Business Model on Operation and Implementation of the Regional Digital Retail Payment Scheme for MSMEs in COMESA
COMESA MEMBER STATES
Burundi; Comoros; Democratic Republic of Congo; Djibouti; Egypt; Eritrea; Eswatini; Ethiopia; Kenya; Libya; Madagascar; Malawi; Mauritius; Rwanda; Seychelles; Somalia; Sudan; Tunisia; Uganda; Zambia; Zimbabwe.
Acknowledgements

This Business Model report was developed under the COMESA Business Council's Digital Financial Inclusion for Micro, Small and Medium-Sized Enterprises Program. It outlines the structure supporting the design, governance, and implementation of the proposed regional digital retail payment platform for MSMEs in the COMESA region. The overarching vision is to strengthen cross-border trade, regional market access and boost intraregional trade in COMESA and continentally.

We would like to thank the COMESA Committee of Experts on Finance and Monetary Affairs, as well as the COMESA Committee of Central Bank Governors for the review, additional input, and adoption of the report.

The Bill and Melinda Gates Foundation (BMGF) supported the COMESA Business Council SME Digital Financial Inclusion Plan grant agreement. Special appreciation goes to Mrs. Dilwonderish Aberra of the BMGF for her continuous advisory support towards the Digital Financial Inclusion Program for MSMEs.

The report was developed by CYMA Chartered Public Accountants & Management Consultants, supervised by Dr. Jonathan Pinifolo, the Digital Financial Inclusion Manager, under the overall supervision of the CEO, Ms. Sandra Uwera.

We further acknowledge the input by CBC's team of experts, Mr. Dickson Poloji, Business Policy Programs Manager, Mr. Yoseph Wondimu, Digital Services Operations Manager, Ms. Marianne Nzioki, Marketing and External Relations Officer; and Mr. Hopewell Musundire, Business Development Officer. Appreciation also goes to our partner, AfricaNenda - Dr Robert Ochola, CEO; Mr. Goodluck Akinwale, Deputy CEO; and Mr. Michael Mbuthia, East Africa Regional Director.

Our special gratitude correspondingly goes to the following organisations constituting our Advisory Committee, for their support in the development of the report: Bayer Crop Science, KCB Bank Rwanda Plc, Vodacom, COMESA Clearing House, Techno Brain, Coca Cola East and Central Africa Franchise, ECOCASH, Airtel, GSMA, Bank of Zambia, Rwanda Information Society Authority (RISA), Kenya Bankers Association, and Bankers Association of Zambia.

Lastly, we would like to thank participants in our first and second High-level Public-Private Dialogues held on 20th January 2021, and 27th July 2021 respectively, who validated and adopted this report. They represented the nine pilot-study countries: Egypt, Ethiopia, Kenya, Malawi, Mauritius, Rwanda, Tanzania, Uganda, and Zambia. Participants in these countries were drawn from MSME Associations, Mobile Network Operators, Financial Services Regulators, Information and Communication Technologies (ICT) Regulators, FinTechs, and Agroindustry/Manufacturers.
## Contents

Acknowledgements .................................................................................................................................................. 3  
Acronyms & Abbreviations ........................................................................................................................................ 6  
Executive Summary .................................................................................................................................................. 8  

1. Background & Purpose ............................................................................................................................................... 11  
1.1 Background .......................................................................................................................................................... 12  
1.2 Purpose .............................................................................................................................................................. 12  

2. Overview of the COMESA Regional Digital Retail Payments Scheme Model .................................................. 13  
2.1 Part I: Technical Requirements .............................................................................................................................. 14  
2.1.1 The Design Principles ......................................................................................................................................... 14  
2.1.2 The Design Process ............................................................................................................................................ 16  
2.1.3 Overview of proposed high-level design and payments flows ........................................................................... 17  
2.1.4 Platform building blocks as enablers .................................................................................................................. 20  
2.1.5 Business requirements ......................................................................................................................................... 22  
2.1.6 Use cases supported by the platform .................................................................................................................. 29  
2.1.7 Risks and Mitigation to Implementation of the Model ....................................................................................... 29  
2.1.8 Commercial model and pricing .......................................................................................................................... 30  
2.2 Part II: Legal, Administrative and Governance Model .......................................................................................... 31  
2.2.1 Rights and obligations of participants Model ................................................................................................... 31  
2.2.2 Governance Model ............................................................................................................................................. 32  
2.3 Part III: Proposed Business Model Design on Operation and Implementation of Regional Digital Retail  
  Payment Scheme for MSMEs in COMESA Region ................................................................................................... 34  
2.3.1 Proposed Business Models .................................................................................................................................. 34  
2.3.2 Key Performance Indicators ............................................................................................................................... 38  
2.4 Part IV: Modalities for piloting ................................................................................................................................ 39  
2.5 Part V: Operationalization Guidelines for the Business Model (Scheme) ........................................................... 39  
2.6 Part VI: Financial implications ............................................................................................................................... 43  
2.6.1 Financial Model .................................................................................................................................................... 43  
2.7 PART VII: Customizing the Rule book .................................................................................................................. 44  

Glossary of Key Terms ............................................................................................................................................... 45  

References ................................................................................................................................................................. 49  

Appendices ................................................................................................................................................................. 50  

Appendix 1 - Country Reports - Stakeholder Consultative Meetings ........................................................................ 50  
  Zambia ........................................................................................................................................................................ 50  
  Malawi ................................................................................................................................................................. 55  
  Tanzania ............................................................................................................................................................ 59  
  Kenya ............................................................................................................................................................... 63  
  Uganda ............................................................................................................................................................. 68  

Appendix 2 – Questionnaires ......................................................................................................................................... 72  

Appendix 3 – Organizational Structure and Job Descriptions .................................................................................... 82  

Appendix 4 – Assumptions to the Financial Model ....................................................................................................... 90  

Appendix 5 – Projected Cashflows in US Dollars ........................................................................................................ 90  

Appendix 6 – Breakeven for Number of Transactions .............................................................................................. 90
List of Figures

Figure 1: Overview of the COMESA Regional Digital Retail Payments Scheme Model .......................... 14
Figure 2: Level One project Design Principles .................................................................................. 14
Figure 3: Proposed COMESA Platform Architecture Model .............................................................. 17
Figure 4: Proposed Platform Components .......................................................................................... 18
Figure 5: Platform Connectivity Options ............................................................................................ 19
Figure 6: Building blocks as enablers .................................................................................................. 20
Figure 7: End-to-end payment flow ..................................................................................................... 23
Figure 8: Components and relationships for the COMESA deferred Net settlement .......................... 24
Figure 9: Multilateral Deferred Net settlement .................................................................................... 25
Figure 10: Governance Model ........................................................................................................... 33
Figure 11: Model 1 of CBC SPV with in-house Platform Operations .................................................. 36
Figure 12: Model 2 of CBC SPV with Outsourced Platform Operations ............................................. 37

List of Tables

Table 1: Details of the Design Principles ............................................................................................ 15
Table 2: Level One Design Principles ................................................................................................. 15
Table 3: Positive aspects for technical connectivity ......................................................................... 19
Table 4: Participant Access Regime .................................................................................................... 20
Table 5: Building Block Description ................................................................................................... 21
Table 6: Deferred Net Settlement Model Highlights ......................................................................... 23
Table 7: Use Cases to be enabled ....................................................................................................... 29
Table 8: Potential risks ....................................................................................................................... 30
Table 9: Scheme Rules Description ..................................................................................................... 32
Table 10: Proposed Scheme organogram ............................................................................................ 34
Table 11: Model 1 Description ............................................................................................................ 35
Table 12: Model 2 Description ............................................................................................................ 36
Table 13: Benefits and areas for consideration ................................................................................... 38
Table 14: Pilot modalities .................................................................................................................... 39
Table 15: Draft Implementation Work plan ......................................................................................... 39
## Acronyms & Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACH</td>
<td>Automated Clearing House</td>
</tr>
<tr>
<td>ACT</td>
<td>Agriculture Council of Tanzania</td>
</tr>
<tr>
<td>AML</td>
<td>Anti-Money Laundering</td>
</tr>
<tr>
<td>AML/CFT</td>
<td>Anti-Money Laundering/Combating the Financing of Terrorism</td>
</tr>
<tr>
<td>API Layer</td>
<td>Application Programming Interface Layer</td>
</tr>
<tr>
<td>ATMs</td>
<td>Automated Teller Machines</td>
</tr>
<tr>
<td>B2B</td>
<td>Business to Business</td>
</tr>
<tr>
<td>B2P</td>
<td>Business to Person</td>
</tr>
<tr>
<td>BAZ</td>
<td>Bankers Association of Zambia</td>
</tr>
<tr>
<td>BCP</td>
<td>Business Continuity Plan</td>
</tr>
<tr>
<td>BMO</td>
<td>Business Membership Organization</td>
</tr>
<tr>
<td>BOT</td>
<td>Bank of Tanzania</td>
</tr>
<tr>
<td>BOU</td>
<td>Bank of Uganda</td>
</tr>
<tr>
<td>BOZ</td>
<td>Bank of Zambia</td>
</tr>
<tr>
<td>BPM</td>
<td>Business Process Management</td>
</tr>
<tr>
<td>BRD</td>
<td>Business Requirements Document</td>
</tr>
<tr>
<td>BRS</td>
<td>Business Resumption Site</td>
</tr>
<tr>
<td>CBC</td>
<td>COMESA Business Council</td>
</tr>
<tr>
<td>CBK</td>
<td>Central Bank of Kenya</td>
</tr>
<tr>
<td>CCCBG</td>
<td>COMESA Committee of Central Bank Governors</td>
</tr>
<tr>
<td>CIKO</td>
<td>Cash-in Cash-Out</td>
</tr>
<tr>
<td>COC</td>
<td>COMESA Oversight Committee</td>
</tr>
<tr>
<td>COMESA</td>
<td>Common Market for Eastern and Southern Africa</td>
</tr>
<tr>
<td>COTS</td>
<td>Commercial-off-the-shelf</td>
</tr>
<tr>
<td>CPU</td>
<td>Central Processing Unit</td>
</tr>
<tr>
<td>CTF</td>
<td>Counter Terrorist Financing</td>
</tr>
<tr>
<td>CYMA</td>
<td>CYMA Public Chartered Accountants &amp; Management Consultants</td>
</tr>
<tr>
<td>DFI</td>
<td>Digital Financial Inclusion</td>
</tr>
<tr>
<td>DFS</td>
<td>Digital Financial Services</td>
</tr>
<tr>
<td>DFSP</td>
<td>Digital Financial Services Providers</td>
</tr>
<tr>
<td>DRP</td>
<td>Disaster Recovery Plan</td>
</tr>
<tr>
<td>EABC</td>
<td>East Africa Business Council</td>
</tr>
<tr>
<td>EAC</td>
<td>East African Community</td>
</tr>
<tr>
<td>EAPS</td>
<td>East Africa Payment System</td>
</tr>
<tr>
<td>FATF</td>
<td>Financial Action Task Force</td>
</tr>
<tr>
<td>FGD</td>
<td>Focused Group Discussions</td>
</tr>
<tr>
<td>FI</td>
<td>Financial Inclusion</td>
</tr>
<tr>
<td>FIC</td>
<td>Financial Intelligent Centre</td>
</tr>
<tr>
<td>FinTechs</td>
<td>Financial Technology</td>
</tr>
<tr>
<td>FMCG</td>
<td>Fast-moving consumer goods</td>
</tr>
<tr>
<td>GIMAC</td>
<td>Global Information Management, Assessment and Analysis Cell</td>
</tr>
<tr>
<td>GIM-UEMOA</td>
<td>Groupement Interbancaire Monetique de l’Union Economique et Monétaire Ouest-Africaine</td>
</tr>
<tr>
<td>GSMA</td>
<td>Global System for Mobile Communications</td>
</tr>
<tr>
<td>HSM</td>
<td>Hardware Security Module</td>
</tr>
<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
</tr>
<tr>
<td>IPSL</td>
<td>Integrated Payment Systems Limited</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>IMT</td>
<td>International Money Transfer</td>
</tr>
<tr>
<td>ITU</td>
<td>International Telecommunication Union</td>
</tr>
<tr>
<td>KII</td>
<td>Key Informant Interviews</td>
</tr>
<tr>
<td>KPIs</td>
<td>Key Performance Indicators</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>KYC</td>
<td>Know Your Customer</td>
</tr>
<tr>
<td>L1P</td>
<td>Level One Principles</td>
</tr>
<tr>
<td>MACRA</td>
<td>Malawi Communications Regulatory Authority</td>
</tr>
<tr>
<td>MCCI</td>
<td>Malawi Chamber of Commerce and Industry</td>
</tr>
<tr>
<td>MNCSS</td>
<td>Malawian Net Clearing &amp; Settlement Service</td>
</tr>
<tr>
<td>MMNOs</td>
<td>Mobile Money Network Operators</td>
</tr>
<tr>
<td>MNOs</td>
<td>Mobile Network Operators</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>MSMEs</td>
<td>Micro, Small and Medium-sized Enterprises</td>
</tr>
<tr>
<td>MTO</td>
<td>Money Transfer Operators</td>
</tr>
<tr>
<td>NBE</td>
<td>National Bank of Ethiopia</td>
</tr>
<tr>
<td>NBM</td>
<td>National Bank of Malawi</td>
</tr>
<tr>
<td>NBR</td>
<td>National Bank of Rwanda</td>
</tr>
<tr>
<td>NFS</td>
<td>National Financial Switch</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>OMT</td>
<td>Operations Management Team</td>
</tr>
<tr>
<td>P2B</td>
<td>Person to Business</td>
</tr>
<tr>
<td>P2P</td>
<td>Person to Person</td>
</tr>
<tr>
<td>PAPSS</td>
<td>Pan-African Payment and Settlement System</td>
</tr>
<tr>
<td>PCI</td>
<td>Payment Card Industry</td>
</tr>
<tr>
<td>PFMI</td>
<td>Principles of Financial Markets Infrastructures</td>
</tr>
<tr>
<td>PIN</td>
<td>Personal Identification Number</td>
</tr>
<tr>
<td>PMT</td>
<td>Project Management Team</td>
</tr>
<tr>
<td>PPD</td>
<td>Public Private Dialogue</td>
</tr>
<tr>
<td>PSPs</td>
<td>Payment Service Providers</td>
</tr>
<tr>
<td>QoS</td>
<td>Quality of Service</td>
</tr>
<tr>
<td>QR Code</td>
<td>Quick Response Code</td>
</tr>
<tr>
<td>RBM</td>
<td>Reserve Bank of Malawi</td>
</tr>
<tr>
<td>REPSS</td>
<td>Regional Payment and Settlement System</td>
</tr>
<tr>
<td>RFP</td>
<td>Request For Proposal</td>
</tr>
<tr>
<td>RTGS</td>
<td>Real Time Gross Settlement</td>
</tr>
<tr>
<td>RTRP</td>
<td>Real-Time Retail Payments</td>
</tr>
<tr>
<td>SADC</td>
<td>Southern Africa Development Community</td>
</tr>
<tr>
<td>SADC BA</td>
<td>Southern Africa Development Community Bankers Association</td>
</tr>
<tr>
<td>SDK</td>
<td>Software Development Kit</td>
</tr>
<tr>
<td>SEI CERT</td>
<td>Software coding standards developed by the CERT coordination Center</td>
</tr>
<tr>
<td>SIM</td>
<td>Subscriber Identity Module</td>
</tr>
<tr>
<td>SIRESS</td>
<td>SADC Integrated Regional Electronic Settlement System</td>
</tr>
<tr>
<td>SLA</td>
<td>Service Level Agreement</td>
</tr>
<tr>
<td>SMS</td>
<td>Short Messaging System</td>
</tr>
<tr>
<td>SPV</td>
<td>Special Purpose Vehicle</td>
</tr>
<tr>
<td>STR</td>
<td>Simplified Trade Regime</td>
</tr>
<tr>
<td>TABWA</td>
<td>Tanzania Businesswomen Association</td>
</tr>
<tr>
<td>TCIB</td>
<td>Transactions Cleared on an Immediate Basis</td>
</tr>
<tr>
<td>TCRA</td>
<td>Tanzania Communications Regulatory Authority</td>
</tr>
<tr>
<td>ToRs</td>
<td>Terms of Reference</td>
</tr>
<tr>
<td>TPS</td>
<td>Transaction per Second</td>
</tr>
<tr>
<td>TPSF</td>
<td>Tanzania Private Sector Foundation</td>
</tr>
<tr>
<td>UAT</td>
<td>User Acceptance Testing</td>
</tr>
<tr>
<td>VAS</td>
<td>Value Added Service</td>
</tr>
<tr>
<td>WG</td>
<td>Working Group</td>
</tr>
<tr>
<td>ZAMPOST</td>
<td>Zambia Postal Services Corporation</td>
</tr>
<tr>
<td>ZAMTEL</td>
<td>Zambia Telecommunications Company Limited</td>
</tr>
<tr>
<td>ZICTA</td>
<td>Zambia Information and Communications Technology Authority</td>
</tr>
</tbody>
</table>
COMESA Business Council (CBC) is implementing a Digital Financial Inclusion (DFI) program that supports the design, development, and deployment of an integrated regional digital retail payments scheme. The low cost, interoperable and fraud resistant Scheme serves Micro Small and Medium-sized Enterprises (MSMEs) in the Common Market for Eastern and Southern Africa (COMESA) region. The program focuses on women and youth.

The Scheme will develop from a regulatory focus approach to the business model, to the actual operational and technical establishment, with well-defined components. The expectation is that once established, the Scheme will increase the volume of cross-border transactions, financial inclusion, and enhance the visibility of African products within the regional markets. Additionally, it will encourage MSMEs to participate in national and regional trade, and will directly respond to the intra-trade deficit in the region.

The design of the Scheme is based on interviews with stakeholders drawn from across the COMESA payments industry, which took place between October 2021 and November 2021. Desk research and stakeholder meetings were used to interrogate the key questions, thus: oversight, governance, economic incentives, and the operational model. The inputs are from five (5) countries including Tanzania, which is not part of the COMESA bloc.

This business model has been developed using all aspects of Level One design principles\(^1\) (L1Ps), which addresses the needs of low-income cross-border traders, and the customers they transact with at the bottom of the financial pyramid. In addition, the model design process has considered recommendations from stakeholders to the effect that the payments infrastructure arrangement should support commerce and trade of MSMEs across the COMESA region. The payments Scheme should have the following key attributes as the bare minimum:

- Provides a centralized payment and settlement infrastructure.
- Operates independent of domestic payment systems.
- Supports safe and efficient flow of payments across the region through a well-regulated cross-border environment.
- Payment should be instant and in local currencies.
- Settlement is on a multilateral net basis, and using agreed upon settlement currencies in a Central Bank within the COMESA region.
- Operational on 24 hours a day, seven days a week (24x7) basis, thus guaranteeing continuous availability, and that messages meet the ISO 20022 standards; and

\(^1\) https://www.leveloneproject.org
In this regard, the COMESA platform should enable interoperability between different stakeholders, with minimal need for the configuration of Application Programming Interfaces (APIs) and integrated messaging standards. It should also have flexible addressing protocols and will operate as a 24x7 real-time retail payments system. As described in the design principles and functional requirements, the proposed COMESA retail payments scheme will mainly support push payments.

The participants initiating the payments will have to be integrated within the COMESA Platform for financial and non-financial messages. The platform should support integration through industry standard protocols, while the ISO 20022 ought to be used as the native message format. This is because, ISO 20022 is the accepted international standard, which is used by the financial services industry to create consistent message standards across all business processes of the industry. The format is being adopted by many payment systems globally and will ensure seamless integration with regional or international payment systems in the future.

But it should be noted that the integration layer of the COMESA payment system ought to be flexible, and allow national switches and Payment Service Providers (PSPs) with legacy systems to integrate using APIs, in case they do not presently support ISO 20022 specification. Messaging service provider (SWIFT) gave November 2025 as the date compliance with ISO 20022, with a grace period of three years from November 2022 until the end of the date on which it will go live.

The study found that adoption of the new message format was an ongoing process for almost all national switches of the countries that were visited and may therefore not support this format immediately. So, the COMESA retail switch should be interoperable with existing and upcoming initiatives, through the proposed open API and offer supporting tools for translation. This will enable the national payment switches and PSPs that do not support ISO 20022 to integrate through the commonly supported message formats in the intermediate phase of the implementation.

Furthermore, the COMESA platform clearing engine should support both single credit transfers and bulk credit push transactions of financial clearing. The finding is that there are many cross-border bulk payments that are being done in various aggregator value chains, such as Fast-Moving Consumer Goods (FMCG) distribution, and small-scale farmer payments.

The clearing functionality should allow for both static and dynamic routing of messages. Static routing means that a message can be routed based on the contents of any field within it. On the other hand, dynamic routing also includes other variables besides the content of the message (for example, route messages to Node 1 instead of Node 2, if Node 1 is not available).

The platform should support configuration of different types of fees based on the business requirements. The fees refer to the transaction fee applied to each participant. For each fee, the platform should be able to specify at least:

- The type of fee
- Fee calculation method (fixed, percentage of amount, slab based, etc.)
- Charged to (sending party, receiving party, both)

The COMESA platform should allow for integration with the continuous settlement of transactions at a Central Bank in the region, where all settlement participants will hold prefunded accounts. Once the transactions are cleared, and their impact recorded in the net-off calculation, the platform should allow for continuous settlement by integration with the agent. As proposed by all stakeholders, the settlement agent must be a Central Bank within the COMESA region.

The organization housing the platform should have a well-defined security management system. It should be designed in line with a standard framework, such as ISO 27001 (ISO/IEC 27001:2017) - an international standard for information security, which sets out the specification for an Information Security Management System (ISMS). The ISMS standard's best-practice approach will help with the management of information security by addressing people, processes and technology issues. In addition, an independent assessor should benchmark the platform, and publicize the benchmarks.

Because the peak Transaction per Second (TPS) requirements of the platform will grow over time, it is important to confirm how the system will scale-up to meet the requirements of the increased peak transaction processing. The expectation is for the platform to be available 24 hours a day, seven days a week and 365 days a year (24 x 7 x 365), since different participants will use it for the online real-time transfer of money in different time zones.

In order to ensure the availability requirements, redundancy should be an integral part of the platform. This means that the platform architecture should be designed such that in case of failure in one of the hardware components, the system should continue running seamlessly on redundant hardware (high availability). There ought to be a provision for a Business Resumption Site (BRS) within a recommended safe distance of about 50 kilometers at a location with a risk profile that differs from the primary site. (Ref: Principles of Financial Markets Infrastructures [PFMIs] - Principle 17- Operational Risk).
The COMESA Platform must also have pro-active monitoring capabilities defined in its architecture. This should include the monitoring of:

- All system resources.
- Individual components of the system from a throughput perspective; and
- Transactions (success / failure rates, and number of transaction alerts).

The retail payments platform may, at a later stage, consider providing for a separate customer service module, to register complaints from participants of the system with the aim of getting timely resolution.

The COMESA platform should be independent of cases of product use in order to allow for participant innovation and should leverage the same underlying payment order and settlement protocols. Although stakeholders indicated that all use cases should be supported by the COMESA platform, it is important to prioritize the services that should be enabled immediately in readiness for the pilot phase. It may also be crucial to consider appropriately digitized services that are conceptualized as an e-commerce platform in the MSME digital value-chain, which will then be integrated into cross-border payments, as part of the value proposition for immediate piloting.

The value-added services on this platform should include: export credit guarantee schemes; access to credit for the transactions; customs and excise duty requirements; any foreign currency specific requests; and interfacing with logistics services.

There is high expectation for such a development, besides merchant payments that may culminate in reduced travelling for cross-border traders especially women, hence reduced cost of trading.

One of the scheme’s objectives is that all fees to the end user should either be less than or equal to the respective domestic fees paid by users, towards ensuring that the cross-border payments are seamless and transparent. This is consistent with the L1Ps of lowering the fees for low value cross-border payments.

The COMESA Scheme is predicated on the presumption that it will operate on a cost recovery basis (not for profit), to meet its operational costs, including staff costs, software support & license costs, and infrastructure hosting costs among others. This cost structure will guarantee sustainability of the Scheme.

The recommendation is that COMESA Scheme’s pricing structure be based on a shared switching fee threshold, as determined by the respective national switches. Although domestic fees are high for Real Time Gross Settlement (RTGS) participants in some countries that have liberalized pricing such as Uganda, this approach will help prevent the adoption of pricing models of those commercial players, who charge higher prices than the national switching fee.

Participants in the COMESA Scheme shall be both banks and non-banks, which will have received authorization from their respective Central Bank regulators. They will be required to sign an agreement with the Scheme owner, which will bind them to the rules, agreements and standards governing the Scheme, before admission either as direct or indirect members.

Best international practice recommends that Central Banks should have oversight over payment systems. A similar role applies to the regional payment schemes. The study found that this role becomes even more important for regional payment Schemes especially in the harmonization of policy frameworks and regulations across member countries, which are usually not at the same level of development.

In terms of overall Scheme management, the report proposes that a Payment Oversight Committee takes up the oversight role. The scheme ownership will be under a Special Purpose Vehicle (SPV), or Association created by CBC. Membership to the Association should be composed of various industry stakeholders, including both banks and non-banks. Digital payments stakeholders and other COMESA Institutions including the Clearing House will be part of the governance structure. In addition, the model proposes that the Scheme’s management team under the SPV alongside the participants, should take up the roles of operating both the Scheme & the platform, and writing of the rules. The Settlement agent shall be recommended to the COMESA Committee of Central Bank Governors (CCCBG) at a later stage.

