



# **Digitalization of Government Payments in Jordan Report**

**Inward and outward payments between the Government and Individuals and Entities**



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## Introduction: Digital Transformation and Financial Services

For the past two decades, “on the go”, “around the clock”, and “real-time” have been key features of services in fast-evolving markets around the world. The services industry across a wide range of sectors has undergone a significant shift, transforming the supply chain and reshaping the demand landscape<sup>1</sup>. Financial services are no exception to this transformation journey, especially given the importance of financial inclusion to a thriving economy. Boosting financial inclusion and access to finance can make crucial contributions to economic development, enabling social mobility and ensuring that the largest number of people can participate fully and effectively in economic life<sup>2</sup>. According to the World Bank, financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit, and insurance – delivered in a responsible and sustainable way<sup>3</sup>. Financial market players worldwide capitalized on emerging technologies to digitalize financial services to boost their competitiveness, promote user uptake of advanced solutions and services, and contribute to financial inclusion.

While the private sector has pioneered the digital transformation of financial services globally, governments have been key target consumers. Realizing the need to serve citizens better, expedite processes, reduce operational costs and leakage in payments, and improve overall performance, governments have integrated digital transformation into their development plans and strategies to increase efficiency, transparency, and security. Governments have played and continue to play a critical role in driving digital financial inclusion through digitalizing services and payments, as they have the ability to influence user behavior and accelerate the adoption of digital financial services. More importantly, digitizing government payments enhances residents’ financial interactions with the government, resulting in measurable improvements to their lives.

The Government of Jordan has set ambitious goals to achieve digital transformation in both its long-term and short-term plans, striving to build a digital economy. Jordan’s digitalization efforts have been coupled with national strategies and enterprises to expand and diversify the offering of financial services, focusing on digital and tech-driven solutions and catering to the consumers’ needs. While it is still considered modest, the financial inclusion rate in Jordan has been on the rise in recent years, responding to growth in the digitalization of both incoming and outgoing government payments. Moreover, the refugee crisis in the region that substantially impacted Jordan, and all the humanitarian aid programs that followed, in addition to the COVID-19 pandemic and its implications on cash payments, have been critical factors in expanding and expediting the adoption of digital payment solutions by the Jordanian government.

The Jordan Payments and Clearing Company (JoPACC), a private shareholding company owned by the Central Bank of Jordan and all commercial banks in the



kingdom, is committed to promoting a comprehensive digital financial ecosystem as a major driver of digital financial inclusion and a digital economy in Jordan. It works to ensure that digital payments in the kingdom are safe, efficient, interoperable, accessible, and up to international standards. The fifth strategic pillar of JoPACC's current strategy focuses on analyzing services and financial market trends and producing and disseminating data-driven knowledge that informs decision-making among sector stakeholders. It is a firm believer in the value of comprehensive knowledge for both the decision-maker and the end-user to ensure the active and sustained usage of digital financial services. It further views knowledge as one of the cornerstones of increasing financial inclusion, as better-informed users are more inclined to use digital financial services actively and responsibly.

Given the importance of government payments in Jordan's digitalization journey and JoPACC's close collaboration with the government to provide a solid and advanced digital payment infrastructure, JoPACC is conducting this research project to analyze the stage of digitalization of Jordan's government payments, as well as the progress made and challenges encountered. This analysis endeavors to answer the research question: **How can the digitalization of the Jordanian government's payments lead to sustainable financial inclusion in Jordan, which empowers marginalized segments?** The findings will inform the development of policy recommendations for the government to assist it in setting realistic plans to overcome challenges and accelerate digitalization efforts, with the ultimate goal of improving livelihoods in the country.

## Methodology

This research employed a three-pronged approach to analysis, allowing for combining qualitative research with quantitative research. Referred to as data triangulation, this approach utilizes a variety of data sources to increase the validity and reliability of the findings. This report utilized secondary research, primary quantitative research, and primary qualitative research to answer the research question and form conclusions and recommendations. The produced analysis combines multiple data sources, holistically reporting on all of them to provide a macro picture of the government payment ecosystem while also utilizing micro insights from the different methodologies utilized.

- **Secondary Research:**

Secondary or desk research is used to form a comprehensive understanding of the overall market structure and landscape, trends, behaviors, and identifying sources supporting primary research. This was the first research method used for this project. The process included a comprehensive review of the pre-existing literature, research, and publications on inward and outward government payments. This included the government's digitalization vision and announced plans, reported progress and service adoption, and related decisions made. This phase was vital as it positioned the overall



research project within the scope of the modern trends in government payments. Furthermore, this approach was utilized to formulate several hypotheses which provide the primary input for the subsequent research approaches.

- Quantitative Primary Research

Quantitative research is the process of collecting and analyzing numerical data. It can find patterns and averages, make predictions, test causal relationships, and generalize results. Two quantitative research methods were used for this project:

1. *System Transaction and User Behaviour Analysis:*

This approach included a quantitative analysis of available data on digital government payments to understand the adoption of digital payments to the government. This was achieved by an in-depth analysis of the eFAWATEERcom System (Electronic Bill Presentment and Payment System) owned by JoPACC. As part of this approach, the appropriate transaction data were specified, the data custodians identified, the data of 64 government billers obtained, and the analysis of transactions and user behavior was thoroughly conducted. The analysis period covered the starting date of the system's inception in 2014 until October 2022.

2. *Face-to-face Interviews with End Consumers:*

Survey research entails gathering data from people interactively. To understand the sentiment, challenges, and trends regarding the usage of government services and the pertaining payment behavior of Jordanian residents, face-to-face Computer Assisted Personal Interviews (CAPI)<sup>a</sup> were conducted via a controlled sample from multiple governorates comprising 1,016 mixed-gender respondents, where 79% were financially included, and 21% were financially excluded. The data collection survey was a structured survey designed by the research team and conducted by the market research firm "Ipsos", which allowed respondents to provide close-ended answers that could be quantitatively analyzed. Each interview lasted around 25 minutes, and the interviews were conducted from Sept 16, 2022, through Oct 12, 2022. Additionally, the methodology included a pilot interview phase in which the sequence of the questionnaire was verified, and the performance and capabilities of the interviewers were evaluated prior to conducting real interviews.

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<sup>a</sup> CAPI, or Computer-Assisted Personal Interviews, is a method of collecting data through face-to-face conversations. This method involves using a tablet, mobile phone, or other computer devices by the interviewer to capture the responses given during an interview.



- Qualitative Primary Research:

Qualitative interviews allow for one-to-one time-intensive discussions with key persons to learn more about their unique experiences. They are crucial to getting insights and views from direct sources and are useful when detailed information about a person's thoughts and behaviors is needed. As part of this research, six face-to-face qualitative in-depth interviews with sector stakeholders were conducted. These included decision-makers from government entities responsible for orchestrating, regulating, and executing digital transformation, in addition to customer-facing and serving government entities and a prominent business association. The interviews sought to examine several aspects of the digital transformation in payments of government entities, with the intention of better understanding implementation strategies, progress, challenges, and needs associated with each entity's journey.

The interviews were conducted by an expert interviewer who used a special "discussion guide" designed based on the research objectives indicated by JoPACC. In addition, a JoPACC researcher attended the interviews to allow for interference and probing wherever necessary. The method used to analyze the interviews was the inductive thematic content analysis method, which begins with weeding out biases and establishing overarching impressions of the data. Common themes were formed organically, which helped identify repeated patterns across the data set. As in all cases of qualitative reporting, data was analyzed anonymously without direct references to the respondents. Qualitative analyses are ideal when trends, patterns, and anomalies are reported across the entire sample and not per respondent. All respondents were given the freedom to participate and were informed their feedback is treated with confidentiality.



## Section I: The Government of Jordan and Digitalization

### 1. Government Financial Management

The Organization for Economic Co-operation and Development (OECD) has highlighted financial management as one of the governments' critical competences in implementing national plans and meeting the needs of citizens<sup>4</sup>. In fact, government financial management represents a linear, traceable, and quantifiable trace of the government's actions, commitments to its promises and obligations, and overall efficiency. As is the case with the financial management of other types of entities, governments' finances can be viewed as belonging to two primary categories:

- A) Expenditure- that is the money that the government spends.
- B) Revenue- that is the money that the government acquires.

On the expenditure side, governments can either engage in current spending or capital spending. The former describes annual short-term expenses, including wages and raw materials, while the latter describes long-term investments in infrastructure and assets such as roads.

Such transactions can be categorized into multiple payment types, reflecting the actors involved in the transaction. The first type is when governments make payments to individuals (e.g., social welfare payments), termed Government-to-Person (G2P) payments. Next is when governments make payments to businesses (e.g., procurement of goods or services), termed Government-to-Business (G2B) payments. The final type refers to inter-governmental transactions (e.g., foreign aid payments), termed Government-to-Government (G2G).

Government revenue, on the other hand, largely comes from taxes and trade tariffs, fees for administered services, and revenue from capital assets and investments<sup>5</sup>. Quite commonly, government spending plans outweigh their revenues. In such an event, governments can opt to issue bonds to investors to reduce differences between revenue and expenditure<sup>6</sup>. As is the case with expenditure, government revenue can be categorized into multiple payment types that reflect the actors involved in the transaction: when individuals pay the government (e.g., Paying taxes), it is a Person-to-Government (P2G) payment. As for businesses, their payments to the government (e.g. corporate tax) are termed Business-to-Government transactions (B2G). As is the case with expenditure, G2G payments can also be considered a source of revenue.

Premchand, in their book titled "Effective Government Accounting"<sup>7</sup>, highlighted the high-level steps that fall under a government's financial management, both on the expenditure and the revenue sides. For expenditure:





### Stages for Government expenditure (Premchand, 1995)



Figure 1: Stages for government expenditure (Premchand, 1995)

### Stages for Government Revenue (Premchand, 1995)

1. Regarding taxes, assessments may be made by the government or, on a self-assessment basis, by the taxpayer.
2. Based on the assessment, payments are made at specific intervals, either to the tax agency or through the post office or a depository financial institution\*.
3. Documentation of the payment made is sent by the taxpayer to the government. The government may also receive confirmatory evidence from the place where the payment is made\*.
4. Based on the above evidence, action on the claim against the taxpayer is completed.
5. Similar procedures may be in operation for the payment of fees and other interagency payments.

Figure 2: Stages for government revenue (Premchand, 1995)



As for the revenue side of financial management, the following steps arise: While the author had specified stages [5] and [6] in expenditure and [2] and [3] in revenue as those directly addressing payment, they nonetheless stressed the importance of harmony and efficiency throughout the whole process. In fact, while this research focuses on the digitalization of government payments by looking directly at the payments it makes and receives, this should be taken as a proxy for overall financial management and the potential value derived from its digitalization and automation.

Governments across the world are usually the largest users (both in terms of value and volume) of their government's payment systems<sup>8</sup>. Furthermore, they are unique within an economy, given the diversity of their payers and payees. This is because, unlike businesses or NGOs, government services are used by all, and those from differing socioeconomic backgrounds would have to either contribute to (through taxation) or benefit from government funds (through aid).

Their unique position has endowed governments with special influence over the success of different modalities for payment within their respective jurisdiction<sup>9</sup>. Governments can, therefore, sway public usage of a payment modality, such as a digital payment system, by receiving and making payments through it. Due to the sheer scale and frequency of government payments, the value of digitalizing them transcends efficiency and financial savings. It additionally holds the potential to increase financial inclusion within their respective country. In doing so, the tangible and non-tangible value and goals associated with high financial inclusion rates can be added to those of digitalizing government payments.

The previous discussion covers the tip of the iceberg; that is government financial management and accounting, fiscal and monetary policy, and public sector economics. That said, the scope of this research will be limited to the payment aspects of government financial management. More specifically, we aim to focus on the digitalization of payments made between individuals and the Jordanian government, or P2G and G2P payments. The ultimate impact of said digitalization shall be assessed through quantitative and qualitative means.

## **2. Digitizing Government Services in Jordan**

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The e-government journey began in Jordan in 2001.<sup>10</sup> While the general objectives of the awaited e-government project were set, which include providing the necessary infrastructure, ensuring data availability with the highest accuracy, and improving service delivery<sup>11</sup>, among others, the rollout plan started with renaming the Ministry of Communication and Information Technology to the Ministry of Digital Economy and Entrepreneurship (MoDEE) in May 2019, endowing it with the responsibility to lead the digital transformation process of the Jordanian government.<sup>12</sup> With this rebranding, the ministry expanded its mandate to include promoting digital economy enablers in the country, from digital services and digital infrastructure to digital entrepreneurship, in



addition to supporting job-creating entrepreneurship and enhancing the overall performance of the national economy.<sup>13</sup> Following this amendment, the new ministry issued the National Digital Transformation Strategy & Implementation Plan (2021-2025) and the National Entrepreneurship Policy and its five-year implementation plan (2021-2025), both of which laid the foundation for the digital transformation process.

In 2019, the Cabinet made a key Decision (No. 6425), obligating the government to digitize its payments<sup>14</sup>. The timing of this decision has served Jordan well, paving the way for enabling digital payments right before the outbreak of the COVID-19 pandemic. Digitizing government payments has risen in criticality following the outbreak of COVID-19 as the government quickly moved to take necessary measures to respond to the developments at the required pace.<sup>15</sup>

At the start of the pandemic, and with the leadership and support of the Central Bank of Jordan, the government announced the adoption of digital channels as an alternative to using cash in many of its payment programs and urged citizens to start using mobile wallets to make and receive payments, pay bills, and conduct other types of financial transactions. The Ministry of Labor encouraged employers to transfer salaries that were paid in cash through digital channels, and many governmental and non-governmental institutions have adopted mobile wallets to transfer salaries and financial assistance, such as the National Aid Fund and the Social Security Corporation, in addition to several UN agencies. Moreover, the Central Bank of Jordan allowed the digital and remote registration of mobile wallets and enabled sending remittances using them. Many banks have also provided cardless deposit and withdrawal services to mobile wallet users through their ATMs to expand access to services.<sup>16</sup> Besides the multitude of benefits digital payments have brought to people's lives, it has equally served the government by enabling the collection of its funds instantly.

In 2020, the World Bank announced the launch of a new project in Jordan in collaboration with MoDEE to improve digital services and job opportunities called Youth, Technology, and Jobs (YTJ), with funding worth 200 million Jordanian dinars.<sup>17</sup> Allocations for digital transformation projects are also included in the government's general budget. The Government's Economic Priorities Program for the years (2021-2023) includes six major projects, namely:<sup>18</sup>

- 1- Digitizing government services of highest priority, as the government seeks to digitize the most important 20% of government services that serve 80% of citizens by 2023.
- 2- Enabling digital government payments and the e-Invoicing system, as the government aims to transform 60% of its payments into digital payments by 2023.
- 3- Increasing connectivity and broadband access from 81% in 2019<sup>19</sup> to 100%, which should be achieved no later than 2023.



- 4- Developing the “Sanad” application and activating the digital identity functionality by the end of 2022, where citizens can obtain government services through the 'government's digital identity platform available on the Sanad application. Sanad was launched in 2020 and has been expanded in 2022 to include a wider range of services.
- 5- Developing the necessary infrastructure for national data that contributes to the digital transformation process by the end of 2022.
- 6- Approving the Personal Data Protection Bill. This was partially achieved as the Cabinet passed the Personal Data Protection Bill on Dec 29, 2021.<sup>20</sup> Subsequently, the bill was referred to the House of Representatives for discussion and approval.

It is worth noting that the National Digital Transformation Strategy for the years (2021-2025) includes a set of procedures and frameworks promising to complete the digital transformation process in 2025.

In order to get a comprehensive view of the stages and developments of digitizing payments in Jordan, it is necessary to capture the development of infrastructure and its effectiveness for implementing payment digitization projects, in addition to the legal framework and legislation that support the digital transformation process, and finally the financial inclusion status in Jordan and the foundations that back its progression.

