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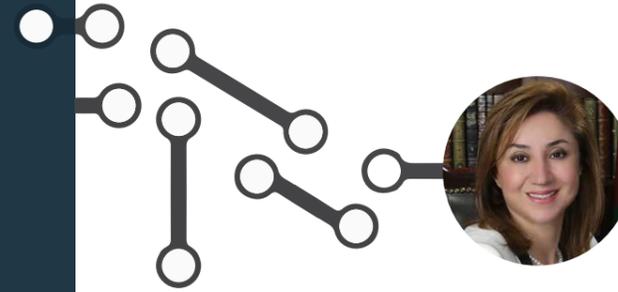
# Digital Experiments From Access to Practice

Investigating Women's Access to and Usage of Digital Financial Services in Jordan

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“ Investigating Women’s Access to and Usage of Digital Financial Services in Jordan



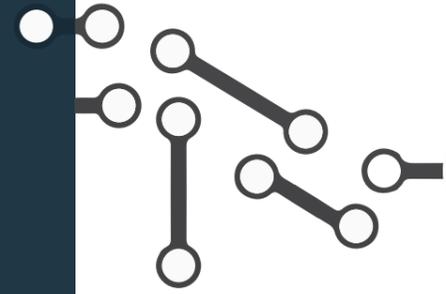
**Maha Bahou,**  
CEO of JoPACC

## Foreword

It is widely recognised that Jordan is far away from reaching gender equality. That being said, Jordan is amongst the best-performing countries with regard to gender parity in the field of education on a regional scale. In fact, the World Economic Forum's Gender Gap report for the year 2020 ranked Jordan 81st [out of 153 countries surveyed] in terms of educational attainment, with a score of [0.991], making it the second-highest country in the MENA region. However, with regard to "Economic Participation and Empowerment", Jordan was ranked 145th [out of 153], with a score of [0.408]. This alarming disparity sheds light on the realities of Jordanian women, who outperform men in terms of higher education but are let down by lack of professional and economic opportunities in the job market. Not only does this put the skilled, highly educated women of Jordan at a major disadvantage, it also negatively impacts the Jordanian economy.

The Jordan Payments and Clearing Company [JoPACC] was established by the Central Bank of Jordan, as well as all the commercial banks operating in Jordan in order to facilitate the transition of Jordan into a digital economy, leaving no one behind. Therefore, female financial inclusion and economic empowerment are of utmost importance, both to me personally, and to the company's strategic objectives. To understand the underlying causes of any problem, we at JoPACC firmly believe that no source of information or insight is as valuable as that coming from the beneficiaries themselves, and through our partnership with AWEF we set out to do just that. I am proud to present to you the fruits of our efforts where, through two digital experiments, we build a direct bridge between the mobile payment service providers [mPSPs], the consumers, and ourselves, in an effort to assess and better understand the financial needs of women in the Jordanian Market, from the women themselves.

In this new age of technological innovation and interconnectedness, customer-centricity is an integral key to success. This partnership with AWEF represents our first step in the realm of knowledge generation, dissemination, and open access. We sincerely hope that you, the reader, can utilise the valuable insights presented here, and more importantly embark on your own mission of knowledge diffusion towards a more sustainable, inclusive future, both for Jordan and the world.



**Riham Gharbiyeh,**  
**AWEF's Country Director- Jordan**

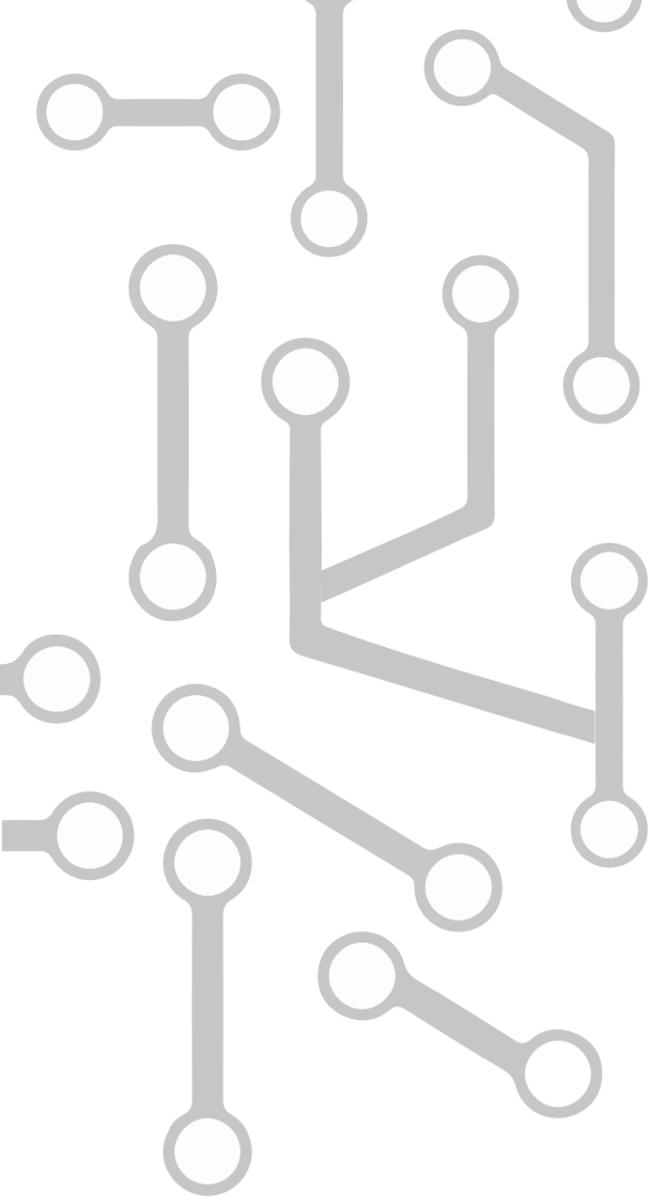
### Foreword

Since AWEF's inception in 2015, the program has supported women-owned microbusinesses and female employees to gain further economic independence and wellbeing in Egypt, Jordan and up until 2018 in the Occupied Palestinian Territories (OPT). However, during our initial years of implementation, it became evident that women within our value chains - including small dairy producers and retailers, Ready Made Garment (RMG) - were missing adequate access to the necessary financial services that would allow them to grow their working capital, expand their businesses or simply save for the future. In particular, AWEF observed that, either as individuals or small businesses, low-income women were generally lacking convenient access to the most basic financial services, allowing them to easily transact in their day-to-day life, manage unforeseen risks, or plan ahead for their future.

At the same time, we observed a tremendous paradox between the growing access to technology on one side and the low uptake of digital financial services by women on the other side. Most Jordanian women in our value chains owned a mobile phone, however, they were slow to adopt digital financial services. This was the case despite positive inroads by the Jordanian government and Financial Services Providers (FSPs) to make digital financial inclusion a national priority.

This challenge resulted in our collaboration with JoPACC that mainly focused on finding innovative ways to increase the use of digital financial services by women through digital experiments, to ensure that women are not being left behind in the financial inclusion ecosystem. Through the digital experiments, we were able to test the market and help the payment service providers (PSPs) better understand consumers' behaviour, to be able to design and implement strategies and products to attract more female users and increase their level of usage (use of services).

Our partnership with JoPACC has supported our strategies and approach to growing the scale and solidifying the sustainability of AWEF's financial inclusion work.



# Digital Experiments From Access to Practice

## Executive Summary

Women's access to financial services, more specifically digital financial services, in Jordan is significantly low and the gender gap in financial inclusion is one of the highest in the world. To better understand the reasons for the low uptake of digital financial services by women, analyze women's financial behaviour, and explore interventions that could motivate women's access and active usage of digital financial services, JoPACC and AWEF collaborated to conduct two digital experiments over a period of four months December 2019 to March 2020. Digital experiments are interventions in the current business, technical, awareness, or communication strategies governing digital financial services. They aim to analyze the impact of services and solutions, address unforeseen challenges and gaps, and introduce ideas that increase the uptake of digital financial services.