Once the COMESA regional platform has been purchased, it will be hosted and operated as a single regional infrastructure, and suitable staff recruited to manage it. Upon establishment, the regional payment switch will provide the participants with two options for connection, these are: to offer a direct to the switch; and through the in-country national switches, since a majority of the potential participants in the COMESA scheme are already connected to their in-country switches. Where countries do not have national switches, they should be allowed to participate on the COMESA Platform directly.

Eight (8) countries, thus Zambia, Rwanda, Kenya, Uganda, Mauritius, Egypt, Ethiopia, and Malawi, which were selected on the basis of existing trading corridors, will take part in the piloting phase. CBC developed a checklist, which will help assess the countries to be included in the pilot project.
The purpose of this document is to provide a business model that details the main parameters of the COMESA regional digital retail payments scheme.
1.1 Background

The CBC is a recognized Business Membership Organization (BMO) that is established as a private sector institution of COMESA, representing the interests of the private business sector at the regional level. The services provided go beyond advocacy and include the promotion of business participation in regional integration, investment, and global trade. This is done by facilitating the growth of strong business synergies, development of business opportunities, business alliances, legislative and strategic advocacy. CBC's vision is, "Building Regional, Going Global", with three service pillars, thus: business policy and advocacy; business facilitation; and membership development. More information can be obtained from the CBC website: www.comesabusinesscouncil.org.

The organization is implementing a DFI program that supports the design, development, and deployment of a low-cost, interoperable, and fraud resistant integrated regional digital financial services infrastructure that serves MSMEs and the customers they transact with at the bottom of the financial pyramid. The program focuses on women and youth. This would be first developed from a regulatory focus approach to the business model, followed by the actual technical establishment and operationalization.

This is expected to result in an increase in the volume of cross-border transactions, financial inclusion, increased visibility of African products within regional markets, and the participation of MSMEs in regional trade, which will reduce the level of deficit in intra-trade in the region.

In the first phase of the project, a business case report, which guided the development of the model policy for regional digital retail payments scheme for MSMEs in the region and guidelines on its operation was produced. The business case and model policy framework including the guidelines are expected to guide the development of a business model on the implementation and operation of the Scheme for MSMEs. Furthermore, the recent Monitoring and Evaluation (M&E) results on East Africa Payment System (EAPS) transactions, which were released by East African Community (EAC) consultants show an annual growth in volumes and values.

It is against this background that the CBC engaged the services of Chartered Public Accountants & Management Consultants (CYMA) to design a Business Model on the implementation and operationalization of regional digital retail payments scheme for MSMEs in COMESA region.

1.2 Purpose

The purpose of this document is to provide a business model that details the main parameters of the COMESA regional digital retail payments scheme. The contents of this document reflect the stakeholder's consensus on the COMESA payments industry on key features of the proposed model, serve as a guide to modalities for piloting, and establishing and implementing the regional digital retail payments scheme. The intended audience of the business model report is the COMESA payments industry, including private sector actors and the entity (or entities) that will own and operate the COMESA regional digital retail payments scheme.

This report recommends the various models that will necessitate the building of an inclusive digital transaction-based scheme that will allow more women and youth to participate in trade and commerce. This will go a long way in ensuring that they enjoy the economic benefits accruing from regional integration, given that women and the youth constitute the majority of small-scale cross-border traders in the COMESA region. It should be noted that digital technological developments such as e-commerce can impact positively on uplifting the work for women.

This business model report is structured in seven parts as follows:

Part I: Technical requirements
Part II: Legal, Administrative, and Institutional arrangement
Part III: Design Business Model on implementation and operation of regional digital retail payments scheme for MSMEs in COMESA region.
Part IV: Modalities for piloting
Part V: Development mechanism to guide the operationalization of the Business Model (scheme)
Part VI: Financial implications
Part VII: Customizing the rule book
2 Overview of the COMESA Regional Digital Retail Payments Scheme Model

The COMESA regional digital retail payments scheme model design is based on inputs from stakeholders across the region’s payment industry, who were interviewed between October and November 2021.
In order to develop a business model for the implementation and operationalization of a regional digital retail payments scheme, the establishment of an interoperable scheme with clear guiding principles as depicted in figure 1 is required:

2.1 Part I: Technical Requirements

This part of the report describes the key components of a regional payment, and settlement system for the proposed business model.

2.1.1 The Design Principles

The principles provided in figure 2 are critical for building COMESA’s payment system (Glenbrook partners, 2020). These principles address the needs of low-income cross-border traders, and the customers they transact with at the bottom of the financial pyramid.
Table 1: Details of the Design Principles

<table>
<thead>
<tr>
<th>Principal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real-time, Push Payments</td>
<td>The system should make funds available to the payee in near-real time, providing immediate notification of payment from the payer to the payee. The system should affect credit payments only where the payer instructs their account holder to move money to the payee’s account holder. The same should apply to the payer – whether the transaction has been successfully executed or not. This will prevent the payer from making duplicate/multiple payments if he/she does not know the status of the payment instruction. To enhance transparency, a notification on the fee to be borne by the payer may also be displayed prior to final execution of the payment instruction.</td>
</tr>
<tr>
<td>Open loop</td>
<td>The system should be an open loop, with the objective of encouraging all qualified participants to join and achieve interoperability through the direct participation of all providers.</td>
</tr>
<tr>
<td>Irrevocability</td>
<td>This is only at system level where it should not allow transaction reversals by the originating party nor specify situations in which the liability for a transaction is passed from one participant to another.</td>
</tr>
<tr>
<td>Same-day settlement</td>
<td>The system should settle funds among participants at least once daily, to ensure that the system and its participants have as close to zero exposure from a failing participant as possible. This controls liquidity risk, thus reduces costs. Same day settlements also mitigate foreign exchange exposures.</td>
</tr>
<tr>
<td>Shared fraud service</td>
<td>In order to improve fraud detection capabilities, the system should address how participants may provide data on all fraudulent transactions to a commonly owned fraud management service. This will require managing some of the functionality at the COMESA Scheme hub or network level, rather than at participant level.</td>
</tr>
<tr>
<td>Cost-recovery based/low-cost payments</td>
<td>A model with an additional set of funds to cover the investments is required to operate the Scheme. This does not mean participants connecting to the Scheme cannot make a profit. However, the main aim should be availing the lowest possible cost to the end user.</td>
</tr>
<tr>
<td>Government support/ regulatory oversight</td>
<td>The COMESA Scheme will require government recognition and regulatory support of the Scheme as legitimate.</td>
</tr>
<tr>
<td>Pro-poor Governance</td>
<td>The COMESA Scheme will require a governance structure that is not for profit and must be based on a cost recovery model.</td>
</tr>
</tbody>
</table>

This business model has been developed using some of the L1Ps addressing the needs of low-income cross-border traders and the customers they transact with at the bottom of the financial pyramid as illustrated in the Table 2:

Table 2: Level One Design Principles

<table>
<thead>
<tr>
<th>Principal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ubiquitous</td>
<td>Digital Financial Services Providers (DFSPs), including licensed banks and non-bank transaction account providers, are eligible to be direct or indirect participants in the System. Non-licensed third parties can technically connect to the System, through DFSP participants as sponsors, and to end users, in order to support transactions. As a result, any end user can send/receive a transaction from any other end user.</td>
</tr>
<tr>
<td>Real-time Retail Payments</td>
<td>The System supports push transactions cleared in real-time in the COMESA region, where end user accounts are immediately updated, and completed transactions cannot be rescinded.</td>
</tr>
<tr>
<td>Low Cost</td>
<td>Transactions are considered a shared utility, not a profit maximizing activity. As a result, the system is ultra-low cost for the participating DFSPs, where the Scheme and the platform operate on a cost recovery and investment model. End users’ fees are zero or low, and may vary by use case.</td>
</tr>
<tr>
<td>Scalable</td>
<td>The system supports key retail use-cases, achieving sufficient transaction volumes that align with the low-cost principle.</td>
</tr>
<tr>
<td>Supportive System Design</td>
<td>The system provides necessary features, functions, and rules to participants including clearing, settlement, addressing, and fraud management. Features, functions, and rules are aligned to current international standards and best practices (i.e., settlement at least once daily)</td>
</tr>
</tbody>
</table>
The system is channel, address, and access point agnostic, where end users can send and receive transactions through any supported mechanism, including third party initiators, with a supported address of their choice.

The system enables a set of shared services including a directory that supports aliases for payments addressing, and a shared fraud management utility. In addition, the system enables programs, initiatives, and capabilities to serve a wide range of stakeholders and use case needs, including efforts to equalize usage by women, including end user education efforts.

All participants are provided with equal opportunities in ownership (if relevant) of the Scheme. Participants have formal and informal mechanisms to provide input on the direction of the System, including the rules. Third parties are given the opportunity to comment on rules.

Technologies and standards support secure, high volume, irrevocable real-time transactions, where all use cases leverage the same underlying protocols and standards, and additional protocols support use case specific needs, such as request to pay and QR Code.

The user interface is simple and intuitive for an end user and is designed to enable the end user’s understanding of fees, prevent end user errors and to mitigate fraudulent activity, on both feature phones and smartphones.

The system operates 24 x 7 x 365 and supports safe and efficient flow of transactions across the region through a well-regulated cross-border environment. The system allows for proper supervision and oversight by regulatory bodies, stores data properly, and cyber security data confidentiality, which only permits the sharing of data when necessary.

2.1.2 The Design Process

The COMESA regional digital retail payments scheme model design is based on inputs from stakeholders across the region’s payment industry, who were interviewed between October and November 2021. Desk research and stakeholder meetings were used to interrogate the key questions to do with oversight, governance, economic incentives, and the operational model, which are provided in Appendix 1 of this report. The inputs were from five (5) countries including Tanzania, which is not part of the COMESA bloc.

The model design process has considered recommendations from stakeholders to the effect that the payments infrastructure arrangement should support commerce and trade of MSME’s across the COMESA region. They noted that the model design should at least contain the following key attributes:

- Provides a centralized payment and settlement infrastructure
- Operates independently of domestic payment systems
- Supports safe and efficient flow of payments across the region through a well-regulated cross-border environment
- Payment is instant and in local currencies
- Settlement is on Multilateral Net Basis and using the agreed upon settlement currencies in a Central Bank within the COMESA region
- Operational on a 24x7 basis ensuring continuous availability and messages are ISO 20022 standards
- Defines a common framework for transacting, clearing, and settling cross-border transactions, including operating rules, business practices and standards, participants, participation requirements, and funding schemes, among others.
2.1.3 Overview of proposed high-level design and payments flows

2.1.3.1 High level visual of COMESA Platform

Figure 3 presents a high-level configuration of the recommended COMESA digital retail payments platform architecture. It illustrates the platform components, participants and inter-relationships/connections, and linkages to other systems on the proposed platform.

![Figure 3: Proposed COMESA Platform Architecture Model](image)

**2.1.3.2 Platform components and shared services**

In consultation with various payments industry stakeholders and the desk research, the best operational practices, platform components, and the set of probable services that the COMESA platform could give to its participants, were identified.

The platform will provide clearing functionalities through a switch and may also offer shared services whenever deemed appropriate. Since most platform models are thin (limited to clearing functionalities), there is a need for a platform with a thicker model offering additional services such as fraud management, sanction screening, Anti Money Laundering & Combating the Financing of Terrorism (AML/CFT) as shared services.
The proposed COMESA platform components and descriptions are as shown in figure 4:

![Proposed Platform Components](image)

**2.1.3.3 Open API layer / API management platform**

Besides the core functions of the proposed COMESA platform, the immediate implementation of an open API layer, as one of the platform components, is crucial. The open API layer enables non-traditional payment system participants, such as FinTechs, digital businesses, aggregators, and e-commerce merchants, to interact with the platform in a secure manner, and bring new services to consumers on their own front-end channels.

By implementing an open API layer, the COMESA platform will contrast with the traditional models of payment schemes, which only allow banks to integrate using pre-defined messaging formats, such as ISO 20022. In case a new and innovative payment interface is to be introduced, all participating institutions must upgrade their systems to accommodate it. The traditional model is therefore restrictive and limits the entry of new providers.

Payment systems globally are increasingly supporting open APIs and are bringing together technology providers to create open-source software. Several components of this platform can be acquired cheaply through partnerships with open-source developers, in order to lower the cost of acquisition and operations as per L1Ps. The purchase of the interoperable API tools as outsourced auxiliary services could lower the cost of the switch and allow more participants onto the platform.

**2.1.3.4 Technical Connection to the COMESA Platform/Switch**

The COMESA regional payment platform should provide two options for connection to allow the participants to route transactions onto it, either directly to the platform or indirectly through an in-country national switch platform. During the study, a cross section of stakeholders proposed that the routing of transactions to the COMESA platform be made optional, as guided by the respective in-country Central Bank regulations.
It was further noted that some countries lack national switch platforms, while others were at different stages of developing them, and may not be aligned with the CBC timeframes for project implementation. In view of this, countries that are not yet ready with their national switch platforms should be allowed to connect directly to the COMESA platform through API integration. Figure 5 depicts the two technical connections that are recommended to the platform for CBC to consider:

**COMESA Technical Connectivity: Option 1**

![Diagram of COMESA Technical Connectivity: Option 1]

**COMESA Technical Connectivity: Option 2**

![Diagram of COMESA Technical Connectivity: Option 2]

Figure 5: Platform Connectivity Options

Table 3 highlights the positive aspects, and areas of consideration for technical connectivity model options to the COMESA platform:

**Table 3: Positive aspects for technical connectivity**

<table>
<thead>
<tr>
<th>Option</th>
<th>Positive Aspects</th>
<th>Areas for Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct connection</td>
<td>Single switching point</td>
<td>High integration costs as the participant has to meet new platform specifications to connect</td>
</tr>
<tr>
<td></td>
<td>Easy in-country Central Bank visibility and vetting of participants</td>
<td>Single point of failure</td>
</tr>
<tr>
<td></td>
<td>Leveraging on in-country infrastructure such as shared fraud/sanction screening datasets</td>
<td></td>
</tr>
<tr>
<td>Indirect connection</td>
<td>Faster and lower integration time periods cost</td>
<td>Additional switching leg may result in additional switching cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Difficult for in-country Central Bank visibility and vetting of participants. It is suggested by the Reserve Bank of Malawi (RBM) that every participant should be cleared by the in-country Central Bank to participate in the system and the scheme operator should first check whether the applicant holds the in-country Central Bank’s authorization before signing up.</td>
</tr>
</tbody>
</table>

**Recommendation:**

1. Leverage on the in-country national switch, where it is ready
2. Allow direct participation to the COMESA Platform through API integration for countries that are not yet ready with their
national switches

2.1.3.5 Participants Access Regime

The COMESA platform should allow for different types of DFSP’s to participate in the scheme as members, by admitting them as direct or indirect participants as described in Table 4:

<table>
<thead>
<tr>
<th>Definition</th>
<th>Type of Entity</th>
<th>Technical Connection to Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Participant</strong></td>
<td>DFSPs that are eligible for all scheme services, including core clearing services provided by the platform and settlement through settlement accounts with the settlement agents</td>
<td>Banks and DFSPs</td>
</tr>
<tr>
<td></td>
<td>Options include direct integration, web interface, through core processor, via national switch's connection</td>
<td></td>
</tr>
<tr>
<td><strong>Indirect Participant</strong></td>
<td>DFSPs that are eligible for most Scheme services, including directly entering transactions into the platform, but are not eligible for settlement accounts with the settlement agents and rely on direct participants for settlement</td>
<td>Bank DFSPs Non-bank DFSPs: e.g., Mobile Money Operators (MMO)</td>
</tr>
<tr>
<td></td>
<td>Options include direct integration, web interface, via direct participant's connection, through core processor, via national switch's connection</td>
<td></td>
</tr>
<tr>
<td><strong>Third-Party</strong></td>
<td>Entities that provide services to participants and/or end users related to processing payments at various stages of a payment flow. They are not members/participants in the COMESA Scheme, but may have a technical connection to the platform</td>
<td>Core processors (provide technical connection to the platform for certain participants), aggregators, and payment service providers (e.g., payment initiation service to Payer)</td>
</tr>
<tr>
<td></td>
<td>Options include direct integration, via APIs, or through DFSP participants</td>
<td></td>
</tr>
</tbody>
</table>

2.1.4 Platform building blocks as enablers

The consultants in affirmation with various payments industry stakeholders and desk research identified best internal practices, and building blocks for cross-border clearing, and settlement, which the COMESA Scheme should provide to its participants in
In order to enhance its retail payment platform as provided in figure 6:

**Table 5: Building Block Description**

<table>
<thead>
<tr>
<th>Building Block</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public and Private sector commitment</td>
<td>In order to avoid frictions where complex political, regulatory and operational issues are prevalent, the COMESA Scheme must develop the vision and targets for the digital retail payments and implement international best practice principles. The Scheme should also define common features of the service levels. The service levels that are agreed upon will assist in coming up with a commonly binding framework for all participants on aspects such as data standards, message formats, fee arrangements, processing timelines, error and exception handling, and dispute resolution (CPMI 2020).</td>
</tr>
<tr>
<td>Regulatory, supervisory and oversight</td>
<td>Since this platform will encompass multiple countries, it will require aligning the regulatory, supervisory and oversight frameworks to allow for seamless supervision and/or overseeing the participants and multicurrency payment infrastructures in a coordinated manner (CPMI 2020). This will improve clarity and consistency among the participants.</td>
</tr>
<tr>
<td>Existing payment infrastructures and</td>
<td>A significant friction in cross-border payments is caused by lack of overlapping operating hours between infrastructures, which either result in payment delays or limit the times within which payments can be initiated. Most countries have not yet adopted the 24/7 operations of RTGS systems as it requires significant technical changes to both payment infrastructures and participants’ platforms. The Scheme should therefore come-up with rules to extend and align operating hours. It also ought to allow direct access by both the banks and the non-banks since most infrastructures do not allow direct access of both banks and non-banks.</td>
</tr>
<tr>
<td>arrangements</td>
<td></td>
</tr>
<tr>
<td>Standards</td>
<td>The scheme should adopt a harmonized version of ISO 20022 for message formats and API protocols for data exchange. This will mitigate the friction around fragmented and truncated data. Furthermore, this will improve compliance processes and address data handling issues within legacy technology systems (Boar et al. 2021).</td>
</tr>
<tr>
<td>Data frameworks</td>
<td>Data-sharing rules of supervisory and oversight standards must be adapted to facilitate the exchange of data and information sharing.</td>
</tr>
<tr>
<td>AML/CFT Rules</td>
<td>Currently, many AML/CFT requirements have been harmonized through the FATF2. Recommendations and Basel Committee on Banking Supervision principles and guidance. However, there are still some elements that differ among the COMESA countries. In view of this, greater consistency is needed in the application of AML/CFT requirements, while taking into consideration the underlying differences between national systems and the need to mitigate country-specific risks. This will facilitate the easing of frictions which may arise from complex processing, with a view to ensure greater transparency and certainty regarding AML/CFT requirements and reduce regulatory arbitrage. It is also important to note that when effectively implemented, AML/CFT control, mitigate the adverse effects of criminal economic activity and promotes integrity and stability in financial markets. Transaction monitoring in AML entails monitoring of customer transactions, including assessing historical/current customer information and interactions to provide a complete picture of customer activity. This can include transfers, deposits, and withdrawals. The Scheme should consider the use of software to automatically analyze this data.</td>
</tr>
<tr>
<td>Fostering KYC and identity information</td>
<td>The Scheme should consider a centralized multilateral service of KYC-related data for customers. Potentially, ultimate beneficiaries could be used to verify information and help address concerns about transparency and AML/CFT compliance by the participants. The use of KYC service has a number of advantages, including: the accuracy and consistency of the information could improve, as only one set of updated information would be maintained; promoting standardization of the information that participants provide to other players as a starting point for KYC obligations; the use of a central KYC service may speed up the process of verification; and this may reduce disputes (CPMI 2016). Pan-African Payment and Settlement System (PAPSS) has proposed an in-built KYC Platform called Mansa platform. CBC could benchmark against the Mansa recommendation which stipulates a repository where all MSME’s KYC information can be uploaded and/or downloaded.</td>
</tr>
</tbody>
</table>

---

2. FATF is the global money laundering and terrorist financing watchdog. The inter-governmental body sets international standards that aim to prevent these illegal activities and the harm they cause to society.
2.1.5 Business requirements

The primary aim of this section is to list key high-level business and functional requirements for the design of the regional digital payment system. A separate deliverable known as the Business Requirements Document (BRD) will capture the detailed requirements.

Industry stakeholders suggested that as the minimum requirements, the COMESA Scheme must provide for interoperability, enable easy integration onto the e-commerce platforms for trade, and serve as a payment gateway for MSME’s needs, consistent with the L1Ps of the COMESA payment platform.

A description of each key requirement is provided below:

a) Focus on push payments
Stakeholders stated that the COMESA payment scheme should support push payments, whereby the payer initiates the payment, upon which the payer’s financial institution enters the payment instruction onto the platform, and then funds are pushed into the payee’s account. Transactions become irrevocable once they are made.

b) Confirmation of transactions to the payer
As noted above, transactions in a push payment model are irrevocable (Cook at al 2021). In order to minimize the occurrence of human errors when initiating a transaction, the participant’s bank will confirm the transaction details to the payer, authenticate and authorize the same. Upon authorization, the customer’s participant bank will push the clearing message to the clearing service of the value transfer/routing service (SWITCH).

The functionality of providing confirmation of transactions to the payer prior to executing the transaction, includes validation of details on the payer’s channel. This process provides assurances to customers of their transactions, enhancing trust in the system, and mitigates the risk of misdirected payments. The payer and payee will then receive the status of any payment instruction in (near) real time.

c) Payment processing – clearing
The study findings showed that many of the cross-border bulk payments were being made in various aggregator value chains such as FMCG distribution and small-scale farmer payments. Regarding this, the COMESA platform clearing engine should support both single credit transfers and bulk credit push transactions of financial clearing.

Clearance on the COMESA platform will be done in real time, using the local currency. The payer shall issue a payment instruction in their local currency to their DFSP, which will then be routed to the COMESA platform for processing. The beneficiary’s DFSP shall then clear the funds in their local currency. In addition, compliance, legal and sanctions checks will be performed instantly within the system. Figure 7 depicts an end-to-end payment flow of a transfer initiated by a COMESA participant in one country, which is cleared for a beneficiary either at a bank or non-bank in another country.
d) Settlement model
The COMESA scheme should consider adopting the Deferred Net Settlement model as highlighted in Table 6:

Table 6: Deferred Net Settlement Model Highlights

<table>
<thead>
<tr>
<th>Model Feature</th>
<th>Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settlement Model</td>
<td>Deferred Net Settlement model – This is where final settlement happens at defined intervals or settlement window/s after the receiving customer’s account has been credited.</td>
</tr>
<tr>
<td>End-user Settlement</td>
<td>L1Ps demand that customer’s settlement be done on a real-time (near immediate) basis, and that participants settlement be done on a same-day basis. The benefit of this model is the ability to net or offset incoming and outgoing transactions against each other and only settle the resulting net amount at each settlement window.</td>
</tr>
<tr>
<td>Participants’ Settlement</td>
<td>Settlement of participants should take place at the Central Bank in the domestic currency where they hold accounts in the RTGS system. Respective Central Banks will act as settlement agents.</td>
</tr>
<tr>
<td>Settlement Agent</td>
<td>The COMESA platform should consider having the main settlement agent where the Central Banks will hold hard currency settlement accounts. The settlement agent should provide guarantee on the payment system as well as overdraft facilities.</td>
</tr>
<tr>
<td>Settlement Currency</td>
<td>Since the COMESA platform will be multicurrency, at the agreed time stipulated in the rules, the switch should determine the net position in local currency. The switch will then send credit or debit settlement instruction to the Central Bank’s RTGS which will then debit or credit the prefunded accounts.</td>
</tr>
<tr>
<td>Netting</td>
<td>The netting can be done multilaterally between each participant. This may occur in close to real time or be deferred to a point before settlement takes place. The multilateral netting may be settled once or multiple times per day depending on the COMESA operating rules.</td>
</tr>
</tbody>
</table>
(i) Multilateral Deferred Net Settlement – Components and Relationships
The detailed requirements for settlement shall be specified by the Scheme in the rulebook. As per the proposed governance model, the rulebook shall be developed collaboratively with Scheme participants.

The Scheme’s management shall work with the settlement agent to reach agreements on settlement practices e.g. on the real-time settlement, and irrevocable posting of credits to the payee’s account, among others.

Settlement for the COMESA system should provide a balance between platform capabilities, scheme policies, and settlement agent capabilities and policies. Figure 8 provides the components and relationships of the COMESA deferred net settlement.

![Diagram of COMESA Deferred Net Settlement](image)

*Figure 8: Components and Relationships for the COMESA Deferred Net settlement*
Multilateral Deferred Net Settlement Process

Figure 9: Multilateral Deferred Net Settlement

Figure 9 highlights the Multilateral Deferred Net Settlement Process.

e) Pre-funding
The COMESA Scheme should come-up with a pre-funding arrangement to guarantee the availability of funds for settlement, through the business rules. Pre-funding is critical because it allows funds to be credited to the recipient. The direct participant should therefore issue credit instruction to the settlement account at a designated Central Bank.

f) Integration and interoperability
The participants initiating the payments will need to be integrated with the COMESA platform for financial and non-financial messages. This platform should support integration through industry standard protocols. The recommendation is that the ISO 20022 be used as the native message format for integration. ISO 20022 is the agreed upon international standard that is used by the financial industry to create consistent message standards across all the business processes in the industry (CPMI 2016). The format is being adopted by many payment systems worldwide, which will ensure the seamless integration with other regional or international payment systems in the future.

