The feasibility and implementation of Open Finance in Rwanda

Insights validation workshop

25 August 2023
### Workshop objective & agenda

**Objective:** our intention today is to validate insights gathered from the public and private sector to date on the feasibility of an open finance regime in Rwanda, and to test emerging considerations on its implementation approach.

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<th>Time</th>
<th>Agenda item</th>
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| **08:30 - 9:00** | Arrival and welcome  
   *Opening remarks by Director Financial Inclusion and Development at the National Bank of Rwanda, Mr. Kimenyi Valence* |
| **09:00 - 10:45** | Presentation                                                   |
| **10:45 - 11:00** | Q&A                                                           |
| **11:00 - 11:15** | Comfort break                                                |
| **11:15 - 12:00** | Breakout discussion                                         |
| **12:00 - 12:30** | Sharing from the breakout discussion  
   *Closing remarks by MINECOFIN Chief Economist, Dr. Patrick Hitayezu* |
| **12:30 - 13:30** | Lunch                                                        |
What is Open Finance?
**Open Finance vs Open Banking vs Open Data**

Consensual consumer-led data exchanges between FSPs and 3rd party providers

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**Open Data**

- Telecom
- Utility
- Transit
- Healthcare

**Open Finance**

- Insurance
- Pensions
- Investments

**Open Banking**

- Banking
- Payments
- Mortgages

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**Open data** is data that can be freely used, re-used or re-distributed. It includes the exchange of consumer data between private sector financial and non-financial institutions on the basis of consumer consent. Open data allows for the sharing of all types of data.

**Open banking** is the exchange of consumer data between banks and other financial service providers (FSPs) and regulated providers on the basis of consumer consent. Open banking typically only allows for the exchange of transactional and bank payment financial data.

**Open finance** is the exchange of consumer data between financial service providers and third-party providers on the basis of consumer consent. Open finance allows for the sharing of all financial data (mortgages, pensions, savings, insurance, credit, etc).
Current approach to accessing customer data
Currently data owners manually share information with limited direct provider interaction

Data owner

New third-party products and services

To onboard the customer this FSP requests key information from the customer (e.g., last 3 months bank statements)

The consumer applies for a new financial product from a financial service provider of which they are not currently a customer

To access that information the customer needs to go and request that data from their existing FSP

Their current FSP then provides the customer with this data, usually in a physical, paper format

Data holder

Data user(s)

The customer then has to submit this information/data to their new FSP themselves

Key definitions:
- Financial service consumer
- Responsible for sending data to recipient at request of data owner
- Permitted to receive and use the financial information of data owner
Open finance enables the flow of data among the three stakeholders:

1. **Data owner** provides consent to share data with **Data User(s)**.
2. **FSP** requests access to consented information (e.g., last 3 months bank statements) to onboard the customer.
3. **Data holder** shares consented data with authorized **Data User(s)**.

**Four types of data are commonly shared initially:**

1. **Generic services data**: publicly available information on financial services like product pricing, location.
2. **Customer data**: personally identifiable data required for account opening and administration purposes.
3. **Transaction data**: data on financial transactions made by consumers.
4. **Payments initiation**: Account data to facilitate direct payments.

**Key definitions:**

- **Financial service consumer**: Responsible for sending data to recipient at request of data owner.
- **Data holder**: Permitted to receive and use the financial information of data owner.
- **Data user(s)**: Shares consented data with authorized **Data User(s)**.

**Open APIs** are developed by **Data Holders** and used to share **Owner data with Data User(s)**. These include an authentication and authorization security layer.

**New third-party products and services**

The **consumer** applies for a new financial product from a **financial service provider** of which they are not currently a customer.
Monetary Authority of Singapore launches the Finance-as-Service API Playbook.

Financial grade API (FAPI) standards are released.

Open banking launches in Hong Kong.

Open banking officially launches in the UK.

Open banking officially launches in the EU as PSD2 goes into effect.

Brazil launches open banking.

Australia adopts the Consumer Data Right launching open finance.

Nigeria adopts open banking framework.

Colombia issues open finance decree.

Draft Open Finance Act expands on the open banking regulations established in terms of PSD2.

Arab Financial Services (AFS) partners with CRIF to bolster its Open Finance platform across MENA region.