Mobile wallets were the focal financial instrument of the two conducted experiments. A mobile wallet is a virtual financial account accessed through a mobile application where the mobile number is the account number. Mobile wallets are used for financial transactions; from money transfer and bill payment to online shopping and saving, among others. The two conducted experiments, implemented in Amman and Jerash, looked into the impact of running a loyalty program for women and the impact of digitizing the payment and repayment of microloans on women's financial activity on mobile wallets. The experiments followed the approach of introducing a primary intervention, offering digital financial awareness sessions, and holding focus group discussions to collect the direct feedback of beneficiaries. Moreover, in the loyalty program experiment in Jerash, the agent network was expanded by collaborating with Post office branches to serve as agents, as a step to maximise access to and availability of agent services in the governorate.

Introducing a loyalty program to female clients led to an increase in the active usage of mobile wallets and to building more trust in the mobile payment service provider (mPSP). Incentivising opening wallets financially for female microfinance clients was observed to have been effective only when coupled with appropriate financial awareness or engagement through a female account opening agent. In fact, in both interventions, offering in-depth financial awareness resulted in an increase in the financial activity of women. Customers' feedback in the experiments brought valuable insights on their experience. The feedback is crucial for payment service providers to address any gaps in the service cycle, and build a closer relationship with their female clients. Moreover, the concept of women serving women proved to be a successful driver of the uptake of digital financial services.

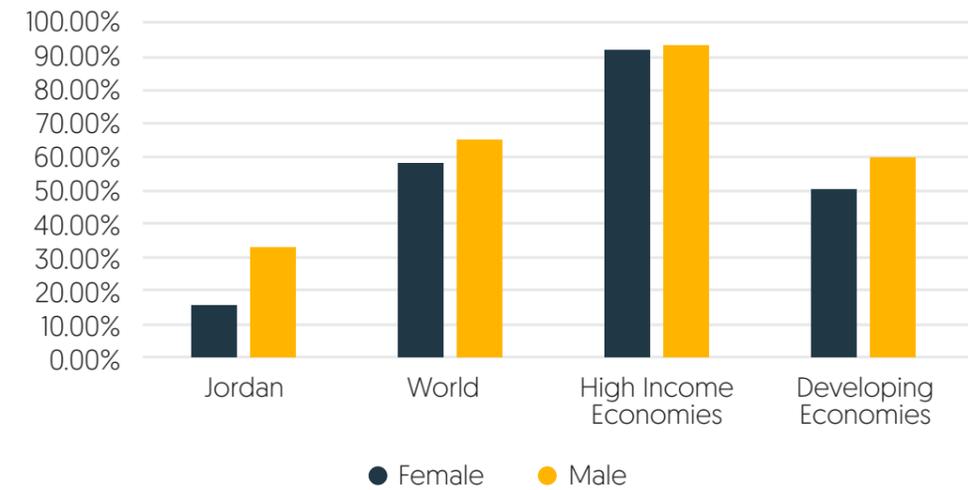
The two conducted experiments, despite their relatively short duration, collected valuable insights based on customer experience, customer behaviour and customer feedback. Those insights are fundamental to enhancing existing services, to closing gaps in the service cycle and consequently to increasing access to and active usage of mobile wallets. Some of the key recommendations to the digital financial services sector following the experiments are: first, increase financial awareness efforts; second, introduce long term loyalty programs and promote them effectively; third, maximise efforts to make the service more visible; fourth, target female community leaders to reach more women; fifth, follow-up closely and regularly with agent; and sixth, address clients' feedback on technical challenges with high priority. Throughout this journey, the most informative element of the experiments were the interactions with the clients themselves.



## Introduction

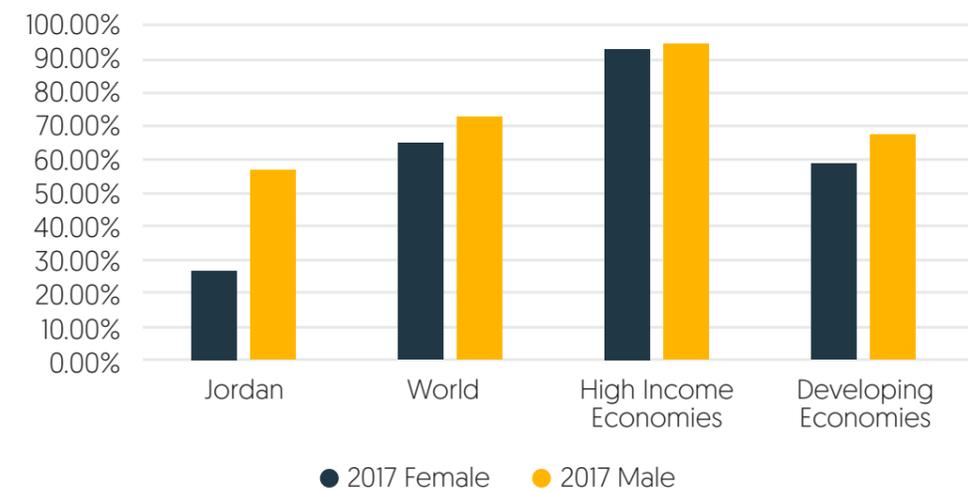
The use of and access to financial services globally have not escaped the grip of gender inequality. The World Bank's Global Findex database reported a 7 percentage points gap between male and female account ownership globally (Figure 1). This gap is similar in developing economies, albeit the overall lower levels of account ownership. This consistency in the gender gap is lost in Jordan, which has the world's single highest gender gap in terms of account ownership. Consequently, the demonstrated increase in financial inclusion in Jordan has been asymmetrically skewed against female users, providing further evidence of the inequalities prevalent in the Jordanian society.

### 2014 Account Ownership



**Figure 1 a:** Percentage of adult population by gender with an account at a bank in 2014 in Jordan, the World, High Income Economies and Developing Economies [Global Findex 2014]

### 2017 Account Ownership



**Figure 1 b:** Percentage of adult population by gender with an account at a bank in 2017 in Jordan, the World, High Income Economies and Developing Economies [Global Findex 2017]

Digital Financial Services describe the broad range of financial services accessed and delivered through digital channels, including payments, credit, savings, remittances, and insurance. The digital financial services (DFS) concept includes mobile financial services (MFS) [Alliance for Financial Inclusion, DFS Basic Terminology, 2016]. Digital financial services hold huge potential in assisting communities to traverse the socioeconomic difficulties disproportionately faced by marginalised communities. This potential manifests in a number of demonstrated tangible benefits. For example, equal access to and usage of digital financial services provides individuals with financial agency and independence, meaning that users of digital financial services can claim undisputed ownership of their funds, where no other individuals can have non-consensual access to their accounts. Furthermore, digital financial services offer financial institutions better insight and understanding of the financial behaviour of the user, facilitating the extension of credit facilities for those users with reduced risk in times of financial stress, or in order to grow their businesses and initiatives.

The continuous advancement of technological solutions in the modern world has resulted in an unprecedented variety of different technological applications in financial services and banking. This has largely produced and benefited from more consistent and reliable data on users' behaviour. This data has been largely harnessed by financial institutions globally to offer products that better suit their consumers' needs. From neobanks to mobile wallets, different alternative financial products arose, giving consumers higher freedom of choice and enabling healthy competition between financial and payment service providers.

