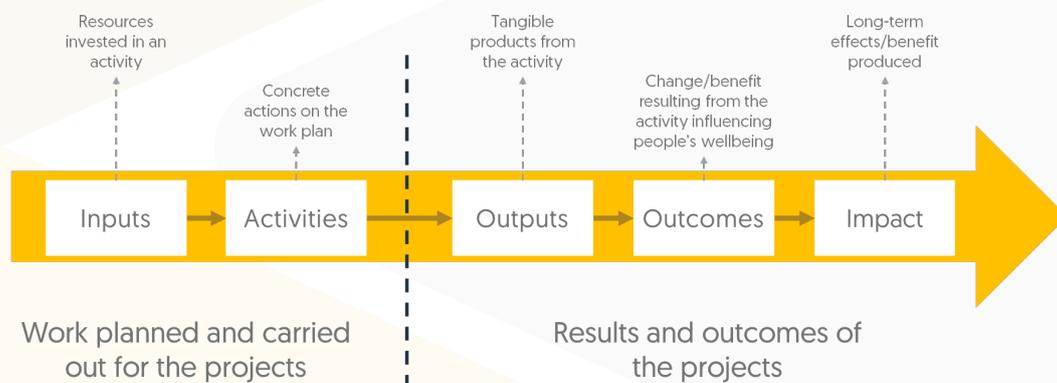
This assessment combined bottom-up and top-down approaches to arrive at a holistic evaluation of JoPACC and its impact. The bottom-up approach analyzed individual projects under each strategic pillar. In contrast, the top-down approach looked at strategic pillars and how they map to projects' actual outcomes and outputs.

Projects evaluations included the following elements:

- Inputs and project activities,
- Challenges,
- Results and outcomes,
- Satisfaction of project partners and stakeholders.

By evaluating individual projects, the evaluation team set out to answer a set of leading questions that would give a holistic view of JoPACC's work. These questions focused on JoPACC's impact on the DFS ecosystem and included the following:

- How and when is JoPACC making an impact?
- What are the areas that JoPACC has an impact on?
- Was the impact created worth the investment?
- Has there been an unintended positive or negative impact caused by JoPACC's interventions and projects?
- What are the outside factors that contributed to the creation of the observed impact?



The evaluation compared the work planned and carried out for the projects with the results and outcomes to determine JoPACC's contribution and how the work could have been more effective and efficient to answer these questions. This comparison aided JoPACC in identifying the areas that still need further work and development, which will be considered when setting the new strategic objectives in 2022. Furthermore, external factors that could have influenced the observed outcomes and impact were studied. This was done to determine the extent of JoPACC's influence in achieving the observed results and determine the actual effectiveness of JoPACC's work, projects, interventions, and overall impact.

Assessment Methodology

Bottom-up approach:

Project Selection

The assessment team considered all the projects that JoPACC has undertaken since its inception, except for the following:

- **Internal projects and interventions:**
These projects were not assessed because they do not serve the ultimate purpose of the report, which is to study JoPACC's impact on the uptake of DFS in Jordan. Any projects that did not include external entities and aimed to improve or change internal processes within JoPACC were categorized as internal projects. They include capacity-building programs, governance processes and policies, risk assessments, and systems upgrades.
- **Projects that are still under implementation:**
These projects were not assessed because the data available about the inputs, outcomes, and challenges were insufficient for evaluation. As a result, these projects will need to reach a more advanced stage in their implementation journey to enable assessment. They include the Unified Agent Interface, DFS Champions Program, MEDAL Facility for mobile payment acceptance, the Payments Association, and the eCommerce Acquiring Certification for mobile money.
- **Projects that are still in the planning/design phase:**
These projects were not assessed because implementation has not commenced, and their scope, requirements, and desired outcomes are still being finalized. They include the eKYC, AML and fraud detection system, and API gateway services.

The table below provides a list of the projects assessed and the status of each project.

Strategic Pillar	Project	Status
Pillar One	JoMoPay Governance and Enhancements	Completed
	QR Codes Implementation on JoMoPay	Completed
	The Mobile Wallets Gateway	Completed
	Enhancing Acceptance and Access on JoMoPay	Completed
Pillar Two	CliQ Instant Payment System	Launched [Expected completion date: August 2021]
	MFI's KYC Assessment Paving the Way for the eKYC Solution	Completed
Pillar Three	Fraud Analysis on JoMoPay	Ongoing
Pillar Five	Knowledge Products	Ongoing
	Awareness Efforts	Ongoing
	Digital Experiments	Completed (three have been conducted, and the initiative is ongoing)
	Sector Consultations	Ongoing

Assessment

The assessment was divided into two main components, an internal review and an external review of JoPACC and its projects. Studying these two components and comparing their results allowed for the identification of gaps between JoPACC's perception and the perception of other entities operating in the market of JoPACC's position and impact. Thus, ensuring that the measured progress in achieving the strategic pillars reflected the reality of the work done and the impact achieved.

- **Internal Review**

The internal review was conducted by surveying employees using online surveys and focus groups. The evaluation team conducted a survey for each project; this included completed or ongoing projects with enough progress to allow for evaluation. Additionally, the internal review included an analysis of data and a review of previous work and reports to determine if the systems' and projects' data supported the outcomes specified in surveys and matched the originally intended objectives.

- **External Review**

The external review was conducted by surveying 21 entities that partnered with JoPACC on projects or were project stakeholders. The surveys included questions about JoPACC's positioning in the market and project-specific questions. Additionally, the external review included research and document review to study the environment in which JoPACC operates and how that environment could have contributed to the observed outcomes and impact of JoPACC's projects. This review helped determine the level of JoPACC's influence and the effectiveness of its projects.

A complete list of the survey questions used is attached in annex I.

Top-down approach:

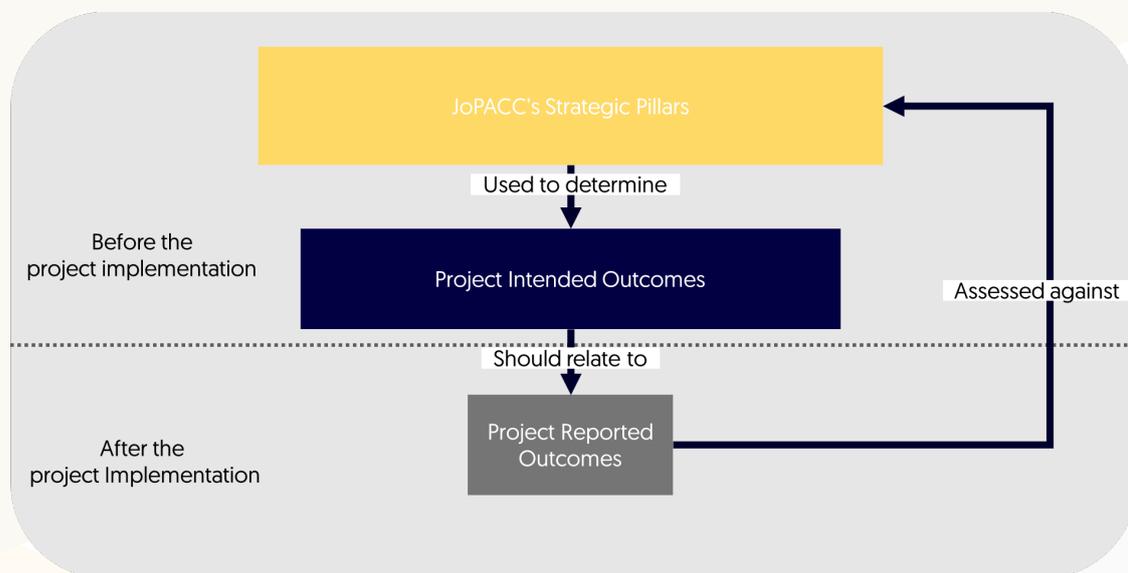
Project Selection

The selection of projects for the top-down approach came from within the pool of projects identified for the bottom-up approach. To qualify for the top-down assessment, projects had to have planning documents outlining the projects' intended outputs and outcomes before their commencement (annex 3). Furthermore, the projects had to have clear outcomes and outputs reported in the internal assessment surveys. Of the projects assessed for the bottom-up assessment, the following qualified for the top-down assessment:

Strategic Pillar	Project
Pillar One	JoMoPay Governance and Enhancements
	QR Codes Implementation on JoMoPay
Pillar Two	CliQ Instant Payment System
Pillar Five	Digital Experiments

Assessment:

A top-down approach was carried out to measure the degree of adherence of the actual outcomes of the projects against the proposed goals and the objectives of the strategy. This process analyzed JoPACC's strategy as the highest level of documentation for JoPACC's initiatives and projects. Next, the planning documentation for projects was analyzed to extract and identify the project's intended objectives. Following that, the project assessment surveys filled out by project owners were analyzed to extract the actual reported outcomes and outputs of the projects. The actual reported outcomes were then mapped to the intended objectives that were determined before the commencement of the project. Through this mapping, it was possible to determine whether the projects met the objectives they set out to achieve. Finally, the actual reported outcomes were analyzed against JoPACC's strategic pillars to identify synergies across the strategic pillars and understand the degree of interaction of strategic objectives within projects.



Assessment limitations

The assessment approach followed by JoPACC had certain limitations that could have affected the results and findings of this report, which can be attributed to the following:

- **The assessment depended on survey results and data**
This dependence affected JoPACC's ability to quantify the results in absolute terms since the surveys are subjective and rely on the respondents' views, opinions, and experiences.
- **Lack of responsiveness by some partners**
To conduct this assessment of the selected projects and capture feedback comprehensively, JoPACC contacted all its project partners to fill out the assessment surveys. Several entities did not fill them out, which means a well-rounded assessment may not have been realized. In a few cases, the assessment was done based on the internal review by JoPACC without any received feedback from partners.

- **The influence of outside factors on the observed results and outcomes**
External factors have influenced JoPACC's projects and could have affected the observed results and outcomes. The separation between which results were achieved due to JoPACC's efforts and which were achieved due to external factors is difficult for some projects.
- **Lack of planning documentation for certain projects**
The list of projects assessed within the top-down approach was less than those assessed for the bottom-up approach. This is because some projects lacked planning documentation. While this is expected from certain initiatives, such as sector consultations, such documentation would have aided the top-down evaluation.