Open Finance is proliferating globally.
Open Finance motivated by support for national objectives and emerging use cases

Expansion of national objectives for open finance:

- Competition
- Digitalisation
- Financial Inclusion
- Customer empowerment

Common top use cases for consumers and providers

- **Customer onboarding**
  - Enhanced KYC, increased speed, efficiency and security by sourcing real time data

- **Account aggregation**
  - A single interface for all customer accounts for easier financial management

- **Payment initiation**
  - Direct payments from accounts with user consent, reducing reliance on 3rd party infrastructure

- **Alternative credit**
  - Scoring, affordability analysis and alternative products/VAS

- **MSME credit**
  - Collecting banking and transaction data to develop novel credit products

- **Insurance underwriting**
  - Aggregating data sources to develop a more comprehensive customer risk profile

- **Financial management**
  - Tools for customers to see, record, and manage their finances seamlessly

Improved efficiencies and reduction in costs for both established FSPs and fintechs, improved consumer choice and product tailoring

FSCA (2020); FSCA (2023)
The impact of Open Finance, so far...

**United Kingdom**
- Since 2018
- 70% of MSMEs access finance using open banking
- 7M Consumers
- 750K MSMEs using innovative financial products enabled by open banking
- 68M Open banking payments, with reduced operational costs of more than a billion GBP
- 1B Successful API calls p/m
- £7.2M Estimated in revenue opportunity for FSPs in 2022

**Brazil**
- Since Feb 2021
- 4.9B API calls
- 18.7M active consents
- $1.4M increase in cumulative credit limits for clients
- 800+ FSPs participating

Source: Mazer, 2023; JROC, 2023; PWC, 2022
Estimated benefit for UK consumers

Individual consumers

- Secure sharing of payment accounts data under explicit consent
  - Greater visibility and control on financial health
  - Improved access to financial products and advice
  - Better informed financial decisions
  - Expanded payments choice

Business

- Greater visibility and control on financial health
- Improved access to financial products and advice
- Better informed financial decisions

Source: JROC, 2023
Scope for Open Finance in Rwanda?
Weighing up the opportunities against the costs
It’s not a given that every country needs Open Finance, or if it’s even appropriate for the local context

Despite potential, it’s often not clear cut that Open Finance is appropriate for all countries, particularly in Africa, given the following contextual factors:

- **Digital divide** that risks leaving excluded and rural populations behind
- **Nascent regulatory frameworks** that fail to guide market development and manage systemic risks
- **Constrained resources** that keep innovators and other businesses small

To reap the benefits while managing risks, a deliberate assessment is required on its appropriateness & context-specific implementation.
Approach to determine feasibility
Is the Rwandan financial sector ready and willing to adopt Open Finance?

Alignment between Open Finance and **national policy priorities**

**Enabling regulatory environment** for Open Finance to thrive in meaningful, safe, and secure ways across finance sectors.

**Opportunity and ability** of market actors to extract possible benefits from Open Finance

- **Data holders**
- **Data owners (MSMEs and individual customers)**
- **Innovators**

Methodology

- Desktop research
- Regulatory & policy analysis
- Stakeholder interviews
- FGDs and IDIs with consumers
What do the findings tell us so far?

Open Finance may be feasible in Rwanda but greater readiness required

Is Open Finance feasible in Rwanda?

- Enabling infrastructure
- Aligned policy
- Robust regulation
- Consumer demand & awareness
- Limited digitalisation
- Constrained market readiness
- Regulatory gaps

Yes, due to strong enabling factors

- But prerequisites needed prior to implementation
Unpacking feasibility assessment findings
Regulatory analysis
Policy and regulation

Strong foundations are in place to build a robust Open Finance regime upon

Secure & value-driven Open Finance

Regulatory prerequisites:
- Clear legal ramification from cybersecurity non-compliance; unclear FCP dispute process
- API & authentication standards
- TPP licensing

Supportive & robust regulatory environment

Policy environment

Article 23 of the Rwanda constitution gives citizens the right to own and protect their information

"Privacy or correspondence shall not be subjected to interference in a manner inconsistent with the law; the person’s honour and dignity shall be respected."

"No search or entry into a home shall be carried out without the consent of the owner..."
Consumers: Individuals and MSMEs
Financially included consumers* are generally **highly positive** about the potential value of Open Finance and willing to share **personal financial information** in return for clear benefits.