However, the increasing gender gap in access to digital financial services in Jordan insinuates that this data has not been appropriately utilised with regard to female users. Although no evidence suggesting a causative relationship exists, a firm insight from the large gender gap, in spite of fintech development, is that female clients may not perceive these fintech developments as meeting their needs or positively contributing to their lives. This lack of evidence is a contributor to the problem at hand, rather than a consequence of it. Lack of data, both quantitative and qualitative, on the financial needs and behaviours of female clients incapacitates the financial sector, as well as entities working in the financial inclusion sphere to design and produce products to better meet women's needs.

The Central Bank of Jordan has taken a pioneering step towards enhancing financial inclusion of disenfranchised communities in the kingdom. Through the National Strategy for Financial Inclusion, the Fintech sandbox, and its partnership with the Bill and Melinda Gates Foundation for the Mobile Money for Resilience (MM4R) fund, the Central Bank has adopted multiple channels to exert its influence over the financial sector to promote equal access to and usage of financial services. The Central Bank has therefore adopted an enabling approach towards financial inclusion in the kingdom.

The Jordan Payments and Clearing Company (JoPACC)'s first strategy for the years [2019-2022] has set the high-level goal of "Comprehensive and Innovative Digital Payments solutions benefitting all and contributing to the financial inclusion in Jordan, towards achieving a digital economy", hence JoPACC exercises and intervenes across multiple pillars to increase the Digital Financial Inclusion in Jordan. The Arab Women's Enterprise Fund (AWEF) stimulates increased women's economic empowerment through a market systems approach. This addresses gaps in women's economic empowerment in the MENA region, which has one of the lowest rates of female labor force participation in the world. JoPACC's and AWEF's visions strongly intersect in the pursuit towards female economic and social empowerment, paving the way for a partnership aiming to better understand the social, technological and economic obstacles coming in the way of women's access to and usage of digital financial services as instruments towards achieving more resilient and economically capable female communities within Jordan.





## What are Digital Experiments?

Digital experiments are interventions in the current business, technical, awareness, or communication strategies governing digital financial services. They range from a marketing and awareness pitch to a new technological solution, or even to a new business model capable of enhancing the specific area of focus. They aim to analyze the impact of services and solutions, address unforeseen challenges and gaps, and introduce ideas that increase the uptake of digital financial services. They further put claims and theories to the test before making decisions on how to address potential gaps and enhance offered services.

Market research and analysis in Jordan is relatively low, especially in the Digital Financial Services ecosystem. This, compounded with the lack of accessible and reliable data has had a negative impact on the growth and adoption of Digital Financial Services by consumers in the market. This lack of tangible understanding represents a drift between the offerings of the service providers and the needs and expectations of consumers. The ultimate aim of Digital Experiments is to extract and disseminate knowledge from the market, to reverse this drift between the service provider and the consumer, in the hopes of the former offering products and services that will better meet the needs of the latter.

To this end, the Arab Women's Enterprise Fund (AWEF) and Jordan Payments and Clearing Company (JoPACC) partnered to conduct two experiments focused on women's inclusion in digital financial services. Women's uptake of mobile wallets in Jordan is extremely low and their active use is limited. 1,9% of Jordanian men use DFS while only 0,1% of women use those services [Global Findex 2017]. The conducted experiments investigate whether loyalty programs and digital loan payments combined with digital financial awareness and agent network expansion encourage the active use of mobile money by women.



03

## Instant Gratification: Incentivizing Access for Female Clients

This experiment investigates the impact of facilitating the payment and repayment of microfinance loans to women through mobile wallets on encouraging adoption and active usage of mobile wallets and thereby increasing the financial inclusion of women. The experiment targets a sub-segment of women, who have existing financial responsibilities and transactions. By enabling access to mobile wallets, the experiment tries to shift those into the digital financial arena.

The experiment has been conducted in collaboration with the mobile payment service provider Mahfazti and the National Microfinance Bank (NMB) in East Amman. The National Microfinance Bank has an interest in introducing the payment and repayment of loans to their clients through mobile wallets and is partnering with Mahfazti on the service. They planned to kick off the service as a pilot in one branch before expanding it to other branches.

The pilot kicked off in an NMB branch in Marka as part of the experiment. Mahfazti has 5 agents in the area, which would facilitate access to services to wallet holders. Those agents are exchange houses and Umniah branches in addition to ATMs, and offer cash-in and cash-out services besides general assistance to customers. Marka NMB branch has nearly 2000 female clients and the experiment aimed to reach 1000 clients. To incentivise opening wallets, NMB contacted all female clients of their Marka branch and promoted an incentive of cash in the wallet and a free companion card upon opening wallets. Any female client who owns a smartphone could benefit from this incentive. Additionally, and with the purpose of offering better access to information, Mahfazti placed a female staff member in the NMB branch for one month to attract female clients, open mobile wallets for them and grant them the promised incentive. Moreover, a monthly draw on a smartphone was part of the experiment to reward active usage. Eligible participants in the draw are clients who make a specific number of transactions in a set period of time.

At a later stage during the experiment, an awareness session was organised for NMB female clients. The awareness session introduced the concept of a mobile wallet, its benefits, and advantages and addressed clients' rights and responsibilities. To encourage attendance and active engagement, a draw for gifts was held at the event, and attendees were asked to answer a quiz at the end of the session, with high scoring attendees entering another draw the next day.

In the last month of the experiment, focus groups were held with clients of NMB to get their feedback on the whole journey: from opening wallets to benefiting from incentives to the impact of the awareness session to finally the technical experience with the wallet and their level of activity.



04

## Sustained Gratification: Incentivizing Usage of Female Clients

While the uptake of mobile wallets is generally on the rise in Jordan given the intensive efforts targeting access, active usage is still not equally high. This calls for a shift in focus towards usage. This experiment looks into whether the premise of short-term incentivisation helps position mobile wallets “top of mind” for women and promotes sustained usage. It specifically has the following objectives:

- Increase female usage of digital financial services
- Investigate and understand the obstacles facing females in the usage of mobile wallets
- Test the effect of interactive literacy sessions on the acceptability of digital financial services

This experiment, conducted in collaboration with the mPSP Zain Cash, involved an investigation of the impact of incentivizing and rewarding transactions through mobile wallets on the usage patterns of female users. The experiment was conducted in the city of Jerash in the north of Jordan targeting female users of the mobile wallet in the city. The selection of Jerash was made upon the recommendation of the partner mPSP and with the interest of assessing the impact of the intervention in a governorate other than the capital city.

The intervention in this experiment is the introduction of a tiered points-based loyalty program driven by the number of transactions. The loyalty program was developed in collaboration with Zain Cash to ensure it attracts users based on their financial behaviours. Users were able to redeem their points for digital money in their wallets, in addition to being included in weekly and bi-weekly draws. The weekly draw was on payments made and 2 winners were selected weekly to have their payments paid back to them. The bi-weekly draw was on electronics. Eligible clients for both draws made 2 transactions or more weekly.

To accurately measure the impact of the loyalty program, the financial behaviour of clients before, during and after the loyalty program is tracked to answer the question of whether incentivizing usage of mobile wallets by rewarding loyalty has a positive influence on the usage and adoption of mobile wallets and digital payments by female end users. Furthermore, an awareness event was organised in the city of Jerash and 60 women attended. A female agent and community leader led the training on what a mobile wallet is, how it can be used, what benefits it has and the rights and responsibilities of using it.

Moreover, and to enable access to agents in Jerash and neighboring Ajloun for the beneficiaries of the experiment, a partnership was established with Jordan Post Company to have post office branches serve as agents to all mPSPs, through the Unified Agent Interface (UAI) that was developed by JoPACC. The Unified Agent Interface is a solution JoPACC developed to assist agents to partner with more than one mPSP and serve clients of all mPSPs by having a unified access portal to all their applications. Agents have so far mostly partnered with one mPSP and served only the clients of the respective mPSP.