JoPACC's Position in the Financial Sector

JoPACC enjoys a unique position in the financial sector and the payments market. This position stems from its exclusive role in operating a number of domestic payment systems that connect the majority of financial institutions in the kingdom and from its perceived role in driving the digital transformation of financial services and introducing a comprehensive digital experience. JoPACC's partners believe JoPACC serves as a vessel for innovation in the financial market and has access to data that enables it to contribute to the development and standardization of DFS in an informed manner. Partners stated that they count on JoPACC's efficient support in implementing new services and appreciate the smooth collaboration journey. JoPACC's partners are mainly financial institutions, system operators, regulators, governmental institutions, local entities, and international development agencies.

JoPACC's surveyed partners believe that JoPACC creates balance in the market and ensures that the whole ecosystem is functional and its elements harmonized. In addition, JoPACC serves as a reference point to financial institutions and contributes to controlling and streamlining operations and work mechanisms to keep all partners on the right track. On another front, JoPACC's partners value the unique role JoPACC plays in raising awareness on DFS. Furthermore, they believe that JoPACC influences user behavior and is a pivotal contributor to financial inclusion in Jordan.

When asked about how they perceive their relationship with JoPACC, most partners stated it is strategic, strong, and smooth. Some partners find the relationship demanding given the fast pace of JoPACC's developments but believe JoPACC helps them grow. Despite challenges and pressure, partners appreciate JoPACC's ability to successfully complete projects and initiatives. All partners stated they are satisfied, and in some responses, very satisfied, with their relationship with JoPACC. As part of this assessment, JoPACC needed to confirm that it enjoys a mutually perceived healthy and stimulating relationship with its partners. This is because JoPACC firmly believes that the desired transformation of financial services and Jordan's economy can only be achieved through the harmonious collaboration of all stakeholders.

Assessment Results of Projects by strategic pillars

Pillar 1 Projects: Increasing Access, Adoption and Usage of Digital Payments

Projects under this pillar have mainly focused on the JoMoPay system. This focus is reasonable considering that it is one of two digital payment systems operated by JoPACC, with the other system, CliQ, still in the process of being fully launched. The projects completed focused on increasing access, adoption, and digital payments on JoMoPay. This entailed enhancing the system to improve efficiency and performance, providing better services to end-users, and increasing interoperability between mPSPs. Most surveyed partners and stakeholders believed that these projects were relevant to their current and future business plans, indicating that projects under this pillar were concordant with the market needs.

The projects have yielded tangible results with a positive short-term impact on the goals of the pillar, which were regarded positively by partners and stakeholders. JoPACC and most survey respondents were satisfied with the results and believed that they were worth the investment. However, unintended negative impacts were observed for some of the projects, such as technical issues with ATM cash-in/cash-out that led to decreased trust in the service from end-users.

JoPACC identified some external factors that could have affected these projects and led to their successful implementation. The CBJ's support and mandates aided the timely implementation of the projects and ensured that the involved entities implemented all the relevant aspects. Additionally, cooperation, feedback, and support from the involved mPSPs and entities enabled project implementation, such as enhancing access and adoption and shaping some projects, such as the dispute management system. Finally, the COVID-19 pandemic helped fast-track the implementation of these projects, which were required to provide needed services to end-users and for the system to meet the increasing load due to the pandemic, the lockdowns, and the distribution of government aid through the system. Thus, the observed effects were not solely due to JoPACC's projects, and the external factors could have aided and complemented JoPACC's work.

Top-down Assessment:

Two projects (QR Codes Implementation on JoMoPay, and JoMoPay Governance and Enhancements) were included in the top-down assessment under pillar one. Overall, 70% of the intended objectives noted in the planning documents were mapped to one or more outcomes reported in the project assessment surveys. Furthermore, the number of actual reported outcomes was 10% higher than the number of expected outcomes. These two numbers are lower than observed with other pillars, which indicates that some of the expected outcomes in this pillar are difficult to measure, achieve, or attribute to the specific interventions conducted.

The success of initiatives and projects under pillar one can be understood through looking at the growth of access, adoption, and usage data of digital financial services. While this relationship may be indirect and difficult to attribute to a specific project or set of projects, it still represents a valid indication of the success of initiatives. For example, one such data is the rise in transaction value on JoMoPay from 74.5 million

JOD in 2018 [before the commencement of the strategy] to 1.08 billion JOD in 2020, the midway point of the strategy. This 1,349.7% increase in transaction value is a noteworthy indication of increased access, adoption, and usage. Thus, analyzing trends in the data associated with the growth and proliferation of digital financial services can positively indicate the success of pillar one.

Mapping the actual reported outcomes to the strategic pillars shows the high level of synergy between pillar one and pillar two. In fact, 36% of the outcomes reported for projects under pillar one could be mapped to pillar two, compared to 63% of the outcomes mapped to pillar one, and 9% mapped to pillar four. 16.7% and 30% of the outcomes reported through the project assessment surveys under pillar two and pillar five were mapped to pillar one, respectively.

Pillar one exhibited relatively high synergies with other pillars, in addition to demonstrating lower levels of outcome achievement and positive unintended outcomes. This could be explained by pillar one's aims and objectives, which could be described as intangible and difficult to measure. In order to better evaluate pillar one [or any evolutions of it in future strategies], more specific metrics can be formulated to benchmark the performance and accomplishment of various projects and initiatives against this pillar.

QR Code Implementation on JoMoPay

Project Summary

In 2020, JoPACC released standards for merchant-presented and consumer-presented QR codes for payment on JoMoPay. These standards were implemented by system participants to enable interoperable merchant payments and to facilitate peer-to-peer payments through QR codes. The project also included the testing, certification, and validation process for the system participants who implemented QR codes for payments.

Division of Roles

JoPACC adapted the EMVCo merchant-presented QR code standards for payments into standards that fit the operations and needs of JoMoPay, to enable and facilitate more convenient and interoperable payment methods. The mPSPs were responsible for developing and integrating these payment methods into their applications.

JoPACC is likely the most suitable entity to introduce new payment methods and standardize them on the system due to its role as the system operator. However, other entities such as the mPSPs themselves could have introduced similar standards. This approach would have required coordination and agreement between the seven mPSPs, which would have likely reduced efficiency and required JoPACC to enable these payment types on the system level. Therefore, the role taken on by JoPACC in initiating and leading this project is appropriate and likely increased efficiency.

Partner Buy-in

The standardization and introduction of merchant-presented QR codes on JoMoPay were regarded positively by system participants. They viewed QR codes for payment as an opportunity to enhance customer services and merchant acceptance on JoMoPay and a way to grow their customer bases and introduce new partnerships, use cases, and revenue streams. Entities surveyed on this project indicated having plans to expand the use of QR codes for payments and their related services in the future. On the other hand, system participants met consumer-presented QR codes with less enthusiasm. They had a general lack of interest in implementing these QR codes and believed that they would not add value to the system, participants, or end-users. For both types of QR codes, some of the surveyed participants indicated that the project disrupted their set work plans and that a longer timeline of implementation would have helped alleviate some of the pressure faced, especially during the height of the COVID-19 pandemic.

Results and Outcomes

Seven mPSPs and two banks implemented merchant-presented QR codes, and six mPSPs implemented consumer-presented QR codes. Yet, the customers' usage, the number of acquired merchants using QR code technology, and the number of QR code transactions are still low, with 2139 registered merchants accepting QR code payments and 5366 QR code transactions to date. Some attributed these humble initial numbers to low levels of financial literacy and awareness and the high dependence on cash. These numbers were likely the reason for the low scores given by some of the survey respondents when asked about their satisfaction with the project as a whole and if it was worth the investment made to implement it.

However, the project is still relatively new, and usage is expected to continue its current trend of increase, where the number of merchant-presented QR transactions increased from 1714 in all of 2020 to 3652 transactions in 2021 so far. Especially with the introduction of new partnerships with merchants and large entities by several institutions, the use of QR codes for eCommerce acquiring, and the launch of a grant facility to increase the uptake and usage of merchant QR codes for payments. Additionally, new use cases involving consumer-presented QR codes will be introduced upon the migration of mPSPs to the ISO20022 infrastructure in Q3 of 2021. Therefore, despite the low initial numbers, JoPACC and the participants are introducing new use cases and services, which are expected to increase usage and digital liquidity and enhance the customer experience on JoMoPay.

A significant outcome of the project is the enablement of interoperable merchant payments for JoMoPay customers. Previously, customers could only pay using JoMoPay at merchants acquired by the same mPSP holding their wallet, but can now pay at different merchants using QR codes. This is shown by the percentage of off-us merchant QR code transactions on the system, which was around 20% in the first four months of 2020. The expansion of interoperable services on JoMoPay is an essential factor in increasing access, adoption, and usage and was viewed positively by several mPSPs. Another expected outcome indicated by several

survey respondents is the increase in financial inclusion, lower dependence on cash, and increased financial awareness for end-users.

Challenges and Future Considerations

Partners' buy-in for consumer-presented QR codes was low due to their perception of limited use cases for this type of QR code. Building a solid business case that includes the planned future use cases and the project's benefits could increase partner buy-in and benefit the implementation.

The main challenges faced in the project's implementation process were the certification and testing process and the timeline of implementation. For future projects, timelines for the project should be established in advance and coordinated with the involved partners and stakeholders to ensure minimal disruption to existing work plans. In addition, if interoperability and inter-mPSP testing are required, a more robust testing mechanism could enable the project to be implemented more quickly and efficiently.

Outside Factors

An outside factor that helped with the adoption of the project by the mPSPs was the CBJ's mandate, which required mPSPs to implement both types of QR codes within a set time frame. However, surveyed mPSPs indicated that they would have implemented merchant-presented QR codes regardless of the CBJ mandate, likely with a different timeline. As for consumer-presented QR codes, the survey responses varied, with some mPSPs indicating that they would not have implemented these QR codes was it not for the mandates, while others indicated that they would have.

JoMoPay Governance and Enhancements

Project Summary

This project includes all the enhancements and new governance arrangements that JoPACC introduced to the JoMoPay system after assuming the system's operations in early 2020. These new enhancements and arrangements include:

- **The JoMoPay participation agreement and the mobile financial interoperability scheme rules**
JoPACC and the mPSPs signed these documents to legalize the partnership and obligations of both parties on the JoMoPay system. These documents, including the clauses and standards of the agreement and the interoperability standards set by JoPACC, are binding for the signatories.
- **The JoMoPay dispute management system**
A platform enabling financial institutions to create and exchange dispute cases over financial items processed through JoMoPay in an automated process.
- **Technical enhancements deployed on the switch throughout 2020**

Continuous switch enhancements and version upgrades to ensure the proper functionality of the system, better flows, full interoperability, and the security of the JoMoPay system.

