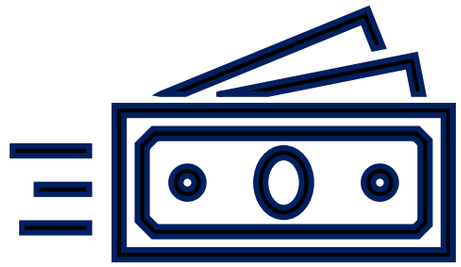
CBE Circular on Instant Payment Network (IPN)



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Introduction

- On November 4, 2021, the Central Bank of Egypt (CBE) announced its Instant Payment Network Services regulations, in line with the CBE's plan to achieve financial inclusion and access to banking services to all members of the community.
- Considering CBE's digital transformation, these rules aim to define a framework for banks and cell phone applications to be able to provide instant payments network, allowing customers and banks to make instant transfers through electronic payment tools. This will contribute to raising the level of effectiveness and efficiency of the infrastructure of payment systems and services for the banking sector, with the aim of enabling the completion of instant financial transactions for customers.
- The CBE's circular on IPN regulations outlines the requirements and initial services to be provided by banking and payment facilitation stakeholders with dedicated focus on laying the legal, technical, security, and contractual foundations for the introduction of instant payment tools.
- The circular is expected to be the first in a batch of financial technology (FinTech) regulations that will also see the introduction of peer-financing transactions and crowdfunding among other financial instruments.

Key Takeaways

- The CBE's IPN circular outlines a period of 6 months for banking institutions to establish the necessary network and technical infrastructure to conduct testing procedures before launching their services.
- The circular also outlined a maximum period of 12 months for banking institutions to launch their IPN services for both internet and mobile banking channels.
- The CBE identified key areas for risk mitigation to assure the quality of service provided, personal data security of customers, economic feasibility of launching the services, and legal boundaries
- The CBE identified the roles and obligations of the Board of Directors of each institution to assure the appropriate planning for launching the IPN services beside identifying key areas for security policy, mandating authentication and customer on-boarding measures.
- The CBE increased the cap of transactional values for each transaction in order to attract wider customer base for electronic banking services.
- The circular sets foot on the first phase of providing room for financial technology institutions to offer additional services in the future.