Post offices enjoy a high level of trust by citizens and are widely spread across the kingdom, besides the fact that utility bill payments are possible through them. They further serve beneficiaries of national programs, such as the National Aid Fund (NAF). Many NAF beneficiaries have wallets, and instead of receiving their aid through post offices they can now benefit from post office serves as agents. A total of 10 post branches- 5 in Jerash and 5 in Ajloun- have been equipped and trained to serve as agents to mobile wallet services. Agent responsibilities include mobile wallet registration, cash-in, cash-out and general assistance to clients.



# 05

## Methodology

A toolbox of different intervention techniques was used for the purpose of each of the two experiments. An agile approach was applied during the course of the experiments, where interventions were adjusted as insights were identified during implementation.

Each experiment was conducted in partnership with a Mobile Payment Service Provider (mPSP). The experiments followed the high-level approach of introducing a primary intervention, offering digital financial awareness sessions, and holding focus group discussions to collect the direct feedback of beneficiaries. During the awareness sessions, the attendees' knowledge was assessed through evaluation sheets. Throughout both experiments, technical issues were addressed as they arose.



The experiments were implemented in two separate geographical areas. The first experiment, investigating sustained gratification, was implemented in the Jerash Governorate. This was achieved through a partnership with the mobile Payment Service Provider Zain Cash, who identified a set number of existing female clients who were enrolled in the experiment. The selection was independent of age, marital status, occupation status or any other factors besides gender.

The experiment investigating instant gratification was implemented in Marka, an administrative area of East Amman. This was achieved through a partnership with both the National Microfinance Bank (NMB) and the mobile Payment Service Provider Mah-fazi. The invited list was composed irrespective of age, marital status, occupation status or any other factors besides gender. This was done to NMB's existing pool of clients, in addition to any new clients during the course of the implementation.

The primary interventions were implemented during the entire course of the experiment, except during the preparations stage. Each experiment was unique in the primary intervention employed. A description of the methodology of each primary intervention is described below:

### **Sustained Gratification: Incentivizing usage**

The experiment targeting sustained gratification, and incentivizing usage of digital financial services involved the introduction of a multi-tiered loyalty program to reward active usage of mobile wallets of existing female clients. Three levels of incentives were implemented as part of the experiment: digital money back against collected points, weekly draws, and bi-weekly draws.

**I. Points against Number of Transactions:** One transaction is rewarded with 5 points. Each point equals 10 piasters. Cashback in the wallet is given after collecting 25 points.

Nr of Transactions	Equivalent in points	Equivalent in money
	1 point	0.10 JOD
<b>1 transaction</b>	5 points	0.50 JOD
<b>5 transactions*</b>	25 points	2.5 JOD
<b>10 transactions**</b>	50 points	5.0 JOD

\*Minimum number of points redeemable

\*\*Maximum number of points redeemable per week

**ii. Weekly Draws:** Holders of 10 points and above benefit from a weekly draw to get the value of one bill back – 12 in total. The bill should not exceed 30 JOD. The draws have one winner every week in the first 4 weeks, and the number was increased to two winners afterwards until the end of the experiment to maximise the reach of the program.

**iii. Bi-weekly Draws:** Bi-weekly draw -6 in total- to win home appliances (hairdryer, hair straightener, water kettle, toaster, mixer, electrical heaters). To enter the bi-weekly draw, clients should have made a minimum of 2 transactions.

### **Instant Gratification: Incentivizing access**

NMB communicated with 2,000 of their existing female clients in their Marka branch (East Amman). The message invited clients to open a mobile wallet at the Branch to receive a financial reward, in addition to other rewards. A condition for receiving this reward was the possession of a smartphone, to ensure activation and future usage of the mobile wallet. Beneficiaries were also given a complimentary prepaid card, mirroring the wallet's balance. A member of Mahfazti's team was stationed at the branch 3 days a week, for four weeks, to introduce women frequenting the branch to the mobile wallet and open a wallet for them. The staff at the branch were also acting as account opening agents. Once female clients

opened a wallet and activated it as instructed, they would receive a financial incentive of 10 JODs. The incentive was first set to 5 JOD; however, it was increased to 10 JOD following consultation with partners, who elucidated that 5 JODs would not incentivise clients as it is the average cost of commuting to and from the branch. Clients who actively used their wallets were enrolled in a monthly draw for a smartphone.

### **Awareness Sessions**

A second pillar of the interventions was increasing awareness and literacy in digital financial services. This was achieved through awareness sessions held in the respective local communities, including multiple sessions highlighting the services offered by the partners of each experiment, and a primary segment focusing on mobile wallets and digital financial services. Additionally, an awareness video on the legal rights and responsibilities of using mobile wallets was produced and used in awareness sessions. The female instructor chosen for this task was a community champion of mobile wallets and a small business owner from the community, who presented and discussed mobile money, its uses, and the different stakeholders involved in the mobile money ecosystem in an understandable and relatable way. The session was highly interactive, and invited women to voice their concerns and opinions on their financial lives more generally. The main topics covered were:



During the Marka event, which took place in the first week of February, a post-assessment was conducted on the topics covered. During the event that took place in Jerash, pre- and post-assessments were conducted to measure the increase in literacy as a result of the sessions.

## Focus groups

Focus groups were conducted with a select number of beneficiaries to better understand their experience with using mobile wallets, the experiments, and any issues they may have faced. Five focus groups were held in the Marka branch for NMB clients with an average of 4 clients in each group, where the sessions were conducted as “round-table discussions”. For the Jerash experiments, the focus groups were held through a telephone call and were one-on-one in nature. The outputs of the focus groups, which were highly informative, in combination with the quantitative data presented in this report, form the basis for much of the Discussion and Recommendations of this report.

## Methods of Analysis

### Analysis of Awareness Events

During the awareness event, participants were asked to fill both a pre-assessment and a post-assessment. The assessments were nearly identical, apart from a few different questions. This was done in order to assess the impact of such awareness sessions on the financial literacy of the beneficiaries. In doing the assessment, our interest was purely on the change in performance between the pre and post assessment, and not the level of literacy itself. In order to measure the difference in literacy, the percentage of correct answers for each test were calculated, and the difference in percentage points was derived. If the difference was positive, then the beneficiary’s literacy was impacted positively by the awareness sessions, and if the difference was negative then the beneficiary’s literacy was impacted negatively by the awareness sessions. Furthermore, the two sets of data (pre- and post-) were tested for statistical difference, using a one tailed paired t-test, with confidence interval being 0.05.

### Analysis of Sustained Gratification Result (Loyalty Program)

For the purpose of this experiment, we aim to investigate whether the usage of mobile wallets by female clients will increase as a result of the loyalty program. Therefore, our alternative hypothesis [H\_a] is that women’s usage of mobile wallets will increase after the introduction of the loyalty program. Our null-hypothesis [H\_0] is that there will be no statistical difference in usage taking place following the implementation of the loyalty system.

In order to reject the null-hypothesis [H\_0], and accept the alternative hypothesis [H\_a], we ran a one-tail paired t-test on the usage data of the women participating in the experiment before and during the intervention. The pre-experiment data, which acted as the baseline for this experiment, spanned from (September 2019 - November 2019), inclusive.

Furthermore, a deep-dive was taken on individuals belonging to different activity levels. For the purpose of this experiment, we assumed that an active user is one who performed a minimum of 3 transactions in both the pre and the post experiment periods. The success of the intervention was measured for Active to Active [A2A] group, who here are defined as those users who were active before the start of the experiment, and remained active during the experiment, and for Non-active to Active [I2A] group who were inactive users before the commencement of the experiment and became active users during the experiment.