### **3. Payments Infrastructure in Jordan**

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The national payments ecosystem in Jordan is comprised of the following infrastructure components<sup>21</sup>:

- 1- The Real-time Gross Settlement System (RTGS), which conducts wholesale transactions between its participants, namely commercial banks, and settlements of other payment systems in the kingdom.
- 2- The Automated Clearing House System (ACH), which targets corporate retail transactions between bank accounts.
- 3- The Electronic Cheque Clearing System (ECC), which processes cheque payments.
- 4- Jordan's ATM switches that enable interoperable ATM services across the kingdom, such as JoNet.
- 5- eFAWATEERcom - the Electronic Bill Presentment and Payment System.
- 6- CliQ, which enables instant micro and small transfers between bank accounts and from bank accounts to mobile wallets, and is interoperable with JoMoPay and the POS infrastructure.
- 7- JoMoPay, which is an electronic system that enables instant micro and small mobile payment services, serving mostly the unbanked population and offering



them a similar financial account experience. Mobile wallets in Jordan are connected through the JoMoPay switch so that financial transactions can be made between mobile wallets and between mobile wallets and bank accounts. JoMoPay is fully interoperable with several payment schemes, such as eFAWATEERcom, CliQ, POS, and ATM systems.

- 8- POS payments, which are offered through merchant acquirers in Jordan accepting all major international card schemes, among other payment options.

These systems align with the Central Bank of Jordan's vision of a resilient national payment system that captures cutting-edge technologies to introduce advanced payment services and solutions capable of catering to the payment needs of all those living in Jordan.

According to the National Digital Transformation Strategy (2021-2025), the digital infrastructure includes a set of components that must be studied and developed to complete the digital transformation process. This research sheds light on the components related to the digital payment infrastructure below<sup>22</sup>:

- **Internet of things (IoT):** The Jordanian government, through the Telecommunications Regulatory Commission (TRC), issued instructions for the IoT system in mid-2020<sup>23</sup> and licensed the first company to provide IoT services in Jordan on Jan 31, 2022<sup>24</sup>.
- **5G:** The government gives priority to starting the operation of the fifth-generation technology in the kingdom<sup>25</sup>, and it is part of its economic plan for the years (2021-2025). In general, Jordan enjoys a high percentage of internet users, reaching 100% in 2021.<sup>26</sup>
- **Cyber Security:** The current Cybersecurity Strategy, published by the Ministry of Digital Economy and Entrepreneurship (MoDEE), covers the years (2018-2023)<sup>27</sup>
- **Blockchain:** In 2020, the government announced the formation of a technical committee to study blockchain technology and the effectiveness of its application in the telecommunication and information technology sectors.<sup>28</sup>
- **Open-Source Solutions:** The government seeks to incorporate open-source solutions in its bids by at least 50% as they are more efficient for saving time and cost.<sup>29</sup>
- **Cloud Platforms and Disaster Recovery Services:** The government issued the Cloud Computing Services Policy in 2020, which will be reviewed and updated every three years.<sup>30</sup> This policy also covers data recovery centers and their requirements.



- **Open APIs:** An API Policy was prepared in 2020, encouraging interoperability between government systems.<sup>31</sup> The government directed the Ministry of Digital Economy and Entrepreneurship to conclude the work on the “Jordan as a Platform” project before 2020, which provides access to government services’ APIs. It is undetermined how this project has progressed as no announcement of its completion has been issued yet.<sup>32</sup>
- **The National Optical Fiber Network:** The first high-speed fiber-optic solution provider (Fibertech) was launched in 2019 to offer high-speed internet services to telecom companies, which in turn supply internet to all sectors in the kingdom.<sup>33</sup> The government seeks to connect all government institutions on the fiber-optic network by 2025.<sup>34</sup>
- **The Secure Government Network:** According to the National Digital Transformation Strategy, 128 government entities have been linked to this Fiber network until the date of publishing the strategy (2020).

Besides the aforementioned infrastructure components, and in an effort to expand the offering and facilitation of government payments, the Ministry of Digital Economy and Entrepreneurship (MoDEE) announced in January 2023 the signing of an agreement to launch a central and reference system for the presentment of government bills, in coordination with the Central Bank of Jordan (CBJ). As per MoDEE’s announcement, this system will be integrated with the national payment systems of the kingdom and the payment methods they offer, aiming to provide bill presentment and payment services for [2,600] services by [140] government entities, encompassing both in-person and remote services.<sup>35</sup> It is still not determined how this system will operate alongside the eFAWATEERcom system that has been in use for over eight years for government services and bills, among other services and bills.

The Central Bank of Jordan has pioneered the development of the digital financial ecosystem in Jordan. Besides introducing and overseeing payment systems in the kingdom and facilitating digital government payments, it has gone the extra mile of regulating and enabling open banking and open finance to expand the offering of digital financial services. Not only will this make financial transactions and services more seamless and convenient, but it will also directly assist the government in its digital financial transactions and operations by connecting financial institutions, consumers, and the government in an interoperable manner, all while ensuring compliance with its regulatory framework and standards in all related areas of integrity, security, and protection.

Over the past few years, JoPACC played a leading role in developing Jordan’s digital payment infrastructure. Besides managing and operating five major payment schemes in the kingdom – the Instant Payment System (CliQ), the Mobile Payment Switch (JoMoPay), the Electronic Bill Presentment and Payment System (eFAWATEERcom), the Automated Clearing House (ACH), and the Electronic Cheques Clearing System (ECC)



– JoPACC works on advancing the financial user experience and expanding access to digital financial services. JoPACC is introducing its electronic know-your-customer platform in 2023, which will enable users to onboard to digital financial services remotely. Additionally, the company launched its Jordan Innovation Fintech Incubator (JOIN Fincubator) in November 2022 to promote innovation in financial technology and offer a stimulating space to build and develop new solutions and services. This unique fintech innovation hub offers a variety of services to its participants, including access to digital financial infrastructure for testing, validating, and developing fintech innovations, along with access to expertise, partnerships, finance, and new markets. Ultimately, JoPACC aims to enrich the fintech scene in Jordan and diversify digital payment services and financial solutions that shall foster digital financial inclusion in the country.

#### 4. Policy Context: A View of The Legal Framework for Payments in Jordan

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In 2015, the Electronic Transaction Law was issued, giving electronic records the same legal value that paper documents have. The law has also permitted the use of electronic signatures, which is an essential enabler of digitizing government payments in Jordan. Consequently, the government has recently introduced the digital signature feature to the Sanad App, enabling customers to sign their documents digitally and obtain government services remotely. The law also obligated electronic payment and transfer companies to obtain a license from the Central Bank of Jordan to start their activities, which are also subject to the supervision of the Central Bank.<sup>36</sup>

The Central Bank of Jordan is the sole regulator of payment and transfer services in Jordan, driven by its commitment to the needs of users. All entities engaged in payment and money transfer activities must obtain a license from the Central Bank.<sup>37</sup> As part of the Bank's mission to improve financial inclusion, the Financial Inclusion Monitoring and Evaluation Bylaw was adopted and put into effect by the Central Bank of Jordan with technical assistance provided by the German Agency for International Cooperation (GIZ) and the World Bank to track progress, identify obstacles, and evaluate results to achieve the overall goals.<sup>38</sup>

JoMoPay, CliQ, and eFAWATEERcom are the three systems in Jordan used to make instant, digital payments and transfers by individuals, all owned and/or operated by JoPACC. Such systems are meant to achieve the Central Bank's vision of improving digital financial inclusion. The value that each system adds to the financial inclusion growth can be identified below:

- JoMoPay, launched in 2014, has around 2.05 million users as of January 2023, which is a significant number when compared to the total population size of Jordan (10.2 million)<sup>39</sup>- and a more significant share of the adult population, which accounts for 56% of the population where adults are 18 years old and



above- and when compared to the low financial inclusion rate Jordan has, which is 47%, according to the Global Findex Database 2021.<sup>40</sup>

- CliQ was launched using the latest (ISO 20022) standard in 2020. Simultaneously, the JoMoPay system was upgraded to the same ISO standard (ISO 20022) in 2021, enabling instant transfers between mobile wallets and bank accounts in Jordan and allowing unbanked individuals to send transfers to bank accounts.
- eFAWATEERcom, launched in 2014, made it seamless for all individuals to pay their bills digitally via bank account apps, mobile wallet apps, the eFAWATEERcom app, the billers' websites, and eFAWATEERcom's website, which offers various payment options. The system encompasses various biller categories such as government, telecommunication, water and electricity, financial services, and education, among others.

#### **4.1 A Closer Look at Regulations Applicable to Mobile Wallet Providers in Jordan**

For companies providing mobile wallet services, a separate account called an escrow account is opened at one of the commercial banks in Jordan, in which financial service providers are obliged to preserve an amount that mirrors the total outstanding value of their operations in a measure to safeguard users' funds and the economy from emerged inflationary pressures, as per the Central Bank of Jordan's instructions. Opening such an account and withdrawing funds from it can only take place with the Central Bank of Jordan's approval. The Central Bank requires that the minimum balance is equal to the value of the issued electronic money. The Central Bank's regulations also state that there should be financial guarantees for the electronic transfer of funds, which equals 30% of the company's minimum paid-in capital value. Furthermore, the Central Bank requires payment and electronic money transfer companies to submit a financial guarantee, which equals 2% of the company's capital, to ensure compliance with relevant legislation.<sup>41</sup> These legislations are set to protect financial clients' funds deposited in electronic wallets and segregate them from the company's own money in the event of the failure of the firm.

The Central Bank established the Consumer Financial Protection Department in 2014 to regulate the relationship between customers and service providers, address grievances, and set the minimum controls for marketing financial products and services by financial institutions.

Moreover, the Central Bank's efforts have significantly increased the uptake of mobile wallets in response to the COVID-19 pandemic. On Mar 24, 2020, the Central Bank instructed mobile payment service providers (mPSPs) to allow opening mobile wallets remotely without the need for individuals to reach the mobile wallet service provider (mPSP) or any of their agents. Moreover, the Central Bank has instructed them to take





simplified due diligence measures when verifying the identity of customers while applying the necessary procedures and controls.<sup>42</sup>

The Central Bank also instructed mobile wallet providers not to classify customers who are registered remotely as high-risk customers while taking into account all necessary procedures to determine and deal with the risk level of each customer.<sup>43</sup>

## **5. A Social and Economic view of Financial inclusion in Jordan**

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### 5.1 Social View

According to the Central Bank's Financial Inclusion Report (2018-2020), until 2017, 67% of the population in Jordan over the age of 15 didn't have access to any formal financial service in terms of account ownership, 38% of adults were not included in any formal financial services, and 24.8% of adults were not included in any formal or informal financial services.

One of the Central Bank's goals stated in the Financial Inclusion Report (2018-2020) is to raise the financial inclusion rate from 33.1% in 2017 to 41.5% and reduce the gender gap in financial inclusion from 53% to 35% by 2020. That said, there has been a discrepancy in the financial inclusion rates provided by the Central Bank of Jordan compared to the rates reported by the Global Findex Database of the World Bank, and this could be attributed to the sample type and the years of study.

At the end of 2020, the Central Bank succeeded in raising the financial inclusion rate in Jordan to nearly 50% and reduced the gender gap to 29%.<sup>44</sup> The World Bank data also shows that the financial inclusion rate grew by 5% during the years (2017-2021). The percentage reached 42% in 2017<sup>45</sup> and 47% in 2021<sup>46</sup>. This was a result of amending the governing laws to increase access to financial services and ensure an effective system to protect the financial user and enable women to access financial services.

In 2020, the demand rate for mobile wallets increased significantly; the number of mobile wallets exceeded 1.2 million, compared to 608 thousand mobile wallets in 2019. This massive growth in the use of mobile wallets is attributed to the continuous efforts and measures taken by the Central Bank of Jordan and relevant stakeholders during the period 2018-2020 to increase the uptake, accessibility, and usage of mobile payments, in addition to the adoption of mobile wallets as a means for transferring funds and salaries by many entities<sup>47</sup> in response to COVID-19 repercussions.

By way of illustration, during COVID-19, two main government entities, the National Aid Fund (NAF) and the Social Security Corporation (SSC) declared sending payments and providing aid via bank transfers or mobile wallets. Before the pandemic, NAF had 127,100 beneficiaries, and 5.5% of them were already utilizing mobile wallets to receive aid. With the onset of the pandemic, the total number of people receiving aid rose to 381,000, of which 68.5% received aid on mobile wallets. SSC also initiated five support programs to help those who were most affected by the pandemic and encouraged



those with no bank accounts to open mobile wallets or bank accounts. Over a period of four months, 700,000 people were able to benefit from these programs, and 12,000 received their aid via mobile wallets.<sup>48</sup>

## 5.2 Jordan's Economy

Jordan has a relatively small economy; its Gross Domestic Product (GDP) is 45.74 billion USD, according to the latest stats of the World Bank for 2021.<sup>49</sup> The GDP value of Jordan represents only 0.01% of the world economy.<sup>50</sup>

Jordan's top five contributing sectors to its GDP are **government services, finance, manufacturing, and tourism and hospitality**, respectively.<sup>51</sup> Jordan's economy is dominated by the government and financial sectors, and none of them could arguably be the main drivers for economic growth but would rather serve as enablers of it. According to Jordanian economists, the productive sectors such as agriculture, industry, mining, and construction are mainly the lifeline for the Jordanian economy since they contribute to creating new job opportunities and thus reducing unemployment and recession rates.<sup>52</sup> The unemployment rate during the first quarter of 2022 was 22.8%<sup>53</sup>, which is notably high, as the considerably "healthy" unemployment rate should be between 4%-6%.<sup>54</sup>

The digital economy accounted for 12% of GDP in 2020<sup>55</sup>, which helps accelerate economic growth and job creation. To boost it further, and as part of the World Bank's project (YTJ), the Ministry of Digital Economy and Entrepreneurship launched the "Hafiz" program. The program promotes the provision of job opportunities for fresh graduates and incentivizes private sector institutions to create them by subsidizing 50% of paid salaries (with a maximum of 200 Jordanian dinars to be paid per salary), in addition to providing job opportunities in digital transformation projects with a salary of 400 Jordanian dinars per month. The number of beneficiaries of the "Hafiz" program reached 4,780 people in 2021.<sup>56</sup>

## 6. The Government e-Payments Adoption Ranking (GEAR) and Jordan

The Economist Intelligence Unit, commissioned by Visa, first released the GEAR global index in 2007<sup>57</sup>. Since then, it has been published 3 times; 2007, 2011, and 2018. The study represented a multi-faceted evaluation of two primary inputs deemed descriptive and indicative of a jurisdiction's state of government digitalization:

- a) The availability of government electronic transaction services,
- b) The underlying environment of mechanisms that support digitization for all transactions, such as policy and infrastructure.

Each of the above streams was evaluated using a number of metrics, each of which was broken down into sub-metrics. The scores were normalized on a 0-100 scale, using the min-max values of each indicator. As such, scores of 100 do not imply complete maturity of an area but rather the highest possible score amongst the evaluated countries<sup>58</sup>.



In 2018, 73 countries were ranked by GEAR. 34.2% were placed in the “Mature” group, 50.7% in the “Intermediate” group, 11% in the “Emerging” group, and finally, 4.1% in the “Nascent” group. Jordan was ranked 65<sup>th</sup> on the ranking, with a score of 45, placing it in the emerging category.

Of the 12 MENA countries ranked as part of GEAR, Jordan placed 8<sup>th</sup>. 58.3% of MENA countries were placed in the Intermediate group, 33.3% in the Emerging group, and 8.3% (representing one country) placed in the Nascent group. Figure [3] compares the placement of MENA countries to all countries included in the GEAR report across the four groups.