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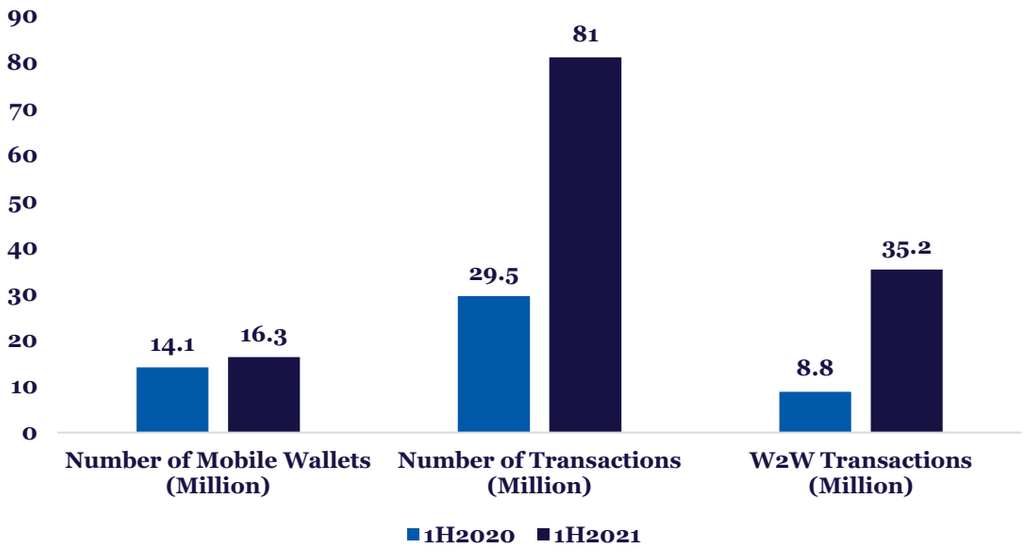
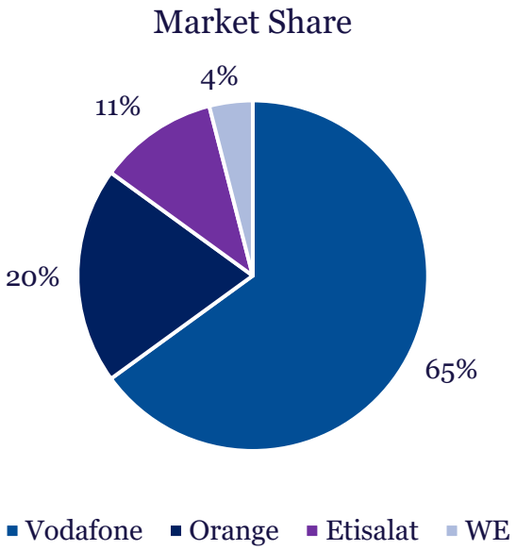
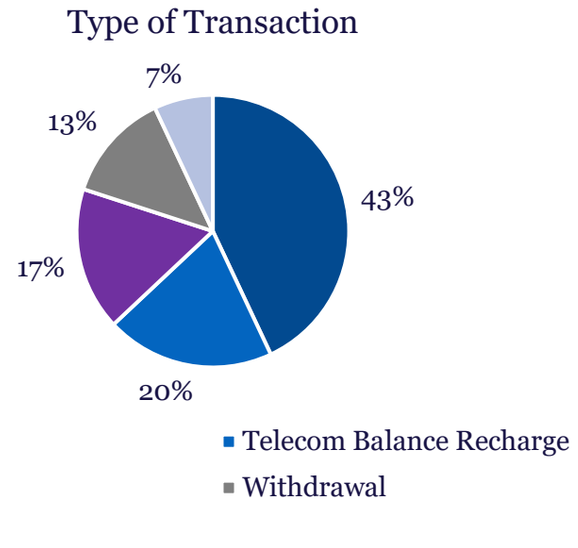
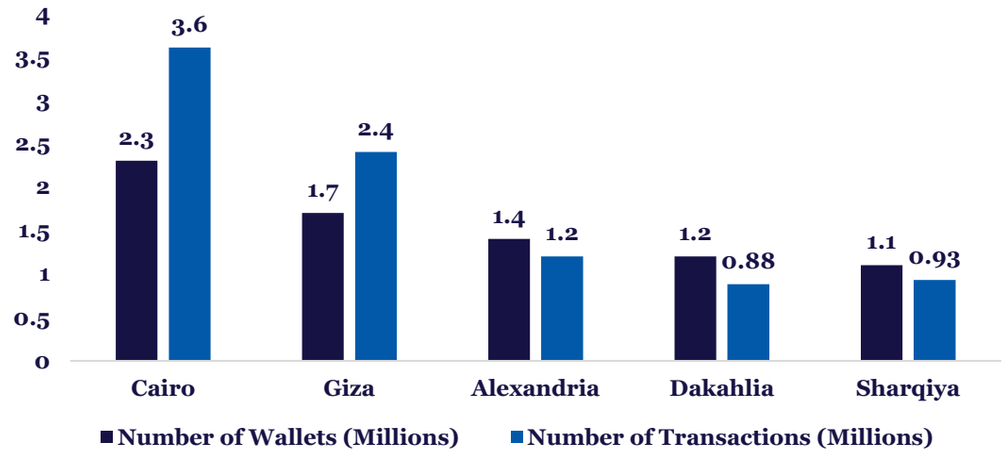
Industry Snapshot

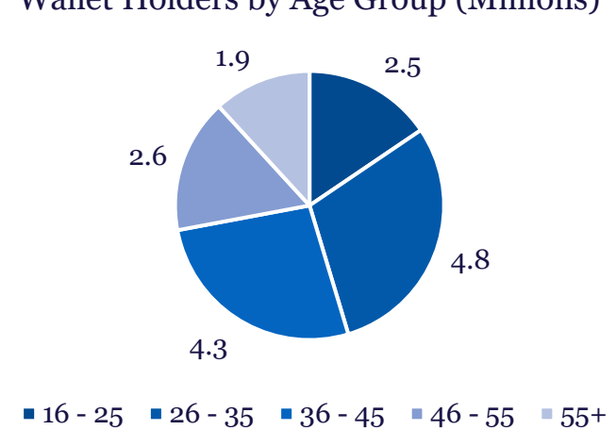
Mobile Wallets (1H2021)