“The benefits would be connection, the fact that it was connected would help me to get quick services.” ~Female, 35-45, SEC A

“It would be perfect if I could **access my data at the revenue authority, the bank, the insurance, every where I go...**my data can be accessed, even at the airport, I would have no issue with that ” ~SME respondent, Self-Employed

**Top benefits expressed by consumers**

- Reduced Instances of fraud
- Enhanced compliance
- Value added benefits e.g., discounts
- Better personal financial management
- Efficiency in service delivery
- Faster access to services
- Simplicity & convenience

**Least attractive**

**Most attractive**

No difference in perceptions among different genders or employment types, but **less resonance among lower-income**

**Urban 18-45yrs, employed, use of formal/alt FS, regular income**

Consumer research (2023)
## Top perceived use cases and benefits

Both individuals and SMEs readily identify faster, efficient and more simplified access to services as a key benefit of Open Finance.

### Use-cases

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<th>INDIVIDUALS</th>
<th>USE-CASES</th>
<th>SMEs</th>
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<tr>
<td><strong>Highest resonating use-case</strong></td>
<td>Account aggregation</td>
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<td>Accessing more suitable personal and/or MSME credit</td>
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<td>Accessing suitable and affordable MSME insurance</td>
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<td>Enabling faster insurance claim or policy evaluations</td>
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<td>More convenient and simpler tax payments</td>
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<td>More convenient subscription payments</td>
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<td></td>
<td>Faster and frictionless payments for MSME’s</td>
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<td><strong>Lowest resonating use-case</strong></td>
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"I can get more tailored financial products as a result of being able to see my financial history”
~Female, 25-34, SEC A

"If my insurance information is provided to a certain company then the provision of insurance should be quick”
~Male small business owner, 35-45

Consumer research (2023)
**Usage and consumer consent**

Trust in the NBR may drive adoption but consent requires a balance between trust, minimal friction and necessary information.

"If all companies were to ask for my confirmations all the time, then it would be a full-time job"

~Male respondent, 25-34 years, SEC A

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**Top system conditions likely to drive user adoption:**

1. Public approval and regulation by the NBR
2. Simple and plain language/convenience
3. Transparent purpose
4. Observable security measures
5. Hassle-free access

"BNR is the regulator, and I would believe in everything that they would have authorized."

~FGD respondent

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**Duration of consent**

**Open unbound consent**

*if a trusted provider (bank, fintech MNO)*

6-12 months

If nascent relationship with provider

0-1 month/on-demand

*If low trust with providers (insurers, SACCOS, trading companies or skeptical of benefit*

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Consumer research (2023)
Consumer readiness to leverage Open Finance is not clear

Contextual factors may undermine OF if its value proposition isn’t strong enough

- >70% formally financially included
- 57% own 3+ financial products/services and use them frequently
- High and growing familiarity with digital financial services
- Significant trust and faith in NBR to protect consumer data and privacy

Pull factors

- <20% have smartphones
- Digital divide biased towards urban
- Weak MSME digitalization
- Privacy concerns
- Personal safety concerns & discrimination
- Data abuse for criminal activity

Push factors

“BNR is the regulator, and I would believe in everything that they would have authorized.”
~ Male MSE owner, 25-34

“What you do, where you work, who you work with can be used to personally attack you”
~ Female respondent, Employed

Consumer research (2023)
Data holders & innovators
Data holders & innovators see different value propositions to data sharing

Data holders and innovators alike perceive financial data as underutilized or untapped resources.

**Data holders**

**Primary pull factor:** greater customer reach to expand profitability

**Most attractive use cases:**
- Product cross-selling
- Dynamic & inclusive credit-scoring
- Ekyc robustness
- Improving customer experience

**Innovators**

**Primary pull factor:** leveling the playing field to enhance competition

**Most attractive use cases:**
- Product customization
- Enabling alternative credit scoring (esp for MSMEs)
- Payment initiation
- Reduced contracting/integration costs

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**Logos:*** cenfri, INSE, Rwanda Finance, William & Flora Hewlett Foundation, smart Africa
Data holders more ready to capitalize on data-exchanges

Innovators have the mindset and skills while data holders possess more resources

**Data holders**
- **Partnerships**: FSPs can leverage existing relationships between providers
- **Open API usage**: MNOs and banks opening data channels
- **PKI access**: Access to existing resources and national databases like NIDA
- **Enabling regulation**: Clear rules and guidelines, such as DPP, give clear rules to data sharing/protection