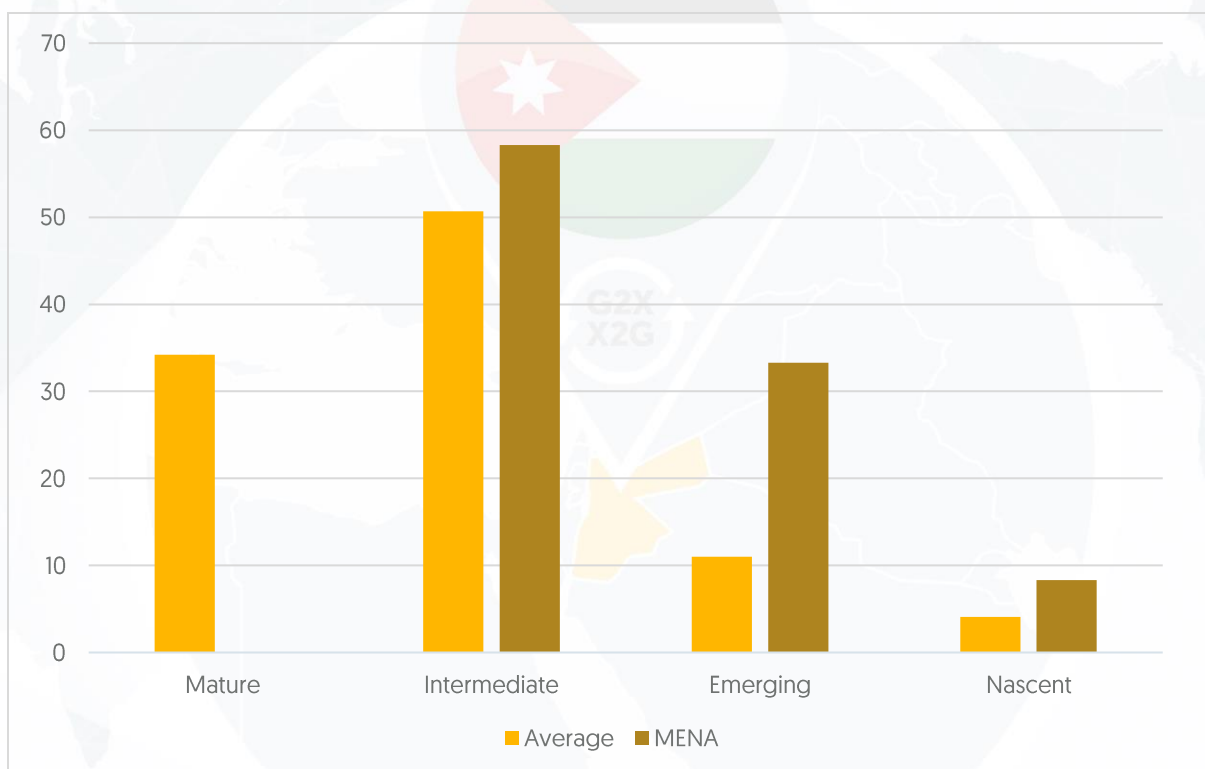


Figure 3: Placement of countries vs. MENA countries across the 4-groups of GEAR



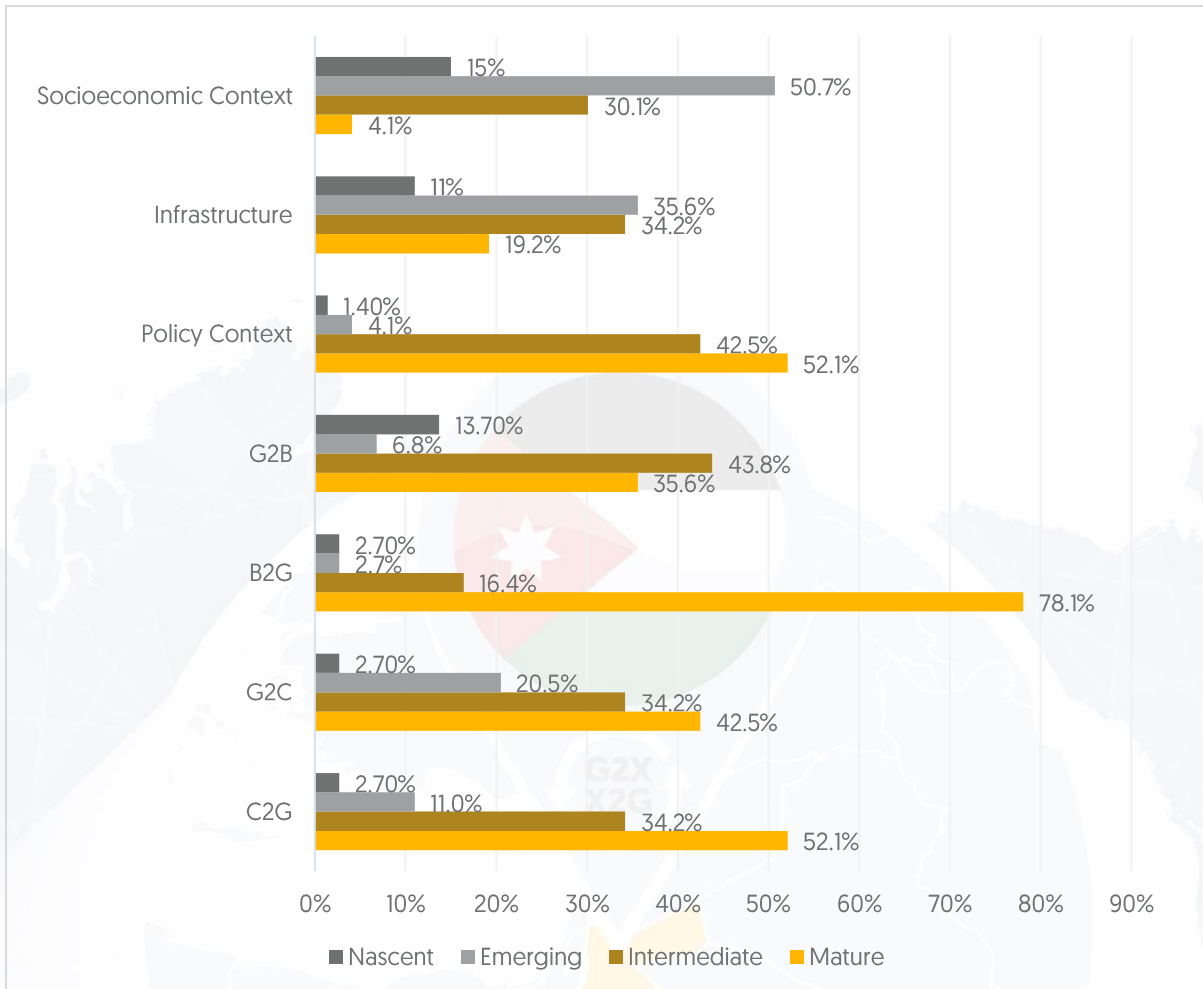
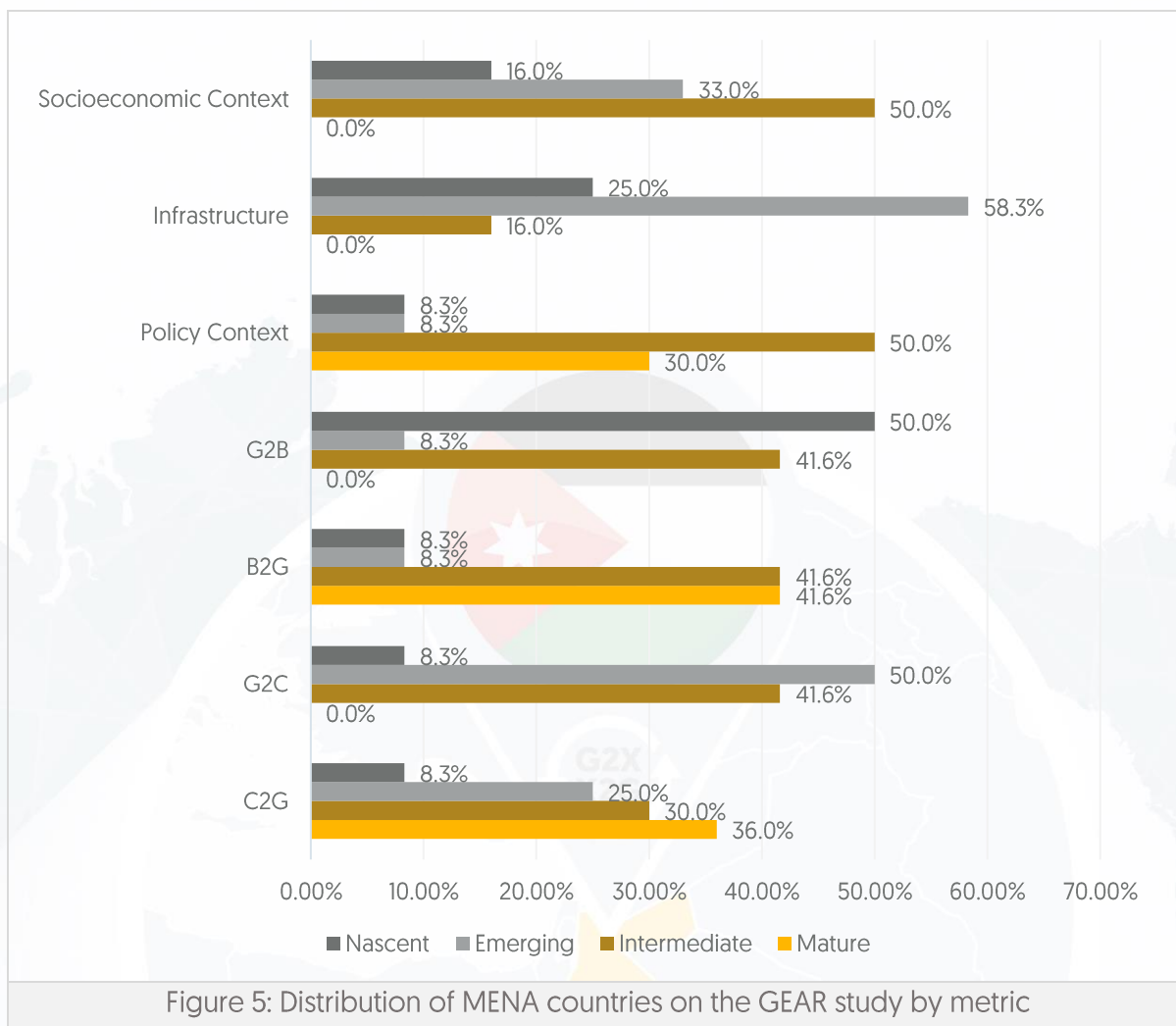


Figure 4: Global distribution of countries on the GEAR study by metric





Figures (4) and (5) show the percentage of countries placed in each group by each of the metrics used in the overall evaluation, with the former displaying all the countries evaluated as part of GEAR, and the latter focusing on those within the MENA region. Right off the bat, one can clearly deduce the MENA's discrepancy in G2B transactions between MENA countries and the rest of those globally included in GEAR. Jordan places especially low on this metric, ranking 64<sup>th</sup> and placing in the Nascent category. That said, with regards to Policy Context, over 80% of MENA countries are placed in either the Intermediate or the Mature group, with Jordan ranking 40<sup>th</sup> next to India in the Intermediate group. Infrastructure appears to be the area with the greatest potential for improvement, with only 4.1% of all countries placing in the Mature group, and none from the MENA region. Here, Jordan ranked 36<sup>th</sup>, placing it in the Emerging group. The low performance on the infrastructure metric could be the result of the dynamic and accelerating rate of developments in the digital infrastructure realm.

With regards to the P2G and G2P metrics, which form the focus of this study, both MENA and all countries showed better performance on P2G as compared to G2P. Jordan ranked 68<sup>th</sup> on P2G [with a score of 45.8] and 69<sup>th</sup> on G2P [with a score of 31.3].



## Benchmarking GEAR against countries with similar Human Development Index Scores

The Human Development Index (HDI) is a summary measure capturing three primary dimensions of human development. The first is life expectancy, the second is length of education, and the third is standard of living<sup>59</sup>. The HDI was first introduced in 1990, and it groups countries into 4 categories of human development: Very High, High, Medium, and Low. The overall score for the world in 2019 was 0.737. It serves as a powerful indicator of the state of human development across different countries, regions, and aspects of human life.

Given its global significance in guiding developmental research and interventions, the HDI was selected as a benchmarking indicator for the purposes of this research. This entailed the selection of two countries with similar HDI scores to Jordan from the pool of countries studied as part of the GEAR Report and vice versa. The two indices, HDI and GEAR, are taken as two variables, and the relationship between them is investigated. Due to the relationship between human development and overall development and modernity of infrastructure (governmental in particular), neither index is deemed to be directly linked to the other, but rather an investigation of the correlation between the two is conducted. The below figure supports this argument, where the HDI scores of each nation forming part of GEAR are mapped with its GEAR ranking. A positive correlation is clearly evident in this graph; therefore, a number of countries with similar HDIs are further investigated regarding their GEAR performance.

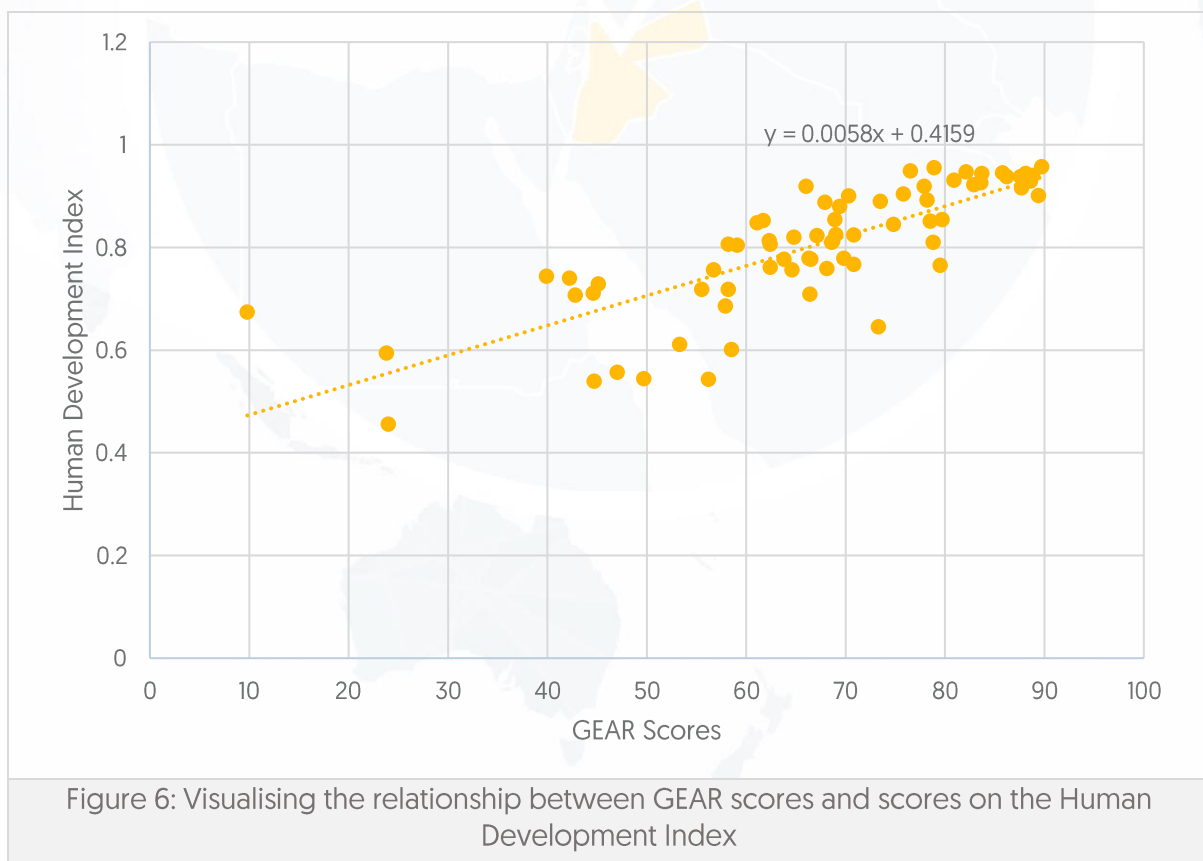


Figure 6: Visualising the relationship between GEAR scores and scores on the Human Development Index



Jordan is among the nations deemed to have “High Human Development”, ranking 102nd out of 189 nations included in the index. In 2019, its HDI score was “0.729”. The average life expectancy sits around 74.5 years, the average number of years of schooling are 10.4, and its Gross National Income (GNI) Per Capita was \$9,858. Jordan ranked 65 in GEAR, out of 73 countries ranked, placing it in the “Emerging” category.

Tunisia is also deemed a “High Human Development” nation, ranking 95th on the HDI. In 2019, Tunisia’s HDI score was “0.740”, its average life expectancy was 76.7 years, its average number of years of schooling are 7.2, and its GNI Per Capita was \$10,414. Tunisia ranked 69<sup>th</sup> in GEAR, placing it in the “Emerging” category.

Venezuela is another nation deemed to have “High Human Development,” ranking 113th with an HDI score of “0.711”. Its average life expectancy was 72.1 years, the average number of years of schooling are 10.3, and its GNI Per Capita \$7,045. Venezuela ranked 67th in GEAR, placing it in the “Emerging” category.