EGP 1,580
Average value of deposit transactions

EGP 1,965
Average value of withdrawal transactions

- The usage of mobile wallets in individual and commercial transactions witnessed exponential growth in 1H2021; 175% growth h-o-h in the number of transactions.
- Accessibility to cell phones and telecom operators branches across governorates aided telecom operators in expanding the coverage and the number of users.
- The challenges, however, remain with regards to the introduction of financial instruments to the mobile platforms of telecom-operated wallets with several products in the pipeline, including Nano-finance.

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Source: NTRA

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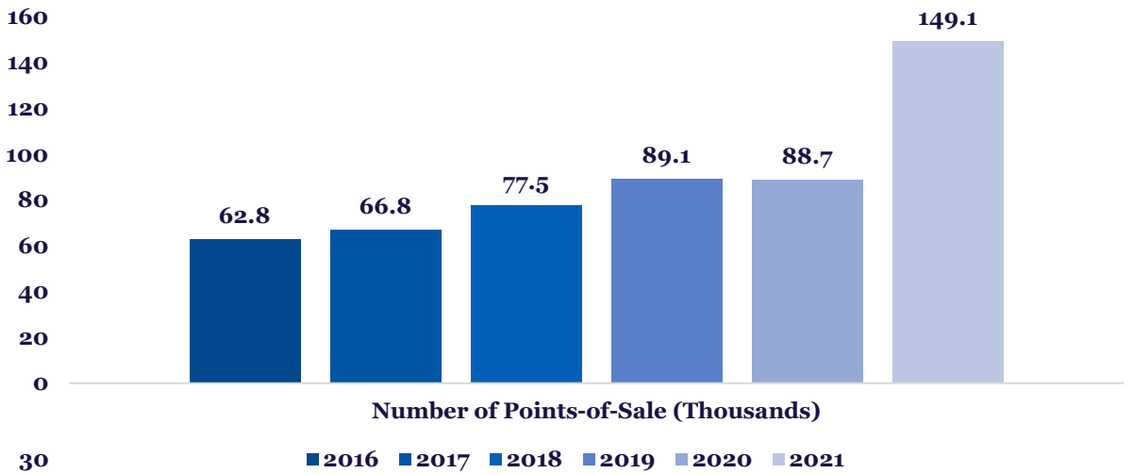
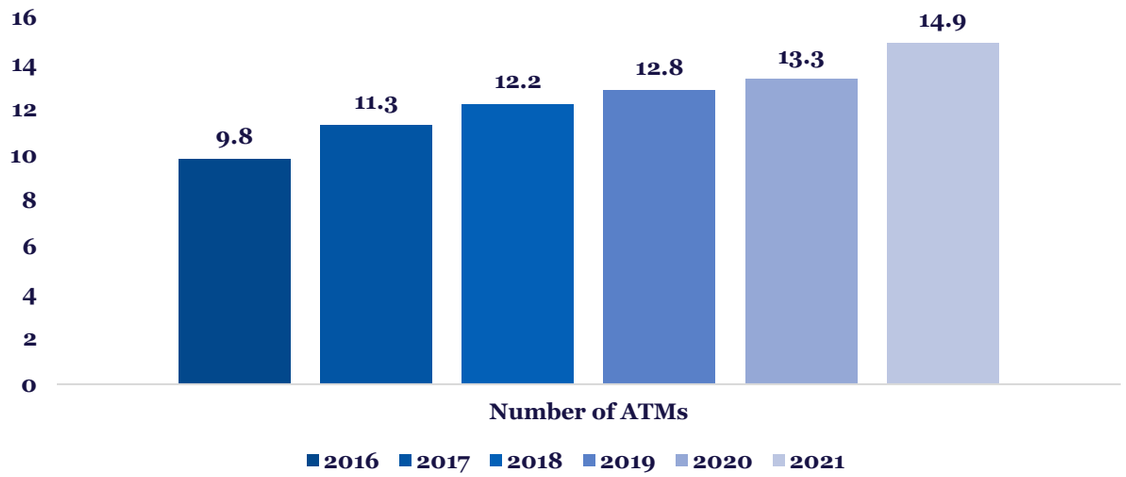
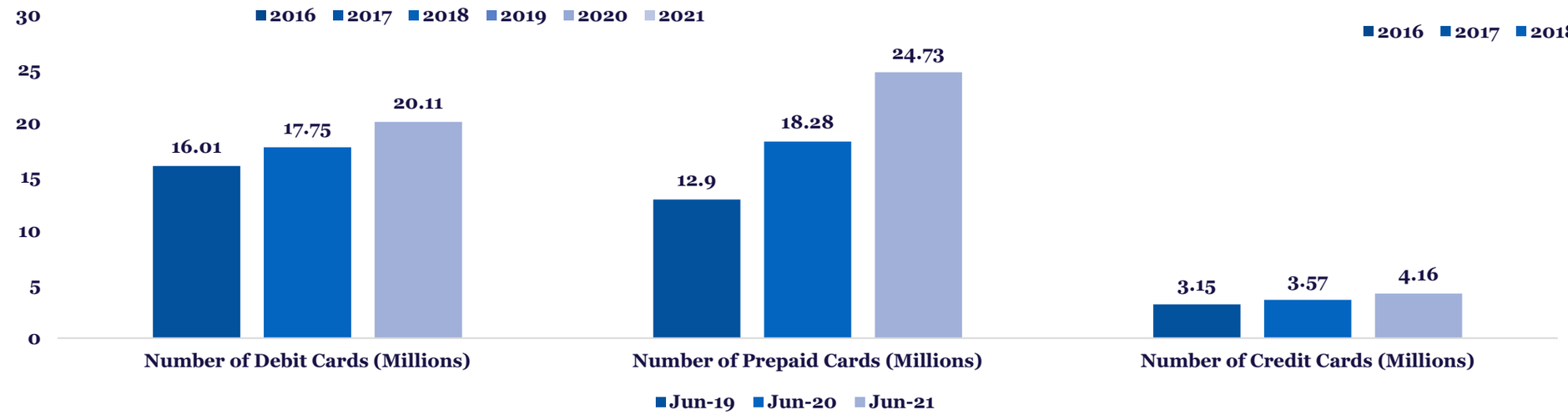
Industry Snapshot

