



# Digital Financial Services and Telecom Finance

**Ghana Ecosystem** by Frederick Asumanu (Chief Manager Research, Innovation, Policy and Strategy)



# Outline



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- Digital Financial Service(DFS) Regulatory Framework
- DFS Evolution in Ghana
- Key Players in the DFS Ecosystem
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# Background

## Ghana (2023)

- Population-33.5m
- Bank Penetration-67.12%
- Bank account Ownership(15yrs +)-39.2%

## Mobile Telecom- Oct. 2023

- Voice Subscriptions -33m
- Data Subscriptions-22m
- 3 Mobile Network Operators (MTN, AT, Vodafone)

## Electronic Money Economy As At Dec 2023

- Active e-money customers-22.9M
- Volume of Transaction-657.2M
- Value of Transaction-\$ 16.6B



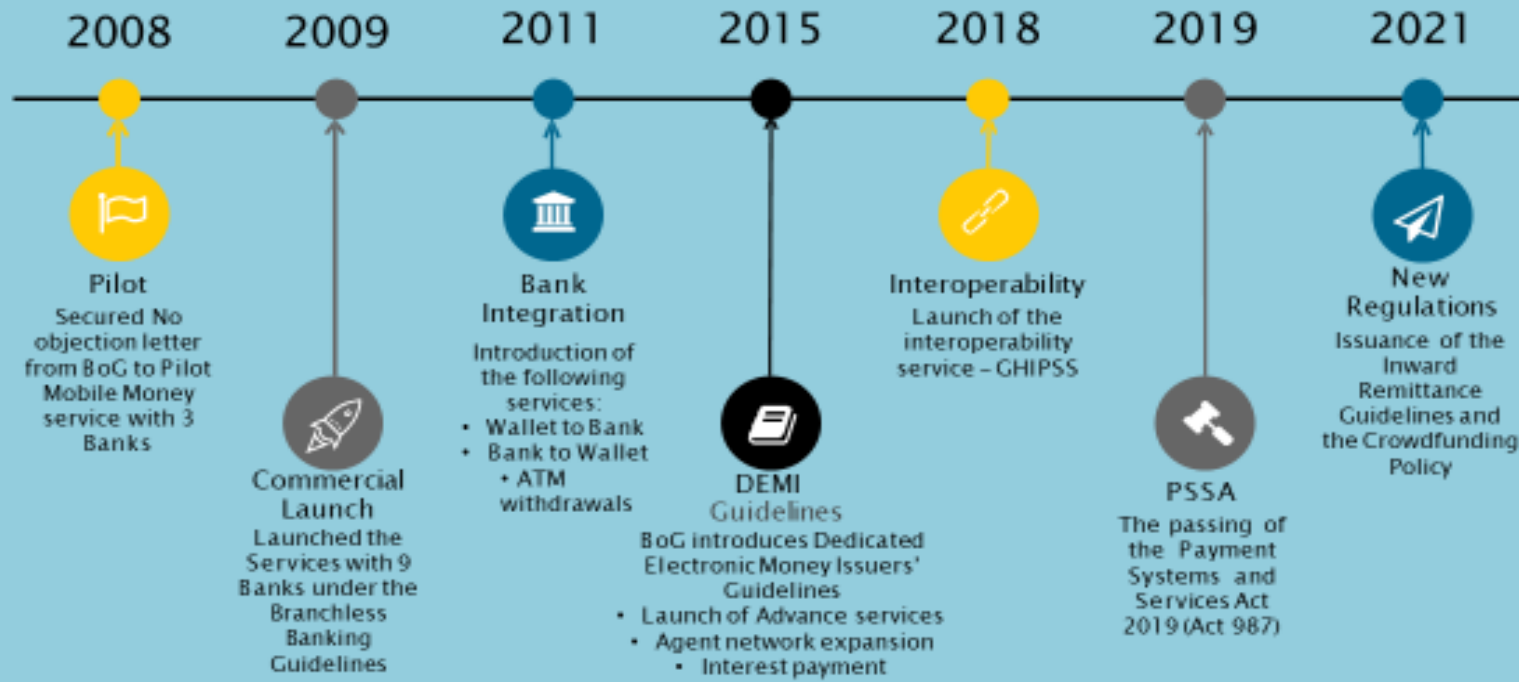
# Regulatory Framework in Ghana

- ▶ MFS is multi-sectorial in nature and Bank- led in Ghana
- ▶ **Bank of Ghana (BoG):** As the central bank of Ghana, the BoG is responsible for formulating and implementing regulations and guidelines for the banking industry, including digital banking. With oversight responsibility of Licensing and Supervision , Consumer Protection and Risk Management
- ▶ **National Communications Authority (NCA):** The NCA oversees the telecommunications industry in Ghana with the mandated to regulate communications by wire, cable, radio, television, satellite and similar forms of technology for the orderly development and operation of efficient communication services in Ghana.
- ▶ **Securities and Exchange Commission (SEC):** The SEC regulates the capital market in Ghana and plays a role in digital banking, especially in crowdfunding and investment platforms
- ▶ National Pensions Regulatory Authority (NPRA) and the National Insurance Commission (NIC) among others play vital roles in the DFS ecosystem.