Division of Roles

As the operator of the system, JoPACC was the only entity that could lead this project since it required connections to and enhancements on the switch owned by JoPACC. During implementation, the technical vendor of the system was responsible for testing and deploying new releases to include the technical enhancements. At the same time, the mPSPs were responsible for adopting these new releases and implementing the technical enhancements on their systems. As for the dispute management system, JoPACC developed the system then launched a pilot phase for the mPSPs to collect their feedback and requests.

Results and Outcomes

The deployment of technical enhancements and fixes helped reduce the number of inquiries made by participants about the status of transactions and the percentage of declined transactions on the JoMoPay system. Additionally, these enhancements, coupled with the participation agreement and scheme rules, have led to an increase in interoperability on the system, especially in money transfers and person-to-merchant payments. The percentage of off-us transactions (money transfers) has increased from 8.45% in 2019 to 34.36% in 2020 and 35.57% in the first four months of 2021. The increased interoperability on the system, the ability to solve pending issues through the dispute management system, and the technical enhancements on the switch were viewed positively by surveyed partners. These partners believed that the project would enable them to handle errors quickly and more efficiently.

Despite the positive outcomes, some challenges remain. For example, due to system limitations, fees, and rates set in the scheme rules for off-us transactions were not applied to the system. Still, this issue will be resolved upon the upgrade of JoMoPay to the ISO20022 infrastructure.

Challenges and Future Considerations

The JoPACC team highlighted their preference for outsourced development over in-house development of systems such as the JoMoPay dispute management system. Outsourcing the development was preferred due to resource limitations within JoPACC, which decreased flexibility and made introducing changes more difficult. As for the system enhancements, the JoPACC team recommended enhancing the scoping, testing, and quality assurance processes conducted before releasing the fixes and updates to limit the number of bugs or errors in the live environment. In response to these suggestions, a change management process was introduced to monitor system updates and approve all the changes that occur, and an official change management policy was drafted.

Outside Factors

The CBJ mandated the implementation of this project for the mPSPs during COVID-19. Additionally, the influx of users on JoMoPay during the pandemic added pressure on the system, which made some aspects of this project necessary for the system's proper functioning.

The Mobile Wallets Gateway

Project Summary

The mobile wallets gateway (<https://uai.jopacc.com/JoPACC-GW/GW>) is a web-based portal that enables wallet holders to identify their registered wallets by providing their national number, wallet number, and a photo of their ID card. Furthermore, information such as mPSPs' transaction fees, registration links, and contact details is shared on the platform in addition to comprehensive information on mobile wallets and their use. The gateway was launched in April 2020 following the outbreak of COVID-19 and assisted mobile money users in knowing whether they have registered mobile wallets and with which mPSPs. The gateway was especially beneficial to users who wanted to register in and benefit from aid and assistance programs that were mainly distributed through mobile money, including the National Aid Fund's and the Social Security Corporation's programs.

Partner Buy-in

JoPACC has undertaken this initiative as part of its efforts to facilitate access to information and the onboarding of new users. It was welcomed and supported by all mPSPs. JoPACC collected the relevant information from all mPSPs, built the platform, and regularly updated mPSP information and links. JoPACC has also provided support to inquirers who could not use the platform and assisted them through the call center and social media channels. Besides mPSPs who contributed to the gateway, many partners applauded this effort as it helped them and their beneficiaries onboard to and benefit from mobile money.

Results and Outcomes

The gateway has been under use by both individuals and entities for a year, and has had over 1.75 million users and over 221,000 successful inquiries out of nearly half a million inquiries. Direct self-inquiry has been a milestone in expediting access to information to users. The gateway was useful for mobile wallet users who had wallets registered under their national number and their mobile number. If users provided matching information, they received an answer through the gateway. But for users whose mobile wallets were tied to another user and a national number other than theirs, the inquiry was unsuccessful. Instead, users have to submit matching information to the mobile wallet registration information to receive a response. If that is not the case, inquirers had to contact JoPACC to get the requested information.

Besides the direct inquiry about registered wallets, the gateway served as a one-stop shop for new users. Through the gateway, they have access to all registration

links of mPSPs and can get acquainted with fees of all transaction types of each mPSP, saving them time and effort. Users benefited from the services offered on the gateway and found it relevant and significant, especially with the shift to mobile money following the outbreak of COVID-19.

Challenges and Future Considerations

While the gateway served a significant purpose at a time of need, more can be done to enhance its user-friendliness. The layout can be enhanced to be more interactive, and more awareness content can be added regularly. Furthermore, the phone version can be improved. Other innovative services can be considered, such as WhatsApp automated responses. Looking ahead, the web service structure may drastically change as mPSPs prepare to integrate with CliQ, which will affect the nature and method of inquiries.

Enhancing Acceptance and Access on JoMoPay

Note: this project has been assessed based on internal review only and data available on JoMoPay.

Project Summary

Since JoPACC assumed the operation of JoMoPay, interoperability has been promoted, and in some cases mandated, on the level of transactions, merchant payments, and ATM services. On ATM services, JoPACC worked with some banks participating in JoMoPay to enable and expand ATM card-less cash-in/cash-out services to mobile wallet users. JoPACC led the discussion with banks, addressing interchange fees, testing, and conducting technical fixes on the switch. On merchant payments, JoPACC followed up closely with mPSPs on the merchant acceptance of mobile payments to monitor progress and encourage wider outreach. JoPACC's overall objective of this intervention was to enhance the acceptance of and access to mobile financial services.

Partner Buy-in

JoPACC worked closely with the Jordan Kuwait Bank (JKB) and Cairo Amman Bank (CAB), who responded promptly to the increased demand for cash-in/cash-out services by all mobile money users. JKB enabled cash-in/ cash-out through their ATM network to mobile wallet users regardless of their wallet provider, and CAB enabled cash-out services. At a later stage, both Arab Bank and Housing Bank for Trade and Finance (HBTF) followed, but HBTF made its ATM services exclusive for Orange Money clients.

Results and Outcomes

Before this intervention commenced, there were 202 ATMs offering services for mobile wallet holders through two banks. After the intervention, the total number of ATMs exceeded 730 facilitated by four banks, where nearly 250,000 ATM transactions were made between April 2020 and April 2021.

On merchant payments, the number of merchants accepting mobile payments jumped from 487 in April 2020 to 3,095 in April 2021, and the total number of transactions made in the same period reached over 5.5 million merchant payments, covering card transactions, POS, QR, and purchases.

Challenges and Future Considerations

Many cases have been reported by mobile money users of challenges faced with ATM cash-in/cash-out. Cases such as an ATM taking the money in without reflecting the deposited amount in the wallet, or cash-out attempts where the amount is deducted from the wallet but does not come out of the ATM, were reported. All cases have been addressed with the relevant banks and mPSPs, and some enhancements have been deployed. However, these challenges have shaken the users' confidence in ATM cash-in/cash-out services. Moving forward, besides improving offered services, expanding the ATMs network offering cash-in/cash-out services and expanding merchant acceptance of mobile payments should be a priority to optimize the interoperability of and access to DFS.

Pillar 2 Projects: Improving Infrastructure, Digital Products, and Digital Platforms

JoPACC is working to introduce new digital products and platforms that benefit entities working in the financial sector and their customers and meet their needs. Some of these products are also aimed at improving existing services in the market, such as the CliQ instant payment system. CliQ uses newer financial messaging standards and technology than JoMoPay, which was the only system to allow interoperable instant payments. While JoPACC has multiple projects under this pillar, only two were evaluated through this strategic assessment, which offers a partial view of the work that JoPACC is doing in this area.

CliQ was regarded positively by most surveyed entities, who indicated that it was relevant to their current and future business plans and believed that it was worth the investment made to implement it. Beyond the survey responses, the project's outcome can be seen by the growing number of users and transactions on the system, showing the relevance of the project to end-users. The CBJ's mandate aided the project, but most surveyed entities expressed commitment to implementing the project regardless. This confirms that JoPACC's projects align with the needs of the financial institutions it aims to serve. Despite the favorable outcomes, it is too early to determine if the project will have long-term impact. Still, surveyed entities were mostly optimistic about the expected long-term impact on their institutions and customers.

As for the MFI's KYC assessment, the project highlights JoPACC's interest in understanding the needs of the financial institutions and entities working in Jordan before launching any new products to ensure that the digital products serve these entities and fulfill their needs, to maximize the impact and benefit to users.

Top-down Assessment:

One project (CliQ Instant Payments) under pillar two was included in the top-down evaluation. Of the expected outcomes detailed in the planning document, 100% could be mapped out to at least one outcome reported in the internal project assessment surveys. The number of actual reported outcomes was 20% higher than the expected

outcomes detailed in the planning document. That being said, the mapping of the expected outcomes to the reported outcomes in pillar two is very straightforward and clear. This suggests that the expected and reported outcomes of projects conducted under pillar two are very tangible, achievable, and measurable.

Outcomes reported for projects falling under pillar two exhibit fewer synergies than projects falling under other pillars evaluated in this assessment. 33% of outcomes were equally mapped between pillar one and pillar five (16.6% each), and 67% were mapped to pillar two. The aforementioned can be directly linked to the centrality of pillar two to JoPACC's role as a manager and operator of payment infrastructure. That being said, projects and initiatives implemented under pillar two will often lead to notable impact on other pillars, most notably; pillar one. Since its launch, there has been a total transaction value of 8.22 million JOD processed through CliQ. Given that customers of banks did not possess the means for instant digital payments before, these transactions can be assumed to have migrated from cash transactions. Therefore, the implementation of CliQ under pillar two of the strategy has helped propel the objectives of pillar one.

36% and 20% of the outcomes reported through the project assessment surveys under pillar one and pillar five were mapped to pillar two, respectively. The higher level of interaction between pillar two and outcomes under other pillars as compared to outcomes under pillar five with other pillars further validates the centrality of this pillar to JoPACC's operations.

CliQ Instant Payment System

Project Summary

CliQ is an instant payment system that enables instant fund transfers between customers of financial institutions in Jordan using IBANs, account numbers, or aliases. The payment system was deployed using the newest financial messaging standard, the ISO 20022. Banks are currently being onboarded to the system (only banks that have been fully onboarded and went live with the service for their customers were surveyed). So far, 13 banks out of 23 in Jordan are participants on CliQ and have launched its services to their clients.