Electronic Cards







67%
Unbanked Population (Age 15+)

45%
Internet Penetration

- Egypt achieved positive rates in increasing the scope of the banked population with coverage reaching 33% in 2017 (WBG, 2018) up from 9.7% in 2011 and 14.1% in 2014. However, the banking rate remains below MENA countries average of 43.5% and lower-middle income countries of 57.8.
- Nonetheless, Egypt recorded notable growth rates in the pre-paid cards segment amid the introduction of Meeza (government-issued prepaid network) for the disbursement of pensions, governmental allowances & salaries, and payment of governmental fees.
- The government's efforts also included an initiative by the CBE to fund the procurement of 100,000 Point-of-Sale (PoS) machines to reduce the reliance on cash transactions.
- Fostering the growth of the banking umbrella still requires expanded geographic footprint of banking institutions in rural areas beside the introduction of accessible financial platforms and frameworks.

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Source: CBE; World Bank Group

Circular on Instant Payment Network (IPN)

Risk Management

- The risk management section illustrates that there are many risks associated with engaging with instant payment networks that are strategic, operational, legal, reputational, and include cyber security risks.
- The CBE's priorities towards the IPN are identified thoroughly towards the pillars of risk management. The CBE aims to ensure the economic and financial feasibility of launching the services and the readiness of the institutions to launch IPN services. The priorities also highlight the importance of maintaining sufficient technical, hardware and software capabilities in order to mitigate the risks associated with providing the services.

Strategic Risks

The extent of the economic feasibility of providing these services or their continuity in identifying whether the percentage of return on investment will exceed the initial investments, the expenses of continuing to provide these services, and the poor implementation of operations.