**Innovators**
- **Innovative mindset**: Response to market needs via data and agile design
- **Critical skills**: A globally competitive talent pool with increasing skills
- **Infrastructure**: Investments in local data infrastructure and emerging cloud storage and data capabilities
Data holders more ready to capitalize on data-exchanges
An OF regime would need to acknowledge differential starting points between actors

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**Constraints:**
- Limited experience with data sharing vs data-creation
- Most bank APIs remain closed with limited use cases
- Constrained ability & willingness to invest in data integrations
- Nascent data-drive product design

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**Constraints:**
- Dependency on regulated entities to compete
- Limited opportunity to build data-driven business models
- High price sensitivity
- Limited human resources beyond technical skills
- Scepticism towards incumbent participation
What is the main take-away?
Open Finance could feasibly be rolled out in Rwanda given current national priorities and market demand.

Is Rwanda ready for Open Finance?

- National policy objective for inclusive digital transformation
- Robust FS regulation covering cybersecurity, data & FCP
- Deep digital financial lives of banked users and desire for more FS value by MSMEs
- FSPs want to attract more customers & get more from partners
- Fintechs want to level the playing field & optimize tech capabilities

But implementation will take time with some key preconditions to be met:

- Closing relevant regulatory gaps on APIs & TPPs among others
- Giving the regime a home w.r.t supervision & consent authentication
- Growing FI and smartphone penetration, awareness, and trust
- Accelerating the digitalization of FSPs
- Building incentives & reciprocity to exchange data
Implementation approach
Building a tailored context-specific regime

6 Guiding principles

**Regime type and roll-out**: consider the type of regime that fits the local context and is able to accommodate additional use cases without requiring changes to the core structure of the regime, as well as a transition process that will result in minimal market friction.

**Regulation and Governance**: Define clear roles and responsibilities among sponsor and implementing actors, and amend or develop regulation necessary to clarify market participation rules.

**Trust frameworks**: Determine approaches to standardize data-sharing through appropriate system architecture, and for which specific actors at different stages of the regime.

**Consumer experience**: Consider the necessary guidelines to ensure users are sufficiently empowered to engage with, and benefit from, data-exchanges via their informed consent or permissions.

**Liability and recourse frameworks**: Clarify who bears risks and their resolution for users.

**Regime costs and incentives**: Determine fair cost structures that incentivize the sustainability of the regime and meaningful participation by actors, while limiting curtailing the ability of specific actors to frustrate the goals of OF.
Rwanda implementation guidance

Preliminary insights

Regime type and roll-out
- Mandatory but highly consultative
- Modular phasing-in over multiple years, beginning with largest banks and PSPs and “generic data”
- Top initial use cases: account aggregation, eKYC & MSME financial services

Regulation & Governance
- Clarifying interpretation of data protection regulations and clearer cybersecurity regulations re. recourse & non-compliance
- Creation of a dedicated TPP license
- Rwanda IOFWG to design initial phases
- BNR to provide regulatory oversight initially

Trust frameworks
- Distinguish between security and functional API standards.
- FAPI as starting point with OIDC & OAuth2.0 for security standards
- Industry developed (led by MNO and Banks) functional API data standards subject to regulator approval.

Consumer experience
- BNR led in close consultation with consumer groups and industry
- Uniform UX for transparent, simple, secure and fast approval through a centralized consent architecture
- Informed consent vs fair data use standards

Liability & recourse framework
- Liability and consumer recourse need to be decoupled. Consumers must be able to easily seek and receive recourse immediately, whilst liability audits may take longer.
- Liability and recourse approaches developed by industry and subject to BNR approval

Regime costs & incentives
- Long term- reciprocity of data sharing
- Fintech and MNO participation and Gov-held data sets a key incentive
- Short term – fee and pricing models
- Industry consultation
How well do the feasibility findings resonate with you and have we missed anything?

What will be the key success factors that will lead to a smooth transition to open finance in Rwanda?
About Cenfri
Cenfri is a global think-tank and non-profit enterprise that bridges the gap between insights and impact in the financial sector. Cenfri’s people are driven by a vision of a world where all people live their financial lives optimally to enhance welfare and grow the economy. Its core focus is on generating insights that can inform policymakers, market players and donors who seek to unlock development outcomes through inclusive financial services and the financial sector more broadly.

Thank you

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