Division of Roles

JoPACC, with inputs from partners and stakeholders, designed the structure of the system and all the technical specifications, which its contracted vendor then implemented. After implementing the system and all related technical infrastructure, JoPACC began testing with and onboarding banks on the system. Banks and their teams were responsible for integrating their systems with CliQ, updating their technology assets (such as mobile apps) to offer this service to clients, and designing the customer journey for their clients.

Partner Buy-in

All but one of the survey respondents indicated that they would have implemented the project even if the CBJ did not mandate its implementation. Additionally, most banks indicated that the project was highly relevant to their current and future business plans. However, surveys revealed that the timeframe for implementing the project was not realistic and required banks to redirect resources to work on the project, which in some cases disrupted the institutions' work plans. Despite these challenges, most banks understood the potential benefits of the system and the positive impact that it could have on their institutions and clients and believed the investment made to implement the project was worth it.

Results and Outcomes

Thirteen banks are currently offering CliQ services to their clients, with over 71,000 total customers and a total of 42,000 transactions with a value of over eight million JODs since the system's launch¹. The monthly numbers of new customers and transactions have been increasing, indicating interest from consumers. In addition, half of the banks surveyed collected feedback from their end-users and suggested that the project was relevant to them, and some banks indicated the customers' satisfaction with the service. The project is still in its nascent stage; nevertheless, the banks expect a positive long-term impact on digital transformation, increasing efficiency, reducing costs, and shifting away from traditional payment methods such as cash and cheques.

Challenges and Future Considerations

The banks' survey highlighted the difficulty of testing with other banks and fully understanding the requirements and specifications of the system as challenges. In the future, planning for interoperability testing and devising a robust mechanism for doing so, and explaining and comprehensively documenting system requirements and specifications before implementation could facilitate a smoother and faster process. Tight deadlines posed challenges to and required additional resources from multiple banks as well. Earlier and closer coordination with banks regarding deadlines and timelines in the future could ease the process for banks and other financial institutions and reduce the pressure and the number of required resources.

Outside Factors

The CBJ obliged banks to connect to the system and offer CliQ services to their clients by the end of Q1 of 2021, which fast-tracked implementation by some banks and resulted in most banks connecting to or planning to connect to the system. However, most banks surveyed indicated that they would have implemented the project even without the CBJ mandate, albeit with a different timeline. Furthermore, the COVID-19 pandemic could have played a role in encouraging uptake by consumers; with mobility restrictions and the fear of the virus spreading through the

¹ As of the time at which the report was written

handling of cash, people and governments turned towards digital payments, increasing usage and awareness of these methods.

MFIs' KYC Assessment and paving the way for the eKYC Solution

Project Summary

This project's purpose is to assess the current KYC practices applied by the microfinance sector and capture valuable insights from its stakeholders on pain points and needed enhancements. This will feed into the development of the eKYC project that JoPACC is undertaking. The eKYC solution JoPACC is developing will benefit clients of all types of financial institutions, including MFIs, and enable the electronic onboarding to financial accounts and services. It will further assist financial institutions in access to verified information on users to confirm their identity.

This project analyzed MFIs' current processes in KYC and assessed their needs and potential use-cases when employing the eKYC solution. The analysis resulted in a high-level roadmap for necessary changes to be made in the MFIs' KYC processes to integrate into the new eKYC solution. The MFIs' KYC assessment was conducted in collaboration with Sanad Fund of Finance in Motion, who contracted experts from La Trobe University to conduct the assessment with the MFIs.

The assessment included reviewing existing regulations related to KYC and conducting one-on-one interviews with MFIs in Jordan to understand their KYC practices. It further included a gap analysis of the MFIs' current KYC practices vis-à-vis the regulatory requirements, especially of Anti-Money Laundering (AML) and Customer Due Diligence (CDD). The final component of the assessment was introducing the eKYC solution to MFIs, and a roadmap for MFIs' integration in the eKYC solution with needed steps to align their practices with the regulatory CDD requirements. The analysis and findings were documented in a comprehensive report that was shared with all project partners.

Division of Roles

JoPACC developed the concept of this project in coordination with Sanad and agreed to contract a professor from La Trobe University to lead on the assessment. JoPACC introduced the assessment project to MFIs in Jordan, coordinated one-on-one meetings with them, and followed up on the outcomes of these meetings. Sanad funded the project and was involved in all conducted meetings. La Trobe University led the sessions with MFIs, documented their outcomes, performed the regulations' review, analyzed the results, and produced a report capturing all inputs and findings. Seven out of nine MFIs in Jordan participated in this project. They provided in-depth insights into their KYC practices, challenges, and expectations of an eKYC solution.

Partner Buy-in

Sanad Fund was keen on supporting MSME financing services in Jordan. Their interest was aligned with JoPACC's endeavors to enable eKYC in all institutions in the financial sector. La Trobe University researchers are familiar with the financial

sector in Jordan and have had research projects in the country on KYC and CDD. Their previous knowledge enriched the assessment and facilitated the swift kick-off and implementation of the exercise. MFIs in Jordan had expressed their existing struggles with KYC and AML/CFT procedures, and COVID-19 exacerbates these struggles. Therefore, the project was timely and relevant to most of them. They were further interested in receiving a comprehensive analysis of their KYC performance and learning about the planned eKYC solution.

Results and Outcomes

The intended outcome of this project for JoPACC, Sanad, and La Trobe University consultants was to inform the design of the eKYC solution so that it caters to the various stakeholders' needs. Additionally, it aimed to introduce them to the eKYC solution to prepare for their integration once it launched. The study identified MFI needs and expectations of the eKYC solution, and these informed the design of the solution. The desired outcome was achieved, and the three key partners were satisfied with the results. The outcomes have been discussed with JoPACC's team managing the eKYC project to ensure the findings are considered in the design of the solution.

The MFIs found the insights provided in this project valuable and have put integration into the eKYC solution on their radars. All MFIs believe the eKYC solution will save them time and effort and will reduce AML/CFT risks. This assessment paves the way for the integration of MFIs with the eKYC solution. However, its impact can only be measured following the solution's launch and the consequent use of its services by MFIs.

Challenges and Future Considerations

In projects that involve international English-speaking consultants, the language barrier can always be a challenge. In this project, finding reliable translations for some laws and regulations was challenging for the consultants conducting the assessment. On the other hand, participating entities could have had more elaborative insights if the sessions were conducted in Arabic. Also, the assessment was initially planned to take place in person, but due to the outbreak of COVID-19, the whole project was managed virtually. In assessments like this one, face-to-face workshops could be more engaging than virtual ones.

Pillar 3 Projects: Compliance, Safety, Security, Risk Management, Fraud Detection

Most of the projects undertaken by JoPACC under this pillar were internal, so this assessment's scope did not cover them. The only project that the assessment team could evaluate was the collaboration with the Cyber Crime Unit (CCU) to conduct fraud analysis on JoMoPay. The partnership turned out to be a success, and the CCU used the analysis's results to track down fraudsters on the system. Since the implementation of the project, both JoPACC and the CCU have reported fewer fraud cases and fewer inquiries made by the CCU about potentially fraudulent transactions. These results contribute to the system's safety and are expected to increase consumers' trust in the system.

Fraud Analysis on JoMoPay

Project Summary

JoPACC, in partnerships with the CCU, conducted this project to study and understand fraud cases and illegal activities that are taking place on the JoMoPay system. The CCU provided JoPACC with the IDs of wallets suspected of fraud, and JoPACC analyzed the activity of these wallets and identified connections to other wallets and individuals.

Division of Roles

There was no overlap in the inputs provided by JoPACC and the CCU. Each entity had a clear understanding of its role in the project, which eliminated confusion and redundancy. JoPACC's role would not have been easily filled by other entities in the market since it required access to JoMoPay's database and transactions (both on-us and off-us transactions). As JoPACC is the only entity with direct access to this information, its contribution was essential to the project.

Results and Outcomes

Numeric and visual data were presented to the CCU to demonstrate the results of the analysis. These results were used in the CCU's investigations to track fraud perpetrators and make decisions regarding the suspected fraud transactions. After implementing the project, the number of fraudulent transactions occurring on JoMoPay and the number of CCU inquiries decreased significantly, based on the information provided by the CCU and JoPACC's project team.

Challenges and Future Considerations

Based on the recommendation of the CCU and JoPACC's project team, automation could enhance the process. For example, the use of machine learning algorithms to automatically detect suspected fraud cases or the creation of a tool to automate the analysis conducted by JoPACC is likely to make the process of fraud detection faster, more convenient, and more robust. JoPACC used the lessons learned from this project to aid in the design of JoPACC's AML/CFT system, which will ultimately lead to the automated detection of illegal activities or behavior occurring on JoPACC's payment systems.

Pillar 5 Projects: JoPACC Branding, Marketing, and Awareness

JoPACC's efforts in knowledge production and dissemination, awareness-raising, market analysis, and guidance to various players and entities are a novel addition to the payments sector. JoPACC's partners of all projects under this strategic pillar were satisfied with the implemented interventions, have benefited from their outcomes, and are keen to see them expand and grow in scale. Partners believe all interventions were relevant, had a tangible impact, and carried sustainable benefits. These interventions included awareness sessions and products, analytical reports, and guidance to entities deploying digital payments or researching the Jordanian market.

It is clear for both JoPACC and its partners that efforts should be maximized to reach a wider audience and create a broader impact. Additionally, JoPACC needs to diversify the tools used to cater to different audiences and increase their engagement. The demand by partners to receive knowledge products more frequently and on various topics and the increase in entities seeking guidance from JoPACC are all indicators that JoPACC has gained the trust of the financial sector and other sectors in the kingdom.

Top-down Assessment:

One project (Digital Experiments) was included in the top-down assessment under pillar five. Overall, 100% of the expected outcomes could be mapped to one or more outcomes reported in the internal project assessment surveys. The number of actual reported outcomes was 100% higher than the number of expected outcomes, indicating the significance of pillar five in yielding unintended positive outcomes.

The nature of the work undertaken under pillar five positions it as a pillar with significant synergies with other pillars. This is due to the nature of the interventions, which often directly impact access, adoption, and usage (pillar one). However, it is important to note that although such interactions exist, the ultimate aim of the interventions remains well within the bounds of pillar five. As such, 30% of the reported outcomes for pillar five can be mapped to pillar one, 20% can be mapped to pillar two, and 50% can be mapped back to pillar five.