Reputational Risks

The level of reputational risk is increasing due to the development of systems and the increase in the number of users, the following are some of the risks that may affect the reputation of the Bank:

- Lack of trust due to unauthorized transactions on customer accounts.
- Failure to provide reliable services as a result of frequent or prolonged service disruptions duration of downtime.
- Customer complaints about the difficulty of using the services or the inability of the customer service staff to solve these problems.
- Exploiting real-time transfer services through banks in money laundering or terrorist financing operations.

Transactional Risks

There is a risk arising from fraud or errors in the execution of transactions, or other unexpected events that may lead to the inability of the bank and the company to provide services or expose the bank or its customers to financial losses. While the risks lie in all the products and services provided, the level of risks related to IPN is affected by the structure of banking procedures and transactions, including the types of services provided and the degree of complexity.

Compliance Risk

The methods used by the bank to verify the identity of customers holding payment instruments electronic issued by the bank must include:

- Financial transaction certification process,
- Maintaining records and account statements,
- Compliance with the applicable laws related to the confidentiality of accounts, customer rights, protection of personal data, in addition to the legal responsibility of banks towards customers as a result of the potential for any data privacy breaches, hacking, frauds and failures.

Cyber Security Risks

This type of risk arises as a result of the possibility of an illegal entity exploiting the weaknesses in the Bank's systems, which results in implications on banks related to the level of integrity, availability and confidentiality of data.

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Obligations of the Board of Directors and Senior Management

Overview

The circular identifies the Board of Directors of the Bank as responsible for overseeing the preparation of the business strategy as well as taking strategic decisions regarding the services that the bank will provide. The obligations identified builds on the risks identified by the CBE towards the implementation of the services and mandates adequate strategic planning. In particular, the board of directors must ensure the following:

- Plans for the development of the various instant payment's services are in line with the strategic objectives of the bank,
- Determining the extent of the bank's ability to accept risks (Risk Appetite) in relation to instant payment banking services, while ensuring that the risk management processes related to these services are included in the bank's general risk management methodology,
- Establish effective control frameworks for the risks associated with providing these services, including defining responsibilities, policies and regulations for managing these risks.

Develop

a clear policy to reduce the risks associated with transactions arising from the IPN addressing

- **Certification of Transactions**
- **Service level and efficiency**
- **Settlements**
- **Fraud**
- **Disputes**
- **Bankruptcy for merchants and companies participating in the service**
- **Refunds**

Security and Infrastructure Policy

- Defining clear responsibilities for supervising the development and management of the bank's security policies,
- Providing the necessary protection to prevent unauthorized persons from entering high-risk zones, which includes all vital systems, network servers, databases, applications, communications, and special security systems for IPN,
- Providing the necessary electronic controls that would prevent unauthorized internal or external parties from accessing the applications and databases of IPN services,
- Ensuring that the bank does not provide new services with payment service providers or adopt new technological means unless it has the necessary expertise that enables efficient risk management for instant payment services,
- The internal audit and compliance departments shall provide an independent and objective evaluation to the Board of Directors, the Audit Committee and senior management on the effectiveness of the internal controls that are applied to reduce the risks that arise from providing instant payments, including technology risks and money laundering risks and terrorist financing.

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Obligations of Board of Directors and Senior Management

Outsourcing Policy

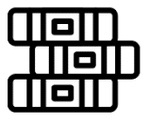
Outsourcing or agency contracts for IPN services must include an agreement for non-disclosure of confidential information to third parties and a service level agreement that is not limited to: defining roles and responsibilities, time required to implement the service, penalties in the event of non-compliance. This is over and above the requirements that preserve the bank's right to audit the contractor or rely on approved audit reports. Banks providing IPN services should also:

- Conduct periodic internal and/or external audits on the operations carried out by the outsourcing agency, and the scope of audit coverage should not be less than that applied at the internal level in the bank.
- Provide all audit and evaluation reports to CBE.
- Develop appropriate contingency plans for IPN services that are carried out through the outsourcing agency and ensure that they are tested periodically.
- Contract termination procedures should be effective, and these procedures must ensure the maintenance of business continuity and data integrity as well as its transfer and disposal.

Outsourcing Obligations

Full awareness of the risks involved in entering any partnership regarding the systems of IPN, as well as providing the necessary resources to supervise these arrangements and obtain the approval of the CBE before initiating the outsourcing of external services.