Several reasons have been advanced for using ISO 20022 over typically used protocols, such as ISO 8583, including:

- The ISO 20022 message format is XML-based that allows for easy extension of messages to include more detailed information about a payment. For example, in a “Request to Pay” message, the payment initiation service provider can include information about the invoice being sent for payment in a structured manner.
- If the COMESA Platform is to be linked to other international payment systems, then it will be important to support ISO 20022 as the standard for messaging interoperability.

However, the integration layer of the COMESA payment system must be flexible, to allow national switches and PSPs with legacy systems to integrate APIs, in case they do not support ISO 20022 specification yet.
The key finding from the study is that the adoption of the new message format for almost all national switches of the countries that were visited is still an ongoing process, and they may not support this format immediately. The COMESA retail platform should be interoperable with the existing and upcoming initiatives through a proposed open API. It should provide the supporting tools for translation, so that the national payment switches and PSPs that do not support ISO 20022 can integrate through commonly supported message formats during the intermediate phase of the implementation.

g) Non-payment processing
The platform should support configuration of different types of fees based on business requirements. These fees refer to the transaction fee applied to each participant. For each type of fee, the platform should be able to specify:

- The type of fee
- Fee calculation method (fixed, percentage of amount, slab based, etc.)
- Charged to (sending party, receiving party, both)

Interchange is the fee charged by one participant to another and is not treated as the platform’s income/revenue. The platform should permit the definition of interchange between two participants at a pair-level. The interchange values can be pre-agreed upon by the participants and defined as a parameter in the interchange management module.

The module will be integrated into the processing of on-line transactions, so that appropriate fees or interchange values are stored in the transaction records as they are cleared and used in calculating the net-off position for each participant during the settlement time.

The COMESA clearing module should support the following types of messages:

- Account inquiry message to validate destination account before initiating a transfer.
- Bill inquiry message to validate a bill, and fetch the amount, before initiating a payment.
- Request to pay message.
- Payment status inquiry message to confirm the status of a payment transaction from other participants.
- Payment notification message to inform a third-party payment initiation platform about completion of a payment transaction; and
- Administrative messages for the exchange of information between participants.

The platform should also record all the transaction events in the system logs, to ensure that the complete chain of events can be traced through them, if any issues arise. These logs should have timestamps and carry the reference details of transactions, which will make it easy to review the chain of events.

The system logs should not bear any confidential or sensitive information, such as customer credentials, etc. in clear text. Any sensitive information that is present should be masked.

h) Support for relevant security standards
The organization housing the platform should have a well-defined security management system. Its design ought to be aligned to a standard framework, such as ISO 27001. This framework sets out the specification for an ISMS. The ISMS standard’s best-practice approach helps with the management of information security by addressing people, processes, and technology issues. At a minimum, the platform should adhere to the following security standards:

- It should comply with the requirements for a standard security framework around access control, including role-based access, secure management of user credentials, and policies around passwords.
- It should comply with cryptography requirements related to encryption of message interfaces. The asymmetric encryption should be used for encryption. Dynamic key exchange should be supported, in the case of symmetric encryption.
- If any authentication mechanism requires the entry of sensitive data, such as “pin” on a third-party channel, then the system should ensure end-to-end encryption of data. This should be done through a Public Key Infrastructure (PKI).
- All the security operations regarding the management of the encryption key and pins should be handled through a Hardware Security Module (HSM).
- If the pin data entry is done on mobile or internet enabled devices, the platform should provide its own Software Development Kits (SDKs) to third parties, which follow secure pin entry standards such as (Payment Card Industry [PCI] software pin entry on Commercial-off-the-shelf [COTS]).
- The payment platform should be developed using secure coding standards (e.g., Software coding standards developed by the CERT coordination Center [SEI CERT] coding standards).

i) Performance requirements
The performance requirements of a platform are measured by the number of transactions that it can process without any failure or transactions queuing up in the system.
The standard performance benchmark parameters are:
1. "Peak Transaction Per Second (TPS)"
2. Peak utilization of system resources (CPU, memory)
3. Average response time

Benchmarking should be done with a sustained run to evaluate the performance of the platform, in case of a sustained load over a long period of time. The benchmarks should involve a complete transaction mix towards ensuring all types of use cases are covered. An independent assessor should benchmark the platform and publish the results.

j) Scalability
Because the peak Transaction per Second (TPS) requirements of the platform will grow over time, it is important to confirm how the system will scale-up to meet the needs of the increased peak transaction processing. There are two types of models that can be used for scaling:
- Horizontal scaling
- Vertical scaling

Horizontal scaling means that, as the requirements for processing increase, the number of transactions also increase. The platform is designed such that the addition of more machines into the pool of resources allows the application to scale linearly. On the other hand, vertical scaling requires the addition of more resources (CPU, memory, etc.) into the same machine, to allow the application to scale.

Horizontal scaling is recommended and would require the platform to be designed as stateless on the service side as much as possible, so that it can be managed through a cluster of hardware resources operating in parallel. It is further recommended that this system be hosted in a Tier 3 data center, such as the National Data Centre in Zambia or similar, where the cost of hosting it can be dynamically set according to scalability.

k) Availability
The platform should be available 24 x 7 x 365, because it will be used by different participants for the online real-time transfer of money in different time zones. To ensure the availability requirements, redundancy should be an integral part of the platform. This means that the platform architecture should be designed in way that the system continues running seamlessly on redundant hardware (high availability), in case of failure in one of the hardware components.

The platform should support an active-active architecture so that it can be deployed on multiple-sites, which remain synchronized. This is an important element, as it ensures availability of the platform even if one of the sites require down-time due to infrastructure maintenance.

In addition, the design should allow for updates to be applied on the software components without putting the entire platform offline. This method is called “rolling upgrade”, where the system upgrades require zero down-time.

l) Configurability
The platform should be configurable and parameterized. This applies to different technical components within platform. The core interoperability switch layer should be configurable in terms of:
- Time-outs for various integration endpoints based on transaction type and source.
- Supported message types.
- Supported routing mechanisms and transaction flows.
- Application of custom business logic within specific transactions.
- Allow rule-based risk management checks on different message fields; and
- Validation of online transaction processing limits.

The multi-lateral net clearing, and settlement component should allow for parameterization of different types of fee/interchange components of transactions. Such parameterization may include the ability to define the:
- Fixed or variable fee (embedded in the message by a transaction initiator) for each type of transaction.
- Split of fee/interchange value between different participants in the transaction.

The application of all new configuration parameters should be through the user interface within the platform, which should have dual control (maker/checker) configuration.
m) Monitoring capabilities
The COMESA platform must also have pro-active monitoring capabilities defined in its architecture. This should include the monitoring of:

- All system resources
- Individual components of the system from a throughput perspective
- Transaction monitoring (success/failure rates, no transaction alerts)

Monitoring should be done through system alerts, which can be delivered through SMS, e-mail, or mobile notifications. These ought to be dynamically configured, for example, (“generate alert if x% of the transactions in last 10 minutes are declined”).

The platform should also allow simple dashboards, which the operations team can use to notice any abnormal conditions as soon as they occur, and take required corrective actions on the same. The platform ought to support a component that provides up-time reporting data to the regulators, and any other interested stakeholders.

n) Business continuity requirements
It is important to define the Business Continuity Plan (BCP) for the COMESA platform in the event that any man-made or natural disaster occurs. The objectives of the business continuity should be clearly defined and cover:

- Business continuity plan
- Identification of critical functions
- Continuity and recovery objectives

Depending on the objectives that are defined for business continuity, the platform should support:

- Active-Active configuration
- Active-Passive configuration

The first choice is for the platform to support active-active configuration that entails operating two fully functional sites, and therefore requires additional investment in terms of operational costs. Depending on transaction volumes, the platform can be first set-up with an Active-Passive configuration, and later be enhanced to an Active-Active configuration. It is recommended that the system be hosted in the cloud, which will offer all this environment as a rented service.

o) Customer service module
Towards ensuring timely resolution, the COMESA payment platform may, at a later stage consider providing customer service as a separate module, through which participants of the system can register complaints. The customer service module should consist of the following:

- Ticketing system (portal, e-mail based, etc.)
- Live chats with a customer service representative having a call center service if possible
- Service Level Agreement (SLA) management for complaint resolution
- Reports on customer tickets and their resolution

p) Dispute management module
The dispute management module should be integrated within the core system. Once transactions have been cleared, participants should be able to search for them and record any disputes around the transactions.

Typically, in a push payment environment, the transactions are instantly cleared and settled. If, for any reason, the payer has a problem and wants to raise a dispute, the same should be communicated to their PSP, which will initiate the dispute.

The specifications of this module will depend on the dispute management process. However, general guidelines are that the module should:

- Clearly reflect the state of the transaction in terms of clearance and settlement of funds.
- Allow the configuration of various reasons why a dispute can be initiated.

SLA management is an integral part of the module. In the context of dispute management, the SLA refers to obligation by the parties to respond to disputes within pre-agreed upon times. If the dispute is not responded to by the other party within this time frame, the automated SLA management should trigger the next action (e.g., reversal of funds from payee to payer).
2.1.6 Use cases supported by the platform

2.1.6.1 Platform Use Cases

The COMESA platform should be independent of product use cases in order to allow for participant innovation, which should leverage on the same underlying payment order and settlement protocols. The detailed business requirements document will provide a full list of use cases that will need to be supported by the platform as a separate deliverable. Table 7 illustrates the use cases that the stakeholders indicated should be enabled immediately, because they are aimed at serving cross-border traders and MSME’s.

Table 7: Use Cases to be enabled

<table>
<thead>
<tr>
<th>Use cases to be enabled</th>
<th>Priority Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay merchant for goods/service</td>
<td>1</td>
</tr>
<tr>
<td>Trade, supply chain, inter-company</td>
<td>2</td>
</tr>
<tr>
<td>Between own accounts, from own to another person</td>
<td>3</td>
</tr>
<tr>
<td>Trade over the Internet. (To be enabled in later phases)</td>
<td>4</td>
</tr>
</tbody>
</table>

The cross-border trade and women associations that were engaged, expressed their desire for MSME-specific appropriately digitized services. These ought to be conceptualized in the form of an e-commerce platform in the MSME digital value-chain that will then be integrated into cross-border payments, as part of the value proposition to be considered for immediate piloting.

The value-added services on this platform should constitute products such as: export credit guarantee schemes; access to credit for the transactions; customs and excise duty requirements; any foreign currency specific requests; and interfacing with logistics services.

There is a very high expectation for such a development, besides merchant payments that may eventually reduce travelling for cross-border traders especially women, and hence reduce the cost of trading.

For the implementation of these use cases, the following is recommended for MSMEs in order of priority:

**RECOMMENDATION**
- P2B (Merchant Payments)
- B2B (MSME to MSME)
- P2P (Remittances)
- E-Commerce with payments at a later stage

2.1.7 Risks and Mitigation to Implementation of the Model

When not properly designed, operated, and regulated, a new multilateral payment platform such as the COMESA one, can be a source of systemic risks resulting in disruptions, which may adversely affect the economies of participating jurisdictions. Improper management could cause problems in a payment system, which can result in financial shocks – such as liquidity dislocation or credit losses – that affect the stability of the financial system more broadly (Cook et al 2021). Interdependencies can also present an important source of systemic risk. Table 8 highlights some of the potential risks.

---

3 www.bis.org
4 Principles for financial market infrastructures (2012)
### Table 8: Potential risks

<table>
<thead>
<tr>
<th>Risk</th>
<th>Description</th>
<th>Mitigating Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity Risk</td>
<td>The risk that a participant has insufficient funds to meet its financial obligations as they become due.</td>
<td>Prefunding of settlement accounts. Liquidity support/arrangements with the Central Banks</td>
</tr>
<tr>
<td>Legal Risk</td>
<td>The risk of the unexpected application of a law or regulation, usually resulting in a loss.</td>
<td>Clear legal frameworks, rules, and regulations need to be in place.</td>
</tr>
<tr>
<td>Operational Risk</td>
<td>The risk that system/process deficiencies, human errors, management failures, or disruptions from external events result in service disruption.</td>
<td>The Scheme should have processes in place for addressing cyber resilience, redundancy, and business continuity to support the entire system.</td>
</tr>
<tr>
<td>Fraud Risk</td>
<td>The risk of deliberate misconduct that exposes consumers or participants to loss.</td>
<td>Implementation of fraud detection systems. Transaction limits will need to be defined in the rule book in order to limit the risk.</td>
</tr>
<tr>
<td>Reputational Risk</td>
<td>The risk to reputation and confidence in financial products when the above risks are not effectively managed.</td>
<td>The system should be continuously available with real-time transfer and very few or no disruptions. BCPs should be implemented.</td>
</tr>
<tr>
<td>Systemic Risk</td>
<td>A new multilateral payment platform, if not properly designed, operated, and regulated, can be a source of systemic risk, and disruptions may adversely impact the economies of participating jurisdictions. When improperly managed, problems in a payment system, especially a systemically important one, can cause financial shocks – such as liquidity dislocation or credit losses – that affect the stability of the financial system more broadly. Interdependencies can also present an important source of risks (CPMI July 2020).</td>
<td>Thorough pilot testing of the proposed model</td>
</tr>
<tr>
<td>Lack of stakeholder engagement</td>
<td>There might be commitment from stakeholders, but no time and resources provided.</td>
<td>Implementation of proactive strategies of engagement of stakeholders by the scheme operator.</td>
</tr>
<tr>
<td>Lack of skilled staff</td>
<td>Lack of requisite skills and expertise to run the scheme</td>
<td>Employment of staff with necessary skills and expertise to run the scheme. Training of staff and participants</td>
</tr>
<tr>
<td>Systems Security</td>
<td>Security risks are those risks that arise through the loss of confidentiality, integrity, or availability of information</td>
<td>Use of security policies and processes to reduce the overall risk or impact of a cyber-security threat</td>
</tr>
<tr>
<td>Data Confidentiality</td>
<td>Data Confidentiality deals with protecting against the disclosure of information by ensuring that the data is limited to those authorized</td>
<td>Follow appropriate data management guidelines such as encryption, proper disposal etc.</td>
</tr>
</tbody>
</table>

### 2.1.8 Commercial model and pricing

Consistent with the L1Ps of lowering the fees for low value cross-border payments, one of the aims of the Scheme is that all fees to the end user should either be less than or equal to the domestic fees paid by users. This will ensure seamless and transparent cross-border payments.

Furthermore, the presumption is that the COMESA Scheme will operate on a cost recovery basis (not for profit), in order to meet its operational costs, such as: staff costs; software support & license costs; and infrastructure hosting costs, among others. This cost structure will guarantee the sustainability of the Scheme.

A study done through desk research and engagements with Global System for Mobile Communications (GSMA) Sub-Saharan Africa found that mobile money was, on average, more than 50 percent cheaper than global Money Transfer Operators (MTOs). A survey along 45 country corridors established that the average cost of sending $200 using mobile money was 2.7 percent, compared to 6.0 percent through global MTOs.

The current pricing for mobile money transactions in all the countries in which stakeholders were engaged, appeared to be the cheapest in the market, as compared to other forms of money transfer.
Most of the pricing of mobile money transactions are percentage threshold based, with the potential of transactions costing less as volumes increase. If this model was adopted by the proposed COMESA Scheme, it is likely that the pricing of the cross-border transactions will be equal but not less to the cost of domestic transactions. Therefore, it is possible to come up with a costing model for the COMESA scheme that would be equal to the domestic model.

However, it should be noted that the cost of the mobile money transactions had a direct relationship with the cost of infrastructure deployed. The Central Banks that were engaged indicated that they did not regulate fees for commercial players. Therefore, pricing was a matter for the individual money transfer service providers. However, all Central Banks stated that they had some level of control over their respective in-country national switches and could regulate the switch fee (Principles for financial market infrastructures, 2021). The fee structure could be shared with the Scheme in return for the increased volumes, which will be routed through their national switches, as a result of the interconnection.

In view of the foregoing, it is recommended that the pricing structure of the COMESA Scheme be based on a shared switching fee threshold, as determined by the respective national switches. This approach will help prevent the adoption of the pricing models of the commercial players, whose prices are usually higher than the national switching fee.

**RECOMMENDATION**
COMESA Scheme pricing structure should be based on a shared switching fee threshold with its direct participants, especially the national switches. This will prevent the adoption of the commercial players pricing models, thus realizing the schemes strategic intent of being a low-cost regional money transfer service provider.

### 2.2 Part II: Legal, Administrative and Governance Model

#### 2.2.1 Rights and obligations of participants Model

The financial institutions to participate in the COMESA payment scheme shall be both banks and non-banks with the authorization of their respective Central Bank regulators. These banks and non-banks can either be direct or indirect participants. Prior to admission into the scheme, participants will be required to sign an agreement with the Scheme owner. This will bind them to the rules, agreements and standards governing the Scheme. This means that the prospective member must accept the rights and obligations governing participation in the scheme, as follows:

**a) Legal agreements applicable to participants and end-users**

All participants that qualify to participate in the Scheme should enter into a formal participation agreement with the owner. Members may include those who have rule-writing powers and voting rights, as well as those with no decision-making rights, depending on the Scheme governance.

**RECOMMENDATION**
Before it goes-live, the COMESA Digital Financial Services Association or Management team of the Scheme should be formulated, which will be mandated to:

- Design legal agreements that define the membership conditions, rights, and termination criteria etc. A Scheme association should also be formulated to be responsible for such functions.
- Ensuring on-boarded participants sign agreements before they start participating on the Scheme.

**b) Scheme rule writing**

The COMESA Scheme is anticipated to have governing rules defining the terms that are needed to exchange payments safely and efficiently. Although the final decision-making will be left to Scheme's management, participants may have a say in decision-making through rule-writing committees or similar forums.

**RECOMMENDATION**
The formulated COMESA Digital Financial Services Association/Management should come up with working groups including regulatory, technical, operational, commercial among others, which will write the rules, thus resulting in a diversity of voices in the formulation process. This should be done on country representative basis through the relevant in-country associations/committees, such as the Bankers Association or Digital Financial Services Association etc.
Some provisions for possible inclusion in the scheme rules are described in Table 9:

Table 9: Scheme Rules Description

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision-making</td>
<td></td>
</tr>
<tr>
<td>Member criteria</td>
<td>Defines conditions for accepting new participants and membership termination.</td>
</tr>
<tr>
<td>Voting rights and decision</td>
<td>Defines which participants can participate in rulemaking, for which transaction types, and the majority (simple/absolute) that is needed to make decisions related to rules.</td>
</tr>
<tr>
<td>Economics</td>
<td></td>
</tr>
<tr>
<td>Interparty fees and any other scheme fees</td>
<td>Defines any potential interparty fees between participants to compensate for possible economic imbalances and any other scheme fees.</td>
</tr>
<tr>
<td>Liability and loss allocation</td>
<td>Defines participant liability in case of bankruptcy of a Scheme participant. Loss allocation involves decisions on how losses will be allocated as a result of a losses that affect participants.</td>
</tr>
<tr>
<td>Operations</td>
<td></td>
</tr>
<tr>
<td>User experience</td>
<td>Defines the minimum common rules for user experience (e.g., name confirmation of recipient, fee disclosure before processing transaction, notifications, etc.). May define brand rules or customer service rules.</td>
</tr>
<tr>
<td>Technical standards</td>
<td>Defines the technical standards to be used for the Scheme.</td>
</tr>
<tr>
<td>Quality of service and business continuity</td>
<td>Defines the quality of service required to protect the integrity of the payment system in terms of availability, business continuity, procedures for disaster recovery, planned and unplanned outages, and incident responses.</td>
</tr>
<tr>
<td>Monitoring and reporting</td>
<td>Defines reporting requirements of the Scheme (e.g., to regulators).</td>
</tr>
<tr>
<td>AML/CFT and fraud monitoring</td>
<td>Defines responsibilities of participants versus Scheme responsibilities and possible its audit powers to verify compliance</td>
</tr>
<tr>
<td>Cyber security and compliance</td>
<td>Defines responsibilities for effective security management and capabilities to ensure that transactions are secure, reliable, and user data are protected against unauthorized discloser, use, or modification</td>
</tr>
<tr>
<td>Clearing and settlement model</td>
<td>Defines the model for passing payment transactions and for settlement of funds between participants</td>
</tr>
<tr>
<td>Dispute resolution</td>
<td>Defines how disputes are identified and handled, and how any possible loss is allocated.</td>
</tr>
<tr>
<td>Change Management</td>
<td>Defines the changes to be made to Scheme rules and processes due to the following:</td>
</tr>
<tr>
<td>- Changes in regulation</td>
<td></td>
</tr>
<tr>
<td>- Technology innovations</td>
<td></td>
</tr>
<tr>
<td>- Changes in business practices</td>
<td></td>
</tr>
<tr>
<td>- Changes in consumer behavior</td>
<td></td>
</tr>
</tbody>
</table>

2.2.2 Governance Model

The Scheme governance defines the relationships between the oversight agent, Scheme owners, board of directors (or equivalent), the Scheme’s management, direct/indirect participants, and the various working group committees that will interact with it.
Three levels of governance were identified, and their roles and responsibilities for the proposed COMESA Scheme as shown in figure 10:

![Governance Model Diagram](image)

**a) Proposed scheme oversight model**

Best international practice recommends that the role of providing oversight to the payment systems should be performed by Central Banks. This role is also the same for regional payment schemes.

The findings are that this role becomes even more important for regional payment schemes, especially in the harmonization of policy frameworks and regulations across member countries, which are never at the same level of development.

Although COMESA does not have a single regional Central Bank, a COMESA Committee of Central Bank Governors is in place. The Committee was established under Article 7 of the COMESA treaty, an organ that comprises the Governors of the Central Banks in the region, whose mandate includes providing oversight to the payment systems in the COMESA regional body. In order to provide oversight to the payment scheme, it is recommended that:

- **Recommendation:**
  - The COMESA Committee of Central Bank Governors, through a memorandum of understanding (MoU) and/or some newly drafted terms of reference with the proposed scheme take up this oversight role.
  - This Committee of Central Bank Governors can then delegate some of its authority on oversight to the Payment Oversight Committee which will carry out the day-to-day oversight roles over the Scheme. Detailed terms of reference and MOU's can be developed once this model is accepted.

**b) Proposed scheme ownership model**

Although a variety of organizational structures are legally possible, privately held entities and public–private partnerships are the most common. These entities are created under diverse legal structures depending on the jurisdiction and the intent of the scheme, thus for-profit or not-for-profit Company, public or private, guaranteed, or private limited, among others.

In terms of overall Scheme management, the report proposes that a Payment Oversight Committee takes up the oversight role. Ownership of the Scheme will be under an SPV (Association) created by CBC. The Association’s membership should comprise of various industry stakeholders, including banks and non-banks, while its governance will comprise digital payments stakeholders, and other COMESA institutions, including the clearing house.

The first business model proposes that the Scheme’s management team under the Association takes up the roles of operating the platform and rule writing, in conjunction with the participants. The settlement agent shall be recommended to COMESA’s Committee of Central Bank Governors at a later stage.

The second business model is specifically considering the option of outsourcing the platform operations to other service providers including existing regional payment systems such as PAPSS, SADC RTGS, Global Information Management, Assessment and Analysis Cell (GIMAC), Electronic Banking Interbank Grouping of the West African Economic and Monetary Union (GIM-UMOA), SADC Transactions Cleared on an Immediate Basis (TCIB), and EAPS, among others, through a competitive bidding process. It also recommends that participation to the Scheme should be by both banks and non-banks, with the settlement agent being the existing Regional Payment Scheme in multi-currency.
The following ownership model in order of preference is therefore recommended:

**RECOMMENDATION**

**MODEL 1:** A completely new regional switch that will be hosted, managed, and operated from one of the COMESA countries with its own staff needs to be procured. The switch will be owned by SPV and operated as CBC’s Real Time Retail Payment System or under the new SPV with an in-house operation mode. CBC will create an SPV with a governance structure that will include COMESA’s clearing house and other institutions to operate the Scheme. The Platform will be procured and operated by the COMESA Scheme Management Team.

**MODEL 2:** Is looking for an outsourced platform operation mode. CBC to create an SPV with the governance structure that will include COMESA’s clearing house and other institutions to operate the Scheme. The platform operation will be outsourced.

c) **Proposed Scheme Operator Model**

During the study, most stakeholders preferred the option of CBC coming up with a completely new regional retail payment switch for MSMEs. The COMESA retail payments scheme will manage several support services, in order to operate effectively. Many of these services will be similar regardless of whether the Scheme operates under a for-profit or cost-recovery business model, and whether or not it is under the switching infrastructure.

Once procured, the COMESA regional switch, must be hosted and operated as a single regional infrastructure, and suitable staff should be recruited to manage this infrastructure, as per the recommendation in Table 10.

d) **Management and Organizational Structure**

The COMESA Scheme will require an independent management team and organizational structure regardless of the model adopted. The management structure should adopt the following key functional areas during the pre- and post-project as highlighted in Table 10:

<table>
<thead>
<tr>
<th>Position</th>
<th>Pre-project</th>
<th>Post-Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chief Operating Officer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Chief Information Officer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Manager – Marketing and Product innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Manager – Business Development and Participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Officer- Regulatory Affairs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix 3 provides the Scheme’s proposed organisational structure and job descriptions for pre-project and post-project phase.