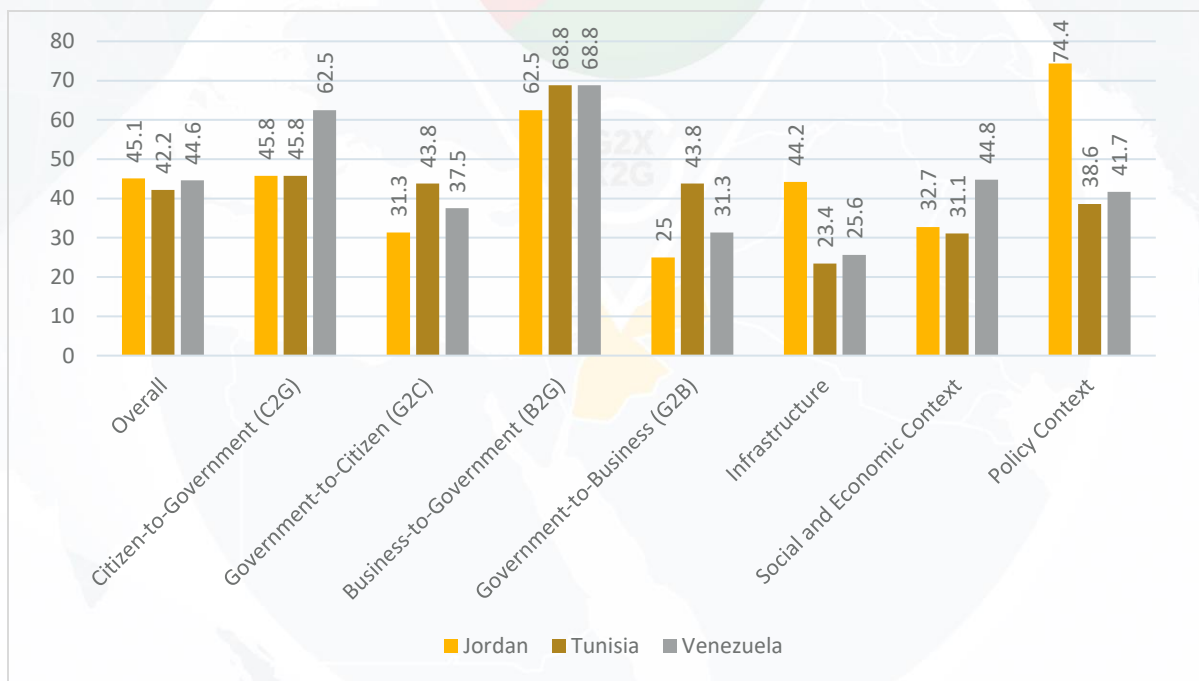


Figure 7: Jordan, Tunisia, and Venezuela’s scoring on the metrics forming the GEAR ranking

Despite all three countries scoring similarly on the overall index, a clear difference is evident in the underlying metrics within. This becomes clear when we take into consideration the two categories of metrics used as part of GEAR: The availability of government electronic transaction services (G2P, P2G, B2G, & G2B), and the underlying environment of mechanisms that support digitization for all transactions, such as policy, infrastructure, and socioeconomics. Jordan scored notably highest in the policy context and lowest in e-transactions, both to citizens and businesses. This indicates that while Jordan has electronic services in its planning, the implementation is still not reaping fruits.



Compared to countries with similar HDI, Jordan underperforms in nearly all the government e-transaction categories, most notably G2P and G2B, the two use-cases where the government is the initiator of the payment. The difference in performance on the other end of the spectrum, where the government is the recipient of the payment, is somewhat smaller. That said, Jordan outperforms both Tunisia and Venezuela on nearly all three underlying environmental factors, most notably the Policy Context metric, where Jordan ranks 40th, putting it in the “Intermediate” category.

It could be argued that enabling underlying environmental conditions, such as infrastructure, policy, and socioeconomic context, could be deemed as prerequisites for demonstrated utilization and growth of these conditions. Furthermore, given the factorial nature of the GEAR metric, whereby a combination of underlying environment and government e-transactions results in the ultimate ranking of each country, one could predict that Jordan’s e-government transaction numbers are likely to grow in the future, assuming that the underlying environmental conditions encourage this. That said, in 2021, a study commissioned by JoPACC found that 78% of those surveyed prefer to pay Government bills in cash, as compared to 14% who prefer digital channels<sup>60</sup>. The same study found that 95% of residents in Jordan use the internet daily, either through a mobile device or a computer, and 61% hold positive views on eCommerce. Such contrasting results bring into question user-facing implementations of digital financial services and the frictions they may carry. More specifically, it calls into question the degree of alignment between the objectives of public and private entities working towards the digitalization of services and the perception of the end-user of these services. In the event that a misalignment between the intended and the perceived exists, different actors would need to reflect on and evaluate the way in which objectives are translated into reality, compare the intended with the actual outcome, and implement measures to bring those two closer.

The next section, therefore, aims to understand the digitalization of government payments from two perspectives: that of the government and that of the end-user (be it business or individual).





## Section II: Supply and Demand side Analysis of Government Payments in Jordan

Two quantitative and qualitative tools were employed in this section to gain a comprehensive understanding of payment options for government services, consumer challenges, and preferences, with a focus on both the demand and supply sides. For the supply side, a survey was conducted for a controlled sample of (1,016) individuals to understand the challenges and trends around the usage of government services and the pertaining payment behavior. The controlled sample, dominantly financially included individuals, was intentionally selected with the purpose of collecting as many insights as possible on the financial interaction with government services. For the demand side, various institutions in Jordan were interviewed, including those involved in digitalizing government services from the legislation and execution sides, customer-facing government entities, and active business associations in the Jordanian market, to get their perspective and capture progress on the digitalization of government services.

### Demand Side Analysis: End-user Feedback

To obtain deep insights into end-users' interaction with government payments in Jordan, a controlled sample of 1,016 individuals to be surveyed was selected for this study, consisting of 79% financially included individuals and 21% financially excluded individuals. The selection of a controlled sample with a majority of financially included individuals was intentional in order to better grasp payment behavioral patterns and problems associated with government payments where access to financial services is not a barrier. Moreover, it ensures greater reach to government service users in Jordan. The sample consists of individuals from various governorates and age groups across the kingdom, with 77% being Jordanian. Interviews were conducted during the period of Sept 16, 2022, through Oct 12, 2022.

### P2G Payments

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#### 1.1 Behavior Analysis of Financially Included Individuals

Out of surveyed financially included individuals, 59% reported not using digital payment channels at all, despite the fact that 16% of the financially included individuals own both a bank account and a mobile wallet.



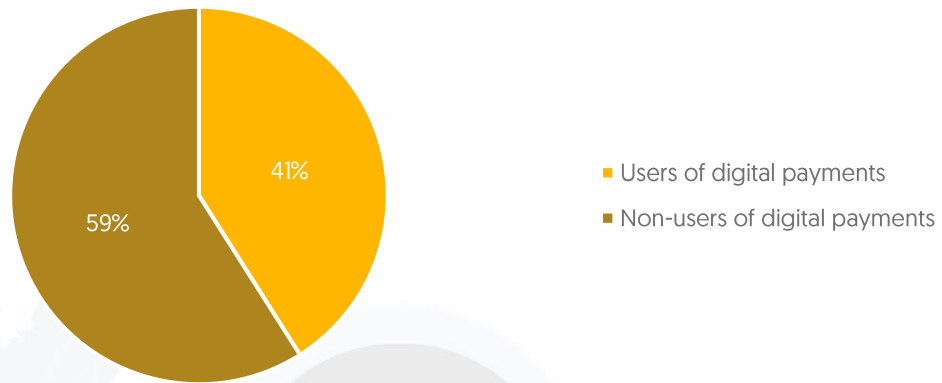


Figure 8: the use of digital payments among financially included individuals

are above the age of 45 and, at the same time, fall into the lower-income groups, with a monthly income of less than JOD 400.

When asked about the main reasons for not using digital payments, 36% of financially included individuals stated that they don't know how to pay using digital channels, 33% prefer the familiarity of paying in cash, and 22% don't trust digital payment services. Additionally, when asked about the factors that would motivate them to use digital payment methods, 38% reported that nothing would encourage them to pay digitally. Comparatively, 27% are drawn in by promotions and discounts on digital payments, and 23% are driven by eliminating digital payment fees.

Looking at behavior towards government payments, while 41% of financially included individuals are digital payers<sup>b</sup>, only 23% of financially included individuals reported paying for government services digitally in the past two years.



Figure 9: Digital payment to government services by digital financial users

<sup>b</sup> This criterion includes financially included individuals who made digital payments in the past 2 years.



Furthermore, 75% of financially included individuals reported paying for government services on-site at government service locations in the past two years, regardless of the payment method used; cash or digital. Evidently, cash is still the preferred means of payment for 74% of them, and only 24 % prefer to pay digitally, driven by the ease, convenience, and time-saving and effort-saving aspects of using digital payments. However, many reasons contribute to the disproportionate preference toward cash, the most prominent of which are: the preference for paper receipts over digital alternatives, the lack of knowledge on using digital means, the desire for human interaction in the customer experience, the easiness of tracking spending when paying in cash, not to mention that cash remains a sure bet when technology fails.

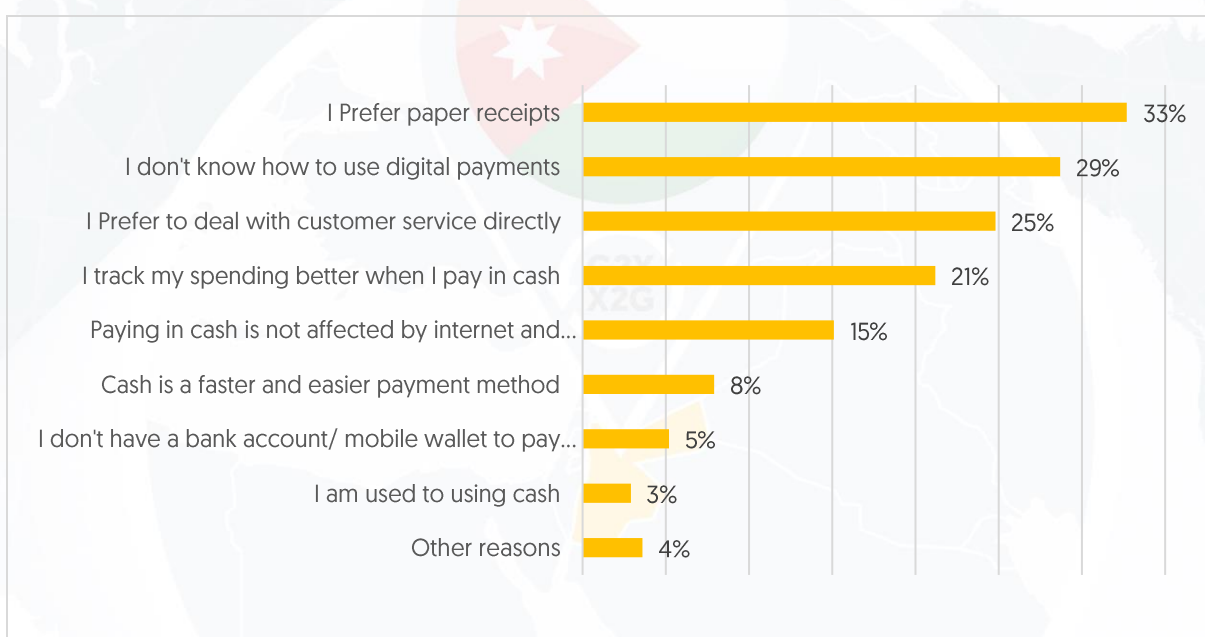


Figure 10: Why cash is preferred by financially included individuals at government locations

As for payments conducted digitally, recurring bills, such as electricity and water bills, vehicle license renewal, and property taxes, account for 87% of the bills paid digitally by digital financial users. While there has been a greater tendency to use digital payment services, it is evident that the use of cash is still a preference for digital users, as shown in figure (11). This demonstrates the significance of raising awareness nationwide about the use of digital payment services, particularly when paying for government services. At the same time, financial institutions should intensify their efforts to inform clients about their digital services comprehensively. Evidently, ownership and use of financial accounts do not necessarily mean users know how to use and utilize digital payment services.



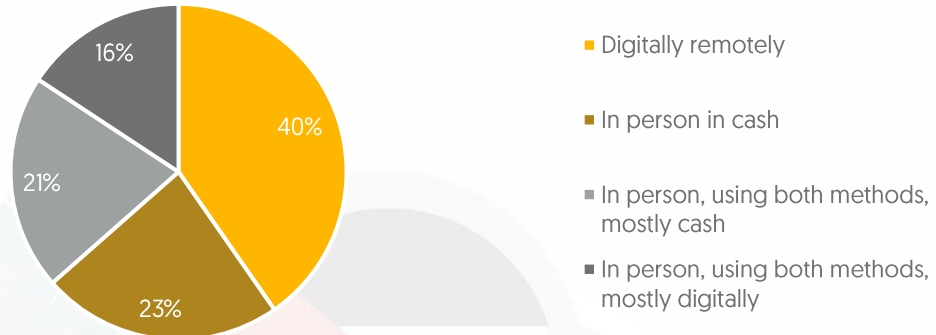


Figure 11: Preferred payment methods for government digital payers

Despite the preference for paying in cash, especially when digital payment channels are down, and while cash has been reported by 64% of financially included individuals who pay their recurring bills as the usual payment option offered to them at government entities, there is a consensus on the smooth functioning of digital payment systems in government entities. In fact, 90% of the surveyed individuals who pay their government bills digitally reported that they had never encountered issues when paying their government bills.

When comparing the available payment options, eFAWATEERcom is the ideal digital payment channel for digital payers. This is attributed to the fact that nearly 45% of digital government services are provided exclusively through the system, in addition to the fact that the system is integrated with all mobile banking applications and mobile wallets in Jordan.

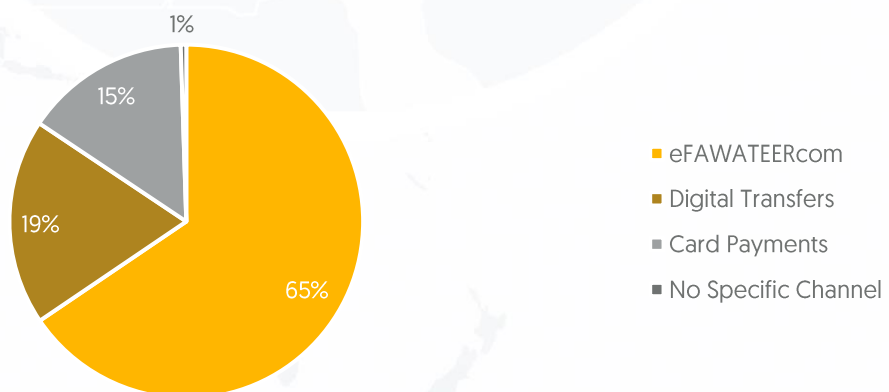
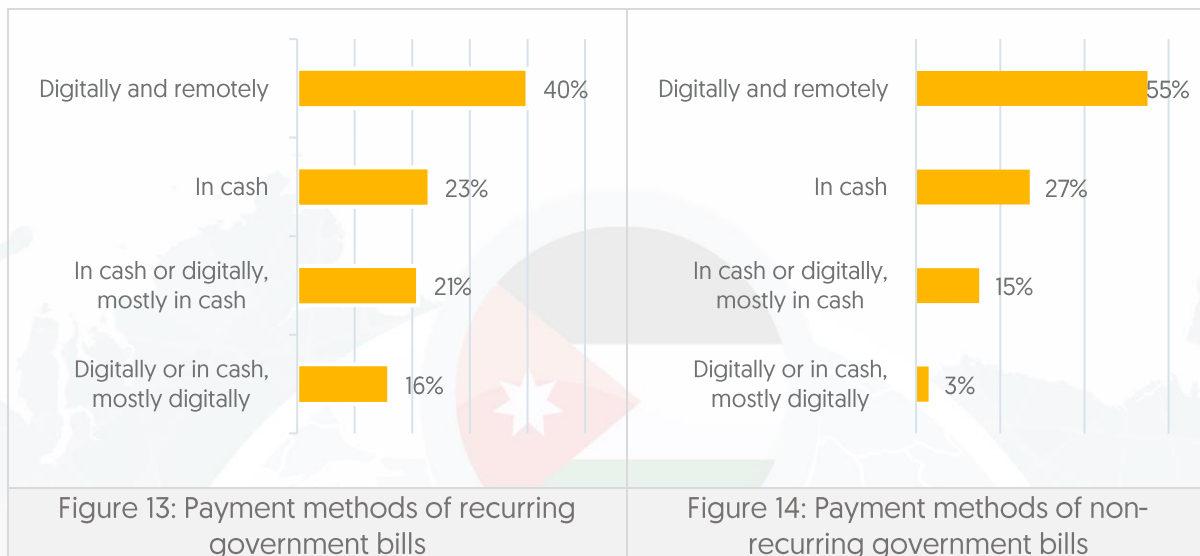