Preparing a comprehensive mechanism for conducting due diligence and monitoring the outsourcing operations and the contractor's relations with other external parties that are relied upon to provide these services.



Carry out necessary due diligence research regarding competence and the infrastructure of the system, financial capacity of the partner or the third party, before concluding any agreements related to a partnership.

Determine the contractual responsibilities of all parties

Audit and Evaluation

- Conducting periodic internal and/or external audits on the operations carried out by the outsourcing agency, and the scope of audit coverage should not be less than that applied at the internal level in the bank.
- Providing all audit and evaluation reports to CBE.
- Develop appropriate contingency plans IPN services that are carried out through the outsourcing agency and ensure that they are tested periodically.
- The contract termination procedures should be effective, and these procedures must ensure the maintenance of business continuity and data integrity as well as its transfer and disposal.

Third-party Compliance

- Setting limits for assigning more than one task to one service provider to reduce the risks.
- Senior management is responsible for promoting and spreading the security culture at all levels of the bank by emphasizing their commitment to high standards of information security and spreading this culture to all the bank's employees.
- The need for the insurance methodology to be based on the analysis of risks and specific threats, considering the inherent risks and compensating controls in order to reach a level of residual risks that falls within the acceptable risk levels.

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Services Authorized

Financial Services	Non-Financial Services	Customer Registration Services
Money Transfer	Balance Check	Creating an Instant Payment Address for each account
Direct Purchase	E-Statement Issuance	Mapping mobile number of Instant Payment Address
	Setting Instant Payment Network PIN	Activation and password setting for IPN accounts

Obligations

Issuer Bank

- The issuing bank is responsible for documenting and authenticating the data of electronic payment instruments for its customers to participate in the IPN through any of the PSPs applications in accordance with regulations approved by the bank. The issuing bank is primarily responsible for approving any transactions by its clients on the IPN, whether through the applications of PSP or through the bank's electronic channels.
- The bank is required to put appropriate limits for the value and number of monthly operations that are not to exceed the following limits if the customer uses one of the accredited service providers' applications:

1. The maximum transaction value is EGP 50,000 and the maximum daily value of transactions is EGP 60,000
2. The maximum monthly transaction value is EGP 200,000
3. However, the Governor of the CBE may amend these maximum limits. The bank can increase these limits if the bank uses additional means of authentication through the bank's electronic channels, based on the bank's license as a bank providing payment services through the bank's electronic channels (Pre-authorized PSP Bank).

- The client must also be notified of the transaction fee.

Acquirer Bank

- The Acquirer bank is obligated to accept all transactions by any application / electronic channel that is approved by the CBE.
- The acquirer bank can contract with merchants/companies directly or using payment facilitators after obtaining the necessary approvals from the CBE.
- Clients can use IPN services for money transfers, purchases, balance inquiries, short statements of account, and set a secret number for each registered bank account. The client can also create an instant payment address for each account, link the cell phone number to the instant payment and activate accounts on the instant payments network, and set the account password.

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Obligations

Bank as Payment Service Provider

- For a bank to provide payment services, it must obtain one of the following licenses: (1) Pre-authorized PSP Bank, and (2) Full Fledge PSP Bank.
- In case the bank obtains a license to provide payment services through the bank's electronic channels (Pre-authorized PSP Bank), the bank must provide the services of the IPN through the various electronic channels of the bank. The bank can activate electronic channels such as internet banking and mobile banking.
- The bank sets the maximum limits for the number and values of daily and monthly transactions according to its risk assessment.
- The activation of this service is limited to the bank's electronic channels of the bank, and to the accounts issued by the bank.
- If a bank obtains a payment service provider license (Full Fledge PSP Bank), the bank can contract with external payment service providers, after fulfilling all the necessary approvals from the CBE.
- The Full Fledge PSP Bank is allowed to launch a maximum of 5 applications with the approved service providers. The Governor of CBE may amend the number of payment service providers that the service provider bank is allowed to contract. The PSP is allowed to contract with only one bank. The PSPs must agree and abide by all instructions and rules issued by CBE and IPN regulations.