**2.3 Part III: Proposed Business Model Design on Operation and Implementation of Regional Digital Retail Payment Scheme for MSMEs in COMESA Region**

**2.3.1 Proposed Business Models**

The CBC business case report recommended the implementation of the regional digital retail payment scheme for MSMEs by leveraging on existing systems. Regarding this recommendation, the following two hybrid models in order of preference are proposed:

a) **Model 1**

Model 1 proposes that the COMESA’s Committee of Central Bank Governors takes up the oversight role. The scheme ownership will be under an SPV created by CBC. The SPV membership should comprise various industry stakeholders including banks and non-banks.
The Association governance will comprise digital payments stakeholders, including other COMESA’s institutions, such as the clearing house. The model also proposes that the Scheme’s management team under the SPV takes up the roles of Scheme and platform operations, and rule writing in conjunction with the participants. The settlement agent will be recommended to COMESA’s Committee of Central Bank Governors at a later date. Table 11 provides the details of Model 1.

Table 11: Model 1 Description

<table>
<thead>
<tr>
<th>Role</th>
<th>Entities</th>
<th>Highlights</th>
</tr>
</thead>
</table>
| Oversight             | Set up of a Payments Oversight Committee by the COMESA Committee of Central Bank Governors | • It shall be responsible for the authorization of the setting up and operation of the Scheme that will require processing of the COMESA cross-border payments.  
• It shall set out objectives for the Scheme and play an observer role to any proposed changes.  
• It shall provide regulatory oversight. |
| Scheme Ownership      | CBC to create an SPV with a governance structure to operate the Scheme.   | • Create the SPV with the governance structure that will include other COMESA institutions including the clearing house.                   |
| Scheme Management     | CBC SPV Scheme Management Team (CBC Retail Payment System)               | • Self-funding and sustainable  
• This is a self-regulating body which manages a specific payment Scheme. It ensures that the rules, standards, agreements, and processes adopted in running a payment scheme, are appropriate for its sound functioning. |
| Rule Writing          | COMESA Scheme Management Team (CBC Retail Payment System)               | • Members and participants propose changes to the rule book through formal process. Associations and PSPs may also contribute to working groups. |
| Scheme Participation  | Both banks and non-banks (DFSP)                                          | • Scheme participation will depend on the type of participation either as direct or indirect participants as defined in the rule book.        |
| Platform Operation    | COMESA Scheme Management – (CBC Retail Payment System)                  | • The platform will be procured and operated by the COMESA Scheme Management Team.                                                        |
| Settlement            | The Scheme Management will recommend the settlement agent to the COMESA Committee of Central Bank Governors | • Settlement to be in multi-currency                                                                                                       |
b) Model 2
Model 2 proposes the outsourcing of the platform through a competitive bidding process targeted at other service providers, including the existing regional payment systems such as PAPSS, SADC RTGS, EAPS, GIMAC, GIM-UEMOA, among others. In addition, Model 2 proposes that participation to the Scheme should be open to both the banks and non-banks, having the existing Regional Payment Scheme in multi-currency as settlement agent. Table 12 provides the details of Model 2.

Table 12: Model 2 Description

<table>
<thead>
<tr>
<th>Role</th>
<th>Entities</th>
<th>Highlights</th>
</tr>
</thead>
</table>
| Oversight          | Set up of a Payments Oversight Committee by the COMESA Committee of Central Bank Governors | • It shall be responsible for the authorization of the setting up and operation of the Scheme that will be required in processing of the COMESA cross-border payments.  
• It shall set out objectives for the Scheme and play the observer role to any changes proposed to it.  
• It shall provide the regulatory oversight. |
| Scheme Ownership   | CBC to create an SPV with the governance structure to operate the scheme. | • Create the SPV with the governance structure that will include other COMESA institutions such as the clearing house. |
### Scheme Management
- CBC SPV Scheme Management Team (CBC Retail Payment System)
- Self-funding and sustainable
- This is a self-regulating body which manages a specific payment scheme. It ensures that the rules, standards, agreements, and processes adopted in running a payment scheme are appropriate for its sound functioning.

### Rule Writing
- COMESA Scheme Management Team (CBC Retail Payment System)
- Members and participants provide inputs into changes to the rule book through formal process. Associations and PSPs may also contribute to the working groups.

### Scheme Participation
- Both banks and non-banks (DFSP)
- Participation in the Scheme will depend on the type, either direct or indirect participants as defined in the rule book.

### Platform Operation
- Outsourced Platform Operator
- The platform operations will be outsourced.

### Settlement
- The Scheme Management will recommend the settlement agent to the COMESA Committee of Central Bank Governors
- Settlement to be in multi-currency

---

**MODEL 2: CBC Special Purpose Vehicle (Outsourced platform Operations)**

(Scheme Oversight)
Membership should usually be from the Central Banks

(Scheme Owner)
Should be legal entity registered with jurisdiction in COMESA region

(Platform and Scheme Operator)
ICT components meeting functional specifications described and Suitable organisational structure to manage & operate

---

Figure 12: Model 2 of CBC SPV with Outsourced Platform Operations
Table 13 shows the benefits and areas of consideration for each model and is subject to validation.

<table>
<thead>
<tr>
<th>Model 1: CBC Special Purpose Vehicle (in-house platform operations)</th>
<th>Benefits</th>
<th>Areas for Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tailor made Regional Digital Retail payment platform to address the needs of MSMEs and customers they transact with at the bottom of the financial pyramid. This is based on the stakeholder consultations in the nine pilot study countries</td>
<td>It will require legal framework to be put in place</td>
<td></td>
</tr>
<tr>
<td>Leverage on the existing COMESA brand and also experienced human resources within the region.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoid duplication of the payment system’s mandates and entities within COMESA as the CBC Real Time Retail Payment System will only deal with low value payments.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model 2: CBC Special Purpose Vehicle (Outsourced platform Operations)</th>
<th>Benefits</th>
<th>Areas for Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides potential for establishing the “best class” payment system due to the existence of several payment systems for benchmarking purposes, and availability of IT and operational skills.</td>
<td>The outsourcing the platform to an existing payment Scheme will require that changes be made to the legal framework and governance structure, although the diversified membership and political stakeholders may make harmonization of governance and ownership regimes difficult.</td>
<td>It will be easy to implement because of the existing systems in place.</td>
</tr>
<tr>
<td></td>
<td>It will be easy to implement because of the existing systems in place.</td>
<td>In the case of outsourcing the platform to an existing payment Scheme, CBC Real Time Retail Payment scheme may lose control in implementation timelines, as existing schemes have their own issues and will delay the achievements of the objectives of COMESA’s Scheme.</td>
</tr>
</tbody>
</table>

2.3.2 Key Performance Indicators

The following Key Performance Indicators (KPIs) are proposed, for tracking and monitoring the performance of the COMESA regional payment scheme. These KPIs are indicative and not exhaustive. Data for these metrics will be collected & analyzed monthly, and used for internal analysis by the switch operator for M&E. It will also be shared within an aggregated form with the payments industry stakeholders and development partners from the start of the piloting phase as a baseline.

i. Participants
   • Number of participants in the scheme
   • Type of participants
   • Customer base of each participant and percentage of active customers

ii. Use cases
    • Number of payments use cases enabled by the scheme
    • Volume and value of transactions per use case
    • Volume and value of transactions per channel

iii. Channels and instruments
    • Number of channels (distribution points) accessible by scheme participants (e.g., agents, merchants, ATMs, touch points, e-commerce)
    • Number of instruments issued by participants (cards, mobile wallets)

iv. Platform performance and availability
    • Network uptime / availability

v. Other
    • Number of unsuccessful transactions
    • Number of fraud attempts
2.4 Part IV: Modalities for piloting

Piloting will be done in the eight (8) selected countries (Zambia, Rwanda, Kenya, Uganda, Mauritius, Egypt, Ethiopia, and Malawi) within the COMESA region. The initial nine countries were selected on the basis of the existing trading blocks.

A checklist that will enable CBC to assess the readiness of countries to start with in the pilot phase has been developed. The checklist will provide criteria for the initial phase of the pilot by assessing readiness using the criteria in Table 14:

Table 14: Pilot modalities

<table>
<thead>
<tr>
<th>Readiness Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Legal &amp; Regulatory Framework</td>
<td>This is the readiness of a country in terms of the legal and regulatory requirements as agreed in the harmonized policy framework of the project</td>
</tr>
<tr>
<td>2  Willing Bank Participants</td>
<td>The number of prospective bank participants in a country that have shown willingness to participate</td>
</tr>
<tr>
<td>3  DFSP Participants</td>
<td>The number of prospective FinTech and MNO participants in a country that have shown willingness to participate and have appropriate products for MSME’s that they are willing to promote</td>
</tr>
<tr>
<td>4  Available User Associations</td>
<td>The number of MSME associations with cross-border pain points in a country that have shown willingness to participate</td>
</tr>
</tbody>
</table>

The details of the different participants and regulators that affirmed willingness to participate are included in the country visit report which annexed to this report.

2.5 Part V: Operationalization Guidelines for the Business Model (Scheme)

Table 15 provides the proposed implementation and work plan for operationalizing the COMESA regional payment scheme. It is presented as an indicative series of activities and/or work streams that will need to be undertaken in order to implement and operationalize the COMESA payment scheme. The time frames indicated are estimates based on the field experience, and once a suitable model is selected, it should be refined and developed into a detailed project plan with clear deliverables, outputs, and timelines.

Table 15: Draft Implementation Work plan

<table>
<thead>
<tr>
<th>Work Streams/Activities</th>
<th>Resources Required</th>
<th>Year 1 (2022)</th>
<th>Year 2 (2023)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>J</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>J</td>
<td>F</td>
</tr>
<tr>
<td>1  Establishment of the COMESA Scheme</td>
<td>CBC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Streams/Activities</td>
<td>Resources Required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2 Recommend transition of key CBC DFI Project Management Team (PMT) members into the independent management team and organisational structure regardless of the model adopted as part of the Operations Management Team (OMT). Key areas to facilitate successful launch of the payment platform are leadership and marketing of the payment platform.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBC, COMESA Legal Dept.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3 Develop roles based on job descriptions (as per the management and organization structure in the business model and establishment of new SPV) and initiate hiring of additional key operations staff.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4 Facilitate implementation of corporate governance parameters i.e., Legal, Human Resources, Procurement, Finance &amp; processes, and legal scheme ownership (New SPV registration etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBC, COMESA Legal Dept.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5 Facilitate transfer of activities from CBC Project Management Team (PMT) to Operations Management Team (OMT) of new SPV.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBC, COMESA Legal Dept.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6 Identification of office space/Country of hosting the new Operations Management Team (OMT) of new SPV.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.7 Constitute a board of directors and company secretary that may include participant stakeholder associations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBC, COMESA, Steering Committee, Owners</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 1 (2022)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>CBC</td>
<td>CBC</td>
<td>CBC</td>
<td>CBC</td>
</tr>
<tr>
<td>Year 2 (2023)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>CBC</td>
<td>CBC</td>
<td>CBC</td>
<td>CBC</td>
</tr>
</tbody>
</table>
## Work Streams/Activities

<table>
<thead>
<tr>
<th>Work Streams/Activities</th>
<th>Resources Required</th>
<th>Year 1 (2022)</th>
<th>Year 2 (2023)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.8 Establish Working Groups (WGs), nominating members from the owner(s) and select industry actors to support the initial set-up and operations for the Scheme, specifically the WGs for Legal and Compliance, Scheme Rules, Technical, Finance, Consumer Protection, Membership &amp; Disciplinary, Marketing, Product &amp; Pricing, Risk Management</td>
<td>Board/OMT</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>1.9 Develop pitch decks for investors / donors to potentially fund the initial cost of the implementation and operation of regional digital retail payment scheme</td>
<td>OMT</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>1.10 Prospecting for Regional Scheme participants (DFSPs)</td>
<td>OMT</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>1.11 Develop and roll out the application process for direct and indirect participants for pilot</td>
<td>OMT</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>1.12 Invite applications from potential participants (direct, indirect) for the initial set of use cases</td>
<td>OMT</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>1.13 Finalize the development of the Scheme's business rules (standard operating procedures, rights, and obligations of participants), operational processes (e.g., clearings, reconciliation, settlement), certification criteria for integration / connectivity with the platform</td>
<td>Board/OMT/OMT/WGs</td>
<td>Q1</td>
<td>Q2</td>
</tr>
</tbody>
</table>

## Business Requirements

<table>
<thead>
<tr>
<th>Business Requirements</th>
<th>Relevant WGs, OMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Build complete user journeys for prioritized use cases based on industry consensus (as outlined in the business model), as well as a more detailed analysis of commercial viability, implementation complexity, and end-user demand</td>
<td></td>
</tr>
</tbody>
</table>
### Work Streams/Activities

#### Required Resources

<table>
<thead>
<tr>
<th>Work Streams/Activities</th>
<th>Resources Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2 Build back-end processes for use cases including reconciliation, settlement, and dispute resolution</td>
<td>Relevant WG, OMT, Vendor</td>
</tr>
<tr>
<td>2.3 Identify and sign MOUs with initial participants to pilot and test the prioritized use cases when they are launched</td>
<td>Board, OMT</td>
</tr>
</tbody>
</table>

### Technical

<table>
<thead>
<tr>
<th>Work Streams/Activities</th>
<th>Resources Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Issue RFP and/or expression of interest for Platform procurement as per business requirement to procure</td>
<td>Technical WG, Consultants, OMT</td>
</tr>
<tr>
<td>3.2 Define criteria for shortlisting of vendors</td>
<td>Technical WG, Consultants, OMT</td>
</tr>
<tr>
<td>3.3 Select vendor for the technology platform for the Scheme and sign contract</td>
<td>Board, Technical WG, Consultants, OMT</td>
</tr>
</tbody>
</table>
| 3.4 Start implementation of the COMESA System  
- Prepare infrastructure  
- Finalize Functional specifications based on RFP/BRD and the prioritized use cases  
- Deploy and configure system  
- Share technical standards, integration specifications with first batch of participants who will integrate with system  
- Perform system integration testing with participants | Technical WG, Consultants, OMT, Vendor |
<table>
<thead>
<tr>
<th>Work Streams/Activities</th>
<th>Resources Required</th>
<th>Year 1 (2022)</th>
<th>Year 2 (2023)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>J</td>
<td>F</td>
</tr>
</tbody>
</table>

### 4 Use Case / Product Launch

4.1 Participants to develop their internal project plans to ensure technical and operational readiness
- OMT, Participants

4.2 Design the user acceptance testing (UAT) for use case with agreed participants
- OMT, Vendor, Participants

4.3 Build test environment with the participants
- OMT, Vendor, Participants

4.4 Develop and share UAT and pilot project plans with participants and select end-users to participate in the testing
- OMT, Participants, Vendor

4.5 Commence UAT
- OMT, Participants, Vendor

4.6 Develop training material in partnership with the participants for staff at individual institutions
- OMT, Participants, Vendor

4.7 Complete UAT and make changes based on end-user feedback
- OMT, Participants, Vendor

4.8 Launch scheme and continue to integrate additional participants for the use cases that have been launched and work on the remaining use cases outlined in the implementation
- Vendor, OMT, Participants

### 2.6 Part VI: Financial implications

#### 2.6.1 Financial Model

One of the objectives of the engagement was to estimate the financial implication of the cost of: piloting the Scheme in selected countries; and setting up and running the Scheme at the regional level, including those for human resources.

In order to achieve the above, the addressable market in the selected nine (9) countries for piloting, which informed the design of the business model was estimated.
To this end, an assessment of the COMESA cross-border trade statistics for Zambia was done, and the data extrapolated to the other 21 COMESA countries, while taking into account the mobile phone penetration rate of 60% for the COMESA Region.

Kindly refer to Appendices 4, 5 and 6, for detailed Assumptions, Cash flow projections and calculation of breakeven transactions.

2.7 PART VII: Customizing the Rule book

The rulebook provides a set of cross-border payment rules, practices, and standards, on which the Scheme’s participants will operate. It has been customized notwithstanding the model that is adopted, to achieve interoperability for the provision and operation of the Scheme. The rulebook shall form part of other set of documents and agreements between the Scheme and participants, to the basis of which the cross-border retail payment scheme system functioning is governed. Some sections in the rulebook such as security standards, fees, business continuity, etc., shall be provided once the requirement document has been finalized.

The following are the key components of the rulebook:

- Scope of the COMESA Retail Payments Scheme – this section outlines the objectives, design, and key principles of the Scheme. Features of the Scheme including the payments that are processed and supported are described in this section.
- Governance arrangement and responsibilities – the governance arrangements that are in place and responsibilities of various organs, are described to give effect to the operations of the Scheme.
- Scheme actors and roles – this section relates to the Scheme actors and deals with agreements and contractual arrangements, eligibility for participation in the Scheme, and admission procedures including withdrawal or suspension from participation.
- Settlement rules and procedures – this section provides the general rules for settlement, and obligations for both the settlement bank and participants. It also describes how the consequences of settlement failure will be managed by any party with regard to its settlement obligation arising from instructions emanating from the Scheme.
- Exception handling – this section deals with how exceptions emanating from the Scheme will be managed.
- Change Management – This section describes the management procedures for initiating and implementing changes to the Scheme, the rulebook and related documentation.

It is recommended that the sub-sections of the rulebook which detail the operating procedures and processes for the components described above, and the ones to be provided during the development of the requirement document be developed prior to go-live.
<table>
<thead>
<tr>
<th>Glossary of Key Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active-active</strong></td>
</tr>
<tr>
<td>Configuration in a data resilience architecture in which client workloads are distributed across two or more nodes in a cluster, to keep the data safe and available in the event of an unexpected component failure.</td>
</tr>
</tbody>
</table>

**Active passive** is where the active node of the cluster hosts the virtual server. The second node is a dedicated redundant server that is able to take over and host the virtual server in the event of a failure on the active node.

<table>
<thead>
<tr>
<th><strong>Agent</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A person or entity that is authorized to handle various financial services, including transaction account opening and/or payments or transfers on behalf of another entity. An entity may be a bank, or non-bank provider of financial services. For example, Cash-in Cash-Out (CICO) is a common service provided by Mobile Money Agents.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Aggregator</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A specialized form of a merchant services or bill payment provider that typically handles transactions for a large number of small merchants. An aggregator allows merchants to accept different payment instruments such as credit card, bank transfers, or e-money without having to setup a merchant account with a bank, etc. Agent aggregators also exist. Aggregators are a type of third party and may connect directly to a platform or through a relationship with a DFSP. Scheme rules specify how aggregators may interact with the system.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Anti-Money Laundering (AML) Initiatives</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A set of processes, policies, and procedures put into place to prevent and detect individuals or entities using the payment systems to disguise and transfer illegally acquired funds.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Application Programming Interface (API)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A method of communication to allow interaction and sharing of data between different software and technical protocols.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Authentication</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The mechanism whereby systems securely identify their end users. The mechanism provides answers to the questions: “Who is the user?”, and “Is the user really who s/he represents him/herself to be?” In payment systems, Personal Identification Numbers (PINs) and biometrics are common methods of authentication.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Authorization</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The mechanism used for the payer or entity to give permission to make a payment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Automated Clearing House (ACH)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>An electronic bank transfer system that processes credit push and/or direct debit payments in a batch process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Clearing</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The process of transmitting information about a payment, reconciling, and establishing of final positions for settlement by the DFSP. In the RTRP system, clearing includes the real-time debiting and crediting of end user accounts by the DFSPs. Clearing may include the netting of transactions prior to establishing final positions.</td>
</tr>
</tbody>
</table>

**Closed Loop** A payment system with one provider, who has a direct relationship with both the payer and the payee. Closed loop contrasts with open loop.

<table>
<thead>
<tr>
<th><strong>Combatting Terrorist Financing (CFT)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiatives to prevent individuals or entities from using payment systems to send funds to individuals or entities associated with terrorism.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Credit Transfer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A payment or transfer of funds initiated by the payer DFSP to the payee DFSP. A credit transfer is often referred to as a ‘credit push transfer’ because the funds are ‘pushed’ from the payer’s transaction account.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Deferred Net Settlement</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A mechanism that enables transactions to be settled for the value that is the sum of the total credits offset by the sum of the total debits at the end of a predefined settlement cycle.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Digital</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic communications or exchange of information between two individuals or entities that can occur on various electronic devices (e.g., mobile, tablet).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Digital Financial Services Providers (DFSPs)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A bank or non-bank financial services provider that is licensed by a regulatory authority to provide transaction accounts which hold end user funds used to make and receive payments. A DFSP may be a direct or indirect participant in a real-time retail payments scheme.</td>
</tr>
</tbody>
</table>
Directory
A centralized or decentralized holding of payment identifiers to be used for addressing, accessible by the payments system or DFSPs.

Dispute Resolution
A set of policies and processes specified by a DFSP or by the payment scheme to resolve issues between an end user and a DFSP, or between a payer and a payee.

Dynamic Routing
is a networking technique that provides the most efficient or optimal transfer of data between end points.

e-Money
Digital funds or value owned by a transaction account holder on a payment device such as chip, prepaid card, mobile phone, or on a computer system. National regulation specifies the types of DFSPs that can issue e-money.

Encryption
The process of encoding a message so that it can be read only by the sender and the intended recipient.

End User
The customer of a DFSP and the payer (sender) or payee (receiver) of funds in a payment transaction. The customer may be a consumer, a merchant, a government, or another form of enterprise.

Financial Action Task Force
is the global money laundering and terrorist financing watchdog. The inter-governmental body sets international standards that are aimed at preventing these illegal activities and the harm they cause to society.

Fees
A sum paid or charged in exchange for a service or product. Fees in payments systems include those sums that are: charged by a DFSP to their customer, charged by the system of Scheme to the participating DFSPs; or set by the Scheme and paid by one DFSP to the other, the later often called interchange. Fees may either be a fixed fee, a percent-of-value fee, or a mixture of the two.

Fraud
A deliberate deception to wrongfully take money, property, or rights from another person or entity for gain. In payments, this may result in the loss of funds. There are many types of fraud in the payments' ecosystem.

Gross Settlement
A method of settling financial obligations among DFSPs and a Scheme. Gross settlement processes each transaction individually. The details of the gross settlement model are specified in scheme rules.

Scheme Governance
The collection of management approaches, decisions, and oversight functions within the Scheme. Scheme governance sets the tone for everything that occurs in the it.

Horizontal scaling
The practice of adding additional nodes or machines to IT infrastructure to cope up with new demands for capacity, speed, or performance.

Interchange (or interparty) Fee
A type of Fee paid between participants of an open loop payments system that is intended to balance economic incentives in a payment transaction between DFSPs. The fee is set by the Scheme but is not earned by the Scheme manager or switch operator.

Interoperability
The technical or legal compatibility that enables a system or mechanism to be used in conjunction with other systems or mechanisms. Interoperability allows participants in different systems to clear and settle payments or financial transactions across systems without participating in multiple systems.

Irrevocable
A transaction that cannot be “called back” by the payer. An irrevocable payment, once received by a payee, cannot be taken back by the payer.

Know Your Customer (KYC)
Regulatory requirements for DFSP to establish the identity and activities of an end user or entity, both before opening a transaction account and over time.

Legacy System
A system that has been in place for some time and likely includes outdated technologies or processes.
Merchant
A term used to describe a broad group of entities, including stores (physical or digital), service providers (i.e., ‘billers’), not-for-profit enterprises, and governments. Merchants are often receivers of funds, where payments are made in exchange for goods and services. Merchants are also often payers of goods and services to sustain their business.

Mobile Money Operator (MMO)
a licensed digital financial service provider (a type of DFSP) that develops and provides financial services, typically e-money transfers, through mobile phones and mobile telephone networks.

Mobile Network Operator (MNO)
a telecommunications service provider that provides wireless voice and data communication for its subscribed mobile users.

Netting
The offsetting of credit and debit obligations between or among participants in the netting arrangement, thereby reducing the number and value of payments or deliveries needed to settle a set of transactions.

Not-for-Loss
A “cost-recovery plus investment” model, where payments are not considered a profit maximizing activity, and an additional set of funds available to cover investment requirement to operate the platform

Open Loop
A payment Scheme that is open to all participants in a given category – most typically all banks in a country. Some country open loop systems allow licensed non-bank transaction account providers to belong directly to the System. Open loop contrasts with closed loop.

Participants
Institutions (such as DFSPs) that are deemed eligible to participate in a payment system according to the Scheme rules. Participants may be direct or indirect. Direct participants are eligible for all Scheme services, while indirect participants may need to rely on direct participants for some services. For example, indirect participants can typically directly enter transactions into the payment platform, but often do not have accounts with the settlement agent and rely on direct participants for settlement.

Payee (or receiver)
An end user that receives funds in a payment transaction.

Payer (or sender)
An end user that sends funds in a payment transaction.

Payments Ecosystem
A term used to describe the end-to-end value chain and the interactions of entities and processes to enable the transfer of funds.

Payments Service Provider (PSP)
A type of third-party that offers branded payment products or services to end users, such as payment initiation.

Payments System
The set of instruments, processes, rules, and entities that support the transfer of funds, including clearing and settlement, by its participants on behalf of end users. A system includes the Scheme, platform, and settlement.

Platform
A set of technologies that provide clearing functionalities through a switch and may provide additional shared services.

Platform Operator
An entity that is responsible for the day-to-day management and operation of the platform.

Push Payment (or Credit Transfer)
A payment or transfer of funds initiated by the payer and is entered into the payment platform by the payer DFSP. The payee’s DFSP receives the transfer and credits the payee. A credit transfer is often referred to as a ‘credit push transfer’ because the funds are ‘pushed’ by the payer DFSP to the payee’s transaction account.

Quick-Response (QR) Code
A method of encoding and visualization of data, such as end-user account information, which are machine-readable that may be used to initiate electronic payments.

Real Time Gross Settlement (RTGS)
A mechanism that enables the real-time settlement of payments, transfer instructions, or other obligations individually on a transaction-by-transaction basis.
Retail Payment
A payment or transfer between end users, typically a low value denomination. The term is often used to describe P2P, B2B or P2B payments.