16.7% of the reported outcomes for pillar two can be mapped to pillar five. The higher synergies to other pillars detected within pillar five, as opposed to its synergies in other pillars, encapsulates pillar five's role as an independent yet supportive function for the rest of JoPACC's strategic pillars. Thus, pillar five's contribution to JoPACC's overall strategy is distinct and clear.

That being said, the other three projects evaluated via this assessment did not have a planning document associated with them, rendering the top-down assessment impossible. Therefore, it is important to document such initiatives or projects prior to implementation to more accurately measure the impact of pillar five (or any evolutions of it).

Digital Experiments

Project Summary

Digital experiments are interventions in the current business, awareness, or communication strategies governing DFS. To ensure that strategic decisions are well-informed, digital experiments put claims and theories to the test and study the impact of various interventions on the uptake of DFS. JoPACC conducts surveys and observational and experimental studies in partnership with DFS providers and other sector players. These initiatives aim to understand the service offering and customer experience, and identify gaps, challenges, and areas of improvement. Moreover, JoPACC employs lessons learned from experiments to provide recommendations to the financial sector and distribute these educational results to the industry and the general public for maximized benefit.

Digital Experiments are implemented with several partners each time who agree on the nature of the intervention and contribute to its execution over a set period of time. JoPACC, in partnership with several entities, conducted three digital experiments that focused on women's uptake of mobile money targeting refugees, microfinance clients, and a randomized group of female users. The duration of each experiment ranged from 4 to 6 months. The interventions included comprehensive awareness efforts, uptake incentives, a loyalty program, and a program rewarding usage. The key partners were AWEF, UWallet, Zain Cash, Orange Money, National Microfinance Bank, Jordan Post Company, Madfoatcom, and SEP. Reports on the implemented experiments were published, detailing the interventions, analyzing their impact on usage, and presenting recommendations to the market.

Uniqueness of Concept

The digital experiments are a new concept in Jordan, and partners who participated in them do not know any entity in Jordan following this research and experimentation approach but JoPACC. Through this unique research approach, the outreach to various society segments in different geographical locations can be maximized while shedding light on their specific context and needs. The experiments are implemented in partnership with multiple sector players, fostering sector collaboration and shared learning.

Division of Roles

JoPACC designed the program of each implemented experiment in consultation with the relevant partners, set the implementation roadmap, and monitored the progress of all planned activities in coordination with experiment partners. In all experiments, JoPACC coordinated awareness sessions and managed knowledge assessments that followed. JoPACC has further run all draws; session draws, weekly draws, bi-weekly and monthly ones. At the end of each experiment, JoPACC analyzed the collected data and produced a comprehensive report that included recommendations to the sector based on the experiment findings.

Each partner may have been driven by their own motivation to conduct the experiment. mPSPs focused on increasing their customer base, whereas JoPACC focused on raising awareness and extracting and disseminating knowledge. Other entities focused on enhancing their operations and services to their clients. Overall, all partners had clarity on their roles and conducted their tasks diligently and harmoniously. Moreover, an agile approach in the experiments was followed where the direction was modified when needed to ensure realizing the set goal and benefiting the target segment.

Partner buy-in

In all digital experiments, partners expressed interest in the concept and demonstrated high commitment to implement it. Unlike sector-wide developments where some engagements are mandatory, the digital experiments are based on a participatory approach and can only succeed if all partners share the interest and commitment. Experiment partners confirmed they have benefited from the program and the knowledge extracted from it and have adopted some of its

elements in their long-term plans and programs, such as awareness and loyalty programs. They were satisfied with the project's outcomes and their collaboration with JoPACC, and believe the project was worth the time and effort invested in it.

Results and Outcomes

The key expected outcomes of the experiments for JoPACC were to understand the offering of DFS and user behavior, experiment with different tools and investigate the customer experience with them, and address areas of improvement with sector stakeholders. In the context of the three implemented experiments, these outcomes have been realized. JoPACC shared the experiments' findings in published reports to disseminate the extracted knowledge and held a webinar on the results and the way forward.

The uptake of mobile money and increase in active usage were the key outcomes of the experiments for JoPACC's partners, paving the way for an increase in financial inclusion. In addition, as the experiments are evidence-based, the partners' adoption of methods applied in the experiments in their long-term plans is a tangible outcome that is aligned with JoPACC's objectives. Partners highly valued the awareness efforts invested in the experiments and the agile approach in implementing the experiments. In the long run, partners perceive financial planning as a new skill acquired by experiment participants that will positively influence their livelihoods. They further believe the dependence on cash will decrease, and the uptake of DFS by participating target groups will have a ripple effect on their communities and counterparts.

Challenges and Future Considerations

One common issue emerging in all experiments is the challenges faced with agents revolving around increasing fees on customers or refusing to provide services depending on the amounts under processing. This called for better management of agent services from the mPSPs to ensure they adhere to their role requirements and do not disturb the customer experience. Some partners flagged that the management of loyalty points and the rewarding program was done manually and could be enhanced in the future. Given that the experiments were held in a pilot form targeting a fixed number of participants, the manual processing was smooth. Still, an automated approach is recommended in long-term, large-scale programs.

In the reward programs, the delay in processing payments by mPSPs to experiment participants caused notable dissatisfaction. The timely delivery of promised rewards is crucial to building trust by users and will be emphasized in future experiments. Moreover, the rewards program raised expectations by participants, and this has caused some disappointments. This calls for better planning and reward announcements to manage expectations.

Moving forward, the concept of digital experiments will be continuously present in JoPACC's work and will be used to collect evidence and subsequently expand the outreach of DFS. Experiment partners recommended replicating the experiments in more areas, especially rural ones, and firmly believe they contribute to realizing the shift from the dominant cash mentality in Jordan. Moreover, JoPACC intends to

explore ways to ensure stakeholders and sector players benefit from the findings of the experiments and apply them in their operations and plans.

Awareness

Project Summary

JoPACC produces awareness content in different formats to educate users of DFS and provide them with comprehensive information to ensure responsible use. Awareness products include user booklets, videos, Mahafezna Facebook page content, social media posts, a demo wallet, and training on demand. Awareness products thoroughly cover how a service can be used, user rights and responsibilities, newly offered services, and how to deal with any challenges and fraud attempts. In addition, the training sessions offer a live demonstration of the various use cases of DFS where beneficiaries receive assistance as they try the service to build confidence in it and its use.

Besides the regular production and dissemination of awareness materials, JoPACC offered awareness sessions in all conducted digital experiments to various target groups in various geographical locations. Moreover, JoPACC established two partnerships to expand awareness on specific topics with specific target groups. The first with the Jordan Enterprise Development Corporation (JEDCO), targeting farmers who started using mobile money, whereas the second was with CCU to raise awareness on privacy and the responsible use of mobile wallets to minimize fraud attempts.

Quality of Awareness Products

In one year, JoPACC has produced 10 awareness videos, 3 awareness booklets, 4 brochures, 2 demo wallets, over 120 awareness social media posts, and held over 25 training sessions to various groups and society segments. All JoPACC partners find the produced awareness materials relevant, clear, and comprehensive. They believe that target groups have benefited from the offered content and that it contributed to more responsible and active usage of mobile money. Some have received feedback from their beneficiaries expressing gratitude and satisfaction over awareness efforts and content. Moreover, JoPACC partners believe JoPACC holds a unique position in raising awareness as it is filling a void in the market. It does this by producing comprehensive content and is constantly sharing its awareness products through various channels.

Partner Buy-in

JoPACC's two partnerships on awareness were deemed successful and efficient by both JoPACC and its counterpart. In the partnership with the CCU, collaboration was based on mutual interest in addressing fraud attempts that were tracked on mobile wallets, and the CCU proposed a joint campaign to raise awareness on how users can protect themselves from such attacks. The CCU developed the key messages, and JoPACC enriched them and handled the design and final production of the posts. Over 3 weeks, both JoPACC and the CCU posted the shared content and coordinated with other entities to do the same to maximize the outreach of the awareness messages. Moreover, the campaign was publicized on radio channels

in coordination with both partners. As a result, both JoPACC and CCU were satisfied with the management of the campaign and with its results.

In the partnership with JEDCO, JoPACC proactively approached JEDCO out of interest to introduce mobile money and raise awareness on it to farmers. JEDCO welcomed the offer and shared the topics of interest, and JoPACC developed booklets and a demo wallet accordingly. It has further conducted training sessions for trainers [TOT], who will give training sessions to the targeted farmers. Moreover, JoPACC offered technical assistance to JEDCO and helped address any technical challenges users face.

Results and Outcomes

The general awareness efforts and the focused partnerships positively impacted user trust in services and boosted their self-confidence to use these services. It is believed that awareness efforts contributed to increasing the adoption of DFS, saving time and effort on users. Moreover, having agents deliver mPSP services makes these services more accessible given their wide distribution across the kingdom. Awareness efforts addressed this point to ensure a comprehensive understanding by users of their options.

Challenges and Future Considerations

While JoPACC's awareness products, channels, and efforts may be unparalleled and rich in content, they do not have the desired outreach and engagement. Both JoPACC and its partners firmly believe they should reach more audiences to maximize their benefit to users and trigger more engagement. Increased simplicity of content and producing step-by-step guides, preferably through videos, can increase users' engagement. Partners use the content produced by JoPACC and recommend expanding its reach to yield more benefits.

Parallel to this assessment of JoPACC's strategy and underlying projects, JoPACC is undergoing another assessment of its performance on social media, where a large portion of its awareness content is disseminated. This assessment, in addition to partners' feedback, shall enrich and inform JoPACC's awareness plans.

Knowledge Products

Summary

JoPACC produces several regular knowledge products that aim to analyze progress and trends in the financial sector, increase the understanding of the payments sector, inform decision-making, and contribute to the enhancement of financial services. These knowledge products include a quarterly newsletter, blog posts, payment system reports, and analytical reports. Over a year and a half, JoPACC has published 5 analytical reports, 20 monthly system reports, 2 annual system reports, 9 blog posts, and 6 quarterly newsletters.

Partners

JoPACC's partners who benefit from its knowledge products include banks, mPSPs, payment system operators, MFIs, governmental entities, development and humanitarian organizations, and other local entities.