Bank as Payment Service Provider (Responsibilities)

- The banks will be responsible for contracting with service providers and making their services available to customers, after obtaining the approval of the CBE. PSPs must agree and abide by all instructions and rules issued by the CBE and the IPN.
- Direct connection with IPN and activate the secure library of the IPN on all PSP applications.
- The first factor of authentication by the process of hard binding with the customer's mobile with PSP according to the rules of the IPN.
- All confidential data is processed through the secure library which includes but is not limited to authentication and identity confirmation data, password for the customer's account IPN-PIN, one-time password, and access to the customer's balance as well as his short account statement.
- It is prohibited for PSP to register, request or display any of the confidential data referred to previously and referred to in the IPN, outside the secure library. Ensure that all transactions and information processed by PSP are located inside Egypt and that these transactions are not processed outside Egypt until after obtaining the approval Completing periodic inspections of the headquarters and systems PSPs to ensure the business rules follow the rules issued by the CBE, IPN, and the contracting terms of the bank.

Technology Service Providers

- The bank may use a technology service provider after being approved by the CBE and the IPN to carry out some technological tasks on behalf of the bank, such as providing and managing the bank's electronic systems dealing with the IPN.
- The technology service providers are also required to comply with the instructions for protecting customer rights issued by the CBE in February 2019. The bank and the CBE have the right to monitor and inspect the performance of the service provider. The service provider is not authorized to subcontract other companies to carry out the works entrusted to it by the bank through this contract except with the written consent of the bank.

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General Provisions

TSP-delegated notifications

The bank has the right to use a TSP after being approved by the CBE and the IPN to carry out some technological tasks on behalf of the bank, such as providing and managing the bank's electronic systems dealing with the IPN, provided that there is a direct contract between the bank and the TSP. Banks must comply with the instructions for protecting customer rights issued by the CBE in February 2019 and all its amendments, and all parties to the system are committed to the following points, for example, but not limited to:

- Notify clients of transaction fees before executing them,
- Not to use customer data in violation of the terms and conditions that customers have agreed to,
- Notify clients in real time of the outcome of the executed transaction (accepted or rejected). Instantly add or remove money from and to clients' accounts.
- Provide appropriate service and technical support means for customers.

Payment Address

It is allowed to exchange financial transactions through one of the following beneficiary addresses

Mobile wallet number

Electronic payment card number

International Bank Account Number (IBAN)

Account number and bank code

Transactions Executed Through PSPs Application

- Ensure that the PSP complies with all necessary procedures to maintain implementation of 1st factor of authentication properly. Ensure the completion of the hard binding process with the client's mobile, which links the mobile device fingerprint (MDF) and the phone number in the service provider's systems according to the rules of IPN.
- The obligation of the issuing bank to create the password when adding the account for the first time on any of the payment applications, using the IPN secure library.
- The obligation of the issuing bank to maintain the password of the customer's account in an encrypted form.

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General Provisions

TSP Usage

- The contractual responsibilities of the bank and the service provider are clearly defined in the contract, including but not limited to, the responsibilities of managing and operating the systems are clearly defined and the responsibilities of each party.
- Clauses related to the bank's management of its customers' data and the service provider's obligation to maintain the confidentiality of such data and not to disclose or use it except within the limits of contracting with the bank or for valid legal reasons.
- Establishing provisions relating to the right of the bank and the CBE to monitor and inspect the performance of the service provider.
- The contract termination procedures should be effective, and these procedures must ensure business continuity and data integrity, as well as their transfer and disposal.

Contractual Responsibilities

- The obligation of service providers through contracts concluded with them to notify the bank of any events that may have a significant impact on their ability to carry out the tasks assigned to them.
- The necessity of the service provider's obligation to notify the bank in the event of any cases that may be suspected of being illegal, whether actual or suspected, or the interruption of the service on the systems.