### Analysis of Instant Gratification (Digitizing microloans)

The data for the opening of wallets and usage by the beneficiaries were provided by Mah-fazti. These were used to understand the other interventions that may have influenced wallet openings, and the type of transactions that were prominent through the opened wallets.

### Timeline

The timeline for the experiments is shown in the Gantt Chart below. The experiments spanned four months in total, beginning in December 2019 and ending in March 2020.

	December				January				February				March			
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
Prep																
Primary Intervention																
Agent Enablement																
Awareness Session																
Focus Groups																
Analysis																



# 06

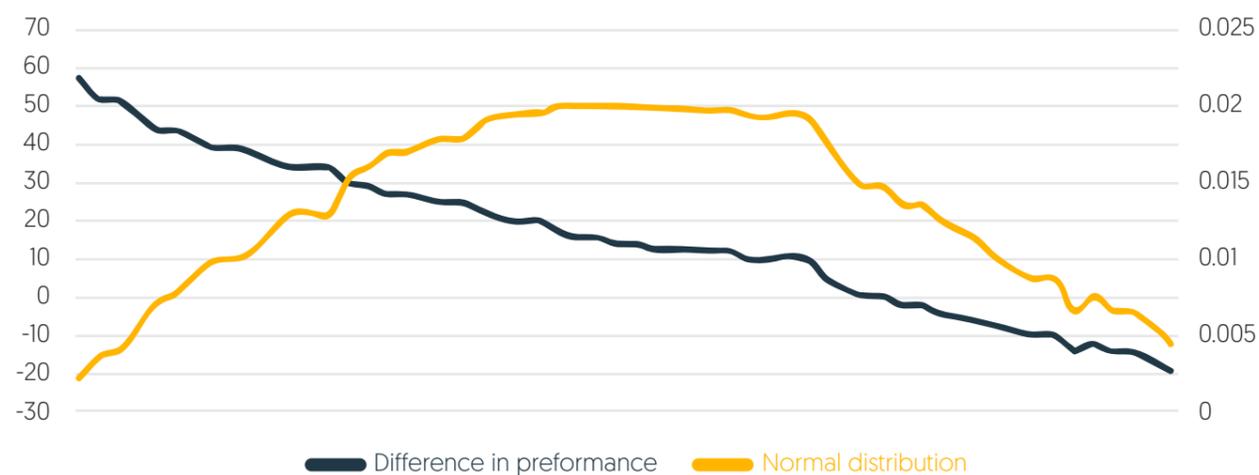
## Key Findings

### Impact of interactive awareness sessions on financial literacy

As discussed above, the measure of interest here is not the performance on the assessment sheets, but the difference in performance before the awareness session and after it. Given that the pre-assessment was only applied to the Sustained Gratification experiment, we first ran an unpaired two-tailed t-test on the post-assessment in Jerash, and the Marka branch. The p value was found to be  $[p=0.75]$ , which is much higher than our confidence interval of  $[0.05]$ , therefore, we can conclude that the post-assessment of both awareness sessions were not significantly different and therefore had similar results.

As for the Sustained Gratification event, generally speaking, participants were impacted positively in terms of financial literacy as a result of the awareness session. The average participant improved by 15.6 percentage points after participating in the awareness session. Figure 3 shows the normal distribution of the participants' change of score [orange, right axis], against the actual difference in percentage points [blue, left axis]. More importantly, the results of the paired t-test were  $[p=7.05 \times 10^{-8}]$  which is much lower than our confidence interval of  $[0.05]$ . This means that the women performed significantly better on the post-assessment than they did on the pre-assessment.

## Difference in performance in pre- and post-assessments



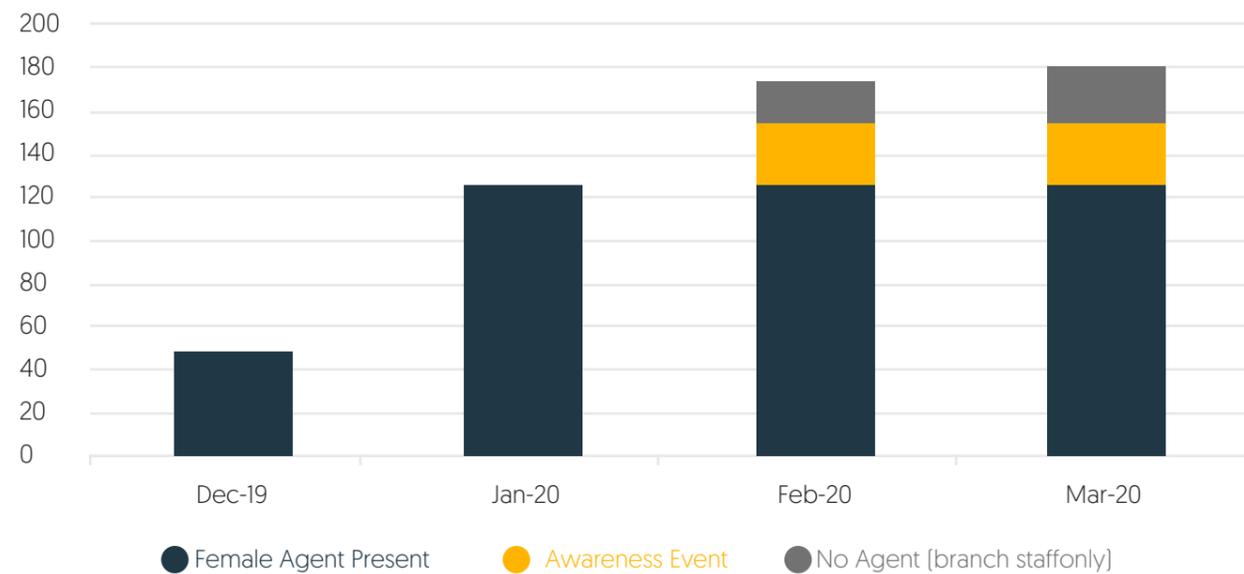
**Figure 3:** The normal distribution of the change in performance on the assessment following the awareness session [orange and right axis] and the actual difference in percentage point [blue and left axis]

Interestingly, the beneficiaries who experienced a negative difference in percentage points between the post and pre assessment, predominantly performed very well on the pre-assessment, suggesting they were already comparatively financially literate. This subsample represents less than 20% of the entire group. The average score for the pre-assessment for this subsample of the group was 64.3, compared to the global population's average of 48.3. However, in the post-assessment this subsample average score was 54.8, whereas the global population's score was 63.9.

## Instant Gratification: the impact of incentivising access

Around 180 women in total opened wallets. This was approximately 18% of the targeted female base. Interestingly, the rate of women opening wallets for this experiment also indicated that other independent variables were also influencing wallet opening for women. The independent variables identified, which were complementary to our primary intervention, were: the presence of the female agent, and the awareness event. The relationship between these particular factors and wallet opening by female clients is apparent in figure 4, which shows the cumulative number of wallets opened during this experiment. Although it is worth keeping in mind that the sequence of the intervention, and the time from commencement are also very important independent factors, it is apparent that the presence of female account-opening agents potentiated the effects of the incentivisation, and yielded a high number of wallet-opening in December and January. In February, the Awareness Event was held and led to 30 women opening wallets [50% of the attendees of the session, although an undetermined number of attendees had already opened wallets].