Figure 12: Preferred digital channels for government digital payers

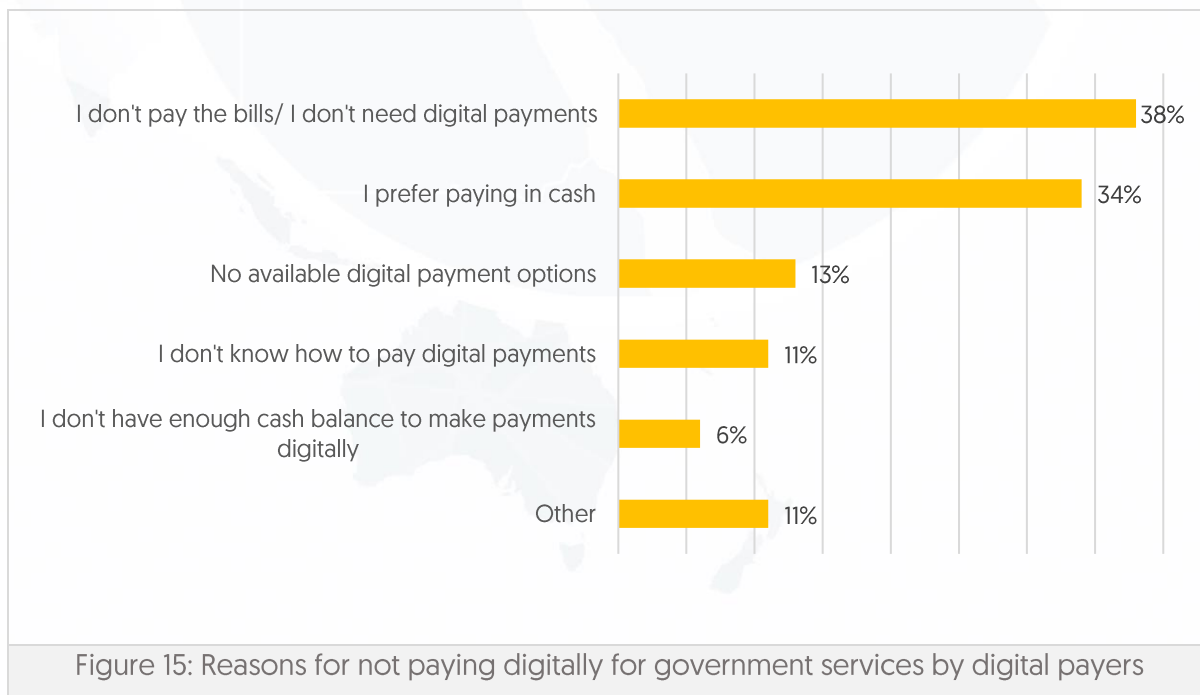


That said, the tendency to pay in cash at government locations was observed even among individuals who pay their recurring and non-recurring bills digitally. This is demonstrated in figures [13] and [14].

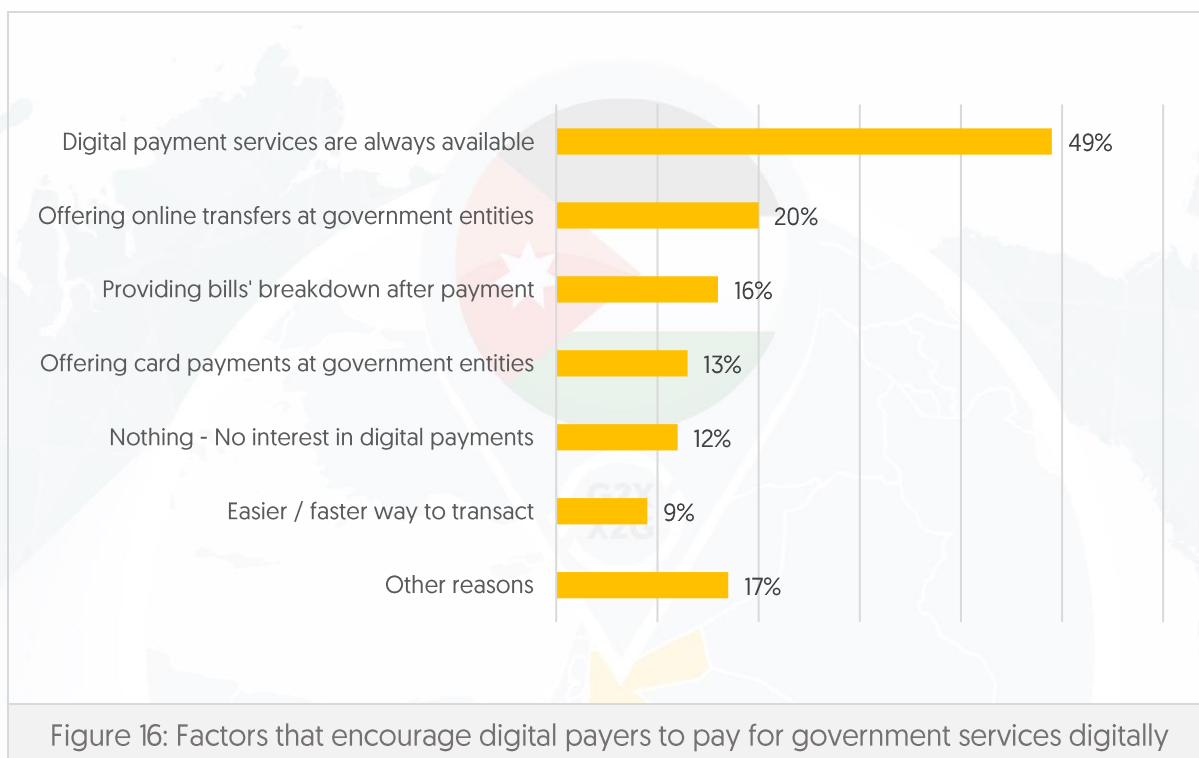


A major impediment to the adoption of digital payments for government services is the lack of knowledge about the digital payment options offered by government entities. 70% of individuals who paid in cash for government entities reported being unaware of digital payment options.

Also, 13% of digital payers reported the lack of digital payment options at government entities as the main reason for not paying for government services digitally, and 11% reported not knowing how to use digital payments for government services, all of which constitute critical factors in promoting digital government payments.



Despite the aforementioned obstacles to using digital government payments, 49% of digital payers confirmed that they are inclined to pay digitally for government services if digital payment services are available constantly. Others stated further motivating factors, such as the availability of online transfers, card payments, and the provision of bill breakdown at government entities.



Additionally, 7% of financially included individuals opened bank accounts specifically for making government payments. This was also the case for 17% of those who opened mobile wallet accounts.

### 1.1.1.1 Behavior Analysis of Financially Excluded Individuals

Financially excluded individuals constituted 21% of the sample size surveyed. Out of those, 59%<sup>c</sup> do not make payments for government services.

Looking more closely at this segment's demographics, 93% of financially excluded individuals fall within the income group that earns less than JOD 400 a month, and 61% of them are females.

The desire to use cash is more prevalent among financially excluded individuals. Notably, 60% of them are unwilling to open any form of financial account, primarily due to not having enough capital to open an account. Other reasons range from the convenience of using cash, lacking the required documents to obtain financial

<sup>c</sup> They have not made any government payments in the past 2 years.



accounts, and not trusting financial services to not being in charge of budgeting and managing household finances.

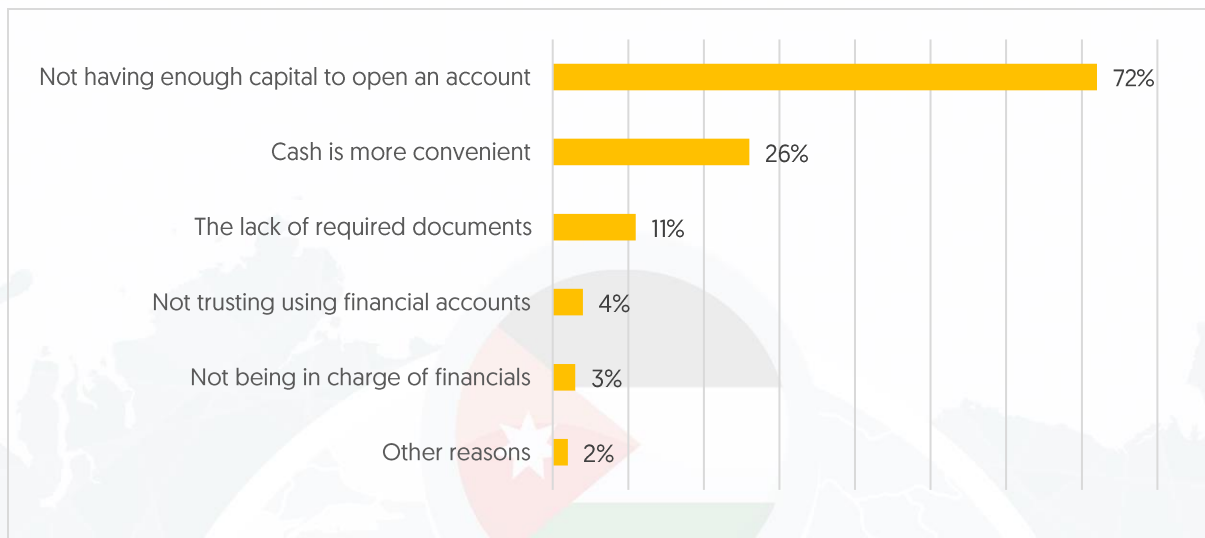


Figure 17: Reasons for not opening accounts by financially excluded individuals

When paying for government services, 41% of financially excluded individuals reported regularly paying for government services by themselves. Recurring bills such as electricity and water constitute 86% of the bills paid.

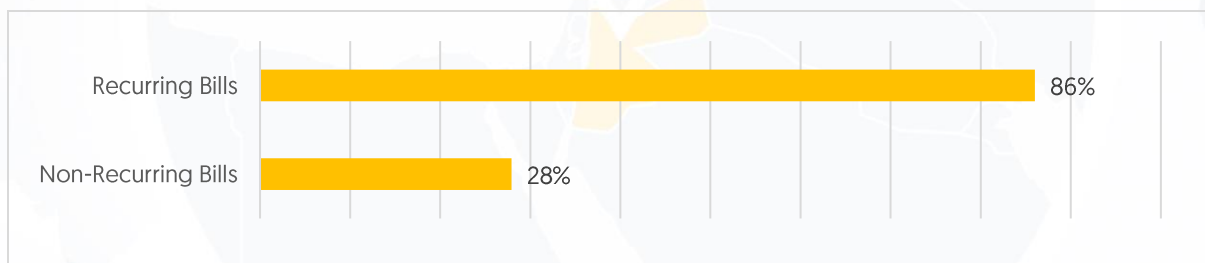


Figure 18: Types of bills paid by financially excluded individuals

## G2P Payments

This part of the survey is based on insights from financially included individuals, as the vast majority of G2P payments are presumably made through digital channels.

Among financially included individuals who receive payments digitally, 41% regularly receive digital payments from the government, with 74 % of them having a monthly income of less than JOD 400. Such government payments include aid, bread subsidies, social security payments, and tax refunds, among others.



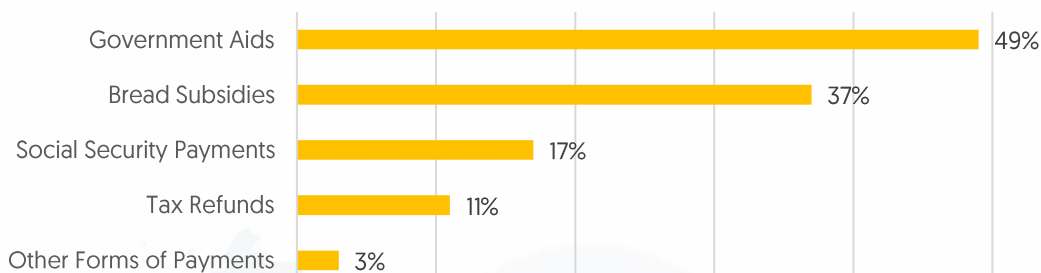


Figure 19: Types of government payments received by financially included individuals

95% of the aforementioned segment reported not having difficulties accessing their received payments. When such complications arose, 93% reported being able to access the payment received successfully.

Different approaches are used by people to address these issues, all of which are depicted in figure [20]. The figure indicates a greater tendency to experiment with digital payments when payments are delivered digitally, as evidenced by the fact that 57% of people were able to access their payments independently.

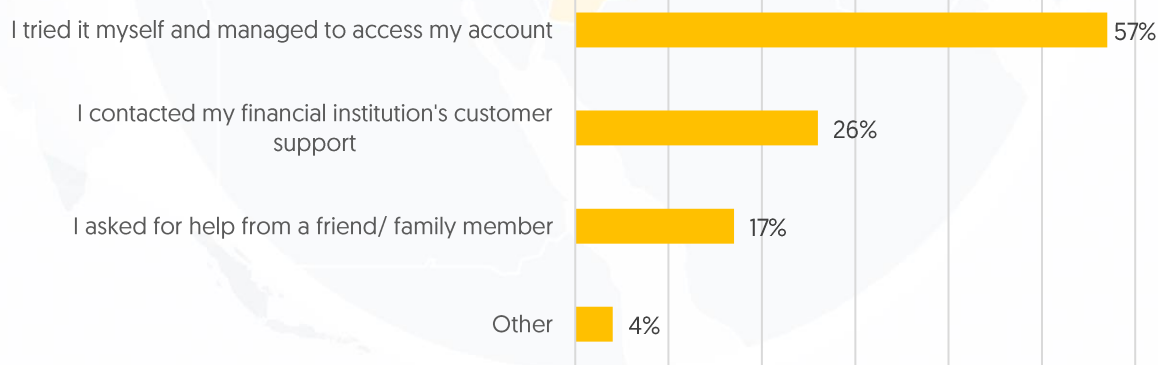


Figure 20: How financially included individuals manage to access the government payments they received when facing difficulties

Another promising factor for the growing acceptance of digital payments is that 67% of individuals prefer to receive government payments digitally, motivated by the safety, easiness, and speed aspects of receiving payments. While 10% have no preference for either method, a small percentage of respondents (23%) reported preferring to receive





government payments in cash, acknowledging the convenience, safety, and lack of fees when paying in cash. Figures [21] and [22] exhibit the most frequent reasons for consumer preferences for each method.