Request to Pay
A message by which a payee sends an informational request to a payer indicating that payment is due. The message may be followed by a subsequent payer authorization to send a push payment to the payee.

Risk
The exposure of one or more stakeholders to unintended negative outcomes during the process of a payment transaction. Risks may exist in one or many parts of a payment system.

Settlement
A process by which financial obligations are discharged through debits and credits to accounts, as defined by Scheme rules. In DFSP settlement, obligations are discharged through debits and credits in the DFSPs’ settlement accounts with the settlement agent. In end user settlement, funds are debited and credited in end users’ transaction accounts at their DFSPs.

Settlement Agent
Entity that performs the debits and credits of financial obligations for its participants in their respective settlement accounts. Most often, the settlement agent is a Central Bank. However, it may be a commercial bank.

Scheme
A set of procedures, rules, and technical standards that govern the execution of payments. Sometimes referred to as “Scheme Rules”

Shared Services
Activities or utilities that may be added to a platform beyond the core clearing functionalities provided by a switch. These may include directories to support account mapping to aliases, QR code provisioning, as well fraud management or compliance services that can come in different forms, for example shared databases on bad actors.

Static Routing
is a routing mechanism that is handled by the Internet Protocol (IP) and that depends on manually configured routing tables.

Switch
A technology that provides clearing functionality (as specified by the Scheme).

Third parties
Entities that provide services to participants and/or end users related to the processing payments at various stages of a payment flow. These may include core payment processors (provide the technical connection to the platform for certain participants), aggregators, and other payment service providers. Third parties are typically not considered participants or members of a Scheme but may have a technical connection to the platform.

Transaction account (or end user account)
A store of value (an account) that holds customer funds that are used for making and receiving payments.

Use Case
Description of the type of payment based on the end users involved. Typical payment use-cases include Person-to-Person (P2P), Person-to-Business (P2B), Person-to-Government (P2G) use cases. An example of a P2B payment is an individual (P) sending funds to a company that provides electricity (B) to pay for a bill.

Vertical scaling
The practice of adding additional resources to a system or platform so that it meets a demand.
References

Bill & Melinda Gates Foundation. Requirements for a Pro-Poor Interoperability Service for Transfers. Seattle: Bill & Melinda Gates Foundation; 2014

Codruta Boar, Stijn Claessens, Anneke Kosse, Ross Leckow, 2021: Tara Rice Interoperability between payment systems across-borders. Available at www.bis.org

Committee on Payment and Market Infrastructures (CPMI) (2020). Enhancing cross-border payments. Available at: www.bis.org/cpmi/publ/d193.pdf

Committee on Payments and Market Infrastructures (CPMI) (2016). Correspondent banking. Available at: www.bis.org/cpmi/publ/d147.pdf

Committee on Payment and Market Infrastructures and World Bank (2016). Payment aspects of financial inclusion, April. Available at: www.bis.org/cpmi/publ/d144.pdf


Appendix 1 - Country Reports - Stakeholder Consultative Meetings

The CYMA in conjunction with the COMESA project team conducted several stakeholder engagements, in five (5) countries, thus: Zambia, Malawi, Tanzania, Kenya and Uganda, to gather information that will inform the design of a viable business model for the region and assess readiness of the countries for the pilot project.

The consultations were conducted through physical meetings, and where not possible virtual meetings were held, and followed up with written questionnaires.

Questionnaires used are provided in Appendix 2.

The information and views gathering was mainly focused on three broad categories of stakeholders, namely:

1. Legal, Policy and Regulatory players such as Central Banks and ICT regulators.
2. Payment system participants such as commercial banks, FinTech's and MNO's.
3. MSME’s and Merchants being potential users of the proposed platform.

The engagements elicited responses regarding stakeholders’ readiness, perceived costs, and expected benefits from their potential participation in the COMESA regional payment scheme.

ZAMBIA

With a population of 17 million, Zambia's economic growth remains well below levels seen earlier this decade and was estimated to increase by 3.7% in 2021 (IMF, 2020). This is notwithstanding the rapid scaling up of public investments to address the country's infrastructure needs. The GDP in 2020 was US$ 24 Billion (IMF, 2021).

In recognition of the fact that DFS can make financial inclusion less costly for financial service providers and consumers, Zambia was among the first countries to allow non-bank payment service providers, to be part of the payment eco-system.

It is estimated that developing countries could collectively save 0.9% to 1.1% of GDP, which is equivalent to $220 billion to $330 billion annually by introducing digital payment systems in government (IMF 2017). Digital systems increase efficiency and reduce the occurrence of leakages.

a. Legal, Policy and Regulatory Framework

i. Bank of Zambia (BOZ)

The BOZ is the Central Bank of the Republic of Zambia, which derives its functions and powers from the Bank of Zambia Act and the Banking and Financial Services Act, (BOZ Act, 1996; BFS Act, 2000).

The team met with the BOZ team in order to assess its readiness to support and pilot the COMESA payments scheme. In terms of readiness to support a low-cost regional payments model for MSMEs in COMESA, it was established that BOZ has the following policies, strategies, and regulations, in harmony with the COMESA DFI model policy framework:

1. The National Payment Systems Act of 2007 (Bank of Zambia, 2016, National payment systems Act, 2007);
3. The Financial Intelligence Centre Act now referred to as the FIC Amendment Act No 4 of 2016 (Republic of Zambia, 2016); and

During a virtual meeting with BOZ on 8th October 2021, the BOZ team confirmed its commitment to the initiative, and its willingness to provide its oversight role, and also act as the settlement agent if selected for that role. In this regard, the BOZ recommended the following:

• Central Banks should be part of the admission process irrespective of whether or not the participant has been designated in the domicile country;
• The settlement agent for the model must be a Central Bank within the COMESA region where the regional switch shall be domiciled;
• The resultant model should be a low-cost service provider, with participants actively involved in setting up the fee structure.
• That the platform should be driven by the private sector, or private sector councils, with each participant country Central Bank providing oversight in an effort to achieve operational excellence; and
ii. Zambia Information and Communication Technology Authority (ZICTA)

ZICTA is an ICT regulatory body responsible for regulating the ICT Sector in Zambia. It is under the Ministry of Technology and Science and derives its mandate from three Acts of Parliament, thus the Postal Services Act No. 22 of 2009, Electronic Communications and Transactions Act No. 21; and The Information and Communications Technologies (ICT) Act No. 15 of 2009 to regulate ICTs, postal and courier services in Zambia. ZICTA is mandated to:

- Regulate the provision of electronic communication services and products in Zambia;
- Monitor the performance of the sector including levels of investment and availability, quality, costs, and standards of the electronic communication services;
- Administer the Country Code Top Level Domain (CCTLD) as well as electronic addresses;
- Disseminate information and promote participation by the public in the provision of electronic communication services;
- Provide a national frequency and numbering plan;
- Set standards for the ICT sector;
- Promote competition in the sector and also regulate tariffs charged by operators offering electronic communication services; and
- Protect the rights and interests of consumers, service providers, suppliers, and manufacturers.

As a regulator of ICTs, the Authority’s overall mandate is the maintenance of a delicate balance of all stakeholders’ interests in the sector.

ZICTA administers the following Acts (ZICTA, 2022):

1. The Electronic Communications and Transactions Act, 2009
2. The Information and Communication Technologies Act, 2009
3. The Information and Communication Technologies Amendment Act, 2010
4. The Postal Services Act, 2009
5. Electronic Communication Transactions Act (under review)

ZICTA indicated that the Mobile Money Network Operators (MMNOs) and banks were free to enter into partnerships with any institution they desired in terms of licensing, and that Zambia exercises a technology-neutral licensing framework. Additionally, the regulation of mobile money is mainly done by the BOZ. However, since the provision of this service is anchored on having a SIM card in place, there is an MoU between the BOZ and ZICTA which underpins a strong identity and electronic-Know Your Customer (e-KYC) framework for both payers and payees of mobile money users.

By the date of this meeting, the broadband coverage in Zambia was 86% geographically and 92% by population and was projected increase to 90%-100% coverage by 2025, through the universal access intervention that the Authority was administering. ZICTA cited lack of devices such as phones for MSME’s as the main factor hindering access to DFS, as opposed to coverage and penetration rate.

iii. Ministry of Technology and Science

The Ministry of Technology and Science was created by a recent Presidential decree following elections in Zambia that ushered in a new government. It is currently not fully operational and was still being set up by the date of the meeting (ZICTA 2022).

The Ministry is mandated to formulate and administer policies in the ICT sector (ZICTA 2022). It is also responsible for policies and regulations pertaining to the ICT sector, provides oversight to statutory bodies and institutions such as ZICTA, and manages state owned enterprises including ZAMTEL and ZAMPOST.

The ministry stated that it was engaged in the digitization drive of all Government entities under the e-Government project dubbed “Smart Zambia”. The main objective of this project is to increase mobile network coverage and access from the current 70% to 100% countrywide.

This is expected to increase the efficiency in the provision of ICT services, and digital payments across the country. In terms of the provision of broadband cellular network technology, Zambia’s urban areas are under 4G coverage, while rural areas mainly receive 2G and 3G coverage.

The government has also opened ICT centers at selected ZAMPOST offices so that the youth, women, and entrepreneurs have access to internet. It has also committed to build more ICT centers to improve and enhance digital inclusion.

The Data Protection Act is currently under review and is envisaged to take care of cross-border transactions (Data Protection Act, 2021). The revised Act will be ready by the time the pilot phase of the COMESA payment scheme kicks off. The Minister will grant a special permit for the same if need be.

b. Payments System Participants

i. Bankers Association of Zambia (BAZ)

The BAZ is an association representing all registered commercial banks in Zambia. It acts as a medium for communicating with the Zambian Government, The BOZ, the registrar of banks and financial institutions, the Committee of the Zambia Stock Exchange, other public bodies, the press, the general public, and other public associations and institutions. It is also the medium for communicating and advancing member’s banks interests on matters affecting banking industry.

A meeting chaired by Mrs. Audrey Malama was held with the BAZ Technical Committee on 5th October 2021. During the meeting, BAZ confirmed that its members were preparing to upgrade to the ISO 20022 interface.
Through its Technical Committee, the Association indicated that it was looking forward to engagements that would build synergies for best outcomes in the seamless and successful implementation of a regional payments system. This system would be responsive to the market’s transactional needs in the entire COMESA region. Besides preparing to participate in piloting the Scheme, the BAZ members are also ready to provide inputs to the draft model report once it is made available.

The Association also provided the following feedback on other issues:

- The COMESA system should be developed on an existing system, such as ZECHL which already has its infrastructure in place, for easier and faster integration.
- Participants should connect directly to the COMESA switch to ensure that they are always able to transact.
- In order to harmonize regulations across member states, routing of transactions should be regulated by the COMESA Scheme.
- COMESA should only admit participants in whose country KYC was being implemented. Additionally, sanction screening should be implemented to curb anti-money laundering and terrorist financing.
- Cloud hosting of the COMESA system will assist to minimize disruptions of the system
- The COMESA policies on disputes for transactions processed on this platform should supersede all other policies in participating countries.
- COMESA should nominate a settlement bank.

ii. Zambia Electronic Clearing House Limited (ZECHL)

The Zambia Electronic Clearing House Limited was established in 1999 as the sole national inter-bank clearing facility in Zambia.

ZECHL is a non-profit company setup by member commercial banks and the BoZ. The commercial banks and BOZ own 50 percent each of the ZECHL’s shareholding. The strategic direction of ZECHL is overseen by a Board of Directors comprising nominees of member banks and BOZ.

ZECHL became a designated entity as defined by the Banking and Financial Services Act when the National Payment Systems Act came into force in June 2007. ZECHL is now able to provide interbank clearing services to the payments ecosystem for small value payments, following improvements in the National Payments Systems.

ZECHL provided the following additional feedback:

1. Although the National Financial Switch (NFS) was not yet ISO 20022 compliant, it was interoperable. Since the COMESA platform will be ISO 20022, ZECHL would facilitate cross-border payments using a converter and will rely on a third party for AML/sanction screening.
2. ZECHL has a backup site, which ensure that the cross-border payments are processed in the event that the primary site was down.
3. The NFS has a multicurrency functionality.
4. All participants on the COMESA platform would have to become members on the local switch either directly or through designated agents. Connection to the COMESA switch is expected to be implemented through the local switch.
5. The COMESA system is expected to be developed using an open source for easy integration and administration.
6. Factors to be considered when choosing the hosting country should include technology readiness, political stability, technical support, and the existing regulatory framework.
7. The COMESA Policies on disputes for transactions processed on this platform should supersede all other policies existing in the participating countries.

iii. Airtel Mobile Commerce Zambia Limited

Airtel Mobile Commerce Zambia Limited is a FinTech and digital payments system licensed by BoZ as a payments systems operator (Electronic Money Systems). The company was incorporated in the Republic of Zambia on 21 August 2009 after a law was passed requiring Airtel Money Service to be separated from the telecommunication company.

Airtel Mobile Commerce Zambia indicated that it already has international money transfers in the corridors. In view of this, it advised that in order not to reinvent the wheel, COMESA should consider leveraging on existing platforms, such as the Airtel international money transfer platform. Airtel also mentioned it has an International Money Transfer (IMT) hub, and if COMESA partnered with it, settlement would require pre-funding of the e-wallet on both ends. This would ensure that once the funds are sent through, the subscriber would be credited in real time, and settlement done immediately. The Airtel platform is also integrated to an AML automated process and sanction screening is done through the IMT hub before the money is received.

Airtel does not support the routing of transactions through the Zambia National Financial Switch as it would bring about bureaucracy, and result in slow delivery timelines of the transactions.

The FinTech further noted that routing of transactions through the NFS would increase the transaction fees. It recommended the routing of transactions by leveraging on the existing facilities that were available, such as Airtel as they are present in almost all the COMESA countries, and are also driving cross-border trade. Airtel also mentioned that it is already working on digitizing the remittance of cross-border payments and so far, there has been a significant increase in volumes. It also indicated that it was ready to be a participant and pilot the COMESA retail payments platform.
Airtel mentioned that in order to maintain low costs on the COMESA platform, there was need to consider a direct connection to the COMESA switch, and that the distribution and penetration should be well balanced in order to sustain the ecosystem. This would ensure the Agents’ profitability thus sustainability of the business. The FinTech also affirmed that its platform has adopted all the use cases provided in the CBC business case report.

iv. Mukuru

Mukuru is a FinTech business specializing in cross-border money transfers through MNO booths, Pep Store Shops, and furniture shops as agents in twenty (21) countries, thus giving the consumer access to affordable and reliable financial services. Mukuru’s focuses on formalizing remittances for migrant workers and their families in Africa.

The organization’s mission as a remittances company is to empower migrants to move money in a convenient, safe, and affordable manner. The workers, who would usually be excluded from mainstream financial services, can now fulfill their desire to improve their families’ lives. Mukuru has existing interoperable infrastructure and regulatory licenses in all the countries it operates in and has therefore expressed readiness to pilot with the COMESA platform. It is willing to harmonize its cost models in order to appeal to MSMEs and other groups that the proposed COMESA Scheme will be targeting.

v. ZOONA

ZOONA is an interoperable distribution business that enables young entrepreneurs and technology to bring a variety of safe and reliable financial services to underserved communities in Zambia.

The primary aim of the business is to connect enterprises to consumers, towards ensuring visibility for its respective brands. It also provides integration of bulk disbursement and collection of funds. Presently, it is integrated into the Zambia National Financial Switch, and is also in the process of assimilating into other aggregators that provide disbursement and collection rails in other COMESA countries.

However, ZOONA does not support the decision to make routing of transactions through the NFS mandatory due to its complexity. It instead suggested that routing of transactions should be optional, to allow the participant to either route cross-border transactions through the NFS or directly to the COMESA switch.

ZOONA expressed interest in the following aspects:

- Provision of technical integration expertise to participants into the COMESA switch;
- Provision of switching technology for the COMESA switch;
- Provision of technical assistance for all participant banks or MNOs through the NFS or directly into the COMESA switch.

It recommended the use of an open-source software, such as Mojaloop which would enable COMESA to manage and administer the switch, in case it will have the required resources, and if not, outsource the management and administration of the switch.

Considering that ISO 20022 messaging standard is the preferred messaging standard by COMESA, ZOONA recommended that a converter/translator should be considered for the standard, in respect of participants who may not be ISO 20022 ready. ZOONA indicated its willingness to take part in the pilot phase once it sees the proposed model.

vi. SamPay Zambia

SamPay is an Online Payments and e-commerce business made for Africa, by Africans. It will facilitate online payments and promote financial inclusion by offering affordable online banking to anyone with a simple smartphone. It is licensed as a payment systems processor, and wishes to deploy its e-commerce platform that would facilitate payments countrywide, using all the available digital wallets that are part of an interoperable trading ecosystem.

To date, SamPay has integrated with all mobile money providers in Zambia, and their system allows for digital account opening. The services offered by SamPay include e-commerce solutions which enable merchants’ setup digital shop fronts, which collect real time payments made into their respective bank accounts. Some of the processor’s apps are SAM Women, SAM Rent, SAM equipment and SAM Utilities.

Key use cases used by SamPay are:

- P2 Government Payments
- P2 Merchant Payments
- Bulk Payments

SamPay’s system has the capacity to handle regional transactions, is interoperable, and is keen on participating in the COMESA payment initiative and offering these services to MSMEs at regional level.

SamPay expressed willingness to participate in the pilot phase.
vii. MTN Mobile Money Zambia

MTN MoMo is a FinTech platform providing consumers and businesses with a host of innovative digital financial services. It enables users to, among other things, access payments, e-commerce, insurance, lending, and remittance services. It is a subsidiary of MTN Zambia.

The FinTech platform has a solution that allows for mobile money-to-mobile money transactions with their counterparts in 21 countries through an interoperable shared platform. It also has bilateral agreements with its participants, where it uses a prefunding model for cross-border money transfers.

Technically, the MTN MoMo platform enables mobile money transfers between operators, through a set of digital messaging services based on APIs. Under the MTN scheme, the tariffs are not regulated, and each participant sets their own tariffs.

MTN MoMo indicated that it would like to do more use cases beyond the cross-border remittances (P2P), such as e-Commerce payments. It would also want to pilot with the COMESA platform for some of its planned use cases in order to support MSMEs, on condition that the COMESA model will not be using a competitor’s platform.

With regard to the pricing model, MTN MoMo advised that the only way that would make the model cheaper is for COMESA to have its own switching engine where it can control the switching fee. MTN MoMo has no control on the pricing for the receiving end because these control their own fee structure.

The FinTech platform requires a formal invitation in writing to participate in this project, to enable it to mobilize the required resources.

viii. INFRATEL

INFRATEL, was incorporated by the Government of the Republic of Zambia (GRZ) under the Industrial Development Corporation (IDC) in August 2018. The core mandate of INFRATEL is to consolidate, own, manage, and commercialize all the government's passive and sharable ICT and telecommunications infrastructure. As a national telecommunication infrastructure company, INFRATEL provides wholesale telecommunications infrastructure service to MNOs, ISPs, Governmental organizations, and other licensed entities.

INFRATEL holds a network and service license, which allows the company to operate a national optical fiber transmission network, national telecommunication towers, and data centers to serve its customers. This combination of services has positioned it as a one-stop-shop, and as the preferred ICT infrastructure services provider, owing to efficiencies and savings that will accrue to its customers.

The organization indicated that the company has sufficient capacity, coupled with available standards at the National Data Centre to host the COMESA infrastructure for the proposed Scheme. This is in the event that the recommended model would require COMESA to own its hardware payments infrastructure.

c. Medium & Small Enterprises (MSME) Users

i. Zambia Cross-border Traders Association (CBTA)

The Cross-Border Traders Association (CBTA) is a membership-based organization whose current membership stands at 45,000 regionally. The Association was formed in Zambia through the initiative of cross-border traders who understood that they needed a voice to represent them if they were to trade fairly. This initiative is also present in neighbouring countries, such as Uganda, Congo, Burundi, and Kenya. So far, it has been able to build relationships with the Zambian government to allow tax exemption for its members, for products in the “country agreement”.
Out of the Associations total membership, 80 percent are women, while the youth and men represent 15 and five (5) percent, respectively. It deals with small scale cross-border traders within Zambia and across the COMESA Region. The favourite border crossing points are Mwarini, Muchindu, Victoria Falls, Nakonde, Kasangula, Kasumbalesa, Luangwa and Chirundu.

However, there are also small cross-border areas, such as Kipushi and Mokambo that are used. These may become key border crossing points as a result of the Government's pronouncements of economic diplomacy, and the formation of the MSMEs.

The bulk of the cross-border trade is in agricultural products such as soya beans, rice, milk, onions, fruits, cassava, and maize. The processed products constitute a smaller percentage.

Functional Requirements
The Association indicated that COMESA has provided an incentive to traders by availing to them the list of tax-exempt products, for good valued at US$ 2,000 or less. CBTA indicated that most traders are aware of this list since it is readily available through the trade information desk at the respective border points.

It also provides traders with information through workshops for cross-border traders and WhatsApp groups created for information awareness/dissemination. However, to mitigate against the low appreciation of these awareness channels due to low formal education levels among the cross-border traders, videos have been availed in which this information is translated into local languages.

The Association confirmed that cash has been the preferred mode of payment for cross-border transactions. However, there has been a reduction in the use of cash locally due to the penetration of digital payments with about 30 to 40 percent of the traders owning smart phones. Another barrier, which was cited is lack of a common digital payment platform for their various transactions, making them prefer cash payments.

Challenges
With respect to digital payment platforms, the Association mentioned that these are rarely used because of the perceived high transaction costs related with these channels However, whenever the digital platforms are used, and in mitigating perceived losses, on account of the transaction costs, the traders add an extra amount, beyond the transaction fees, thus increasing the cost.

The CBTA made the following recommendations to be considered in the model design:

1. That the digital payment system for the COMESA region be implemented as soon as possible, as it will reduce their travelling amidst the COVID-19 pandemic.
2. That the threshold value of products on the common list for Simplified Trade Regime (STR) be increased from US$ 2,000 to US$ 5,000.
3. That the COMESA platform should include an element code recognition such as QR code technology when making payments, in order for traders to get full benefits from the threshold exceptions.
4. That P2P and P2B use cases and initiated cash out and cash in be introduced first, as these would address most of the challenges the MSMEs are currently facing when paying for their merchandise.
5. That in order to encourage the use of digital payments and also to protect the goods in transit, insurance be factored into the payment, with the insurance providers being encouraged to support this initiative.
6. That the cross-border payments should not cost more than the local payments. Furthermore, that there should be no charges on the e-wallets in order to instil trust in the MSMEs.
7. That the platform should have a shared fraud monitoring module, as a way of mitigating the risk of fraudulent activities.

Bayer
Bayer is an agricultural company that applies innovation and technology to help farmers around the world produce more, while conserving more. Their goal is to help farmers grow their yield sustainably, so that they can be successful, produce healthier foods, better animal feed and more fiber, while reducing the impact of agriculture on the environment. One of the biggest challenges Bayer faces is delayed payments from their customers, including Governments.

Bayer’s smallholder farming division regularly interacts with farmers, to enable them fully to understand their needs, and ensure they are getting the resources and trainings they need, for turning their farms into successful businesses. Bayer aims to empower smallholder farmers through innovative and collaborative partnerships that expand agricultural know-how to address most challenging issues. Bayer Zambia focuses on the local agricultural sector value chains through its crop division.

Bayer only transacts in electronic funds transfer payments, and not physical cash payments. However, the company intends to start utilizing mobile money payments platforms spanning across-borders to make payments to their supply chain partners.

Further down Bayer’s value chain, their agro dealers transact through mobile money and POS, with the majority still accepting cash. It was established that Bayer did not have any backward integrations with small holder farmers but had forward integrations with MSMEs in the form of agents and agro dealers.

MALAWI
The economy of Malawi is agriculture based and employing about 84.6 percent of the country’s population. Exports are dominated by tobacco, tea, edible fruits, cotton, coffee, and sugar. The population is estimated at 18 million, with a nominal GDP of US$12.8 (IMF 2021). Malawi has experienced strong growth in the uptake and usage of DFS. The United Nations Capital Development Fund (UNCDF) observed that while this growth is still lower than Uganda’s and Tanzania’s, it is comparable to the levels of growth being experienced in Zambia.
a. Legal, Policy and Regulatory Framework

i. Reserve Bank of Malawi (RBM)

The RBM is Malawi’s Central Bank, which was established in 1964, and is located in Lilongwe. The Bank is active in the promotion of financial inclusion policies and is a leading member of the Alliance for Financial Inclusion. It is also one of the original 17 regulatory institutions that made specific national commitments to financial inclusion.

In terms of RBM readiness to support a low-cost regional payments model for MSMEs in COMESA, it was affirmed that the Bank has the following policies, strategies, and regulations in harmony with the COMESA DFI model policy framework (Reserve Bank of Malawi, 2022):

2. National Switch Operating Guidelines - December 17, 2020
4. Guidelines for Application and Authorization of Payment Service Providers - November 06, 2017
5. Payment Systems Interoperability Directive 2017 - Gazetted in October 02, 2017

It was noted that clearing and settlement resides in the RBM. The switching and mobile money is with a separate entity, the National Financial Switch, which is owned by all commercial banks and MNOs, with Government as a minority shareholder.

RBM advised that at the moment, there is no regulation in place guiding cross-border payments. It would therefore be imperative that the regulatory framework for this be harmonized within the COMESA region.