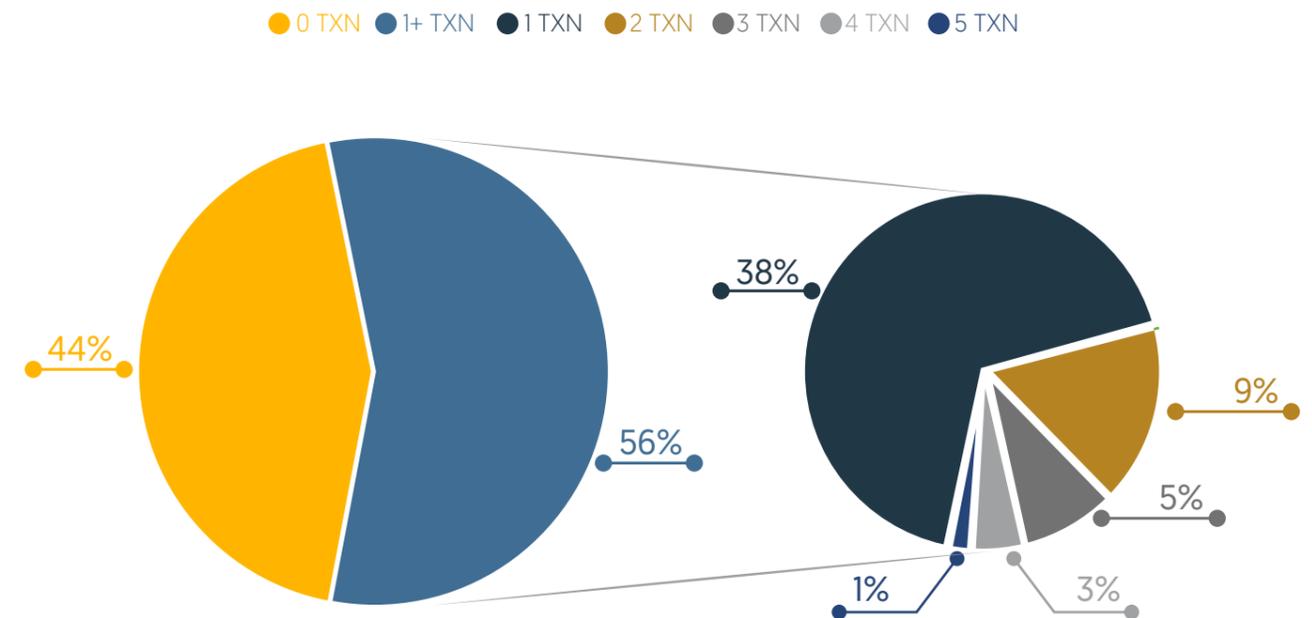
## Increasing Access: How the indirect factors preformed



**Figure 4:** The number of wallet openings per month segmented by the type of intervention employed during that month

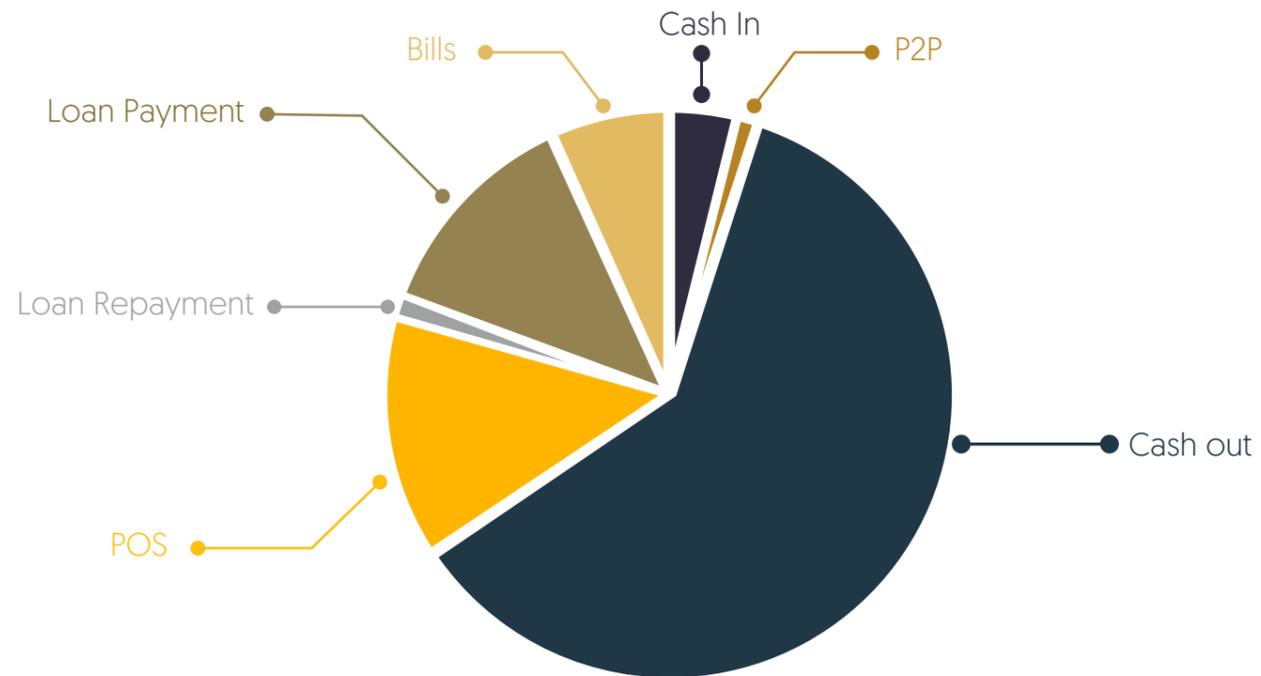
Looking past access to digital financial services and into usage of these services through this experiment, the results indicate that by incentivising access, results stopped at access. Of the total number of clients who opened wallets, only 56% used it. In fact, 44% of the clients did not perform a single transaction on their mobile wallets. Of the 56% who did use the wallet, 38% used it once, 9% used it twice, 5% used it three times, 3% used it four times and 1% used it five times [Figure 5]. Of the 160 transactions, 61% were cash outs [figure 6].