Responsibilities of the Egyptian Banks Company

- The Egyptian Banks Company is responsible for issuing the regulations of the instant payments network and its updates, after obtaining the approval of the CBE.
- The Egyptian Banks Company is also responsible to set the guidelines, roles, and obligations of the participants in relation to the IPN, which also includes the processing of transactions, the management of disputes, and determining the exchange commissions for the parties.
- The Circular emphasizes the importance of confidentiality and integrity of the information and ensures that the Egyptian Banks Company will protect it. It also sets rules and regulations to ensure the safety and maintenance of the IPN infrastructure.
- The Circular provides lengthy descriptions of possible threats and risks that could face banks and their clients and ways to tackle them. It stipulates that banks must place a strategy and a plan in response to one of these possible attacks or breaches.
- The Circular demands that banks acquire the necessary technical frameworks and safety procedures to protect the clients from malicious threats and attacks. They must also inform their clients and raise awareness for the possible threats they could face.

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IPN Services - Regulations

Confidentiality and Integrity of Information

- The instant transfer services through electronic payment applications includes trade of confidential data through mobile applications and the bank's internal network. Therefore, banks and PSPs for the IPN must use appropriate methods to maintain the confidentiality and integrity of information circulated over the network.
- Banks must choose the encryption technology that is commensurate with the sensitivity and importance of the information as well as the required degree of protection.
- In this context, it is always recommended that banks adopt encryption technology that uses internationally recognized encryption methods, as the strengths of these methods are subject to comprehensive tests. Banks should apply good practices for managing the cryptographic keys necessary to protect these keys, in accordance with the requirements of the IPN.
- The bank secures the process of exchanging any data or files between the bank and its PSPs, provided that the data or files are encrypted, and the exchange is through the following channels: Leased Line/Virtual Private Network.
- If PSPs use infrastructure outside their premises by infrastructure providers, the bank must obtain approval from the CBE before contracting a PSP.
- The bank and its systems should not be connected to the internet or any of the unauthorized networks without obtaining the approval of the CBE.

Additional Encryption Controls

Banks must also implement controls other than encryption methods, in order to maintain the confidentiality and integrity of the information circulated through the system. This includes, but is not limited to:

- Controls and audits necessary to ensure the integrity of the settlement of customer balances after executing transactions, in addition to ensuring the integrity of data transferred between different systems.
- Monitor unusual transactions, including suspicious ones,
- Banks must ensure that the process is encrypted from the payment channel used to perform the transaction to the servers for executing the payment order.
- The bank should implement a policy of separation of duties, in order to ensure that no employee within the bank can do any unauthorized work and hide it, including but not limited to, managing the user account, executing transactions, keeping and managing the code keys of the administration and operation system.
- The storage of data on the internal memory of the mobile must be limited, and if any data is kept on the mobile appropriate means must be used to protect what has been stored.
- The mobile application must implement adequate detection mechanisms to ensure that the mobile is not exposed to risks such as Jailbroken/Rooted.
- Mobile applications must be protected against any screenshots that can be done by spyware running on the same mobile device.
- The bank's systems, as well as the applications of PSPs must be subjected to multiple tests prior to operation to ensure their ability to perform the tasks assigned to them. If these systems are updated, they are re-tested by the same means to ensure their continued safety. Two-factor authentication must be used and enabled in all applications.

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Procedures for Obtaining Licenses

Issuer Bank

- Apply for approval from CBE having completed all tests and procedures for the IPN according to a work plan that does not exceed 6 months.
- Must submit a three-year business plan with the number of accounts and cards of the target customers to the IPN.
- Must present the number and values of annual transactions to be executed and a comprehensive marketing plan to introduce the service and activate its use.

Pre-authorized PSP Bank

- Complete all tests and procedures for the IPN.
- Electronic channels used to carry out the transactions must be available like internet banking and a mobile banking application.
- They must also submit a three-year business plan that includes the number and values of annual transactions targeted to be executed and a marketing plan to introduce the service.
- If the bank provides its own mobile application to all customers of the Full Fledge PSP Bank, it needs a statement showing the name of the application and its target groups.
- They also need the name of the company wishing to obtain a PSP license. A valid commercial register and a valid tax card for the company wishing to obtain the license among other requirements needed.

Acquirer Bank

- Present a statement indicating whether the publication of acceptance with merchants will be done through the bank directly or through a PSP contracted with the bank.
- A list of the types of services that the service provider will provide among other requirements. If the bank contracts a technology service provider, the bank is obligated to provide the same data mentioned above regarding contracting PSPs.

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Thank you

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