The Bank recommended that the following be considered in the design of the COMESA regional model:

• RBM should be involved in partial admission process of all participants from Malawi.
• The oversight ownership regime should be a co-operative type SPV, such as an association of participants and/or a committee of Central Bank Governors of COMESA.
• The settlement bank for the proposed Scheme must be a Central Bank within the region, where the COMESA switch shall be domiciled.
• The model should be multicurrency, and the settlement currency should be the currency of the country in which the settlement bank will be domiciled.
• That participants in this Scheme should route their transactions through their local national switches, where most of the participants were already integrated.

In reaffirming its commitment to the initiative, RBM expressed willingness to provide its oversight role, if selected to act as a settlement agent for the Scheme. RBM reiterated its guarantee to the COMESA payment initiative, saying it was looking forward to receiving the draft model document, in which it will provide more detailed inputs and feedback.

ii. Malawi Communications Regulatory Authority (MACRA)

MACRA was established to regulate the country’s communications sector. MACRA draws its mandate to regulate and monitor the provision of communications services and ensure that, as far as it is practicable, reliable, and affordable communications services are provided throughout Malawi from the Communications Act of 2016 (Malawi Communications Regulatory Authority, 2022).

The National ICT Policy 2013 gives direction on ICT development in Malawi. The Policy aims at guiding:

• Investments in priority ICT areas
• The provision of ICT services in rural areas and to the vulnerable groups
• The public sector in planning for the national development and utilization of ICT.

MACRA pointed out that the regulation of mobile money is mainly done by the RBM. However, since the service is SIM card based, there is a MoU between the RBM and MACRA, in which the former’s main focus is on monetary aspects while the latter is focused on QoS for the network infrastructure.

MACRA stated that the broadband coverage in Malawi is currently between 76 percent geographically and 82 percent by population and is projected to increase to 90 to 100 percent coverage by 2025 through its universal access interventions that are currently being put in place.
iii. Ministry of ICT

A fully-fledged Ministry of ICT was established in 2016 comprising of two technical departments namely, Information and E-Government. The Ministry is mandated to: provide policy direction and guidance in the production and dissemination of public information; and coordinate & manage ICT development and services. It intends to provide an enabling environment for the development and usage of information and communication technologies.

The Ministry supports the ongoing mobile money innovations and e-banking through policy formulation. By the time of this meeting, two mobile service providers (Airtel and TNM) had introduced mobile money and mobile bill payments - Mpamba and Airtel Money. To use the service, one has to register for the mobile money service. The service has been extended to enable clients pay bills as well. These services support citizens who do not currently have access to traditional bank accounts to deposit, withdraw and transfer cash using text messages. The Ministry will support any initiatives that can extend such services to cross-border payments such as the proposed COMESA initiative.

b. Payments System Participants

i. National Bank of Malawi (NBM)

The National Bank of Malawi Plc is a leading bank in Malawi. It is a product of the experience and expertise of Barclays Bank and Standard Chartered Bank with a network of 33 service centers. NBM has about 1000 employees and is the largest commercial bank in Malawi by asset base, profitability, and efficiency. On August 21st 2000, the bank was listed on the Malawi Stock Exchange with a 3.4 times over subscription. It currently has one of the most liquid stock and a key and is a vibrant player on the Exchange (National Bank of Malawi, 2022).

The bank is willing to participate in the COMESA payment scheme as it plays the role of a sponsor bank to many FinTech companies and payment system providers in Malawi.

As regards the proposed COMESA Scheme, the bank recommended as follows:

1. Settlement currency model should be as below:

![Settlement Currency Diagram]

Sender (Local Currency) → Settlement (Currency of domicile Central bank or any Currency that COMESA members agree) → Receiver (Local Currency)

2. The proposed use cases to start with, based on NBM’s experience should be:
   i. P2P
   ii. P2B
   iii. Cash in/Cash out agents
   iv. B2B e-commerce based
   v. VISA and/or Mastercard QR Payments

3. The scheme should implement a shared fraud and sanctioning module where both parties have monitoring capabilities.

NBM also revealed that it was currently undertaking an ISO 200022 upgrade, which is scheduled for completion by end of 2022, and it would therefore be ready to integrate to the COMESA Scheme via this standard messaging.

Furthermore, the bank indicated that it has sufficient resources to dedicate and contribute to the success of the project, and expressed its readiness and willingness to participate in piloting of the Scheme.
following should be the prerequisites before implementation of any payment scheme:

The chamber is ready to support any viable e-commerce trading platform that would facilitate payments across the COMESA region. However, the

uses a number of platforms in its lobbying and advocacy activities. These include but are not limited to:

(MCCCI, 2022). The research and analysis provide MCCCI with a basis for lobbying on issues that need to be addressed by the government. MCCCI

policies and regulations to identify obstacles to doing business in the country, which ensures a conducive environment for private sector development

MCCCI is a partnership of enterprises and associations representing all sectors of the economy in Malawi. MCCCI carries out research and analyzes

i. Malawi Confederation of Chambers of Commerce and Industry (MCCCI)

ii. Airtel Malawi

Airtel Malawi is a leading mobile telecommunications company connecting millions of Malawians to the world through unrivalled data and voice solutions, as well as high speed fixed broadband internet services. Airtel also offers the largest mobile money service in the country through Airtel Money (Airtel Malawi, 2022).

Airtel Malawi already has international money transfers in the trade corridors, and has specific tailor-made services targeting consumers at the bottom of the financial pyramid in the form of small loans. In terms of the business model of deploying a regional digital retail payment platform, it highlighted importance of COMESA considering leveraging on existing platforms, such as the Airtel international money transfer platform. This will reduce the costs of setting up a new payment platform

The key recommendation provided by Airtel Malawi with regard to routing of transactions, was that there was a need to leverage on the existing money transfer platforms that are available such as the Airtel platform, which is present and driving cross-border trade in almost all the COMESA countries.

Airtel Malawi indicated that it is ready to pilot and participate on the COMESA platform using the use cases in the business case report. The organization further mentioned that there was need to consider direct connections to the COMESA switch other than passing through other DFSPs, as a way of maintaining low costs on the COMESA platform.

iii. Infinite Solutions

Infinite Solutions is a registered FinTech company under the laws of Malawi (registered as “Infinity Consulting”). It is interested in piloting a solid and integrated e-commerce identification system that can be used across all COMESA member states. The system would bring what is promised on the registration of a SIM cards, which are valid across the COMESA region. In addition, the integration of National ID registrations, such that they able to communicate, will make easier to implement AML measures across the region.

With lessons learnt from other jurisdictions such as China, European countries, and America, the FinTech would be able to provide financing facilities to qualifying MSME’s within the e-commerce platform, which have shown resilience and are trustworthy. This would provide a solution to access to capital for MSMEs within COMESA.

For example, if there is demand for one million Malawi pears in South Africa, and the supplier only has finances to supply a maximum of 300,000, s/he can access a facility in form of trade finance whose collateral are future trade transactions to beef up the capital and supply the pears, since payments are done within the system, all deductions would be effected from there.

The e-commerce solution will help MSMEs to conduct business beyond their respective national frontiers, promote their brands, and greatly reduce their start-up costs of renting spaces/shops/outlets and across the COMESA region. It will also promote competition (which will in turn improve quality of goods and services) and will provide instant payment solutions to MSMEs.

Coupled with the e-commerce technology is the courier business that will boom across the COMESA region. Infinite Solutions would like to see its upcoming courier/logistics business participate in the shipping of goods and services across the COMESA region. This service provision would create at least 200,000 jobs in every COMESA member state.

Infinite Solutions expressed willingness to participate in the pilot phase.

c. Micro, Small & Medium Enterprises (MSMEs) Users

i. Malawi Confederation of Chambers of Commerce and Industry (MCCCI)

MCCCI is a partnership of enterprises and associations representing all sectors of the economy in Malawi. MCCCI carries out research and analyzes policies and regulations to identify obstacles to doing business in the country, which ensures a conducive environment for private sector development (MCCCI, 2022). The research and analysis provide MCCCI with a basis for lobbying on issues that need to be addressed by the government. MCCCI uses a number of platforms in its lobbying and advocacy activities. These include but are not limited to:

• Public private dialogue forum: This is a high-level forum of public and private sector representatives. It is co-chaired by Ministry of Industry and Trade and private sector members.
• Business meetings: These are held with the relevant government officials and the Parliamentary Committees to discuss and resolve issues affecting the operations of businesses.
• Press briefings: MCCCI holds conferences to brief the media on private sector development issues and also comments through the media on issues of national socio-economic importance.
• National annual budget consultations: MCCCI provides inputs into the National Annual Budget through Pre- and Post-Budget consultation.

The chamber is ready to support any viable e-commerce trading platform that would facilitate payments across the COMESA region. However, the following should be the prerequisites before implementation of any payment scheme:

1. Sensitization through workshops, newsletters, and digital literacy to cross-border trade associations
2. Training of MSME’s on digital platforms and advocacy on consumer protection and awareness of existence of COMESA cross-border trading incentives.
MCCI is eager to bring on board a number of women trading associations onto the COMESA platform.

**TANZANIA**

Tanzania had an estimated GDP of $55 Billion by 2021 (BoT, 2021). The economy continues performing well and is among the fastest growing economies in Sub-Saharan Africa. The country’s GDP growth rate stands at 6.9%, which has been bolstered by scaling up of public investments, steady private sector activities, stable consumption expenditure, and export growth. Tanzania’s main drivers of growth are construction, agriculture, and transport activities (BoT, 2021). The population stands at 59,734,218 (UN, 2020).

The Bank of Tanzania (BoT) has continued spearheading and encouraging innovations in the payment ecosystems, and enhancing interoperability capabilities in the provision of mobile money services. As a result, the number of active registered accounts for mobile money stood at 24.4 million by December 2019, compared to 23.3 million recorded in 2018. This growth was partly driven by interoperability of the mobile financial services (BoT, 2020).

### a. Legal, Policy and Regulatory Framework

#### i. Tanzania Information and Communication Technology (TCRA)

The Tanzania Communications Regulatory Authority (TCRA) was established by the TCRA Act No. 12 of 2003, as an independent Authority for the postal, broadcasting, and electronic communications industries in the United Republic of Tanzania.

The TCRA's mandate is to regulate the postal, electronic communications and broadcasting industries (TCRA, 2003). Its mandate includes:

- promotion of effective competition and economic efficiency;
- protecting the interests of consumers;
- promoting the availability of regulated services;
- licensing and enforcing licence conditions of broadcasting, postal and telecommunications operators;
- establishing standards for regulated goods and services;
- regulating rates and charges (tariffs);
- managing the radio frequency spectrum;
- monitoring the performance of the regulated sectors; and
- monitoring the implementation of ICT applications.

TCRA asserted that KYC, policy frameworks and regulations on cross-border payments are available and fall under the Central Bank, while the AML regulations fall under the Financial Intelligence Unit. Regulation of mobile money providers also falls under the Central Bank. TCRA regulates the networks and connectivity, manages the technical aspects of interoperability of the networks, and registration of SIM cards. The Authority also confirmed that the country has policy frameworks with regard to consumer data protection and cyber security.

TCRA mentioned that the country has a central SIM card registration database hosted by the regulator. The registration system that is used is biometric. In the event that fraud is committed, reports are submitted to TCRA who immediately block the SIM card. It constantly monitors this platform on a weekly basis. In view of this, the number of fraudulent transactions has reduced because mobile numbers are blacklisted, as well as barring the agents that do the SIM registration. The platform also provides information on regions that have high levels of fraudulent transactions.

With regard to foreigners, the Authority indicated that their registration passes through immigration, national registration and MNOs before approval at the central database. It further posited that each network operator is only allowed to register one SIM card per individual, meaning a person can only get one SIM card from an operator, although they can have SIM cards from other operators. In case someone requests for an additional SIM card from the same network operator, the operator formally requests TCRA through its operator desk stating the reasons for the additional SIM card. TCRA authorizes the issuance once the request is successful.
TCRA stated that the current broadband coverage is at 65% and is expected to increase to 85% by 2025. The Authority revealed that there are five network operators, which are mandated to integrate for interoperability purposes.

It indicated that it would participate in the pilot phase once the Central Bank comes on board, because payments fall under them. Secondly, it will come on board if there will be clear regulations and guidelines governing the operations of the system. In this regard, the Authority requested for the COMESA payment platform's rules and standards for its review prior to piloting.

TCRA raised concerns over the costs currently being levied on customers for their remittances and advised that regulations on charges on the same and value limits ought to be harmonized prior to implementation of the payment system.

b. Payments System Participants

i. Finsys Limited

Finsys Limited is a company based in Tanzania whose purpose is to facilitate stakeholder engagement and implement pro-poor interoperable payment systems for low value cross-border retail payments in the EAC region.

The company provides services by facilitating the development of regional payment business models that will enable reaching the current financially under-served or excluded population. It also supports the development of interoperable payment systems that cover domestic and cross-border transaction needs.

Finsys shared their experience on the implementation of the low value cross-border retail payments scheme in the EAC, and made the following recommendations on the model design:

1. That COMESA should consider entering into a tripartite payment scheme model (COMESA, SADC, and EAC) in order to leverage on existing infrastructure in the other two schemes (SADC and EAC) and/or avoid duplication of work given that the majority of the COMESA member states are also members of the other two regional bodies.

That COMESA should focus on developing products for MSME's and cross-border traders that can be implemented on the existing tripartite platforms.

c. Medium & Small Enterprises (MSME) Users

i. Tanzania Businesswomen's Association (TBWA)

The TBWA was formed in 1988 as part of businesswomen's initiatives to promote their participation in business. The Association has a membership of about 5,000 women in 11 regions and youth entrepreneurs that do cross-border trading and commerce across six borders in the EAC and COMESA regions, especially with Zambia and Malawi.

Although Tanzania is not a member of COMESA, TBWA is keen to participate in the proposed COMESA regional digital payments platform because it cannot be isolated. The Association has a lot of interactions in terms of trade and commerce with its neighbouring countries, the bulk of which are COMESA member States. The bulk of the cross-border trade is in agricultural products such grains, flour, soya beans, rice, milk, onions, fruits, cassava, and maize and finished processed products such as cloths, garments etc.

Challenges

The Association highlighted key challenges that women face in conducting cross-border trade as follows:

1. Various country jurisdictions provide incentives to the traders by availing to them the list of tax-exempt products, if the values of the said products are below a granted threshold. However, a majority of the women traders are not aware of such incentives and are often taken advantage of by customs officials and guards through sexual harassment and bribes.
2. The traders are not fully educated and/or sensitized on safety and usage of digital channels.
3. New models for cross-border money transfer payments have recently been introduced in Tanzania such as: Kenya’s M-Pesa, Uganda’s Airtel, Eco-cash, and Rwanda’s MTN and Airtel. However, the key challenge is that the cost of these services remains prohibitive for small amounts.

The Association expressed willingness to participate in the proposed digital payment and trading platform by COMESA. The women entrepreneurs who are members of the Association would welcome this development since it would ensure safety and mitigate against fraudulent activities. This is because COMESA is considered a trusted entity unlike other schemes that are driven by ad-hoc innovators.

Use Cases

Although the preferred mode of payment for transactions is still cash, the Association desires for a low cost and secure common digital payment platform for their various transactions.

TABWA would welcome a safe and secure digital e-commerce use case that facilities digital payments on digital shops within the COMESA region and facilitates a safe tracking/logistics system for goods traded across-borders. This is ideal for women for the following reasons:

1. Eliminates cost of travelling, thus justifying cost of digital transactions
2. Reduced risks of COVID-19 infection and/or transmissions
3. No harassments by border officials
4. Eliminates risks associated with cash handling
TABWA made the following recommendations to be considered in the model design:

1. That the Associations members be capacitated by continuously providing digital awareness training and sensitization on digital payments and e-commerce. This will enhance the uptake of digital financial services and build confidence in the service provision.
2. That insurance be factored in the payment platform and the insurance entities be encouraged to support this initiative, as a way of encouraging the use of digital payments in addition to protecting the goods in transit.
3. That the cross-border payments should not cost more than the cost of the local payments.
4. That the digital ecosystem must be branded under COMESA, because this will reduce the stigma of fraud associated with digital payments and e-commerce that most of its members have experienced with other providers.

ii. Tanzania Private Sector Foundation (TPSF)

TPSF is Tanzania’s focal point for the East African Business Council (EABC). Its members are business associations, private companies which include multinationals, SMES, startups organized under different sector boards, and working groups reflective of the various sectors of the economy. TPSF provides a platform for the private sector to engage in Public-Private Dialogue (PPD) at the local, national, and international levels.

The Foundation opens potential markets for its members through business forums and participation in local and international trade fairs, as well as offering programs to build the capacity of members to become competitive.

The Foundation was visited in order to have its view on the possible onboarding of some of its members onto the proposed COMESA payments scheme. TPSF offered to conduct capacity building for its membership on the capabilities of the proposed digital payment platform, and the benefits they can accrue from it.

It stated that the current payments made to parties outside Tanzania are constrained by legal frameworks, such as AML laws and exchange control thresholds. The Foundation was of the view that these issues needed harmonization with the Central Bank of Tanzania before embarking on the project, since Tanzania is not a member of COMESA.

iii. Agriculture Council of Tanzania (ACT)

The Agricultural Council of Tanzania (ACT) is the umbrella private sector organization advocating and lobbying on policy and business issues impacting the agricultural sector on behalf of its members at national and local levels. Having a membership of over 15,000 small scale farmers, its mission is to be the most effective private sector apex organization with the strategic intent to modernize and commercialize agriculture in Tanzania.
ACT indicated that it is currently piloting a digital farmer platform, and is very keen to link it to the COMESA digital payment one in order to reach out to a broader market in the region. Their current platform would easily be plugged into the COMESA model, should the COMESA model include an API integration channel.

iv. Coca-Cola Kwanza

Coca-Cola Kwanza is a subsidiary of Coca-Cola Beverages Africa (CCBA), which accounts for about 40 percent of all volumes that are sold by Coca-Cola Africa. The company focuses on accelerating growth and social development within its value chain. Coca-Cola Kwanza mainly uses the cash on delivery mechanism, and is yet to embrace digital platforms, which is characterized by late confirmation of payments, thereby delaying the distribution of its products to customers.

The two layers of distribution in the Coca Cola value chain is characterized with is the primary and secondary distributions. Primary distribution happens from Coca-Cola to the agents, while secondary distribution is from the agents to the retailers.

Coca-Cola has in place a market intelligence portal called Sales Force Automation (SFA), which is used to capture orders. Forward integrations happen in distribution, because the company uses agents and franchises for primary distribution, who pay using cash deposits or bank transfers, and sometimes get products on credit.

In terms of Coca-Cola products, license restrictions make it impossible to carry out cross-border trade. Its business model is to work with distributors within its confirmed territories and the distributors deal in other FMCG commodities such as sugar, flour, cooking oil which they tend to export to other countries, especially into the COMESA region.

Coca-Cola believes that a more successful system will create greater shared value for its business, including the communities it serves across the value chain through job creation, skills development, and support to MSMEs.

It has lined up programs for more women and youth, including training specifically on business starter skills. They are involved in local sourcing, especially for mangoes, pineapples for the various juices it produces.

In view of the fact that Coca Cola deals with middlemen and not directly with farmers, it offered to arrange for a meeting with one of the distributors in Dar-es-Salam who deals in various FMCG commodities.
KENYA

Kenya is a market-based economy with a liberalized external trade system and a few state enterprises. Its population stands at 53,771,296 (UN, 2020). Major industries include agriculture, forestry, fishing, mining, manufacturing, energy, tourism, and financial services. Kenya had a GDP of US$ 100 billion and a growth rate of 4.8% in 2021.

Usage of digital platforms and payments to offer commercial products and services including e-commerce (e.g., Amazon, Alibaba, and Jumia), search engines (e.g., Jumia, Masoko by Safaricom), content platforms (e.g., Mdundo, irokotv, Waabeh), and ride-sharing applications (e.g., Mondo Ride, SafeBoda, Little Cab) is widespread in Kenya.

The banks in Kenya have embraced the use of mobile banking, with a majority of them having more than 60 percent of their products and services accessible through digital platforms.

a. Legal, Policy and Regulatory Framework

i. Central Bank of Kenya (CBK)

The CBK is responsible for formulating the monetary policy to achieve and maintain price stability. It also promotes financial stability, an effective and efficient payment, clearing and settlement system; formulates and implements foreign exchange policies; holds and manages foreign exchange reserves; issuing of currency; and is the banker for, adviser to and fiscal agent of the Government.

CBK derives its mandate to supervise and provide oversight of payment systems through the National Payment System Act 2011 (National Council for Law Reporting, 2011). In this regard, a meeting was held with the Banks officials in order to confirm its commitment to support the proposed COMESA payments scheme and seek their views on the proposed COMESA business modelling framework. The CBK expressed its full support to the COMESA payments scheme, and noted that the model should address the following:

1. The model should not generate high level of risks to participants and users of the platform; and should operate without major disruptions in order to gain user acceptance and confidence.
2. For MSME’s, the Scheme should provide a safe, affordable, and transparent pricing model, which will be a good development for this segment of users.
3. COMESA should not try to fit into other existing models of the various cross-border payment channels that exist, since no size fits all. It must operate as per its mandate in order to challenge traditional platforms based on safe, affordable and seamless exchange rates.
4. Ensure that the Scheme meets certain international technical standards such as ISO 20022 and cyber security standards.
5. The general oversight of this scheme must be overseen by Central Banks in each domicile COMESA member state.
6. The COMESA Scheme model must not only focus on cross-border payments, but should include value added services such as digital shop fronts, insurance cover for goods in transit, logistics and cross-border market linkages, and export information for MSME’s. Training of MSMEs should be a critical part of the DFI program.
7. The pricing model should reflect value for money, and COMESA must avoid branding the platform as being for ‘poor people’. The real constraints for MSME’s lie in lack of information, accessories such as smartphones, lack of knowledge and capacity to utilize digital platforms. Digital payments are therefore only a small component of their needs.
8. The proposed Scheme must follow the principles of settlement such as finality and adopt any of the multiple emerging solutions for fast payments settlements such as PAPSS. This is possible as long as the settlement agent is a central bank within the COMESA member countries.

CBC meeting with the Central Bank Governor of Kenya

ii. Communications Authority of Kenya

The Communications Authority of Kenya (CA) is the regulatory authority for the communications sector in Kenya. It was established in 1999 by the Kenya Information and Communications Act of 1998. The Authority is responsible for facilitating the development of the information and communications sectors including broadcasting, cyber security, multimedia, telecommunications, electronic commerce, and postal & courier services.
The major responsibilities of the CA as indicated by the National Treasury and Planning of Kenya (2021) include:

- Licensing all systems and services in the communications industry, including, telecommunications, postal, courier and broadcasting.
- Facilitating the development and management of a national cyber security framework.
- Facilitating the development of e-commerce.
- Protecting consumer rights within the communications environment.
- Managing competition within the sector to ensure a level playing ground for all players.
- Regulating retail and wholesale tariffs for communication services.
- Managing the universal access fund to facilitate access to communications services by all Kenyans; and
- Monitoring the activities of licensees to enforce compliance with the license terms and conditions, as well as the law.

The Authority pointed out that regulation of mobile money is mainly done by the CBK, noting that since the facility is based on SIM cards, there is a MoU between the CBK and CA.

In terms of the GSM infrastructure, the Authority officials confirmed that this exists in Kenya, and it is their responsibility to ensure that the quality of service for FSP’s is guaranteed and that the KPIs are incorporated in the license issued to them. This infrastructure is very effective and available 24/7.

The Authority identified the following risks which may result in MSMEs losing money:

- Fraudulent SIM card replacements
- The proliferation of online credit providers that are exploiting consumers in Kenya, because of lack of a regulatory framework in this area.

The unintended consequence of this was that consumers who failed to pay back these loans discarded their SIM cards, thereby causing difficulties in the SIM card numbering regime, since the numbers cannot be reused for a long time.

The Authority noted that it is involved in the East Africa regional interconnection efforts to facilitate ICT cross-border trade initiatives, such as the one being proposed by COMESA.

An interoperability policy and a Data Protection Act exists to facilitate cross-border transactions, with the Authority housing the Data Commissioner (National Council for Law Reporting, 2019).

The pricing for all mobile transactions (USSD or App) in Kenya, is regulated in conjunction with the Competition Commission.

---

b. Payments System Participants

i. Kenya Bankers Association (KBA)

The KBA is the financial sector’s leading advocacy group and the umbrella body of the institutions licensed and regulated by the CBK with a current membership of 47 financial institutions. KBA continues reinforcing a reputable and professional banking sector in a bid to best support Kenyans (Kenyan Bankers Association (2022)).
KBA expressed interest and support for the proposed COMESA retail payments scheme and submitted as follows:

**Clearing/Settlement**

1. That a regional currency be adopted in the COMESA model, which should belong to the country in which the hub and/or the settlement Central Bank will be domiciled.
2. KBA owns the Integrated Payment Systems Limited (IPSL), which only caters for commercial banks. Kenya has no national switch as all the fragmented switches in the country (KenSwitch, Interswitch, VISA) clear and settle through the Central Bank separately.

Discussions are currently going on with the view of linking all the fragmented switches which are operational in Kenya. KBA further submitted that an aggregated switch would be the best way to route transactions to the COMESA hub since the transactions will be visible to Central Bank.

The Association noted that currently most entities are in the process of migrating to the ISO 20022 messaging standard. These efforts are at different levels of implementation. That due to the variation in timeframes for the proposed national switch implementation, and the COMESA Scheme, Kenya would propose a hybrid model where participants that are ready can connect directly to the COMESA scheme, until such time that the national switch will be in place so that no one in Kenya will be left behind from this initiative.