## Usage of opened wallets (number of transactions) varied



**Figure 5:** The number of transactions taking place on the opened wallets of the beneficiaries of the experiment

Transactions by transaction type

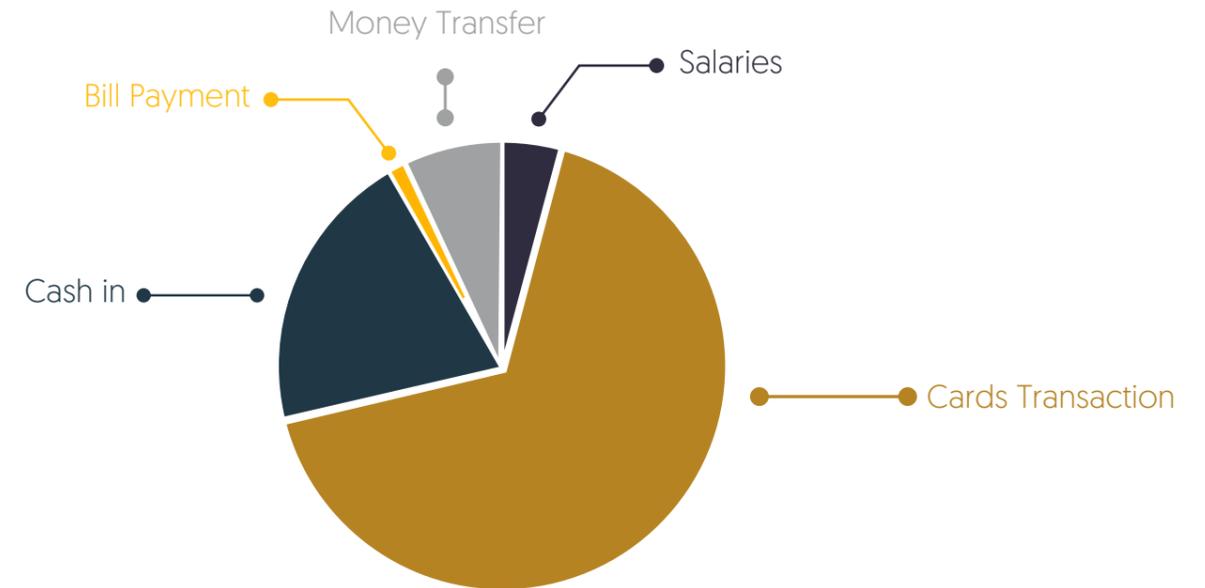


**Figure 6:** The transactions segmented by transaction type of the opened wallets for the experiments' beneficiaries

### Sustained Gratification: the impact of rewarding usage

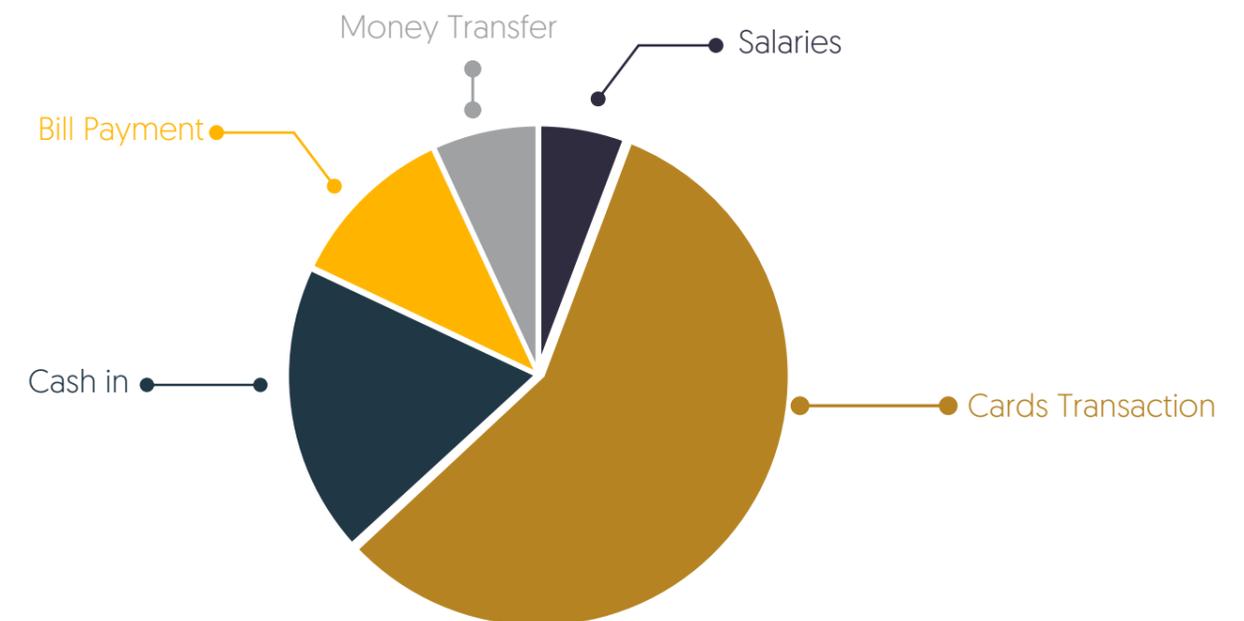
In total, there was a 37.7% increase in the number of transactions during the active implementation of the loyalty program. More importantly, the p-value for the one-tailed paired-test was [ $p=0.0965 < 0.1$ ], therefore, we can reject the null hypothesis with 90% confidence, and accept our alternative hypothesis that the implementation of the loyalty program increased the beneficiaries' usage of mobile wallets, compared to the pre-intervention levels.

Transactions before



**Figure 7 a:** The proportion of transactions by transaction types before the experiment

Transactions after



**Figure 7 b:** The proportion of transactions by transaction type after the experiment

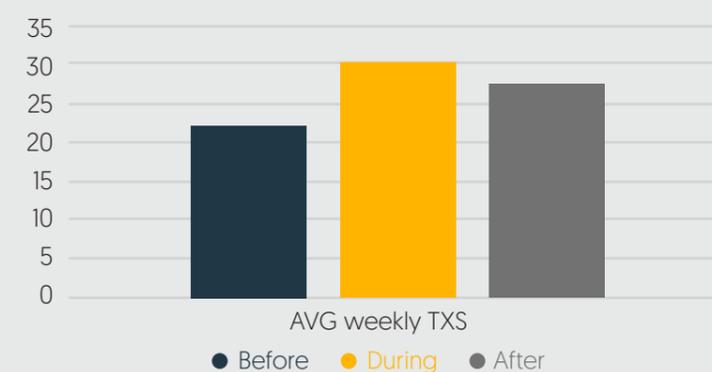
Figures 7a and 7b show the proportion of each transaction type both before and after the experiment, where the latter volume was 37.7% higher. This sheds light on the usage patterns of mobile wallets both before incentivisation and after incentivisation. These figures first highlight the pervasiveness of card payments, both before and after the intervention, amongst the beneficiaries, where in both cases card payments dominate the uses of mobile wallets. Bill Payments showed the highest relative increase, which can be attributed to the bill-back incentive given, suggesting that incentivising bill payments specifically holds great potential as these are universal payments applying to most adults.

The percentage of active clients before the experiment according to the metric defined above was 18.4% of the selected population, and the percentage of inactive clients before the experiment was 81.5%. Of the beneficiaries who were active before the start of the experiment, 57% remained active users post-experiment. This A2A group's transaction increased by 65.7%. Of the beneficiaries who were inactive before the start of the experiment, 4.7% became active during and post experiment. This I2A group had no transactions before the experiment, but showed a significant increase during and after the experiment. In total, the beneficiaries that were classified as active at the end of the experiment, regardless of their classification before the experiment, demonstrated a 91% increase in their activity as compared to the pre-experiment period.

## Post-intervention

Following the commencement of the implementation period, in mid-March, the financial incentives were terminated for the participants of the experiment, where monitoring of the financial behaviour of the clients persisted. This was done in order to investigate whether the loyalty program had long-lasting effects in demonstrating the value of mobile wallets, without the presence of the financial incentives, or whether the increase in usage was attributed only to the expectation of financial reward. The period for the post-monitoring was approximately two weeks. To assess the change in behaviour following the cessation of the loyalty program, the total average transactions per week were calculated for the pre-intervention period, during the intervention, and post-intervention where no financial incentive was awarded. Figure 8 shows the results of this analysis, where there is demonstrated evidence that the loyalty program's positive effects on usage continued following the end of the experiment. It is worth noting here, however, that there is high contextual influence exerted on the data. The post assessment period, which spans the 15-31st of March coincided with the Jordanian Government's quarantine enforced to curb the spread of the COVID-19 Pandemic, which began on the 17th of March. This data, therefore, is testament to the importance of digital financial services in times of crisis, and likely demonstrated both the effects of the loyalty program, in addition to the imperative utility of Digital Financial Services in times of crises. This is substantiated by the fact that during the country-wide lockdown, agents were not available for cash-ins, insinuating that the results would be more prominent if that was possible. In times of crises, such as the COVID-19 Pandemic, the value of digitisation becomes more apparent, where digital payments shift away from the realm of convenience to that of necessity and survival. During the monitored period of the curfew, we can conclude that the beneficiaries of these experiments were able to more safely and frictionlessly proceed in their financial transactions.