# Mobile Financial Service Evolution- Ghana

## MFS Evolution – Regulatory Space

### Highlights of the Journey



- BoG – Bank of Ghana
- GHIPSS – Ghana Interbank Payment and Settlement Systems
- PSSA – Payment Systems and Service Act



# TOP PLAYERS IN THE DFS INDUSTRY

## Banks

- They have transformed their operations to include digital channels and offer a range of digital banking services

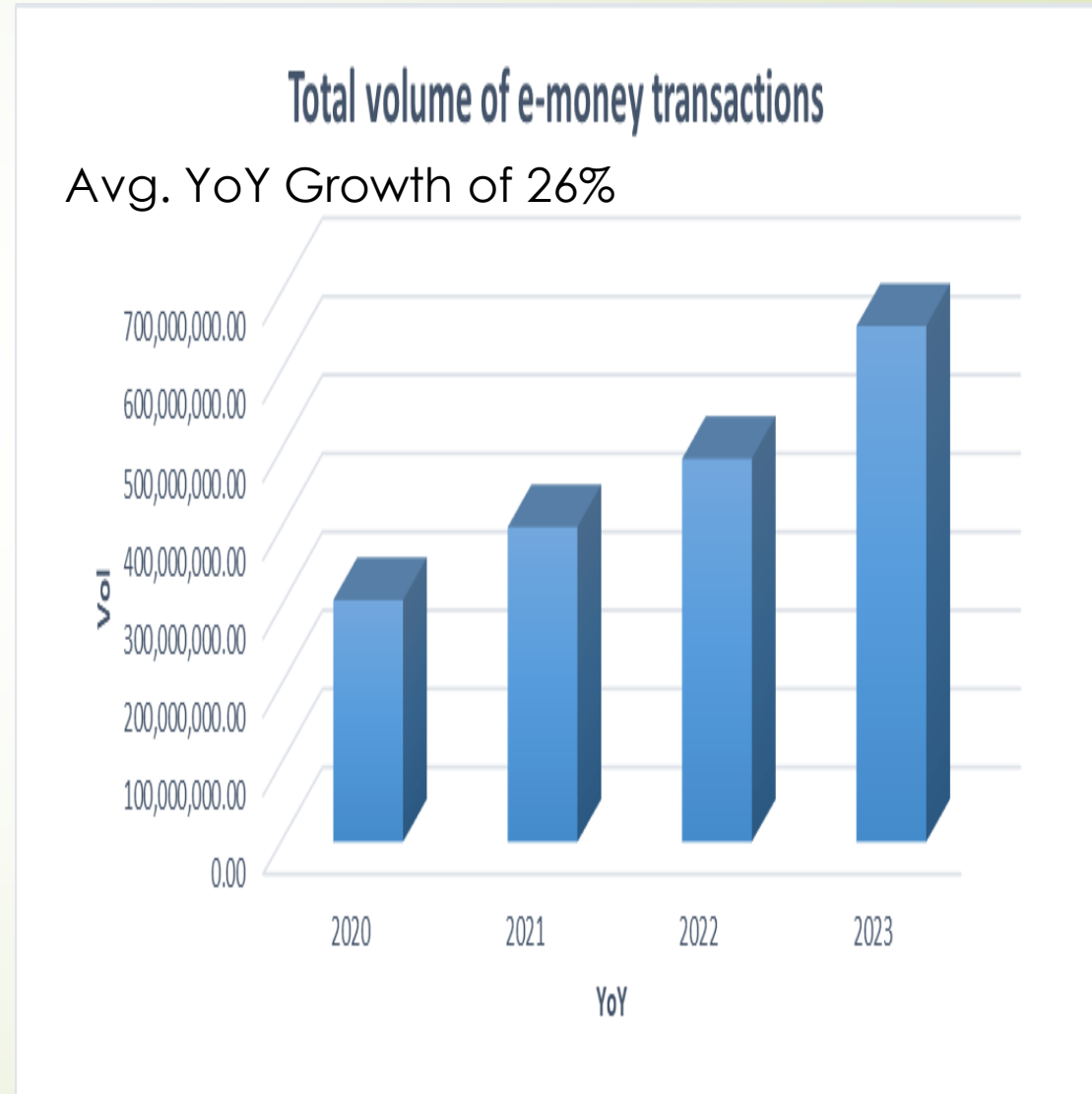
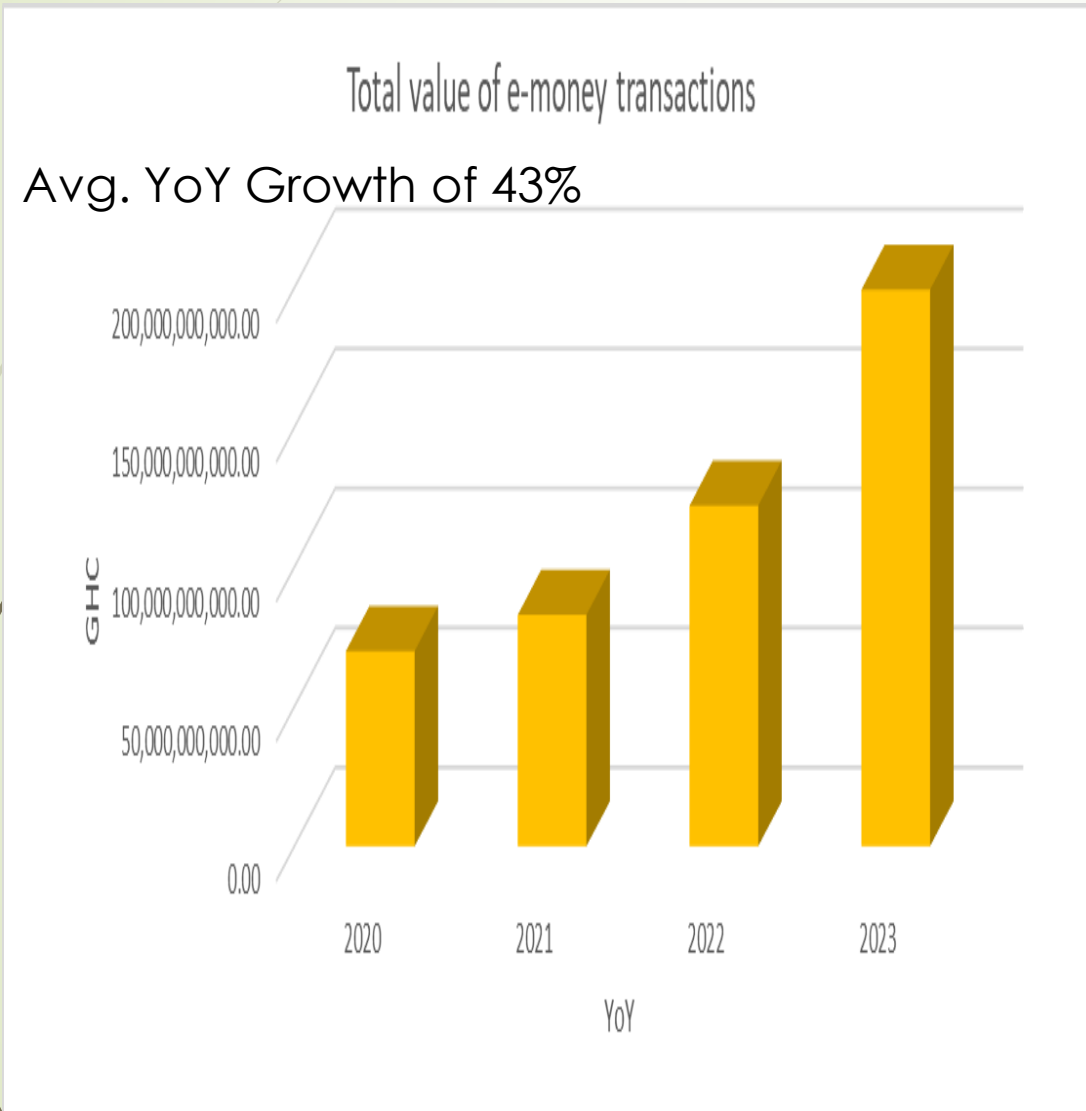
## Fintech Companies

- Financial Technology Companies (FinTech) have been instrumental in driving the digital banking revolution and transforming the financial services industry in Ghana
- Zeepay Ghana Limited, Expresspay, IT Consortium

## Telecom Companies

- MTN Ghana (MTN Mobile Money):
- Vodafone Ghana (Vodafone Cash)
- AirtelTigo Money:

# Economic Impact of DFS: E-Money Transactions







# Dynamics in the DFS Market

The demand and supply dynamics for digital banking have been significantly shaped by a range of factors, including technological advancements, changing customer expectations, and market forces.