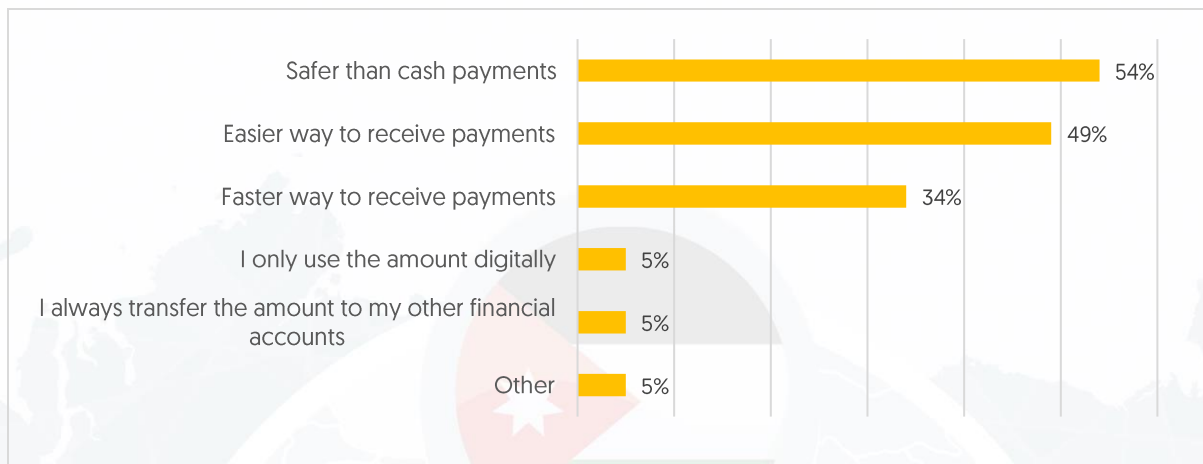


Figure 21: Reasons for preferring receiving government payments digitally

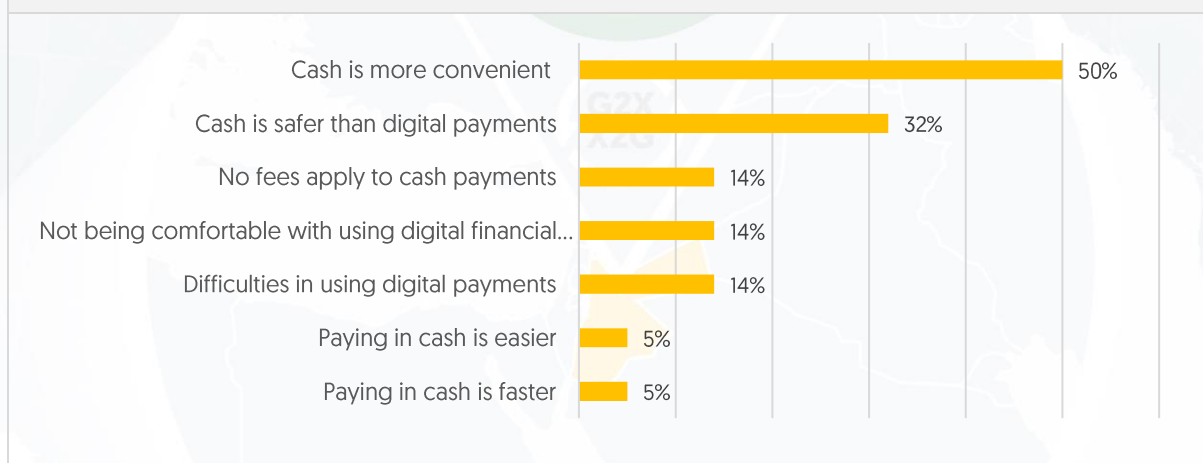


Figure 22: Reasons for preferring receiving government payments in cash

## Supply Side Analysis: Stakeholder Feedback

### Overview

Digitization, digitalization, and digital transformation are commonly used synonymously, although they carry different meanings. To understand the government payment landscape, it is essential to draw the difference between them. Digitization refers to transforming information from a physical format to a digital version. Digitalization, on the other hand, utilizes technology to enhance business processes. Thus, digitization is related to information, whereas digitalization relates to processes and operations. As for digital transformation, it refers to the use of digital technology to convert traditional products, services, or processes into a digital format to enable value



enhancement through innovation, improve customer experience, and increase efficiency.

On Sept 15, 2019, the Jordanian Cabinet of Ministers issued the Decision (No.6425), highlighting the Jordanian government's clear commitment towards transitioning into a non-cash government and their intention to stop receiving cash receipts for government transactions by the beginning of 2021. The cabinet decision declared a commitment to increasing the percentage of the population that makes and receives digital payments. The decision was additionally mentioned in the National Digital Transformation Strategy, clearly emphasizing the responsibility of each government entity to digitalize their payments and transform their services to digital format.

Within this context, qualitative interviews were conducted with five government entities, namely the Ministry of Finance, the Jordan Customs Department, the Greater Amman Municipality, the Central Bank of Jordan, and the Ministry of Digital Economy and Entrepreneurship, to delve deeper into the unique experience of each entity as it moved along its digitalization journey. In addition, one interview was held with the Information and Communications Technology Association of Jordan (int@j), a prominent business association in the Jordanian market. Respondents were asked open-ended questions, which encouraged reflection and enabled the extraction of key insights that map out strengths, success stories, and bottlenecks in the government payment ecosystem. From decision-makers responsible for orchestrating, regulating, and executing digital transformation to customer-facing and serving government entities, the interviews revealed a consensus on the importance and benefits of digitalizing government payments within the kingdom. This consensus was supported by the fact that Jordan possesses a strong financial infrastructure put in place by the Central Bank of Jordan that enables digital financial services and payments. Moreover, there was a shared recognition of the role of digital financial services as enablers of financial inclusion, as long as the citizens were not burdened with the cost of digitalizing government services.

While each government entity was evidently satisfied with and proud of its unique digital transformation journey, the pace and level of transformation varied from one entity to another. For instance, the impact of digitalizing government payments was more impressively felt in customer-facing and serving entities, where there was direct interaction with citizens who paid to get a service done. On the other side, and while other decision-making entities readily adhered to the Cabinet Decision, some struggled to feel the actual impact, as their payments weren't fully digitalized yet. All entities had reasonable deadlines for completely transforming their payments, but the recurring reason for delays in implementation was the complexity of re-engineering government services, which is crucial to complete digital transformation. In addition, prioritizing which services to transform first depended highly on the value and revenue they generated. Furthermore, while making payments for government services has been successfully digitalized on a wide scale and across different entities, the service journey



itself remains lengthy, paper-based, not entirely streamlined, and requires the physical presence of the service recipient.

## **Successes and Achievements**

### **Spread of Digital Financial Services (DFS)**

One of the most notable efforts regarding digitalizing government payments was the speed of transformation, especially during COVID-19. According to most interview respondents, and despite its health and economic ramifications, the pandemic proved to be more of an opportunity rather than a threat to financial inclusion. As the crisis unfolded, there was an evident increase in the demand for governmental and non-governmental digital financial services. As a result, gender policies for financial inclusion were accelerated by the pandemic, and an overall increase in digital financial inclusion occurred. The escalation of digital efforts during the lockdown resulted in many governmental services becoming digitally available and the development of “Sanad,” an application and a gateway to government services, which allows single login using a single username and password to unlock and access various fully digitized government services and documents offered by multiple governmental entities. Sanad additionally serves as a digital identity platform that enables users to digitally sign documents and make payments to the government, among other services.

### **Governance and Transparency**

Especially in customer-facing and serving government entities, respondents confirmed that their processes were much more efficient as a result of digitalizing services. Additionally, the systems in place provided efficient reporting and statistics, making government transactions easily accessible, visible, traceable, and measurable. Most respondents agreed that digitalizing their entity’s payments eliminated the risk of human errors, especially ones associated with accountants handling money, and reduced the burdens and risks associated with cash management, with some entities even reporting that their expenditure and maintenance fees had dropped. Consequently, digital transformation increased governance and transparency and limited corruption, theft, and money laundering attempts. Another way justice and accountability were ensured was by eliminating the need for citizens to come face to face with government employees and attempt to accelerate their transactions by “tipping off” government officials using nepotism or “wasta” to bypass the service procedure.

### **Leadership and Initiative**

“Leadership is everything” surfaced multiple times from various respondents, and rightly so because perhaps one of the most impressive findings from the dialogues was the vital role leadership and taking the initiative played in making real strides toward digital transformation in government payments. The Cabinet decision highlighted the responsibility of each entity to transition to digital payments and was binding; however, each entity took it upon itself to impose drastic measures that resulted in change. Some entities decided to make digital payments mandatory and circulated announcements



across each directorate with clear deadlines to stop accepting cash. However, these deadlines were usually the final stage of a very long internal procedure, which involved testing digital payments in test environments, then switching to live testing when all, if any, issues arose and were dealt with. Needless to say, for some entities, this intensive testing period occurred in parallel with the upskilling and capacity-building programs and workshops for employees involved to ensure that they were fully equipped to deal with the new service offering methods. Another interesting finding from respondents revealed that entities that stood out due to their digitalization efforts often had leaders from IT backgrounds and their in-house development teams.

## **Challenges and Pain Points**

### **Orchestration and Interconnectivity**

A challenge highlighted during the interviews involved the complexity of process re-engineering services, especially when multiple governmental entities were involved, and the transformation required joint collaborative efforts. Many entities have attempted to digitalize their payments long before the pandemic hit but missed the opportunity for collaboration as they struggled with the lack of orchestration, conflicting priorities, and the inability to share resources and information effectively. In addition, with each new government elected, plans and directions changed, leading to delays and disruptions in decision-making and policy implementation. Another point that surfaced was that sometimes even the same government entity operated in silos in each different governorate leading to fragmented and inconsistent services across various jurisdictions in the kingdom, often causing citizens to feel confusion and frustration, which has led to the undermining of public trust in the government. Lastly, until this day, one of the most significant pain points when digitalizing government payments involves transforming government healthcare and transportation services, which is a challenging task due to its complexity and vastness. Healthcare and transportation are heavily regulated industries with multiple stakeholders and systems involved. This often means a lack of interoperability between systems and a need for more standardization in data and information exchange, making it difficult to seamlessly integrate new technologies and solutions while maintaining a solid and consistent user experience. In this context, the efforts to adopt digital payments for the “Bus Rapid Transit service” are recognized as a positive step towards introducing digital payment options to the transportation sector.

### **Resistance**

Resistance was a common theme to be reported throughout the interviews. This challenging dimension had multiple layers and included both employee and customer resistance. In organizational culture, resistance to change is a natural reaction when employees are asked to change how they perform their daily tasks. Several respondents stated that the change that came with digitalizing their entity’s services was uncomfortable to many employees and required new ways of thinking and doing. Many employees feared losing their jobs and incentives as they may no longer be needed to serve customers directly. As a result, the internal workflow of each entity



required restructuring so that instead of collecting payments, employees started monitoring and following up on digital transactions. Today, some entities are still struggling with employee resistance, especially those belonging to the older generation who tend to cling to the known rather than embrace the unknown. This has resulted in devising new internal policies that aim to eliminate resistance, in addition to the need to continuously conduct training and workshops for employees to develop and build their professional capacities. Similarly, the same cases emerged when dealing with customers. Most respondents reported that when initially launching digital payments and services, customers were skeptical of using them for many reasons. For one, they lacked the knowledge and awareness of how to perform services digitally. Furthermore, they lacked trust in the actual process, especially since it involved paying money digitally. Lastly, customers for government services are typically from the older generation, who are commonly known for being late adoptors of technology.

### Trust and Cash Culture

Citizens often lack trust in government services for several reasons, including a lack of transparency and accountability in government operations, a lack of citizen engagement and participation in government decision-making, and the lack of information and support due to government bureaucracy. A recurring pain point was the lack of trust in government entities as perceived by customers. Respondents often reported that citizens were resistant to trying the digital version of the service because they lacked trust in the government's ability to deliver the service effectively and efficiently or due to negative past experiences where services proved to be unreliable. Additionally, Jordan, a developing country, has a dominantly "cash culture" where the use of cash is deeply ingrained in financial behavior and is the primary means of payment for goods and services. Jordanians tend to rely heavily on cash transactions and are less likely to use other forms of payment, such as credit cards, debit cards, or digital payments. This could be attributed to religious reasons and a lack of trust in the banking system. As challenging as it was, interviewed government entities understood that building trust is a long-term and incremental process that requires sustained efforts. Fortunately, as more citizens opted to use digital government services and successfully paid for them one time after another, they became less resistant and more trusting and accepting of the new offering.



## Section III: Data Analysis of the government payments conducted through digital channels

This section investigates customer behaviors and trends on eFAWATEERcom, the national electronic bill presentment and payment system, since its launch until October 2022. eFAWATEERcom has over 440 governmental and non-governmental billers who accept digital payments for over 1320 services (as of January 2023). It is worth mentioning that during the system's first two years (2014 and 2015), the system did not support customer profiles. In 2016, customer profiles were introduced to the system, presenting a globally unique identification of the customer irrespective of the different digital payment channels they use for making different payments through eFAWATEERcom.

To better understand the customers' behavior, the number of customers who pay for government services on eFAWATEERcom and the percentage of this segment out of the overall customer base were studied. Both numbers show an upward trend, as evident in the graph below. In 2016, when customer profiles were enabled, 17K new customers were registered on the system (23% of the total number of customers) and used it for government services.

The number of customers and the percentage of customers who pay for government services has steadily increased since the launch of the system, where the percentage peaked in 2018, reaching 47%. However, in 2020, the percentage dropped slightly (to 43%) due to the COVID-19 pandemic, where government billers received fewer payments and eFAWATEERcom was primarily used for paying telecommunication and utility bills<sup>61</sup>. In 2021, the upward trend resumed, and in 2022 up until October, 471K customers (47% out of the total customers) used the service for government payments.

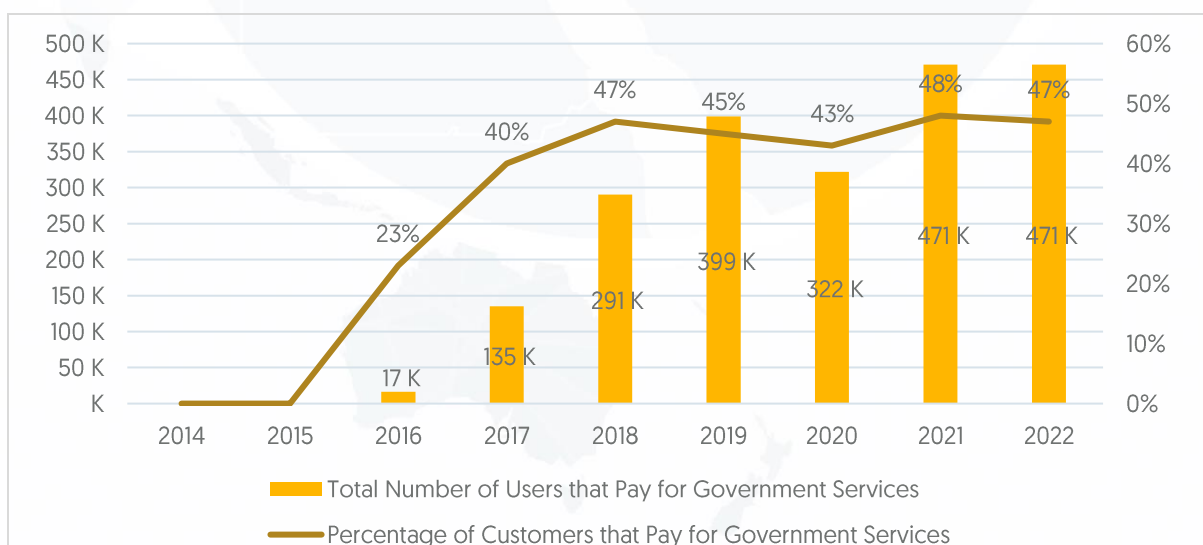


Figure 23: total number of eFAWATEERcom users that pay for gov services and their percentage out of the total



The chart below compares the age groups of customers who use government services to those who don't, based on their eFAWATEERcom behavior. It is clear that people between 31 and 50 are mostly government services users, while younger people (aged between 18 and 30) use eFAWATEERcom for services other than government payments. The results presented in the diagram are consistent with the study conducted by Jordan's Department of Statistics in 2016<sup>62</sup>, which demonstrates that 54% of the heads of households in Jordan are between 30 and 50 years old.

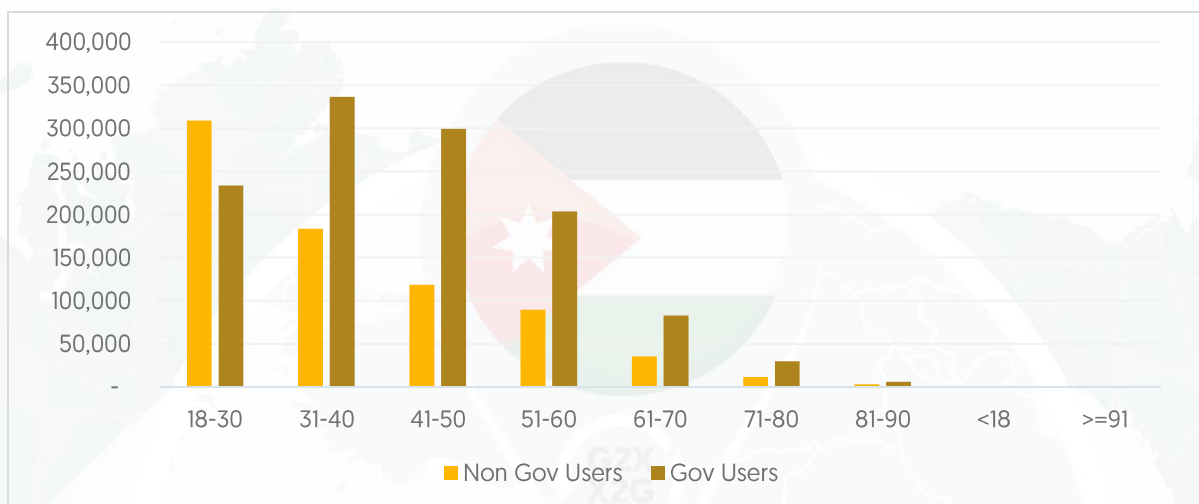


Figure 24: Age groups of government services users Vs non-government services users

This study also revealed that only 13% of heads of households in Jordan are female, which explains the uneven gender distribution of government services users in the figure below. These trends align well with the premise that heads of households primarily handle bill payments for that household. As such, studies on the prevalence of government payments and their utilization would be better at the household level rather than the individual level.