**Fee Structure**

Kenya currently has a threshold fee (tiered) based costing structure for mobile money transactions. It is imperative that the pricing for the proposed COMESA Scheme, does not exceed the domestic prices for digital payment systems. Furthermore, Central Banks have a duty of ensuring that the pricing to the end users of the various financial products is not excessive.

**Ownership Structure**

A structure similar to the RTGS-SWIFT Group be put in place.

**Use Cases**

The MSME’s who would be the users of this regional payment scheme should be carefully vetted, and preferably registered as businesses.

There has been a high failure rate of MSMEs in Kenya, especially after receiving some kind of financing. The use of cash-in, cash-out should therefore be discouraged as it will not help in removing paper cash for MSMEs, and would defeat the purpose of digitization. To avoid cash-in, cash-out; merchant payments should be prioritized.

**Host**

The hosting of the Scheme should be in a COMESA member country with appropriate cyber security measures, redundancy framework etc. A private cloud would be acceptable for hosting the platform with proper Disaster Risk Reduction (DRR) facilities and data protection agreements with Central Banks.

**Pilot**

The KBA has a lot of resources and capabilities in this area that can be offered to the COMESA project. In addition, a commercial bank with MSME products expertise could be identified fairly quickly to participate in the pilot phase.

CBC Meeting with Kenya Bankers Association (KBA)

**ii. Integrated Payments Service Limited (IPSL)**

IPSL was established by the Kenya Bankers Association (KBA) under the National Payment System (NPS) Act (National Council for Law Reports, 2011). The service was formed to address the challenge of integrating retail payments in the country, and provide a secure, fast, and efficient money transfer system by leveraging the latest technological advances in this area. The inter-banking money transfer service branded as Pesalink, allows customers to send money from one bank account to another in real time on all banks’ retail payment channels including mobile, ATM, Internet banking, agencies, bank branches and POS. IPSL aims at creating value for the industry, banks and customers through innovation and interoperability.
It recommended that the COMESA model should ride on existing infrastructure such as PesaLink. However, international practice is that commercial banks will not move if Central Banks are not involved. It is therefore important that Central Banks in the target markets for the COMESA Scheme be involved as early as possible. In addition, an ISO 20022 converter is proposed for messaging compatibility.

In Kenya, although participants are not yet ready for the ISO 20022 messaging standard, the IPSL has a converter for its participants and can offer the same service to COMESA should some of its participants opt to participate in the COMESA scheme directly.

**Ownership**
IPSL proposed an ownership structure similar to theirs as a bankers’ association or similar association of participants at COMESA level with oversight responsibilities to be done by a committee of COMESA Central Banks.

**Hosting**
It is important to undertake a cost/benefit analysis. In addition, the rules for data management should be satisfactory to all participants. There is also need for harmonization with the COMESA regulators, and to host in a COMESA member country that offers the best benefits.

**Sanction Screening**
Hybrid sanction screening should be done at both the source and the destination of the transaction. This is the most optimal solution, as data sets are different for each COMESA member country.

**Use Cases**
The P2P service with value added services beyond remittance should be the prioritized use case for piloting. The P2B and B2B services can follow thereafter. These use cases are recommended based on the experience with the PesaLink product offered by IPSL. It was hoped that the cross-border digital payment service provision would follow a similar trend.

**iii. VISA Kenya**
Visa Kenya offers international payment platforms. Visa Kenya is a leader in digital payments and has launched a contactless payments campaign in Kenya dubbed “Maisha ni Kutap”, which enables a safe and secure contactless experience for consumers. The campaign targets the growing base of consumers looking for safer payment solutions, both physically and technologically, and can be extended to the cross-border payments for COMESA.

VISA believes that whilst cash is still critical when it comes to daily transactions, VISA Kenya is alive to the development and growth of mobile money. Owing to this, it has slowly increased the volume of cashless transactions, while at the same aggressively supporting the accelerated use of mobile payments.

VISA Kenya advised against re-inventing the wheel and leverage on their existing products, while educating the MSME’s on cross-border digital payments. In addition, the private sector must be capacitated at policy level to be at the fore front of introducing platforms, such as the ones being proposed by COMESA. These platforms already exist and are being run by the private sector.

The Visa platform is currently offering flexible models for low value transactions, and has now partnered with banks, FinTechs and other financial service providers. COMESA should look at Visa Kenya B2B connect solution, which was a non-card-based payment network that enabled seamless bank-to-bank cross-border business transactions.

An area of concern with Visa was the political risk particularly in the African markets. In spite of this reservation, Visa Kenya is willing to partner with COMESA as their partnership models are no longer with banks only.

It further noted that it is already working with SADC on a similar model.

**iv. GSMA – Sub-Saharan Africa**
The GSM Association supports mobile money service providers to scale up mobile money and policy advocacy on behalf of its members. Its key activities in the region are Mobile for Development (M4D) initiatives, public policy engagements, coordination of regional interest groups, and member services.
It was GSMA’s view that COMESA should consider leveraging on the existing SADC platform for retail payments, since building a new platform may consume a lot of time and financial resources.

**Pricing**

GSMA further advised that their research showed that the current cost of mobile money transactions is one of the cheapest in the market and is the best way to proceed. In response, COMESA Business Council highlighted that from their recent Business Case study research conducted in 2019 and early 2020, a good number of MSMEs were still complaining that they cannot conduct transactions using mobile money because of the transaction costs which are not affordable.

In wrapping up the discussions, the association advised the team to liaise with some remittance hubs that provide regional interoperability services such as MFS Africa as they are a key stakeholder in the pricing of remittances through mobile money.

**c. Medium & Small Enterprises (MSME) Users**

1. **Coca-Cola Beverage Africa (CCBA)**

Coca-Cola Beverage Africa (CCBA) is the largest beverage firm in Africa serving 13 countries, including Zambia, Uganda, Kenya, Ethiopia, Eswatini, Tanzania, South Africa, Ghana, Mozambique, Namibia, Mayotte, Comoros, and Botswana.

Their goal is to build a strong business that can be achieved through the support and long-term prosperity of their customers. Coca Cola believes that a successful system will create greater shared value for the business, including the communities they serve across the value chain through job creation, skills development, and support to MSMEs.

Currently, Coca Cola Kenya indirectly employs 10,000 people. It has lined up programs for women and youth, including training specifically on business starter skills. They are involved in local sourcing, especially for mangoes. In view of this development, they deal with middlemen and not directly with farmers. Coca Cola Kenya makes bulk-cash payments to its various value chain distributors across-borders and are interested in leveraging on a digital payment platform that spans across the region, such as the one being proposed by COMESA.

2. **Kenya Association of Manufacturers (KAM)**

KAM is a representative of manufacturers and value-addition industries in Kenya. The purpose of KAM is to create wealth at both corporate and individual levels by advocating for a competitive environment for businesses to operate in, thereby creating better industries, growing the economy, creating jobs, and hence resulting in better standards of living for Kenyans.

KAM has a value chain of MSME’s as its members who are exporters and importers in the COMESA region, and are potential users of the proposed COMESA regional payments platform.

KAM noted that the term “MSME” is frowned upon in Kenya, since it has negative connotations, and therefore the practical approach was to formalize this segment of business with the view of growing them to sustainability.

KAM offered to support the COMESA project through capacity building, marketing, and branding of the platform.

In addition to the foregoing, KAM indicated that Kenya is trying to integrate into block chain payments, and the government has setup a task force, which will look into some of the issues of cross-border payments.

**Pricing Model**

M-Pesa and most of the mobile money payments pricing models are a percentage threshold based that reduce with increased volumes. If this model is adopted at regional level, then the pricing of cross-border transaction will very likely be equal to the domestic cost, but not less.

It was pointed out that a lack of access to devices and roaming costs are some of the issues COMESA must consider in lowering the cost of cross-border mobile money transactions.

The COMESA platform can also earn advertisements revenue through third parties advertising their products and services on the platform, which can cover some overheads. A case in point is the M-Pesa model in Kenya, which earns substantial income from advertising to recover some of its costs.

**Pilot**

KAM is ready to pilot on the COMESA platform by using a relevant value chain of users, but would need capacity building of its members in terms of benefits such as market linkages, security of the system, data protection and consumer protection.

**Use Cases**

The COMESA model should prioritize the e-commerce use case that should go with payments, and include other value-added services such as market linkages, trade financing and logistics, which are necessary for the movement of goods.
UGANDA

Uganda’s GDP is 32.50 US$ Billion (2021, BoU) with an annual growth rate of 6.5 percent. As per 2019 census, the population of Uganda was 40.3 million with a broad-based population pyramid, suggestive of a young population. The economy is dominated by services (43.3%), manufacturing (27.1%) and agriculture (21.9%).

a. Legal, Policy and Regulatory Framework

i. Bank of Uganda (BoU)

The BoU is the Central Bank of the Republic of Uganda. It is responsible for the formulation and implementation of monetary policy, as well as regulating and supervising financial institutions.

The bank is committed to the digitization of cross-border payments, and has since put in place various regulations and strategies such as the financial inclusion strategy agenda, which it considers a high priority area. It stated that since the promotion of digital payments was a priority area, BOU was in the process of setting up a National Switch, which was still at the concept stage.

The BOU advised that the COMESA model should ensure that governance, interoperability principles are well aligned with international standards. The bank expressed preference routing of transactions through their national switch to the regional COMESA switch, because they would like to have visibility of these regional transactions. The National Switch, which will be ISO 20022 compliant, is expected to go live by 2023.

However, the BOU will not object to private participants joining the COMESA scheme directly before the National Switch is ready. It advised COMESA to go for a brand-new system as opposed to leveraging on existing infrastructure, since this would give COMESA the opportunity to control, innovate, and customize it, as opposed to existing platforms that have their own existing issues.

Hosting

BOU is of the opinion that the primary hosting data center must be domiciled within a COMESA country, and a secondary and tertiary data site can be anywhere including the cloud.

Currency

Referring to similar approaches elsewhere, BOU’s view was that the COMESA model should allow for multi-currencies of all member states. The settlement currency should be the currency of the settlement agent’s place of domicile.

Settlement Agent

BOU would be happy to be the settlement bank. BOU opined that the settlement agent should be a Central Bank in any of the COMESA member states.

Pricing

The bank indicated that the cost of transaction is a big barrier to financial inclusion, and the BOU does not regulate fees but, if need be, it can regulate the switching fee to the COMESA switch from their National Switch to reduce the cost of transactions.

BOU informed the team that mobile money floats are now being paid interest in Uganda. There was a possibility that this interest can be paid to the customers as well. Indications were that this was the trend in other countries as well.

It was felt that this new income stream for mobile money providers would move them away from transaction fees.
ii. Uganda Communications Commission (UCC)

The Uganda Communications Commission was established to implement the provisions of The Uganda Communications Commission Act of 2013 in accordance with the laws of Uganda (Ugandan Gazette, 2013).

The primary mandate of UCC is to regulate the communications sector, which includes telecommunications, broadcasting, radio communication, postal communications, data communication, and infrastructure.

The team met with the UCC officials in order to affirm the existence of legal and regulatory frameworks that facilitate cross-border payments and ascertain their support for cross-border payments. In the course of discussions, they stressed that cross-border data sharing should be in place as part of national legislation, as is the case in Uganda and Kenya, where they have both put into place AML Acts, which put restricts on the transaction limits (Anti-Money Laundering Act, 2013).

The UCC stated that KYC records are to be kept for 10 years in order to curb increasing frauds in mobile money transactions, counter the financing of terrorism, criminalize money laundering, and lay down appropriate safeguards and guidelines. These regulations also contain provisions regarding customer screening, identification, and verification. The Commission also supports the quality of service for mobile money transactions, where mobile penetration is 80 percent, with 28 million active mobile subscriptions.

b. Payments System Participants

i. Kenya Commercial Bank (Uganda) Limited (KCB Uganda)

KCB Uganda is a wholly owned subsidiary of the KCB Group, a financial services conglomerate, which has headquarters in Nairobi, Kenya. Besides Uganda, the group also has subsidiaries in Kenya, Tanzania, Rwanda, South Sudan, and Burundi, with a representative office in Ethiopia.

KCB Uganda focuses on meeting the banking needs of individuals, corporate entities and small to medium sized enterprises. The bank expressed interest in participating in the COMESA platform, and stated that it has products for MSME’s, such as “JAZA DUKA” that ensures that MSME’s continue accessing capital, a critical component for recovery. This has been recognized by the Jaza Duka partners, including the Financial Sector Deepening (FSD) Uganda. Jaza Duka, Swahili word for ‘fill up your store’, is an inclusive credit ecosystem for small retailers that helps them overcome cash constraints and enable them access short-term credit.

The product combines data distribution from distributors and analysis to provide micro-credit eligibility recommendations to KCB Uganda. The bank then uses this information to assess a retailer’s credit worthiness and extends interest free formal credit for stock purchases, for up to 17 days. According to KCB Uganda, this type of product can easily be changed to meet the needs of the COMESA cross-border traders who may require short-term trade finance. It is envisaged that the Jaza Duka initiative could transform the lives and businesses of thousands of micro-merchants in the COMESA region.

The bank indicated that it needs to do a study to assess COMESA’s trading patterns, in order to understand the MSME’s. This will help establish a clear roadmap for sensitization in the COMESA market for the relevant products that KCB Uganda can offer to the platform.

ii. Equity Bank Uganda Limited (EBUL)

Equity Bank Uganda Limited, is licensed by the Bank of Uganda. EBUL is a subsidiary of Equity Group Holdings Limited, a financial service conglomerate with headquarters in Kenya, and with subsidiaries in six countries of the African Great Lakes Region.

The bank provides banking services to individuals as well as small and medium sized business enterprises. As a regional bank and with a digital centric strategy, EBUL is very supportive, and eager to participate & tap into the COMESA scheme initiative. EBUL requested the team to do a presentation since this was the first time they were hearing about the initiative. The COMESA team made a presentation on the Digital Financial Inclusion Plan that CBC is currently working on, and gave insights on the time frame of the project, intended regional switch, governing council, multicurrency layer, risk management in terms of cyber security, and L1Ps.
iii. Global Banking Alliance for Women (GBAW) with their implementation partner FinTech (Clic World)

The team met representatives of GBAW who brought on board Clic World FinTech firm. Clic World is working on a simplified financial system model for Africa at the grassroots level tapping in the women members of GBAW. They have started a social banking model that they believe will deliver an African banking model. Clic World further believes that what is referred to as ‘unbanked’ is not entirely correct, because they are only unbanked in the context of “western banking.”

Clic World has therefore designed and built an e-platform based on an African social model using open-source solutions. This was done by pooling over 2000 SACCOs in African social models using a blockchain model technology (Stella) with the objective of:

1. Driving transaction cost to zero; and
2. Cost of data to Zero.

Furthermore, the platform recognizes that in the digital era, payment transactions are not the source of money, but value-added services that are bigger pain points for the payment customer, such as market linkages, logistics, trade finance etc.

The Clic2Pay platform is a flexible digital payments and collections platform with an integrated loyalty function that uses QR payments codes. The platform makes payments accessible and on real-time basis.

The solution supports components and offers end-to-end trade and post-trade functions, including unified clearing, settlement along with integrated risk, and collateral management. The solution addresses complex issues in the payment and banking institutions and can be used by COMESA for free on a white label basis.

Features

- Accessibility – Clic2Pay makes payment accessible to all
- Low Cost – Money can now be sent and/or received at no cost at all
- Last Mile – Individuals and organizations in the last mile are now able to experience the same services as urban members
- Cashless micropayments – Cashless micropayments can now be made to many people basing on their needs.

Clic World is piloting this with a bank in Uganda and is keen on partnering with COMESA given the opportunity to do so as the platform will meet all the L1Ps required by the COMESA model. Finally, Clic World agreed to organize a virtual meeting so that they could demonstrate their system. The team attended the online presentation on the last day of stay in Uganda.

c. Medium And Small Enterprises (MSME) Users

i. New Faces, New Voices (NFNV) Uganda Chapter

New Faces New Voices (NFnV) was conceived as the business and finance pillar of Multiplying Faces Amplifying Voices, an initiative founded by Graça Machel to give African women a platform to influence change across different sectors.

NFNV actively engages key stakeholders in the financial sector in order to achieve its three main goals, thus: increasing women's access to finance and a variety of financial products; building the capacity and skills of women as entrepreneurs and as financial industry executives; and fast-tracking the number of women in leadership positions in the financial sector.

The organization welcomed the idea of a regional digital payment platform for the COMESA region and stated that the Uganda chapter had partnered with a FinTech called Clic World, with which it is currently piloting. It proposed that the COMESA initiative should look at the Clic World platform with the possibility of leveraging on it.
References

Airtel Malawi (2022) Overview, Vision, and Values. Available at: https://www.airtel.mw/home/aboutus#:~:text=Company%20Overview%20of%20the%20country%20through%20Airtel%20Money


Data Protection Act (2021). Available at: https://www.zicta.zm/storage/posts/attachments/kfiNJZ4vKTNp9hIT4fMZroXRTusojDAHcQsDa.pdf


Kenyan Bankers Association (2022). Available at: https://www.kba.co.ke/


Malawi communications Regulatory Authority (2022). Acts. Available at: https://mapra.mw/acts/#~text=The%20Communications%20Act%2C%202016%20services%20and%20content%20broadcasting%20services


Reserve Bank of Malawi (2022). Payment systems Report. Available at: https://www.rbm.mw/PaymentSystems/


## Appendix 2 – Questionnaires

### QUESTIONNAIRE FOR CENTRAL BANKS

#### 1. FINANCIAL INTEGRITY REGULATOR

1.1 What policy or regulatory directives, if any, are in place to facilitate the COMESA Scheme?

1.2 From a policy or regulatory perspective, what would hinder implementation of the COMESA Scheme, if any?

1.3 Is there a single regulator of the mobile money service providers or this sector is regulated by multiple regulators?

- [ ] Single regulator
- [ ] Multiple regulators

1.4 What is / are the name(s) of the regulator(s) identified in 1.3 above?

#### 2. OPERATING MODEL

2.1 How would you want the Model to be developed?

- [ ] As a New System?
- [ ] On an existing System?
- [ ] Using Open Source?

2.2 Kindly give reasons for the option selected above

2.3 If the recommended model in 2.1 is ‘existing system’, which infrastructure in your country would you recommend to have this model be developed?

2.4 Should all COMESA participants connect directly to the COMESA Switch, through the local switch or depend on participant to make a choice?

- [ ] Connect Directly
- [ ] Connect through local switch
- [ ] Participant’s choice

2.5 Kindly give reasons for option selected

2.6 Should the routing of transactions be regulated by the COMESA Scheme or by the domestic Central bank?

2.7 Where would you recommend hosting the COMESA system?

- [ ] In the Cloud
- [ ] In any COMESA country

2.8 Give reasons for the answer provided in question 2.7

2.9 Should the Platform have a single currency?

- [ ] Yes
- [ ] No

2.10 Kindly give reasons for which your answer in 2.9.
3. SETTLEMENT

3.1 Would your Bank consider being a Regional Settlement Bank?

☐ Yes ☐ No

3.2 If yes, how ready is the Bank to take up this role?

3.3 If you were appointed as the Regional Settlement Bank, where would your backup be setup?

3.4 Would you recommend that the Primary and Backup Regional Settlement Bank be in the same Country?

☐ Yes ☐ No

3.5 If no, where would you recommend the backup site to be setup?

4. MEMBERSHIP/PARTICIPATION ON THE COMESA PLATFORM

4.1 Should the Central Bank be part of the admission process? If yes, at what point?

4.2 Should the Scheme grant partial admission?

☐ Yes ☐ No

4.3 If yes, in what circumstances should the COMESA scheme grant partial admission?

5. COMESA DIGITAL PAYMENT ASSOCIATION

5.1 Would you recommend the COMESA Scheme to have a Digital Payment association?

6. FINANCING

6.1 Would you support the COMESA switching and interchange fees to be lower than the domestic fees?

7. PILOTING

7.1 Will you be able to participant in the pilot phase?

☐ Yes ☐ No
QUESTIONNAIRE FOR COMMERCIAL BANKS

1.1 How would you want the Model to be developed?
- [ ] As a New System?
- [ ] On an existing System?
- [ ] Using Open Source?

1.2 Kindly give reasons for the option selected above

1.3 If the recommended model in 1.1 is ‘existing system’, which existing infrastructure would you recommend?

1.4 Should all participants connect direct to the COMESA Switch, or they should connect through the local National Switch?
- [ ] COMESA Switch
- [ ] National Switch

1.5 Kindly provide reasons for option selected

1.6 Should the routing of transactions be regulated by the COMESA Scheme or by the domestic Central bank?

1.7 Where would you recommend hosting the COMESA system?
- [ ] Automated Clearing House
- [ ] National Data Center
- [ ] In the Cloud

1.8 Give reasons for the answer provided in question 1.7.

1.9 Should the Platform have a single currency?
- [ ] Yes
- [ ] No

1.10 If yes, which currency would you recommend?

1.11 Where would you recommend the currency conversion to take place?

1.12 Below are the proposed Use Cases for the COMESA Scheme. Which Use Cases would you support?
- [ ] Person to Person
- [ ] Person to Business
- [ ] Business to Person
- [ ] Business to Business
- [ ] Agent Initiated Cash In
- [ ] Agent Initiated Cash Out
- [ ] ATM Initiated Cash Out
- [ ] Bulk Payments

1.13 Which of the above Use Cases would you recommend to be implemented first?

1.14 Would you recommend the COMESA Scheme to have a Digital Payment association?

1.15 Would you support the COMESA switching and interchange fees to be lower than the domestic fees?

1.16 Would you implement ISO20022 for cross-border payments?

1.17 What is your preferred Settlement arrangement?
- [ ] Through a COMESA Settlement Bank?
- [ ] Through a Correspondent Bank?

1.18 Will you be able to participate in the pilot phase?
- [ ] Yes
- [ ] No
QUESTIONNAIRE FOR LOCAL SWITCHES/ AUTOMATED CLEARING HOUSES

1.1 How would you want the Model to be developed?
- As a New System? [ ]
- On an existing System? [ ]
- Using Open Source? [ ]

1.2 Kindly give reasons for the option selected above

1.3 If the recommended model in 1.1 is ‘existing system’, which existing infrastructure would you recommend?

1.4 Should all participants connect direct to the COMESA Switch, or they should connect through the local National Switch?
- Yes [ ]
- No [ ]

1.5 Kindly provide reasons for option selected

1.6 Should all participants connect direct to the COMESA Switch, or they should connect through the local National Switch?
- COMESA Switch [ ]
- National Switch [ ]

1.7 Kindly provide reasons for option selected

1.8 Should the routing of transactions be regulated by the COMESA Scheme or by the domestic Central bank?

1.9 Where would you recommend hosting the COMESA system?
- Automated Clearing House [ ]
- National Data Center [ ]
- In the Cloud [ ]

1.10 Give reasons for the answer provided in question 1.9.

1.11 Should the Platform have a single currency?
- Yes [ ]
- No [ ]

1.12 If yes, which currency would you recommend?

1.13 Where would you recommend the currency conversion to take place?

1.14 Below are the proposed Use Cases for the COMESA Scheme. Which Use Cases would you support?
- Person to Person [ ]
- Person to Business [ ]
- Business to Person [ ]
- Business to Business [ ]
- Agent Initiated Cash In [ ]
- Agent Initiated Cash Out [ ]
- ATM Initiated Cash Out [ ]
- Bulk Payments [ ]

1.15 Which of the above Use Cases would you recommend to be implemented first?

1.16 Would you recommend the COMESA Scheme to have a Digital Payment association?

1.17 Would you support the COMESA switching and interchange fees to be lower than the domestic fees?
1.18 Is your switch interoperable?
☐ Yes  ☐ No

1.19 Would you implement cross-border payments using ISO20022 standard?

1.20 If your switch is not built on ISO20022 standard,
  a) How would you facilitate cross-border payments?
  b) How would you handle the AML/Sanctioned transactions?
  c) How would you ensure that all transactions processed through your switch contain the ISO20022 mandatory fields?

1.21 If the COMESA scheme came up with a converter, where would you prefer it placed?

1.22 Do you have a backup site?
☐ Yes  ☐ No

1.23 In the event that the Central bank directed all participants to route all cross-border transactions through the local switch and your Primary site was down, would your backup site handle cross-border payments?
☐ Yes  ☐ No

1.24 If both the primary and backup sites were down,
  a) How would the participants route the cross-border payments?
  b) What would be their fallback?

1.25 Is your switch able to handle multicurrency?
☐ Yes  ☐ No

1.26 Should the COMESA scheme grant partial admission?
☐ Yes  ☐ No

1.27 If yes, in what circumstances should the COMESA scheme grant partial admission?

1.28 Will you be able to participate in the pilot phase?
☐ Yes  ☐ No
QUESTIONNAIRE FOR FINANCIAL INTELLIGENT CENTRES

1.1 Are there any policies or regulatory directives to facilitate cross-border payments?

1.2 What do your domestic regulations say on Anti-Money Laundering (AML) and Counter Terrorist Financing (CTF) provisions that relate to customer due diligence requirements?

1.3 Has KYC been implemented in your country?
   - Yes
   - No

1.4 According to the COMESA Policy framework, each country should implement KYC. In the event that KYC is not implemented, should the COMESA Scheme partially admit Participants who are in a country where KYC is not yet implemented?
   - Yes
   - No

1.5 COMESA requires that all countries are members of FATF. Is your country a member?
   - Yes
   - No

1.6 If not, when will your country be a member?

1.7 What is your position on sanction screening?

1.8 Who should carry out the sanction screening?
   - Sending participant
   - Receiving participant
   - Both
1.1 Are there any policies or regulatory directives to facilitate cross-border payments?