► **Increasing Demand for Digital Banking:**

- ❑ **Growing Tech-Savvy Population:** Ghana has a young and digitally engaged population, with increasing smartphone penetration and internet access. This drives the demand for digital banking services as customers seek convenience and accessibility.
- ❑ **Financial Inclusion:** Digital banking offers opportunities to extend financial services to the unbanked and underbanked population in Ghana, contributing to financial inclusion efforts.
- ❑ **Changing Consumer Preferences:** Customers are increasingly embracing digital channels for banking activities, such as account management, payments, and transfers, leading to a higher demand for digital banking solutions.





# Dynamics in the DFS Market..

- ▶ **Supply-Side Factors:**

- ❑ **Financial Institutions' Digital Transformation:** Banks and financial institutions are investing in digital transformation initiatives to stay competitive and meet evolving customer expectations. They offer digital banking platforms, mobile apps, and expanded digital services to cater to the demand.
- ❑ **Collaboration with Non-Bank Players:** Financial institutions collaborate with mobile network operators and payment processors to leverage existing infrastructure and expand their digital banking reach. Mobile money operators play a significant role in driving digital financial services adoption.

# Key Market Development

## ► E-levy

In 2022, the government introduced a 1.5% tax on mobile money transactions, known as the e-levy. It has now been revised to 1% charge on all electronic and mobile money transactions over 100 cedis per day.

- MTN listed on the Ghana Stock Exchange
- MTN project \$ 1m investment in the next 5 years in Ghana
- **SIM Registration**

### HOW TO REGISTER YOUR SIM CARD

#### Stage One - Linking of SIM Card to Ghana Card via USSD

<b>STEP 1</b>	Dial *404#	<b>STEP 6</b>	Enter Date of birth (DDMMYYYY)
<b>STEP 2</b>	Enter Ghana Card PIN	<b>STEP 7</b>	Enter Sex
<b>STEP 3</b>	Confirm Ghana Card PIN	<b>STEP 8</b>	Confirm details
<b>STEP 4</b>	Enter Surname	<b>STEP 9</b>	Submits details provided after confirmation
<b>STEP 5</b>	Enter First name(s)		

✓ If successful, you get a confirmation message with a unique code  
✗ If unsuccessful due to wrong details, you have 3 attempts to answer security questions  
✗ If unsuccessful due to verification failure at the National Identification Authority (NIA), you will be informed to contact the NIA

**Stage Two** - Visit your Service Provider (Agent or Customer Care) with your Ghana Card, Unique Code and Digital Address to complete this stage of the registration





MINISTRY OF  
COMMUNICATIONS AND  
DIGITALISATION  
GHANA



**Register your SIM Card to stay connected!**  
For more information, call: 100 on all Networks or NCA on 0800 110 622





# Risk Factors

The digital banking ecosystem brings numerous benefits, but it also poses certain risk factors that need to be carefully managed.

- ❑ **Cybersecurity Threats:** One of the most significant risks in the digital banking ecosystem is the threat of cyberattacks. Hackers and cybercriminals constantly target digital banking platforms to gain unauthorized access to sensitive customer data, financial information, or disrupt banking services
- ❑ **Fraud and Identity Theft:** Digital banking platforms are susceptible to diverse types of fraud, including account takeover, phishing frauds, and identity theft.
- ❑ **Data Privacy and Regulatory Compliance:** In Ghana, compliance with data protection regulations is primarily governed by the Data Protection Act, 2012 (Act 843).

Is crucial to protect customer privacy and maintain regulatory compliance. This legislation establishes the legal framework for the protection of personal data and ensures that organizations handling personal data adhere to certain principles and obligations



# Conclusion

- ▶ The performance of mobile money in Ghana and, more generally, digital financial services, shows that mobile penetration and access to mobile money is a game changer for financial inclusion and the economy. If nurtured and managed properly, mobile money has the potential to disrupt the financial system in a positive way. As more banks seek to partner with MMOs to reach Ghana's large unbanked population, the role of MMOs in the delivery of DFS will continue to grow.
- ▶ Cooperation between the telco regulator and the financial regulator is therefore crucial to sustained, holistic supervision of digital financial services in the face of greater innovation and the related risks.