Results and Outcomes

With over 80%, most surveyed partners read the knowledge products that JoPACC publishes. Quarterly newsletters and analytical reports get the highest readership by partners. 96% found the products beneficial, and 85% rated their quality as high. Over 72% think JoPACC's knowledge products respond to developments in the payments sector and address topics comprehensively. Moreover, more than 53% of surveyed partners confirmed that JoPACC's knowledge products helped them better plan projects, initiatives, and tasks related to the payments sector in Jordan. They had concrete outputs of their work that were shaped, directly or indirectly, by the insights provided by JoPACC's knowledge products.

Challenges and Future Considerations

JoPACC's partners shared constructive feedback on ways to enhance knowledge products and amplify their benefit. For instance, partners encouraged launching more social media campaigns, producing more explanatory videos, and organizing awareness workshops tackling new technologies. They also expressed interest in seeing more knowledge products and increasing the frequency of production.

Partners further shared suggested topics to be addressed in knowledge products, including data-related topics, big data, blockchain, interoperability of off-us transactions, digital cheques, and regulations. Additionally, there is interest in having access to real-time information on mobile money agent and ATM network coverage, statistics of bills in Jordan by sector and the market size for each, and comparative analysis of how banks are doing against digitization goals. Finally, partners encouraged simplicity in production and suggested producing a more readable format to lower reading time while grasping the outcomes efficiently.

Sector Consultation

Summary

As part of its knowledge dissemination focus, JoPACC actively supports entities interested in understanding the payments market and the offered services, whether to select a suitable service for their operations or to study the Jordanian market and better plan interventions. Since its inception, JoPACC has been regularly approached by local entities, international development organizations working in Jordan, international development organizations, and consulting firms operating abroad. JoPACC responded to all information requests and engaged in discussions with the various entities dedicating time and effort to help inform and guide their programs and interventions.

Partners' Feedback

Entities seeking consultation with JoPACC stated they approached JoPACC because of its leading role in DFS development, expertise in digital payments and Fintech, and credible local and international reputation. Many entities have approached JoPACC several times and confirmed that they benefited from the exchange and that the consultation helped them better plan projects and initiatives related to payments in Jordan. In fact, partners said they would approach JoPACC again and would recommend it to contacts seeking insights on the payments sector in Jordan. The partners' beneficiaries included Syrian refugees and vulnerable Jordanians, MSMEs, students, orphaned youth, fintech start-ups, entrepreneurs, global readers of research, and the financial inclusion community.

Results and Outcomes

In the eyes of its partners, JoPACC has a unique position to provide comprehensive information on mobile money, agent and ATM network coverage, and JoPACC's solutions to enhance the uptake and usage of mobile money. Moreover, partners approach JoPACC to get insights on financial inclusion in Jordan, fintech developments, regulations, digital payments, and user behavioral trends.

The consultations with JoPACC have assisted partners in conducting assessments on mobile payments, in some cases to plan assistance delivery programs in Jordan. Research entities were specifically interested in the impact of COVID-19 on payments in Jordan. On another side, some entities benefited from JoPACC's guidance in shifting to digital payments to their beneficiaries, including youth and refugees. Moreover, start-ups connected with JoPACC to receive feedback on their business models and benefited from connections made by JoPACC, which led to partnerships in the FinTech space in Jordan.

Challenges and Future Considerations

While partners did not share any feedback or suggestions to enhance consultation services, JoPACC is constantly considering ways to expand access to knowledge and to expand the exchange in the payments sector. To this end, JoPACC led an initiative to establish a payments association in Jordan and consulted with all payment sector players on the idea, who expressed interest and support to realize it, and the work is underway to form an association. Furthermore, to maximize the outreach of sector influencers and connect them with entities that are keen to learn about their efforts and capitalize on them, JoPACC is launching a DFS Champions program to recognize change-makers -champions- who contribute to the expansion and acceptance of DFS. The program will be annual and will shed light on efforts undertaken by sector players, community leaders, and innovators to increase financial inclusion in Jordan.

General Findings

JoPACC's role in the financial sector and its partnerships:

- JoPACC has a unanimously recognized unique role in the financial sector as a leader and enabler of the digital transformation of financial services. Sector stakeholders and players trust JoPACC's interventions to enhance services and count on JoPACC to drive innovation and change in the market.
- JoPACC enjoys successful partnerships with financial institutions, system operators, regulators, governmental institutions, local entities, and international development agencies. These entities perceive JoPACC as a strategic partner and benefit from their collaboration with JoPACC on various projects.
- While they appreciate the progress made, some partners feel pressured by the fast pace of JoPACC's work, which could be demanding at times. Still, they reap the fruit of the implemented interventions.
- Projects related to digital payments implemented by JoPACC are generally aligned with its partners' business plans, and the impact expected by the partners is in line with JoPACC's expectations and goals.
- In designing digital products and enhancements to existing products, JoPACC often solicits feedback from financial institutions and entities who are already using or are likely to use these products to ensure that they meet their needs.

Insights on JoPACC's strategic pillars and underlying projects:

- Programs focused on raising awareness, business analytics, knowledge dissemination, and community outreach are applauded. Nonetheless, their reach is still limited, and there is a growing desire by partners to see them expand.
- The CBJ's mandates have been a driving force for some of JoPACC's projects. Even though most entities have indicated their willingness and likeliness to implement the projects without them, the mandates have fast-tracked projects and have aided successful implementation.
- Some projects have not taken off to the extent expected by JoPACC or have not had the same impact that JoPACC expected them to have, and still require interventions to reach their maximum potential.
- The first pillar of the strategy is geared towards enhancing the quality of digital payments. Nevertheless, the project surveys have highlighted some challenges and problems that have affected or could affect the quality of digital payments and services on JoMoPay, some of which could impact consumer trust.
- The current strategy is based on collaboration between banks and FinTech providers. JoPACC's work in sector consultations, especially with FinTech startups, has helped foster this collaboration by referring them to the relevant entities and making the needed introductions.
- The fraud analysis done in collaboration with the CCU is in line with the third pillar of the strategy, but it still lacks the needed integration with the tools that have been highlighted in this pillar, such as automated processes, artificial intelligence, and machine learning.

- Pillar one of the strategy highlighted the challenge with using digital channels for government-to-person payments and JoPACC's role in facilitating these digital payments. With the COVID-19 pandemic, aid from entities such as the National Aid Fund was distributed through JoMoPay, and JoPACC introduced enhancements to the system to accommodate these payments and the growing numbers of users using the system to receive aid.

Top-down assessment findings:

- The top-down assessment highlighted the difficulty of evaluating pillar one. Although the pillar fits in well within the strategy, the outcomes it sets to achieve are difficult to measure and attribute. Furthermore, there is an indirect relationship² between the projects under this pillar and the aims of the overall pillar. This indirect relationship can also be observed across projects associated with other pillars.
- There is varying interaction between the projects within certain pillars with other pillars. Such variability is indicative of the dynamic nature of JoPACC's strategy and the projects it undertakes.

Recommendations

- The current strategy highlights the importance of basing projects and their outcomes on behavioral analysis and predictions. However, none of the survey responses for the projects assessed included such an analysis as a project input. Additionally, this assessment showed that partners believe JoPACC to have access to data that enables it to contribute to the development and standardization of DFS. Thus, data and **data analysis to guide JoPACC's projects** and guide the market should remain and take on a more prominent role in JoPACC's next strategy.
- JoPACC has made significant progress in its work towards the goals of pillar one of the current strategy and has seen favorable short-term outcomes from its projects and interventions. However, the goals of the pillar are still pertinent to JoPACC and the ecosystem that it operates in, and despite the progress made in increasing access and adoption, usage still has the potential to be expanded. Thus, the goals of this pillar should be carried over to the next strategy, but there should be more **emphasis on increasing active and sustained usage**.
- As noted in the general findings section, a number of projects were facilitated through CBJ mandates. Moving forward, the next strategy should prioritize **incentivizing partners and stakeholders** to participate in and implement projects at the pace introduced by JoPACC without involvement from the regulator.
- In its first strategy, JoPACC planned to **invest in solutions to fight fraud**. However, JoPACC has not made any significant investments in systems to detect fraud on its systems so far. Nonetheless, it is planning to acquire an AML/CFT system prior to the end of the current strategy. Therefore, JoPACC should monitor the progress made in this area to determine the direction it will take in its next strategy, depending on the progress made by the end of 2022.

² An indirect relationship in this context is defined as a relationship in which an intervention represents one of many factors influencing an outcome, so the outcome cannot be linked directly to the intervention.

- While pillar four was not covered in this self-assessment, it is important to look into its continuation in JoPACC's next strategy. Aside from capacity building that is clearly an ongoing process, governance needs to be taken to the next level. JoPACC has a clear governance structure and has developed corresponding policies addressing most of its work's core areas and functions. Nonetheless, JoPACC needs to have **set action plans tied to its policies**, where clear objectives are defined, and tangible results can be measured.
- The fifth pillar of the current strategy should be expanded to include the entire scope of the projects conducted by JoPACC. In the current strategy, this pillar puts a significant emphasis on awareness, branding, and marketing. However, it does not **emphasize knowledge production and dissemination** to the extent shown in the projects undertaken by JoPACC so far. In addition, it does not refer to the grassroots work done on the ground in various geographical locations with diverse target groups. Since these knowledge dissemination efforts are ongoing, the strategy needs to be updated to reflect the nature of the work conducted by JoPACC, especially since partners and stakeholders have praised this work and would like to see it expand.
- It is of paramount importance when drafting the new strategy to ensure that it **sets achievable objectives, has realistic expectations of the work scope**, and does not overpromise. The next strategy should diagnose persistent pain points, capitalize on existing opportunities, set a work plan with precise objectives to address problems, expand fruitful interventions, and have clear actions to deliver the desired objectives.
- JoPACC's strategy identifies policy objectives, such as increasing access to digital financial services, as goals. In future iterations of JoPACC's strategy, such goals should be associated with **clear and measurable benchmarks** to aid in future assessments and quantify JoPACC's progress in achieving its strategic goals.
- The synergies that exist among JoPACC's strategic pillars are a positive indication of JoPACC's understanding of its high-level goals. That being said, JoPACC would benefit from further **understanding these synergies and accounting for them** in the design of its next strategies.
- The majority of the projects evaluated through this assessment could not form part of the top-down assessment. In order to avoid this in future iterations of this assessment, JoPACC should ensure that **projects, initiatives, and programs are documented prior to implementation**. This documentation will ensure alignment with the strategy, preserve organizational memory, and help align actual outcomes with intended outcomes.