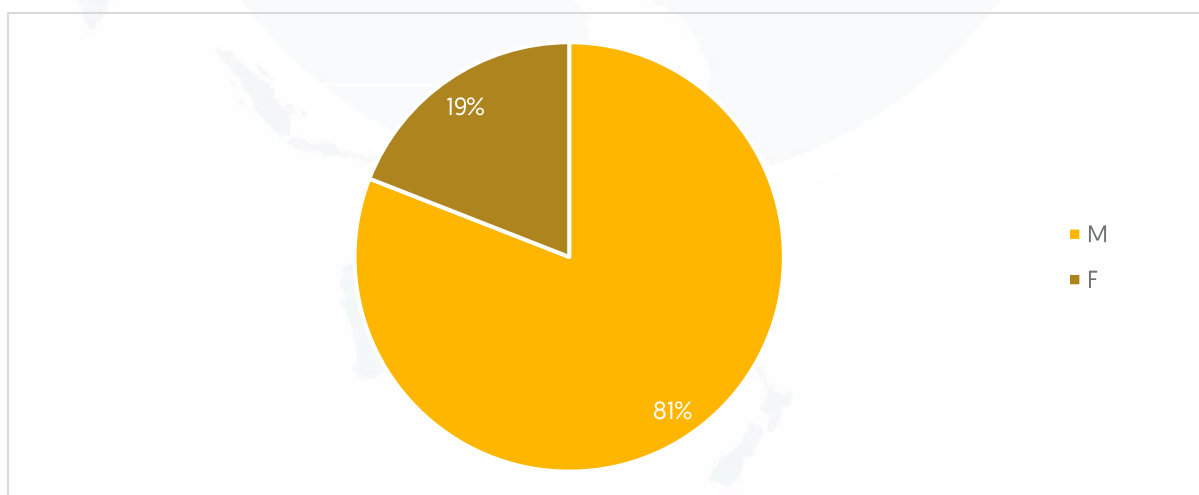
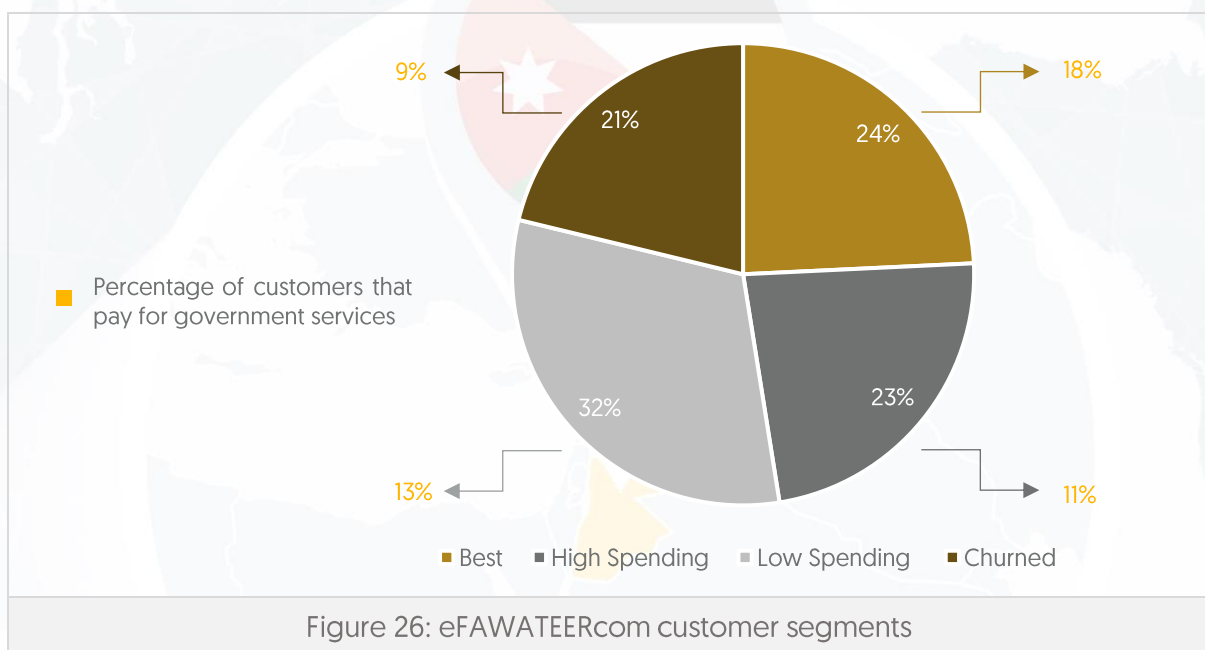


Figure 25: Gender distribution for customers that pay for government services



To form a better understanding of eFAWATEERcom’s customers’ preferences, needs, and wants, and using customer segmentation algorithms, customers were divided into groups of individuals who are similar in terms of usage recency, frequency, monetary, the payment channel used, age on the network, and categories paid for through eFAWATEERcom. The results showed that only 18% of the loyal customers on the system use eFAWATEERcom for government services, as shown in figure (26) below, indicating that government payments on eFAWATEERcom should be better promoted. The results also showed that people who pay for government services have a very high churn rate. One potential reason for this behavior is that most government services are exclusive to eFAWATEERcom, and users merely use eFAWATEERcom because they have no other option to make due payments.



Although its growth has sustained since its inception, the growth rate of government payments on eFAWATEERcom has fluctuated since its establishment. During its first year (2014), there were 4 active government billers on the platform (where active biller here is defined as billers that were paid to). The total transaction value for government bills that year was 197 thousand JOD split between 225 transactions. Conversely, as of October 2022, there were 6.8 million transactions culminating in a total value of 5.8 billion JOD, and there are (as of Oct 2022) 64 active government billers on the platform, 29 of which exclusively accept payments through eFAWATEERcom. Over the course of its 8 years of operation, over 29 million transactions worth over 35.2 billion JOD were paid to government services through eFAWATEERcom.

Each year, eFAWATEERcom has witnessed an increase in government payments that surpassed 100% starting from 2014 until 2018. In 2019 and 2020, the growth of government payments dropped to 13% and 16%, respectively, compared with 57% and 56% increases in the total number of transactions for the entire system, as shown in the





figure below. This change is due to a shift in customer behavior where payments in those two years were directed towards utility and telecommunication, especially in 2020, when the COVID-19 pandemic hit. For these reasons, the percentage increase in government payments that year was less than the overall percentage increase in the total number of transactions on the system.

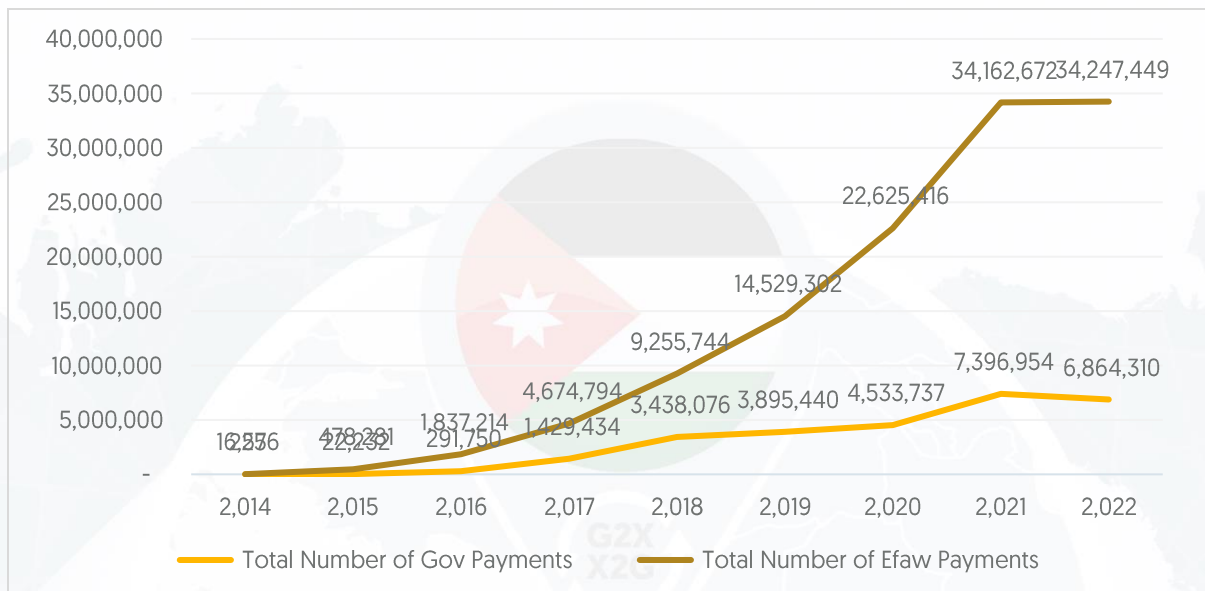


Figure 27: Number and value of eFAWATEERcom transactions

Apart from the economic and cultural repercussions of COVID-19, which resulted in significant changes in customer behaviors and preferences, making government payments exclusive to eFAWATEERcom has proven to remarkably increase the adoption of eFAWATEERcom to make such payments, as shown in figure (28) below. It is clear that the exclusive acceptance of government payments through eFAWATEERcom is constantly growing over the years compared to the partially exclusive services, which have a stable growth trend, and the non-exclusive services, which have experienced growth between 2015 and 2019 but ended up stabilizing from 2019 onwards.

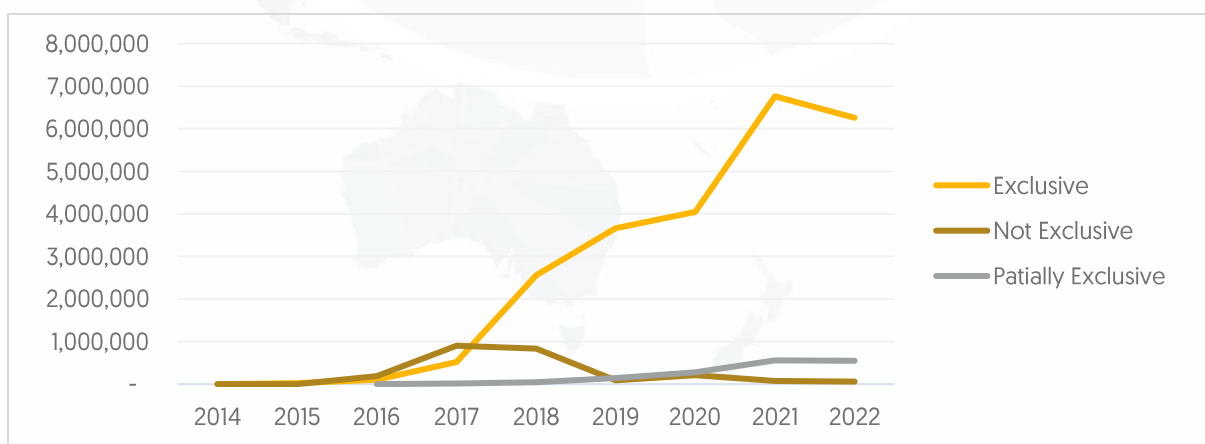
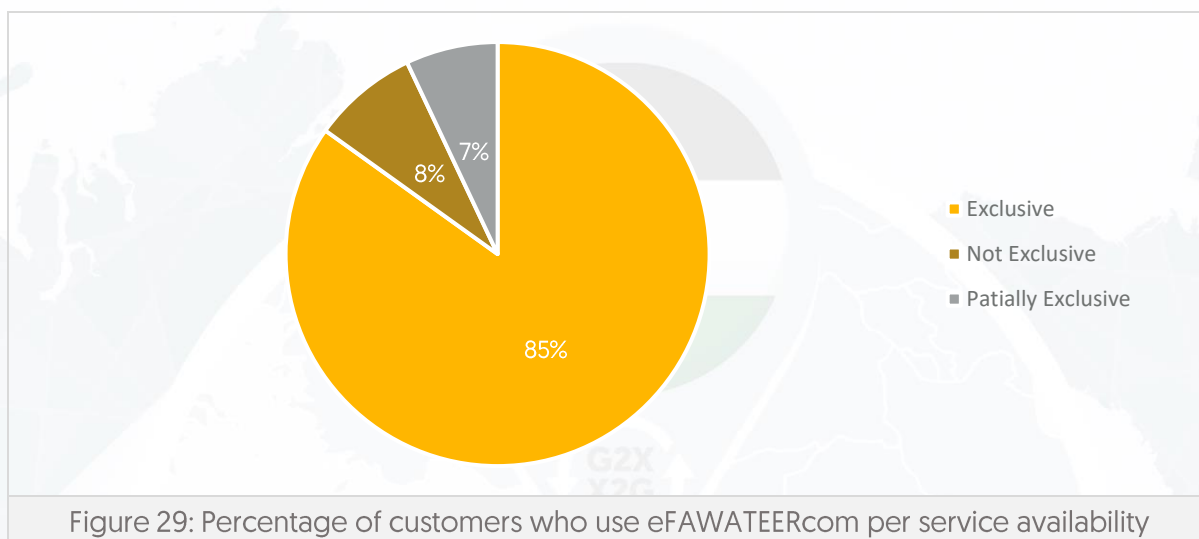


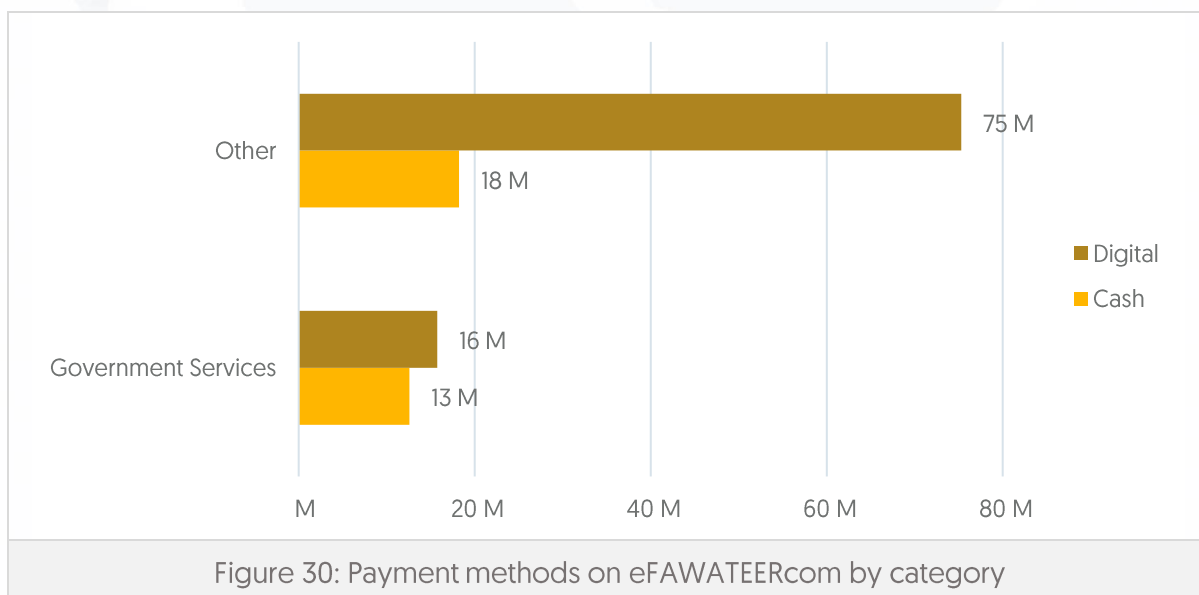
Figure 28: The effect of making services Exclusive to eFAWATEERcom



The effect of making services exclusive is not only reflected in the number of transactions but also in the number of customers. As shown in figure (29) below, the total number of customers who pay for exclusive government services represents 85% of customers who use eFAWATEERcom for government services. The government is expanding in making more services exclusive on eFAWATEERcom for the upcoming years, and this will predictably promote the usage of these services based on the data presented.