### Average Number of Transaction per week



**Figure 8:** The average number of transactions taking place across the pool of beneficiaries before, during and after the experiment



# 07

## Discussion

### Financial Incentive

In the experiment on incentivizing access to mobile wallets for microfinance clients, a financial incentive was put in place aiming to reach 50% of the female clients of the National Microfinance Bank branch the experiment was conducted on. The branch has nearly 2000 female clients and the target was to reach 1000 clients. Over a period of 3 months, 18% of the clients opened wallets. Through discussions with a sample of clients, which took place both during the focus groups and the awareness session, it became evident that the lack of interest was based on a lack of understanding of the service. Moreover, to reach the branch to open a wallet and receive the incentive, clients would need to pay for transportation. This leads us to a powerful conclusion with regard to access of mobile wallets: proper financial literacy and awareness of the mobile money service is much more valuable to female clients than account opening incentives.

### Financial Awareness

Generally speaking, there is a common expectation that the uptake of mobile wallets would be rapid because of their advantages of saving time and cost in addition to their simplicity and facilitation of transactions and payments for a variety of services along with the spread of agents of all types that make the service easily accessible. However, when targeting the unbanked population, the introduction should involve in-depth financial awareness that familiarises potential users with the use of applications to manage financials and builds trust in the whole cycle of the service; from the regulator to the mPSP to the agent. Moreover, unbanked potential users are often unaware of their rights and responsibilities in financial services, which makes them hesitant to manage their money through a mobile application. In the conducted experiments, the transaction levels of users increased significantly following awareness sessions, and attendees of those sessions confirmed that their primary motivation of using mobile wallets came from holistic understanding of the service, and the opportunity to discuss their concerns with the service provider. Financial awareness proved to be a stronger driver than financial incentives.

## Loyalty Program

There is no evidence that the loyalty program necessarily resulted in an increase in mobile wallet ownership. However, the rise in transaction levels was remarkable. 14% of clients targeted in the experiment on incentivizing usage have significantly increased their activity level during the experiment, where this group's transactions nearly doubled following the loyalty program. This loyalty program, through sustained gratification, gave positive reinforcement for clients whenever they used the wallet. This act of positive conditioning evidently improved the perception of mobile wallets for the experiment group, where a global statistical increase was observed following the introduction of the loyalty program. Additionally, this is partially due to the increased liquidity that was achieved through the actual rewards. However, the fact that clients were not cashing these financial incentives out was a powerful indicator. The other cause for this rise in transaction levels is the growing confidence in the service provider for delivering what's promised in the loyalty program, and the growing convenience in the use of the application.

## Technical Experience

The first few encounters with the mobile wallet determine how user-friendly clients find the solution and build trust in the service, the service provider, and its agents. In the experiment on incentivizing access for microfinance female clients, the delay in receiving the promised incentive upon opening a mobile wallet (10 JOD in the wallets) has shaken the confidence of clients in the service provider. Furthermore, struggles with the companion card, withdrawals through ATMs and reaching the service provider helpline pushed clients away. Clients have demanded that transaction fees are available in the mobile wallet application, not only on the mPSPs' websites. Enhancing the level of service is key to securing active usage of clients.

## Agents' Role

Agents are at the frontline of serving and interacting with customers. During the experiment on digitizing microloans, it has become clear that some agents are charging more than what is communicated by the mPSP for cash-out. In addition, wrong information was shared by agents that caused confusion for clients. One example is that if you leave no money in the wallet it will be terminated. Given the crucial role agents play in the service cycle, proper on-boarding and regular close follow-up should be a priority for mPSPs.

## The Power of Representation

The involvement of women in offering services to female clients was prominent in the experiments. Both awareness events were led by a woman who received a similar training before and decided to become a trainer on mobile wallets. She and her husband co-own and operate a local small business, and she has the aspirations of becoming an agent for one of the mPSPs. Her contribution to the experiments was genuine because she is a mobile wallet user herself. Moreover, and during the process of equipping and training post office branches to serve as agents, it was notable that almost 80% of employees in those branches are women. Additionally, a female staff member was stationed at NMB branch to attract micro-loan clients to open wallets. Women are strongly represented in the service cycle and it is believed they play an integral role in boosting the confidence of female users in the service.

## Digital Payment Acceptance

Digital Payment Acceptance refers to the acceptance of merchants of digital forms of payments for goods and services. Approximately 67% and 57% of total transactions for the period before, and during respectively were due to card payments. This sheds the light on the overwhelming demand across different socioeconomic backgrounds for a pervasive and reliable digital payment acceptance infrastructure. Digital Payment Acceptance in Jordan is to date, highly underdeveloped. Despite the country's developed payment rails and above average financial infrastructure, at the periphery, digital payment acceptance remains centralised in large urban centers and facilitated solely through cards. Payment Service Providers should especially focus on increasing digital payment acceptance in order to meet demand and avoid customer frustration and eventual churn.

## Recommendations and Conclusion

The two conducted experiments, despite their relatively short duration, collected valuable insights based on customer experience, customer behaviour and customer feedback. Those insights are fundamental to enhancing existing services, to closing gaps in the service cycle and consequently to increasing access to and active usage of mobile wallets. The ultimate foreseen impact of such interventions is increasing the financial inclusion in Jordan generally, and the financial inclusion of women specifically; the two high-level goals of the National Financial Inclusion Strategy of Jordan.

The following are the **key recommendations of the experiments** to all mobile payment service providers (mPSPs):

- Increasing financial awareness efforts and offering practical guidance on the use of wallets are crucial for the growth of their businesses and the increase in financial inclusion. This is perhaps the most important element of acquiring sustainable new clients.
- Invest more in introducing the service fully to clients versus the quick registration to reach sales targets. This initial investment will be positively noticed in reduced churn rates.
- Introducing long term loyalty programs and promote them effectively, more importantly through consistent communication channels with the clients and positive reinforcement while using the service, as was done here with the loyalty program, can build strong customer loyalty
- Maximise marketing efforts to make the service more visible and recognizable.
- Target female community leaders to reach more women and commit to increase female participation in the agent network, as this will reinforce the trust of women in the service and the provider.
- Follow-up closely with agents and check the quality of the services they provide. "Mystery Shoppers" may be necessary to ensure that the service offered at the primary point of interaction between mobile money and the clients [agents], are not contradicting the mPSPs vision and strategies. Moreover, invest in expanding the agent network and in the acceptance of mobile wallet payments by merchants.

قيمة إعداد الميزانية

08

توفر النموذج الكافية للقيام بالأشياء التي يرغب أو يحتاج إليها الفرد

بشكل

تساعد الفرد على وضع أولويات الإنفاق والتركيز على الأمور الأكثر

أهمية.

تساعد الفرد في تصنيف النفقات وتحديد الأولويات في ذلك.

تساعد على منع حدوث قصور في النقود، والاستعداد للحالات الطارئة.



- ▶ Address clients' feedback on technical challenges with high priority, and ensure consistent and available communication lines with clients for customer service.
- ▶ Share transaction fees on the application to make them easily accessible to clients.
- ▶ Avoid delays in any promised advantages or incentives, or any promised services. In addition, streamline the user journey throughout the process.

In conclusion, these digital experiments proved to be valuable tools to assess, enhance and resolve issues in the service cycle. Throughout this journey, the most informative element of the experiments were the interactions with the beneficiaries themselves. As previously mentioned, financial literacy is of paramount importance. That being said, all women who did partake in the experiments demonstrated an undeniable understanding of the core foundations of the world's financial system: Trust. Through every discussion, brief or long, beneficiaries exhibited their desire for a service that they can trust with the utmost pragmatism. Therefore, mPSPs and service providers more generally should direct their efforts towards earning that trust; be it through experimentation, communication or absolute transparency. JoPACC and its partners will remain committed to taking all necessary measures to enrich the knowledge of its stakeholders and disseminate knowledge across the financial sector, in the hope of nurturing this trust throughout the ecosystem.

# Digital Experiments From Access to Practice

Investigating Women's Access to and Usage of Digital Financial Services in Jordan

By: Enas Halaiqah and Moayad Ghannam

**April, 2020**