Annexes

Annex 1: List of surveyed partners by project

Project	Surveyed Partners
JoMoPay Governance and Enhancements	Aya
QR Codes Implementation on JoMoPay	CBJ, ZainCash, Aya, Gadha, Bank of Jordan
The Mobile Wallets Gateway	Internal review only
Enhancing Acceptance and Access on JoMoPay	Internal review only
CliQ Instant Payment System	Jordan Islamic Bank, Bank of Jordan, Jordan Kuwait Bank, Housing Bank for Trade and Finance, Jordan Commercial Bank
eKYC Collaboration with Sanad, La Trobe University, and MFI Institutions	Sanad, La Trobe University, National Microfinance Bank
Fraud Analysis on JoMoPay	Cyber Crimes Unit
Knowledge Products	
Awareness Efforts	Mercy Corps, Cyber Crimes Unit, JEDCO
Digital Experiments	Orange Money, UWallet, Madfootcom, National Microfinance Bank
Sector Consultations	

Annex 2: Survey questions by project

JoPACC's position in the financial market

1. What value do you believe JoPACC adds to the financial market in Jordan?
2. Do you believe JoPACC has a unique position in the payments sector? If yes, please explain why and in which areas.
3. Describe your work relationship with JoPACC
 - a. Strategic, strong, and smooth
 - b. Demanding but JoPACC helps us grow
 - c. Sometimes challenging but we get things done
 - d. Challenging and disturbs our work plans
 - e. Other:
4. How satisfied are you with your work relationship with JoPACC?
 - a. Very satisfied
 - b. Satisfied
 - c. Neutral
 - d. Unsatisfied
5. What suggestions or feedback do you wish to share with JoPACC?

JoMoPay Governance and Enhancements

1. What was your institution's input/contribution to the following?
 - a. Dispute management system
 - b. Enhancements on the JoMoPay switch

- c. JoMoPay participation agreement, and the mobile financial interoperability scheme rules
2. What were the challenges faced and how were they addressed?
3. Has there been any deviation from the set project plan for implementing any parts of the project?
 - a. Was the deviation necessary to complete the project?
 - b. Please provide more details on any deviations
4. What was the short-term impact of implementing the following and how can you measure this impact?
 - a. Dispute management system
 - b. Enhancements on the JoMoPay switch
 - c. JoMoPay participation agreement and the mobile financial interoperability scheme rules
5. What was the long-term impact of implementing the following on the end-users?
 - a. Dispute management system
 - b. Enhancements on the JoMoPay switch
 - c. JoMoPay participation agreement and the mobile financial interoperability scheme rules
6. What is the long-term impact of implementing the following on your institution?
 - a. Dispute management system
 - b. Enhancements on the JoMoPay switch
 - c. JoMoPay participation agreement and the mobile financial interoperability scheme rules
7. Did the project result in any changes to the experience of the beneficiaries?
8. Do you believe that the JoMoPay system and its related services have improved since JoPACC assumed the operation of the system?
9. Has implementing the project with JoPACC disrupted the work plan of your institution?
10. What could have been done better?
11. How relevant was the project to you/your institution's current and future business plans? [rate 1-10]
12. Are you satisfied with the outcome of the project? [Rate 1-10]
13. Do you believe the project achieved its objectives from the perspective of your institution? [Rate 1-10]
14. How pleased are you with the collaboration with JoPACC in this project? [Rate 1-10]
15. Do you believe the outcome of the project was worth the investment made to implement it? [Rate 1-10]
16. How would you rate the value of JoPACC's contribution to the implementation of the project? [Rate 1-10]
17. Do you have other comments or feedback on your collaboration with JoPACC on this project?

QR Codes Implementation on JoMoPay

1. Do you know other sector players who are implementing or could implement a similar project (QR code for payment) in Jordan?
2. What were the challenges faced, and how were they addressed?
3. Has there been any deviation from the set project plan for implementing any parts of the project?
 - a. Was the deviation necessary to complete the project?
 - b. Please provide more details on any deviations
4. What were the key outputs/results of the project?
5. In your opinion, what was the short-term impact of implementing the project and how can you/your institution measure this impact? (Please provide us with data or statistics that you have on the achieved impact if possible)
6. In your opinion, what is the long-term impact of the project on the end-users?
7. In your opinion, what is the long-term impact of the project on your institution?
8. Did you collect direct feedback from your beneficiaries/clients on the outcome of the project?
 - a. Yes, Is the outcome relevant and significant to them?
 - b. No
9. Has the project allowed your institution to introduce new use cases and/or partnerships?
 - a. Yes, please provide examples
 - b. No
10. Does your institution have any future plans for expansion or new solutions related to the use of QR codes?
11. Would your institution have implemented the project if it was not mandated by CBJ?
 - a. Yes, both merchant-presented and consumer-presented QR codes (reading and generating)
 - b. Yes, both merchant-presented and consumer-presented QR codes (reading only)
 - c. Yes, but only merchant-presented QR codes (reading and generating)
 - d. Yes, but only merchant-presented QR codes (reading only)
 - e. Yes, but only consumer-presented QR codes (reading and generating)
 - f. Yes, but only consumer-presented QR codes (reading only)
 - g. No
12. Has implementing the project with JoPACC disrupted the work plan of your institution at the time of implementation?
13. What could have been done better?
14. How relevant was the project to you/your institution's current and future business plans? (rate 1-10)
15. Are you satisfied with the outcome of the project? (Rate 1-10)
16. Do you believe the project achieved its objectives from the perspective of your institution? (Rate 1-10)
17. How pleased are you with the collaboration with JoPACC in this project? (Rate 1-10)
18. Do you believe the outcome of the project was worth the investment made to implement it? (Rate 1-10)

19. How would you rate the value of JoPACC's contribution to the implementation of the project? (Rate 1-10)
20. Do you have other comments or feedback on your collaboration with JoPACC on this project?

The Mobile Wallets Gateway

1. What was your institution's input/contribution in the mobile wallet gateway beyond sharing your information (contact details, transaction fees, registration link)?
2. Was the project aligned with your institution's work plans, and was implementing it timely to your institution?
3. Did your clients benefit from the gateway?
4. Have you received feedback from them?
5. Is it relevant and significant to them?
6. What were the challenges faced? How were they addressed?
7. What do you think of each component of the gateway in terms of value-added and functionality and accuracy?
 - a. Search engine:
 - b. Registration links:
 - c. PSP contact information and fees:
 - d. Awareness content:
8. In your opinion, what is the long-term impact of the gateway on the clients' wellbeing?
9. In your opinion, what is the long-term impact of the project on your institution?
10. What could have been done better? What features could be enriched or added to the gateway?
11. Do you think there is a bigger role you can play in enhancing the gateway and its benefit to users?
12. Are you satisfied with the outcome of the gateway? (Rate 1-10)
13. Do you believe the project achieved its objectives from the perspective of your institution? (Rate 1-10)
14. How pleased are you with the collaboration with JoPACC in this project? (Rate 1-10)
15. Do you believe the outcome of the project was worth the investment made to implement it? (Rate 1-10)
16. How would you rate the value of JoPACC's contribution to the implementation of the project? (Rate 1-10)
17. Do you have other comments or feedback on your collaboration with JoPACC on this project?

Enhancing Acceptance and Access on JoMoPay

1. What was your institution's input/contribution in this project?
2. What are the inputs made by JoPACC?
3. Did you participate in this project because of the demands of the COVID-19 phase or was this project a priority on your work plan?
4. What were the challenges faced? How were they addressed?

5. What were the key outputs/results of the project? Can you support them with data and/or statistics?
6. What is the long-term impact of the project on the community's/beneficiaries' wellbeing?
7. Merchant payment acceptance has been mandated by CBJ. Do you believe JoPACC has a further role to play in this project beyond the switch technical fixes and the follow-up with PSPs on the growth of merchant acceptance?
8. What feedback did you receive from your clients on the services provided?
9. Is the outcome relevant and significant to them?
10. Have you benefited from the project and knowledge extracted from it on a long term? Please elaborate.
11. How do you perceive the activation of interoperability on JoMoPay? What advantages and disadvantages did it bring to your operations and services?
12. What could have been done better? Any lessons learned you could share?
13. Are you satisfied with the outcome of the gateway? (Rate 1-10)
14. Do you believe the project achieved its objectives from the perspective of your institution? (Rate 1-10)
15. How pleased are you with the collaboration with JoPACC in this project? (Rate 1-10)
16. Do you believe the outcome of the project was worth the investment made to implement it? (Rate 1-10)
17. How would you rate the value of JoPACC's contribution to the implementation of the project? (Rate 1-10)
18. Do you have other comments or feedback on your collaboration with JoPACC on this project?

CLIQ Instant Payment System

1. What was your institution's input/contribution in this project?
2. What were the inputs made by JoPACC?
3. Do you think the initial timeline set by JoPACC for the implementation of the project was realistic?
4. Was the documentation and information provided by JoPACC sufficient to execute and implement the project?
5. What were the challenges faced? How were they addressed?
6. What were the key outputs/results of the project for your institution and your clients?
7. What was the short-term impact of implementing the project and how can you measure this impact? (Please provide us with data or statistics that you have on the achieved impact if possible)
8. In your opinion, what is the long-term impact of implementing the project on the end-users?
9. In your opinion, what is the long-term impact of implementing the project on your institution?
10. Did you collect direct feedback from the end-users on the outcome of the project?
11. Was the outcome relevant and significant to them?
12. Would you have implemented the project if it was not mandated by CBJ?

13. Has implementing the project with JoPACC disrupted the work plan of your institution?
14. What could have been done better?
15. How relevant was the project to your institution/your institution's business plan? (Rate 1-10)
16. Are you satisfied with the outcome of the project? (Rate 1-10)
17. Do you believe the project achieved its objectives from the perspective of your institution? (Rate 1-10)
18. How pleased are you with the collaboration with JoPACC in this project? (Rate 1-10)
19. Do you believe the outcome of the project was worth the investment made to implement it? (Rate 1-10)
20. How would you rate the value of JoPACC's contribution to the implementation of the project? (Rate 1-10)
21. How willing are you to collaborate with JoPACC for other projects (Rate 1-10)
22. How would you rate the communication and responsiveness of JoPACC's team throughout the implementation of the project? (Rate 1-10)
23. Do you have other comments or feedback on your collaboration with JoPACC on this project?