Besides digital channels such as mobile banking, internet banking, and mobile wallet applications, eFAWATEERcom enables the bill payment process through different cash payment channels such as bank branches, ATMs, Jordan Post branches, kiosks, and agents. By comparing the payment method used for government payments to other services, we can see that digital is more dominant for other services. However, for government services, the usage of cash and digital is very similar, indicating that heads of households prefer cash payments.



By studying the customer behavior in making payments for government services through eFAWATEERcom's 8 years of operation, we can conclude that a significant factor in driving and accelerate the adoption of digital payments for government services is to make these services exclusive to eFAWATEERcom. Also, as the advanced customer analysis suggested, the usage of government payments through eFAWATEERcom by the system's most loyal customers still needs to be higher compared to other services, which indicates that government services should be better promoted at the household level rather than the individual level.

## Section IV: Key Findings and Conclusion

It has become incontestable through this research project that the digitalization of government payments is a complex process that necessitates a phased and coordinated approach and involves multiple stakeholders, from governmental decision-making bodies, consumer-facing entities, government service tellers, and end-users, to financial service providers and IT service providers. It further entails multiple layers, from infrastructure, payment service development, user experience design, service testing and piloting, onboarding of customer service, awareness raising, performance tracking, to service reliability and availability, and disruption and complaint management, among others. The journey would be way longer if it included the digitalization of the actual services, not just the payment processes for them.

The swift shift to digital payments by the Jordanian government following the outbreak of COVID-19 gives justified promise of the capability of the Jordanian government and its institutions in digital transformation. This swift shift further demonstrates the role of the government in driving the adoption of digital financial services, evidenced by the significant increase in financial account ownership and digital transactions, which ultimately accelerates financial inclusion. In answering the research question "How can the digitalization of the Jordanian government's payments lead to sustainable financial inclusion in Jordan, which empowers marginalized segments", the report illustrated the impact of both adopting digital payments by governmental institutions and exclusively accepting them through digital channels on increasing the adoption and usage of digital financial services and subsequently driving financial inclusion.

In attempting to answer the research question, interesting multi-faceted insights and findings were captured, which can be summarized in the following:

- **Digitalization is prominent** in the government's strategies and plans. The government has issued clear directions towards enabling digital payment acceptance by government bodies and is setting ambitious plans. However, there is no comprehensive or regular reporting of progress and impact.



- The government seized the **opportunity presented by COVID-19 to expedite the shift to digital payments** and has managed to do so swiftly and smoothly. Some key national institutions fully adopted digital payments and sustained their usage in the aftermath of the pandemic, eliminating cash in their transactions with end-users and beneficiaries.
- **Jordan's digital and financial infrastructure** is well-developed and enabling of digitalization of payments. Internet and mobile phone penetration are high, digital payment solutions and services are advanced, seamless, and diverse, and the regulatory environment is governed well and relatively enabling.
- **Receiving digital payments from the government** has been reported by recipients to be a seamless experience. This indicates that the service offering is solid and reliable and thus resulted in a smooth user experience. Nonetheless, there is still a strong preference for cash when making payments to the government.
- **The adoption of digital payments by governmental entities varies in practice and pace** from one entity to another. While most governmental entities have a digital element in their processes or payments, they are not on the same track, fragmenting the user experience when dealing with government services and payments. Moreover, the leadership of governmental institutions plays a crucial role in accelerating the digitalization of payments. Motivated leaders can drive and accelerate the transformation process, but a change in leadership can alter the direction of the process or disrupt it.
- The digitalization of government payments requires **well-led coordination and alignment**. The process needs an orchestrator that can stimulate and track progress, facilitate the exchange of experience, and document and build on lessons learned. In the Jordanian context, the Ministry of Digital Economy and Entrepreneurship is perceived to assume this role and is expected to lead it.
- Despite the inconsistent implementation of digitized payments, governmental entities **recognize the benefits of payment and service digitalization**. They acknowledge its positive impact on saving time, reducing the cost of managing cash, eliminating risks, and efficiently utilizing resources. It further increases transparency and integrity and fights corruption and theft.
- Many governmental entities have successfully complied with the 2019 Cabinet decision demanding governmental entities to digitize their payments. However, **many services aren't digitalized**, and thus the user journey with government services isn't comprehensive. While digitizing the payment process has borne fruit for the user experience, it can be optimized by digitalizing the whole service and eliminating the paper components and the many steps associated with them.
- **The Central Bank of Jordan (CBJ) is pioneering digital financial inclusion growth in Jordan**. CBJ has strived to stay up to date with the latest developments in fintech and digital financial services. While Jordan has an enabling regulatory environment, CBJ must attentively ensure its regulations are progressive and conducive, and do not limit the market potential and growth,



- While financial exclusion is the main challenge to making digital payments to the government by end-users, the **lack of usage by financially included individuals** is another major challenge. Despite owning and using financial accounts, many users either do not trust digital payments in their interaction with government services or aren't familiar with using them. Growth in account ownership doesn't necessarily mean growth in digital financial literacy.
- There is significant resistance to digital financial services in Jordan, as cash is dominantly preferred. **Awareness** of existing digital financial services and comprehensive **digital financial literacy** are essential to ensure the responsible and active use of digital financial services.
- **Digital payments for governmental services are not fully trusted** due to their sometimes unreliable performance. Governmental entities are encouraged to pilot services internally and collect feedback on the user experience before launching a service nationwide, ensuring it can handle the demand magnitude.
- **Tellers of consumer-facing governmental entities play a key role** in driving digital payment acceptance. They should be diligently trained and incentivized to promote digital payments when both digital and cash payment options are offered.
- The **exclusive offering of payments for governmental services through a digital platform** only can drive and sustain the adoption of DFS, compared to keeping digital payments optional. While it is perceived as controversial to impose digital methods on users, it certainly accelerates the uptake of DFS and can only bear fruit if combined with comprehensive onboarding to services.
- Governmental entities who have made progress in their digitization and digitalization journeys generally feel proud and speak confidently of their efforts and achievements. However, their efforts are not **justly and duly communicated to the public**. Communicating developments and achievements should be done in an engaging manner using multiple channels and mediums. Moreover, celebrating successes shouldn't overshadow enhancements and areas of improvement.

## Section V: Policy Recommendations

The Jordanian government is undoubtedly determined to succeed in achieving the digital transformation of its services and processes. This research examined how the digitalization of the Jordanian government's payments can lead to sustainable financial inclusion in Jordan. However, its underlying focus is centered around advancing the financial journey of individuals in Jordan and saving them time, money, and effort when interacting with governmental services by offering them consistent and convenient digital payment methods. This shall increase their appetite for financial services and ultimately drive financial inclusion in the country. While the government's efforts are recognized and applauded, the service offering can be optimized, and digitalization



accelerated to better serve the citizens and residents of Jordan. This research intends to inform government decision-making as the government paves its path toward a digital economy. Therefore, the following policy recommendations can be derived from its analysis and findings:

### **1. Service digitalization, not only payments**

While this report focuses on enabling financial inclusion through digitalizing government payments, enhancing the user experience with government services cannot be realized only by digitizing the payment component. Besides digitizing payments, government services should be comprehensively digitalized and uniformly accessible across the country in all government entities, eliminating paper-based processes and allowing users to benefit from services conveniently and remotely where applicable. Additionally, the preference for cash over digital payments stems partially from the ability to receive paper receipts to document and track transactions. Therefore, it is strongly recommended to introduce digital receipts delivered instantly after digital transactions are completed. Moreover, easy access to comprehensive information on digital services should be guaranteed to facilitate the user journey with digital government services. Given the vitality of health and transportation services in Jordan, it is strongly recommended to benefit from existing digital payment systems and utilize their channels and tools to serve beneficiaries of those services, in compliance with the digital financial ecosystem requirements falling under the mandate of the Central Bank of Jordan.

### **2. The digitalization process requires an orchestrator and a leader**

To ensure that governmental entities are aligned in their service offering and to create a unified user experience with government services, a governmental body needs to play the role of the coordinator and orchestrator of the digital transformation journey. The Ministry of Digital Economy and Entrepreneurship is mandated with leading efforts to digitize the economy, and its role should be strengthened and clearly communicated with all governmental entities. This role should expand beyond setting digital transformation strategies and related policies to include guiding entities in their digitalization efforts, tracking and documenting progress, and sharing and building on learned lessons.

### **3. Coordinated efforts among all governmental entities**

For governmental digitalization efforts to reap their fruits, coordinating and aligning efforts is key to achieving objectives, realizing strategies, and creating an effective digital ecosystem. To create and sustain impact, digitalization plans must be driven by national strategies rather than by the appetite of the leadership of institutions. This is where the role of the digitalization orchestrator comes in. The orchestrator should ensure the clarity of vision and roadmap, keep entities at the same pace, and track progress against clear KPIs. Moreover, it is vital to proactively engage with



representative bodies and industry associations to promote new services and facilitate their adoption, creating the desired changes on a national scale. When speaking of digital payments and digital financial services, the Central Bank of Jordan is the orchestrator of the financial sector's growth and development. Digital government payments should be aligned with the Central Bank's digital financial principles and standards to ensure reconciliation, clearing, settlement, and interoperability of financial transactions are conducted and realized properly while preserving the efficiency, security, protection, and integrity of the financial ecosystem, leaving no space for suspicious financial transactions.

#### **4. Unified and comprehensive user experience across all entities**

The digitalization of government services and payments can only succeed if it is standardized and unified across all entities, where users have a similar experience across them all. This contributes to building trust in offered services and eliminates confusion and inconvenience when pursuing them. To launch digitized services successfully and increase their adoption, piloting them before going on a national scale is encouraged to ensure reliability and availability. Moreover, it is crucial to enhance support services to users by training tellers to be customer-centric and making their journey more seamless.

#### **5. Regular reporting on progress and documentation of impact**

Reporting is an essential part of any successful project. It allows stakeholders to track the progress of their interventions and ensure that deadlines are met and objectives are achieved. Regular reporting also allows for corrective action to be taken if any problems arise. It also provides documentation of all achievements, allowing for a record of success and recognition for all involved. Public reporting on the progress of national plans and strategies has so far been scarce, and there aren't enough date-based records. Reporting on service digitalization progress and impact can create momentum for the transformation of services in Jordan, and it can only realize its objective and gain credibility and trust if clean customer data is recorded, allowing for data-based analysis and evidence. Clean customer data will enable decision-makers to better segment and target users, resulting in more effective marketing and improved customer service.

#### **6. Mandating digital payments accompanied by guidance and incentivization**

While it is debatable whether mandating digital payments or preserving the users' freedom of choice is the right approach in introducing and spreading the usage of services, mandating digital payments in this context is only advised if accompanied by comprehensive and proper orientation and guidance to their use. This will increase the users' confidence in using them, reduce resistance to digital services, and eliminate mistakes and risks in usage. Moreover, incentives can be introduced to steer usage, such as discounts and loyalty programs, and increase the acceptance of services. By



combining mandates with guidance and incentivization, the government can help to ensure that digital payments become the norm. In the service roll-out phase, the government can collaborate with financial institutions and service providers to have them present in governmental entities to support customer onboarding to digital financial services and facilitate their navigation of services and payment channels.

#### **7. Elevating governmental customer support**

Customer service is critical to the success of public services and the creation of a customer-centric ecosystem. Customer service in Jordan's governmental entities varies in quality and speed based on the teller's attitude and level of professionalism rather than a unified service standard. As a result, it is critical to develop the skills of customer-facing employees and to foster a culture of servant leadership. Building their capacity, both soft and technical, is essential for increasing the quality and convenience of services while strengthening accountability and performance assessment. Furthermore, tellers must be assisted in becoming active users of digital financial services and incentivized to promote and accept digital payments. Improving customer service should be combined with increasing the number of tellers as needed and removing unnecessary steps when receiving services.

#### **8. Normalizing digital payments by driving nationwide awareness efforts**

This research revealed that there are significant strides in advancing government services in Jordan. However, they may not be known on a national scale and, therefore, may not be fully utilized. To create a societal change, digital payments, and digital services should be promoted using a 360-marketing approach, where information finds you, you don't look for it. This effort should include below-the-line (BTL) and above-the-line (ATL) marketing approaches, including billboards, TV and radio ads, social media campaigns, educational seminars, and other initiatives and activities to spread the word about the benefits of digital payments. Incentives may also be considered to drive adoption and usage. These efforts will presumably contribute to increasing financial inclusion and, combined with other efforts, gradually change the cash culture.

#### **9. Accessible, comprehensive information on digital financial services in Jordan**

Accessible, comprehensive information on digital financial services is vital for people to make informed decisions about their financial transactions. This information should include what financial products are available, how they work, terms and conditions of usage, and factors affecting the choice of suitable products. It should also clearly explain the various rules and regulations surrounding financial services, including any applicable consumer protection laws. Having this information available in an easily understandable format is essential for people to make informed decisions and ensure they are protected when using financial services. This information should promote the benefits of shifting to digital payments, including increased security, reduced costs, and improved convenience. Under the Economic Modernization Vision Action Plan,





involved stakeholders proposed the development of a national platform that contains comprehensive and up-to-date information and material on financial services and products in Jordan. If appropriately pursued, this platform could become a one-stop shop for financial users.

#### 10. Structured financial literacy programs for youth and households

Despite the fast-paced developments in financial services, the growth of financial services' uptake in Jordan was relatively moderate, partially due to the lack of understanding and knowledge of existing services and how they can be utilized. To address this issue and avoid it in the future, it is recommended to integrate digital financial literacy in formal education targeting adolescents and youth. Such literacy programs should be designed to provide young people with the knowledge and skills to manage saving, investing, budgeting, and credit while also teaching them how to protect themselves from scams and fraud. Moreover, it shall introduce available digital financial services and products, their differences and benefits, and how to select the most suitable product to use. In addition, it is advised to design financial literacy programs for households, as they make regular payments for utilities and services and could benefit from the ease and convenience of digital options. While it wasn't a direct part of the scope of this research, it is very relevant to tap into the eligible age to independently open a financial account in Jordan, noting that an account can be opened before that under the guardianship of parents. Despite allowing many legal services at the age of 15 (such as marriage, issuance of a family book, entering into contracts, etc), opening a financial account is not allowed before the age of 18. This limitation needs to be revisited, and relevant authorities are encouraged to allow opening accounts at the age of 15. Financially literate adolescents who have financial accounts may help bridge the gap with the older generation by teaching their parents and older family members how to make digital payments.

#### 11. User Engagement

User engagement describes users' interaction, activity, and involvement with a product or service. It can improve user experience, increase loyalty, and drive conversions if pursued properly. To drive user acceptance and adoption of digital services, it is crucial to collect their feedback and insights and customize services to cater to their needs and respond to them in a timely manner. The collection of user feedback should be done in an engaging manner, making users feel heard and following up with them on their issues and complaints. Moreover, user feedback should be recorded and tracked to ensure transparency and traceability. This helps make the user experience smoother and more intuitive. On this note, unifying access to user accounts with multiple governmental entities through Sanad, the digital identity App introduced by MoDEE, is hailed and is expected to make user interaction with governmental services more seamless.



## 12. A digital economy is a green economy

A digital economy is a green economy in that it reduces the amount of energy used in the production and delivery of services. By relying on digital processes, services, and products, governments can reduce their carbon footprint. Digital technologies also help to optimize energy efficiency, reduce the cost of production, and improve the quality of products and services. Additionally, digital technologies help to reduce waste and pollution by eliminating the need for physical resources. In this way, a digital economy can be an important part of the transition to a green economy. Jordan's interest in realizing a digital economy should be accompanied by a deliberate interest in promoting and enabling a green economy where human and physical resources are optimally utilized and waste of all types is reduced or alleviated.



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%D8%A7%D9%84%D8%B6%D9%88%D8%A6%D9%8A%D8%A9-  
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## Annex 1:

### VIEWS ON GOVERNMENT PAYMENTS IN JORDAN

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