MFI's KYC Assessment

Consultants' Survey

1. Do you believe the KYC assessment project is relevant and timely to MFIs in Jordan?
2. What are the inputs made by JoPACC?
3. What were the challenges faced? How were they addressed?
4. What were the key outputs/results of the project?
5. What is the long-term impact of the project on the community's/beneficiaries' wellbeing?
6. Have you benefited from the project and the knowledge extracted from it in the long term?
7. Please elaborate on how you benefited from the project and the knowledge extracted from it.
8. What could have been done better in the project?
9. Do you believe the project achieved its objectives? (mapping KYC practices in the Microfinance sector & identifying needs to be reflected in the eKYC solution)
10. How satisfied are you with the outcome of the project?
11. How pleased are you with the collaboration with JoPACC in this project?
12. Did the collaboration on this project with JoPACC add value to your institution?
13. Do you have other comments or feedback on your collaboration with JoPACC on this project?

MFIs' Survey

1. Was the objective of this assessment and the role of the entities involved clear to you from the beginning?
2. Was the eKYC assessment project relevant and timely to your institution?

3. How would you describe the level of interest of your institution to participate in this KYC assessment?
 - a. Very interested
 - b. Somewhat interested
 - c. Not interested but we did it anyway
4. What encouraged you to participate in the KYC assessment project?
5. Are there other sector players implementing a similar project? If JoPACC hadn't undertaken this project who else would have been in the position to?
6. What were the challenges faced during your participation in the assessment? How were they addressed?
7. Did you have any concerns about sharing information related to your KYC practices with the assessment consultants?
8. What were the key outputs/results of the project?
9. What is the long-term impact of the project on the community's/beneficiaries' wellbeing?
10. Did you have direct feedback from the beneficiaries on the value of potential eKYC practices? what insights have they shared?
11. Have you benefited from the project and the knowledge extracted from it in the long term?
12. Do you believe JoPACC's recommendations on KYC practices and its eKYC solution will be valuable to you?
13. Do you intend to adopt the provided recommendations and connect with the eKYC solution when it's ready?
14. What could have been done better?
15. How satisfied are you with the outcome of the assessment? [Rate 1-10]
16. How pleased are you with the collaboration with JoPACC in this project? [Rate 1-10]
17. Did the collaboration on this project with JoPACC add value to your institution? [Rate 1-10]
18. Do you have other comments or feedback on your collaboration with JoPACC on this project?

Fraud Analysis on JoMoPay

1. What was your institution's input/contribution in this project?
2. What were the challenges faced and how were they addressed?
3. What were the key outputs/results of the project?
4. How was the information supplied by JoPACC used?
5. Was your work/decision making influenced by the information provided by JoPACC?
6. What is the long-term impact of the project on the community's/beneficiaries' wellbeing?
7. Has there been any significant changes to fraudulent transactions on the system since the project started?
8. What were the observed changes to fraudulent transactions?
9. Did you collect direct feedback from the beneficiaries on the outcome of the project? Is the outcome relevant and significant to them?
10. What could have been done better?

11. Are you satisfied with the outcome of the project? [Rate 1-10]
12. Do you believe the project achieved its objectives? [Rate 1-10]
13. How pleased are you with the collaboration with JoPACC in this project? [Rate 1-10]
14. How would you rate the value of JoPACC's contribution to the implementation of the project? [Rate 1-10]
15. Do you have other comments or feedback on your collaboration with JoPACC on this project?

Knowledge Products

1. Please specify the type of entity you work with:
 - a. Bank
 - b. PSP
 - c. System Operator
 - d. Development organization
 - e. Other
2. Have you read any of JoPACC knowledge products? Yes/no
3. Which of the following JoPACC knowledge products have you read? You can select more than one:
 - a. Newsletters
 - b. Blog posts
 - c. Monthly JoMoPay reports
 - d. Market analysis reports
4. If you have read any of the market analysis reports, please specify which one/s. [multiple selection is possible]
 - a. Digital Experiments: From Access to Practice
 - b. A Storm to Transform: Digital Transformation of Financial Institutions in Jordan
 - c. Lockdown but not Shutdown: The Impact of COVID-19 Pandemic on Financial Services in Jordan
 - d. Payment Systems Report 2019
5. Have you read any of the blog posts? If yes, please specify which one [consumer protection, working from home, women's uptake of DFS, digital identity, mobile money in times of crisis, central banks and payment systems, open APIs, digital liquidity in retail payments].
6. Have you benefited from JoPACC's knowledge products?
 - a. Yes, very much
 - b. Yes, to some extent
 - c. Not really
7. How would you rate the quality of the work you read? [1-10]
8. Did any of the knowledge products help you better plan projects/initiatives/tasks related to the payments sector in Jordan? If yes, please specify which product/s.
9. Are there concrete outputs of your work that were shaped, directly or indirectly, by the insights provided by JoPACC's knowledge products? If so, please give examples.

10. Do you think JoPACC's knowledge products respond to developments in the payments sector?
11. Do you think JoPACC's knowledge products address topics comprehensively?
12. Have you shared any of the knowledge products with anyone in the sector?
13. What could be improved in JoPACC's knowledge products?
14. Are there specific topics you think JoPACC can provide in-depth insights on through one of its knowledge products?
15. Do you have other feedback or comments you would like to share with JoPACC?

Awareness Efforts

1. Which awareness products have you used/ worked on with JoPACC?
2. Do you find the awareness products relevant, clear, and comprehensive?
3. Do you believe your beneficiaries benefitted from JoPACC's awareness products?
4. Did you receive any concrete feedback from your beneficiaries on the added value of the awareness content offered?
5. Are there other sector players implementing a similar comprehensive awareness effort?
6. If JoPACC hadn't undertaken this mission who else would have been in the position to?
7. What could be done better to enhance JoPACC's awareness products? (content, design, topics, type of product, etc)
8. What is the long-term impact of the offered awareness on the community's/your beneficiaries' wellbeing?
9. How satisfied are you with the outcome of the project? (Rate 1-10)
10. Do you believe the awareness offered achieved its objectives? (Rate 1-10)
11. How pleased are you with the collaboration with JoPACC in this project? (Rate 1-10)
12. How would you rate the value of JoPACC's contribution to the success of the project

Digital Experiments

1. What was your institution's input/contribution in this project?
2. What are the inputs made by JoPACC in the experiment?
3. Are there other sector players implementing a similar project? If JoPACC hadn't undertaken this project who else would have been in the position to?
4. How do you perceive the concept of digital experiments?
5. What encouraged you to participate in the experiment?
6. What worked well for you in the project?
7. What were the challenges faced? How were they addressed?
8. What were the key outputs/results of the project?
9. What is the long-term impact of the project on your clients'/beneficiaries' wellbeing?
10. A. What data/statistics do you have of the project results? B. Has the number of your active users increased following the experiment?

11. Have your clients who participated in the experiment's interventions continued to use their wallets after the experiment?
12. Have you benefited from the project and knowledge extracted from it on a long term?
13. Have you integrated the experiment's findings and interventions in your work practices? [Comprehensive awareness, loyalty programs, rewards, incentives, etc] Please provide examples
14. What could have been done better in the experiment?
15. How satisfied are you/your institution with the outcome of the project? [Rate 1-10]
16. Do you believe the project achieved its objectives for your institution? Rate 1-10
17. How pleased are you with the collaboration with JoPACC in this project? Rate 1-10
18. Do you believe the outcome of the project was worth the investment made to implement it? Rate 1-10
19. How would you rate the value of JoPACC's contribution to the success of the project? Rate 1-10
20. Have you read the report on the experiments? If yes, what was valuable to you in the report?
21. Do you have other comments or feedback on your collaboration with JoPACC on this project

Sector Consultations

1. How many times have you connected with JoPACC to get a better understanding of digital financial services and the payments sector in Jordan?
2. What made you approach JoPACC to get these insights?
3. Have you benefited from the information provided by JoPACC?
4. Did the received information help you better plan projects/initiatives/tasks related to the payments sector in Jordan?
5. Are there concrete outputs of your work that were shaped, directly or indirectly, by the insights provided by JoPACC? If so, please give examples.
6. What information/insights do you believe JoPACC has a unique position to provide?
7. Have you faced any challenges in working with JoPACC? If yes, please explain.
8. Would you approach JoPACC again if you need further information?
9. Would you recommend other entities to contact JoPACC if they need information and insights on the payments and DFS sector in Jordan?
10. Were you satisfied with your collaboration with JoPACC?
11. Who are your beneficiaries/clients who could ultimately benefit from the consultation you had with JoPACC?
12. Have you read any of JoPACC's reports or blog posts? If yes, please specify which one/s.
 - a. Digital Experiments: From Access to Practice
 - b. A Storm to Transform: Digital Transformation of Financial Institutions in Jordan
 - c. Lockdown but not Shutdown: The Impact of COVID-19 Pandemic on Financial Services in Jordan

- d. Payment Systems Report 2019
 - e. A blog post (consumer protection, working from home, women's uptake of DFS, digital identity, mobile money in times of crisis, central banks and payment systems, open APIs, digital liquidity in retail payments)
 - f. Which blog post:
13. How would you rate the quality of the work you read? (1-10)
 14. Do you think JoPACC knowledge products respond to developments in the payments sector?
 15. Do you think JoPACC's knowledge products address topics comprehensively?
 16. Are there specific topics you think JoPACC can provide in-depth insights on through one of its knowledge products?
 17. Do you have other feedback or comments you would like to share with JoPACC?

Annex 3: Top-down analysis project selection

Strategic Pillar	Project	Planning document
Pillar One: Increasing Access, Adoption and Usage of Digital Payments	JoMoPay Governance and Enhancements	Available
	QR Codes Implementation on JoMoPay	Available
	The Mobile Wallets Gateway	Not available
	Enhancing Acceptance and Access on JoMoPay	Not available
Pillar Two: Improving Infrastructure, Digital Products, and Digital Platforms	CliQ Instant Payment System	Not available
	eKYC Collaboration with Sanad, La Trobe University, and MFI Institutions	Not available
Pillar Three: Compliance, Safety, Security, Risk Management, Fraud Detection	Fraud Analysis on JoMoPay	Not available
Pillar Five: JoPACC Branding, Marketing and Awareness	Knowledge Products	Not available
	Awareness Efforts	Not available
	Digital Experiments	Available
	Sector Consultations	Not available