1.2 From a policy or regulatory perspective, what would hinder implementation of the COMESA Scheme, if any?

1.3 Is there a single regulator of the mobile money service providers or this sector is regulated by multiple regulators?

- Single regulator
- Multiple regulators

1.4 What is / are the name(s) of the regulator(s) identified in 1.3 above?

1.5 Where would you recommend hosting the COMESA system?

- Automated Clearing House
- National Data Center
- In the Cloud

1.6 Give reasons for the answer provided in question 1.5.

1.7 Does the Data Protection Act cover cross-border payments?

- Yes
- No

1.8 Does the Act on Cybercrime cover cross-border payments?

- Yes
- No
QUESTIONNAIRE FOR MINISTRY OF FINANCE

1.1 What legislative interventions (if any) do you think may be required to ramp up MSME cross-border payments?

1.2 Would the Ministry support increasing the band of tax-free commodities as an incentive to the traders?

☐ Yes  ☐ No

1.3 If yes, would the Ministry allow Revenue Authority to make this change during piloting?

1.4 Below are the proposed Use Cases for the COMESA Scheme. Which Use Cases would you support?

☐ Person to Person  ☐ Person to Business  ☐ Business to Person  ☐ Business to Business

☐ Agent Initiated Cash In  ☐ Agent Initiated Cash Out  ☐ ATM Initiated Cash Out  ☐ Bulk Payments

1.5 Which of the above Use Cases would you recommend to be implemented first?
### QUESTIONNAIRE FOR PAYMENT SERVICE PROVIDERS/FINTECHS

1.1 How would you want the Model to be developed?
- [ ] As a New System?
- [ ] On an existing System?
- [ ] Using Open Source?

1.2 Kindly give reasons for the option selected above

1.3 If the recommended model in 1.1 is ‘existing system’, which existing infrastructure would you recommend?

1.4 Should all participants connect direct to the COMESA Switch, or they should connect through the local National Switch?
- [ ] COMESA Switch
- [ ] National Switch

1.5 Kindly provide reasons for option selected

1.6 Should the routing of transactions be regulated by the COMESA Scheme or by the domestic Central bank?

1.7 Where would you recommend hosting the COMESA system?
- [ ] Automated Clearing House
- [ ] National Data Center
- [ ] In the Cloud

1.8 Give reasons for the answer provided in question 1.7.

1.9 Should the Platform have a single currency?
- [ ] Yes
- [ ] No

1.10 If yes, which currency would you recommend?

1.11 Where would you recommend the currency conversion to take place?

1.12 Below are the proposed Use Cases for the COMESA Scheme. Which Use Cases would you support?
- [ ] Person to Person
- [ ] Person to Business
- [ ] Business to Person
- [ ] Business to Business
- [ ] Agent Initiated Cash In
- [ ] Agent Initiated Cash Out
- [ ] ATM Initiated Cash Out
- [ ] Bulk Payments

1.13 Which of the above Use Cases would you recommend to be implemented first?

1.14 Would you recommend the COMESA Scheme to have a Digital Payment association?

1.15 Would you support the COMESA switching and interchange fees to be lower than the domestic fees?

1.16 Would you implement ISO20022 for cross-border payments?

1.17 Will you be able to participant in the pilot phase?
- [ ] Yes
- [ ] No
QUESTIONNAIRE FOR PAYMENT SERVICE PROVIDERS/FINTECHS

1.1 Where would you recommend the currency conversion to take place?

1.2 Below are the proposed Use Cases for the COMESA Scheme. Which Use Cases would you support?

- Person to Person
- Person to Business
- Agent Initiated Cash In
- Agent Initiated Cash Out
- Business to Person
- ATM Initiated Cash Out
- Bulk Payments

1.3 Which of the above Use Cases would you recommend to be implemented first?

1.4 Will you be able to participate in the pilot phase?

- Yes
- No
Appendix 3 – Organizational Structure and Job Descriptions

JOB DESCRIPTIONS

1) POSITION TITLE: CHIEF OPERATIONS OFFICER
Grade: M1
Reports to: The Payment Oversight Committee
Reporting to this Position: Chief Information Officer
Manager - Marketing and Product Innovation
Manager - Business Development and Participants Membership
Regulatory Affairs Officer

1. Job Summary

The Chief Operations Officer (COO) is responsible, under the direction of the Payment Oversight Committee, for efficient and effective day-to-day administration of the scheme clearing and switching processes, system integrity, human resource management and physical security.

The Payment Oversight Committee and the COO assure the relevance of the Scheme to the digital payment industry, the Vision and Mission and Accountability of the scheme, and compliance with the provisions of the policies.

The Payment Oversight Committee delegates responsibility for management and day-to-day operations to the COO, and the COO has the authority to carry out these responsibilities, in accordance with the direction and policies established by the Payment Oversight Committee. The COO provides direction and enabling conditions to the Payment Oversight Committee as it carries out its governance functions.

He or she is the liaison point between staff, management, and the Payment Oversight Committee.

2. Responsibilities

2.1 Lead SPV Strategy, Policy, and Planning

2.1.1 Set the vision for the SPV and define and lead its overall strategy.
2.1.2 Develop and implement scalable and efficient strategies to ensure both consistent results and growth.
2.1.3 Drive growth, profitability, and organization value.
2.1.4 Implement Payment Oversight Committee policies and procedures to ensure that the scheme is aligned to the Payment Oversight Committee’s strategic direction.
2.1.5 Help the Payment Oversight Committee determine the scheme’s mission, and short-term and long-term goals.
2.1.6 Help the Payment Oversight Committee monitor and evaluate the relevance of the scheme in the region and its results.
2.1.7 Keep the Payment Oversight Committee fully informed on the conditions of the scheme and on important
factors influencing its operations.

2.1.8 Identify problems and opportunities and put in place mechanisms to address them; bring those which are appropriate to the Payment Oversight Committee and facilitate discussions.

2.1.9 Inform the Payment Oversight Committee about trends, issues, problems, and activities in order to facilitate policymaking, and to recommend policy positions.

2.1.10 Proactively mitigate business, operational & governance risks.

2.2 Management, Administration and Operations

2.2.1 Provide general oversight of all scheme activities, manage all operations, and ensure good governance.

2.2.2 Assure quality of Quality of Payments platform Operations and organization stability through the development and implementation of standards and controls, systems and procedures, and regular monitoring and evaluation.

2.2.3 Keep the Payment Oversight Committee informed of developments in human resources administration and development.

2.2.4 Specify responsibilities for management staff and evaluates performance regularly.

2.2.5 Ensure that the scheme is positioned to attract and retain employees with the skills required to implement the strategic plans of the scheme and satisfy the strategic role of the scheme in the market.

2.2.6 Update business rules for the scheme.

2.2.7 Plan activities such as workshops, testing of software patches, upgrades, and other new developments. Oversee development of a Business Continuity Plan (BCP), a Disaster Recovery Plan (DRP), and training of the scheme's participants.

2.2.8 Implement human resource development activities to ensure that staff members are proactively responding to market trends in a timely manner.

2.3 Governance and Compliance

2.3.1 Assist the Payment Oversight Committee to articulate its own responsibilities and that of its committees and individual members and help evaluate performance regularly.

2.3.2 Cultivate a high-performing, agile, one-team culture.

2.3.3 Work with the Chairperson of the Payment Oversight Committee to enable the Payment Oversight Committee to fulfil its governance functions.

2.3.4 Focus the attention of the Payment Oversight Committee on long-term strategic issues.

2.3.5 Manage the due diligence process of the Payment Oversight Committee in order to ensure timely attention to core issues.

2.3.6 Provide accurate and clear information to the Payment Oversight Committee's Directors in order to promote effective decision-making by the Committee.

2.3.7 Recommend experts who are non-Payment Oversight Committee Members to participate in its sub-Committees.

2.4 Financing

2.4.1 Deliver on financial management strategy.

2.4.2 Oversee the fiscal activities of the scheme, including asset management, budgeting, reporting, risk, and audit.

2.4.3 Work with the Payment Oversight Committee to ensure financing of short-term and long-term goals.

2.4.4 Approve Scheme expenditure up to limits set by the Payment Oversight Committee.

2.4.5 Oversee the preparation of financial statements for presentation to the Steering Committee, Payment Oversight Committee of Directors, and External Auditors.

2.4.6 Supervise the billing and collection of contributions from Participants.

2.4.7 Ensure that the scheme's assets are adequately insured at all times.

2.4.8 Execute the financial plan and own the operational budget and manage costs while growing the business ahead of market disruptions.

2.5 Stakeholder Relations

2.5.1 Act as an advocate, within the public and private sectors, for issues relevant to the Scheme and its services.

2.5.2 Listen to clients, donors, and the community in order to improve services and to generate community involvement. Ensure community awareness of the responses of the Scheme to community needs and concerns.

2.5.3 Attend meetings with various stakeholders

2.5.4 Maintain good relations with service providers to ensure that support services are available at all times.

2.5.5 Manage investor relations for the Scheme.

2.5.6 Serve as the chief spokesperson for the scheme, ensuring proper representation of the Scheme in the region.
2.5.7 Ensure that Service Level Agreements (SLA) are current to avoid disruption of service delivery in case of lapse.
2.5.8 Ensure benchmarking of the Scheme against other Schemes at Regional and International level from time to time.
2.5.9 Ensure that the Scheme keeps abreast with international trends in payments systems.

2.6 Mobilize Stakeholders

2.6.1 Regularly report updates to the Board and corporate stakeholders regarding progress on strategic priorities and collaborate with the Board to accelerate progress.
2.6.2 Invest in strategic partnerships & relationships to drive growth.
2.6.3 Oversee SPV Shared Services Agreement with REPSS to ensure effective and efficient services to the COMESA Region.

3. Physical Demands/Working Conditions

This is a high-profile position, based on full responsibility for the management and operations of the Scheme. The Chief Operations Officer handles complex concepts and problems, balances multiple tasks simultaneously, and makes rapid decisions regarding administrative issues.

The Chief Operations Officer plans and meets deadlines, maintains a flexible work schedule to meet the demands of executive management. Hours may be long and irregular.

The Chief Operations Officer conveys a professional and positive image and attitude regarding the COMESA and demonstrates commitment to continued professional growth and development.

4. Requirements: Qualification and skill

4.1 Minimum 15 years’ experience out of which ten (10) years’ must be in the Financial Services and ICT Industry, payments regulatory and legal framework; and general understanding of payment services industry stakeholders.
4.2 Demonstrate experience and understand of Digital Trade and COMESA Trade in particular.
4.3 Master’s degree in Business Administration, Engineering, Finance, Computer Science, or any related discipline. PhD is an added advantage for this role.
4.4 An expert and strategic thinker with a proven track record of achievement and contribution to the development of payment services including systems, policies, and procedures.
4.5 Ability to drive the next cycle of innovation in payments markets towards stronger financial integration as well as trade and economic growth and development of COMESA.
4.6 Ability to adapt to and drive change in response to changing environments (both internally and externally).
4.7 Demonstrate ability to liaise and manage key stakeholders including Board members, COMESA Committee of Central Banks, regulators, payment service providers, bankers’ associations, FinTechs and other industry associations or bodies; to keep regular updates on business performance and agendas progress.
4.8 Demonstrate detailed understanding and knowledge of consumer issues; an understanding of the risks posed to consumers and providers within the payment systems sector and its wider impact on expanding intra-COMESA trade.
4.9 Proven track record of building successful products and high calibre teams from the ground up, ideally in current roles.
4.10 Prior working experience in developing and/ or managing digital payment products and solutions especially cross-border related or experience in digital transformation agendas of an organization/ company or industry.
4.11 Strong skills in financial analysis, risk management and human resources management.
4.12 Must be team oriented, collaborative, diplomatic, and influential, flexible, with superb presentation skills.
4.13 Demonstrate Research and Development capabilities on Financial and Digital Services
4.14 Experience and in-depth knowledge of the payments industry, experience in managing e-commerce, mobile or other payments projects.

2) POSITION TITLE: CHIEF INFORMATION OFFICER

Grade: M2
Reports to: Chief Operations Officer
Reporting to this Position: None

1. Job Summary

To provide strategic leadership on Information Communication Technologies and innovations. He/she will be responsible for planning the department’s activities and co-ordinates systems for the provision of end-user support in order to meet the Scheme’s objectives in the data processing and information storage services; appraisal of ICT procurement systems; maintenance,
upgrading of both hardware and software system for their uninterrupted availability in the business process of the Scheme as well as following the proper handling of incidents in the helpdesk of the payment platform

2. Key Responsibilities

2.1 Strategy, Policy, and Planning

2.1.1 Plan, implement and monitor the budget for the ICT section annually.
2.1.2 Plan and organize the section for the effective provision of timely ICT services annually.
2.1.3 Develop, revise, and implement the ICT policy and implementation plan annually.
2.1.4 Promote adherence to ICT policy and ensure all basic ICT controls at the Scheme are enforced.

2.2 Procurement

2.2.1 Provide technical expertise in the procurement of ICT equipment as well as their certification.
2.2.2 Managing the license roll out of the regional as well country. implementations for inclusive instant payment scheme.
2.2.3 Work with the COO to liaise with service providers on the Scheme ICT systems and communication networks.

2.3 System Administration

2.3.1 Provide oversight on all system administration to ensure that the Scheme complies with applicable polices and standards in the use of ICT infrastructure for inclusive instant payments.
2.3.2 Oversee the functions of the Scheme administrators to ensure functions are attended to within specified standards, time, and cost.
2.3.3 Oversee the efficient handling and administration of ICT resources within the Scheme operating areas.
2.3.4 Advise senior management on appropriate training on all ICT related issues to end-users.
2.3.5 Liaise with service providers of the scheme and communication networks to ensure system availability and upgrades to higher versions with Service Level Agreements (SLAs).
2.3.6 Facilitate Business Continuity Plan testing and Disaster Risk Reduction activities.
2.3.7 Monitor the functionality of the system, security and availability including backup operations.
2.3.8 Develop, maintain, and implement the IT Security strategy for the organisation.

2.4 Infrastructure Development and Management

2.4.1 Provides technical support to the Scheme infrastructure.
2.4.2 Work with the Chief Operations Officer to provide guidance on risk related issues to the various payment channels in the payment system.
2.4.3 Promote adherence to ICT policy and ensures that all ICT controls within the scheme are enforced.
2.4.4 Promote integrations with the existing and upcoming initiatives with aim of building inclusive instant payment ecosystem.
2.4.5 Lead the building and roll out low-cost payment platform serving the needy MSMEs (Micro Small & Medium Enterprises) at the bottom of the financial pyramid.

2.5 Human Resource Management

2.5.1 Identifies appropriate ICT training needs for the department with evolving needs in the payment industry.
2.5.2 Assign work, supervise, and coach subordinate staff.
2.5.3 Ensure staff in the department are well motivated at all times.

2.6 Helpdesk

2.6.1 Managing the Helpdesk in terms of ticketing, prioritizing and rectifying day to day incidents.
2.6.2 Responsible for ensuring that all issues are responded to in a timely manner.
2.6.3 Ensuring adequacy in staff manning the helpdesk at all times serving adequately the different time zones in the region.
2.6.4 Providing tools and resources required to run an effective helpdesk and ticketing system.
3. Requirements: Qualifications and Skill

1.1 Master of Science degree in Computer Science, Information Technology, or related technical field from a well-recognized university. Professional certifications will be an added advantage.

1.2 Minimum 15 years of experience in Information Technology, Fintech, Trade, cloud platforms with helpdesk and related fields including five years at senior management level.

1.3 Experience managing digital payment switching (clearing) operations or demonstrate evidence of exceptional understanding of clearing operations and payment system clearing and settlement in national or regional rollouts.

1.4 Previous experience managing large scale Card processing technology and switching operations for any of the global brands is a great advantage.

1.5 Experience with building and managing scalable and reusable service-based architectures including APIs, serverless, and microservices frameworks with cloud setups.

1.6 Experience with managing data streaming, ETL and messaging/integration platforms & frameworks like Apache Spark, Hadoop, Kafka, Redshift etc.

1.7 Experience building complex API integrations with multiple SaaS, BaaS, and Legacy Enterprise service bus integrations.

1.8 Experience with payment standards and SWIFT infrastructure.

1.9 Strong knowledge of DevOps and cloud infrastructure services (AWS, Google and Azure preferred).

1.10 A proven background in IT delivery or planning roles, with an interest in technology and Fintech, trade, and cloud platforms.

1.11 Technology savvy with experience selecting and overseeing software installations and managing relationships with software vendors for banking and insurance implementations.

1.12 Knowledge of Clearing and Payment functions supported by relevant trainings.

1.13 Analytical and practical understanding of workflow, capacity planning/optimisation and process implementation for big size enterprise implementations.

1.14 Excellent communication and relationship building skills with an ability to prioritize, negotiate, and work with a variety of internal and external stakeholders regionally in an intergovernmental setup.

1.15 A successful track record in setting priorities; keen analytic, organization and problem-solving skills which support and enable sound decision making in executive management.

3) POSITION TITLE: MANAGER - MARKETING AND PRODUCT INNOVATION

Grade: M3
Reports to: Chief Operations Officer
Reporting to this Position: n/a

1. Job Summary

Custodian of the marketing process flow for the COMESA Digital Retail Payment Scheme, involving design and evaluation of marketing strategies aimed at promoting product offerings targeting low-income market segments in the region. This role will be responsible for guiding product strategy, effectively documenting and communicating product features, and designing of successful launch plans.

2. Key Accountabilities

2.1 Business, Processes

2.1.1 Responsible for the development of the product vision, strategy, requirements gathering, functional design and technical roadmap.

2.1.2 Development of strategic marketing plans.

2.1.3 Manage the overall proposition development including, use case creation, user experience, design, and commercial management.

2.1.4 Maintain the integrity of the entire product design while ensuring the correct solutions are being developed for clients and partners.

2.1.5 Understand market trends and requirements and propose product solutions that need to be produced as a result.

2.1.6 Be aware and understand the digital retail payment environment in which the Scheme operates. Keep abreast of regional digital payment performance and trends, as well as social and political trends.

2.1.7 Collaborate with web developers to build and sustain a website that is compliant with responsive design and mobile first best practices.

2.1.8 Design, build and maintain social media presence and social media updates and interactions.

2.1.9 Oversee management of the website and social media platforms by enforcing content standards; ensure digital assets are designed in line with branding guidelines.

2.1.10 Develop or work with relevant functional areas to develop ideas that will be used across various platforms.
to support product penetration strategies, customer engagements and campaigns.
2.1.11 Manage the design, production, and distribution of branding and marketing collateral for print formats.
2.1.12 Assist with the design and production of digital layouts, graphics, animations, and videos to support digital media communication and engagement strategies.
2.1.13 Work with the whole team to ensure compliance of all marketing materials to design principles and brand guidelines.
2.1.14 Assist in managing media-related reputational risks.

2.2 Academic Qualifications and Experience

2.2.1 A postgraduate degree in Global Marketing, Strategic Marketing, International Business, or a closely related field.
2.2.2 Professional qualifications in Digital Finance or a related field are an added advantage.
2.2.3 Minimum ten (10) years’ strategic marketing experience with significant tenure in the regional economic development space, complemented by a demonstrable understanding of the financial inclusion landscape particularly for MSMEs at the base of the financial pyramid, as it pertains to their active participation in the regional economy.

2.3 Knowledge, Skills, Attributes and Related Competences

2.3.1 Ability to develop and direct the implementation marketing plans communicating product offerings effectively and efficiently.
2.3.2 Ability to think strategically and creatively: analyse, synthesise, recommend, and take appropriate action.
2.3.3 Superior problem-solving skills, with excellent presentation skills, including writing capabilities.
2.3.4 Excellent relationship management skills, particularly ability to influence and negotiate with senior executives.
2.3.5 Excellent stakeholder management/collaboration skills.
2.3.6 Good understanding of marketing principles, with the ability to interpret business requirements into actionable strategies.
2.3.7 Sound understanding of the financial inclusion landscape in the region.
2.3.8 Strong business acumen, combined with high levels of ingenuity.
2.3.9 Able to operate in a fast-paced environment.
2.3.10 Regional virtual, hybrid, and physical event management prowess.
2.3.11 Proficient in use of visual design tools for the development of graphics, videos, and varied marketing materials/content for community or business audiences.
2.3.12 Mastery in the design and execution of campaigns on Facebook, LinkedIn Instagram, Twitter, and other relevant social media platforms.
2.3.13 Great command of website content management.
2.3.14 Expert communication, presentation, and material preparation skills.
2.3.15 A passion for growth marketing and driving customer adoption.

2.4 Decision Making

Medium level of decision-making requirements.

4) POSITION TITLE: MANAGER - BUSINESS DEVELOPMENT AND PARTICIPANTS

Grade: M3
Reports to: Chief Operating Officer
Reporting to this Position: n/a

1. Job Summary

This role is responsible for establishing and enhancing business relationships with customers, suppliers, and other strategic partners across the region and internationally, to enhance and affirm the position and reputation of the COMESA Digital Retail Payment Scheme as a leader in the space. The incumbent will be required to successfully develop and integrate strategies to drive business results, improve processes, build relationships, and identify and deliver innovative growth solutions.

2. Key Accountabilities

2.1 Research and Business Development

2.1.1 Undertake research on new developments pertaining to cross-border retail payment systems and payment products across the globe and regionally and highlight key learnings to enhance the Scheme.
2.1.2 Develop goals and objectives that tend to growth and prosperity, which includes mobilisation of resources for the Scheme.
2.1.3 Establish, manage, and retain relationships with participants across the region.
2.1.4 Secure participants for the payments Scheme by actively identifying and prospecting through direct communication, face-to-face meetings, networking events, speaking roles and e-mails.
2.1.5 Research and support the development of manuals/collateral for products being offered.
2.1.6 Communicate all aspects of the Scheme's value proposition, and consultatively identify and prioritize participants’ needs and craft customized solutions that drive specific commercial metrics.
2.1.7 Create and be accountable for all partnership proposals, contracts, and any further documentation.
2.1.8 Effectively interact and collaborate with the technical integration, marketing, and regulatory affairs teams, when necessary, towards attainment of key objectives.
2.1.9 Partake in marketing activities, including but not limited to organising and participating in regional and international events, in order to increase visibility of the Scheme in expanding markets, and to prospect for new partnerships.
2.1.10 Gather, analyze, and interpret external and internal data on the Scheme's key successes, as well as the areas needing improvements, with proposed recommendations to counter inefficacies.
2.1.11 Research and development of executive-quality presentations.
2.1.12 Coordinate with Operations to ensure that there are adequate and suitable resources for the completion of activities.

3. Qualifications

3.1 Academic Qualifications and Experience

3.1.1 A Master's Degree in Business Management, Strategic Management, Economics, or a related field.
3.1.2 At least ten (10) years’ relevant professional experience, with sound understanding of the drivers/enablers of efficient and affordable cross-border payments by small-scale, often informal, traders in the region.
3.1.3 Professional qualifications in digital payments or a related field are an added advantage.

3.2 Knowledge, Skills, Attributes and Related Competences

3.2.1 Business savvy - leveraging his/her understanding of different business models and business needs in the prospecting of participants.
3.2.2 Excellent communication skills both verbal and written.
3.2.3 A demonstrated commitment to high professional ethical standards.
3.2.4 Excellent business etiquette and follow up procedure.
3.2.5 Detail oriented, positive attitude and the ability to prioritize tasks to fit deadlines.
3.2.6 An international entrepreneurial and curious mindset.
3.2.7 Excellent interpersonal skills with vast experience working collaboratively across functions and geographies in a culturally diverse environment.
3.2.8 Excellent data management and analytics skills.
3.2.9 Customer focused with high levels of accountability.

3.3 Decision Making

Medium level of decision-making requirements.

5) POSITION TITLE: REGULATORY AFFAIRS OFFICER

Grade: M4
Reports to: Chief Operating Officer
Reporting to this Position: n/a

1. Job Summary
The role shall manage the Scheme's Regulatory Affairs and Compliance portfolio in order to secure optimum Regulatory environment for the Scheme at all times in line with Finance and ICT Regulators within the COMESA Region.

2. Key Responsibilities

2.1 Business Planning

2.1.1 Analyse regulatory requirements to build the departmental annual business plan in line with the long-term strategy
2.1.2 Prepare Departmental OPEX budget.
2.1.3 Conduct Regulatory Impact Assessment at specified intervals and determine the impact on MSMEs and Intra-Trade within the Region.
2.2 Regulatory Compliance Management

2.2.1 Research and identify legislations, regulations, and directives that the Scheme has to comply with.
2.2.2 Conduct spot checks using Regulatory compliance Checklists to ensure compliance and eliminate possible violations of the Regulatory Compliance.
2.2.3 Identify relevant current and future regulatory compliance developments of significance and provide insightful and practical analysis on those developments and determine possible implications on the Regional Retail Payment Scheme's operations on both short- and long-term basis.
2.2.4 Interpret the implication of the applicable Regulatory requirements and obligations for the SPV and propose remedial actions to the Chief Operations Officer.
2.2.5 Ensure that the Regional Retail Payments Scheme complies with legislative framework that affects the organisation's operations.
2.2.6 Ensure that the various departments are complying with the requisite obligations through ad hoc departmental audits.
2.2.7 Conduct DFS Regulatory Compliance training on Management and employees with respect to requirements and obligations stipulated in the corresponding financial transaction Legislation and Regulations across the COMESA region.
2.2.8 Review, localisation and ongoing update of Compliance policies and standards and dissemination of Compliance policy related matters to the Digital Financial Services.
2.2.9 Conduct DFS Regulatory Compliance training on Management and employees with respect to requirements and obligations stipulated in the corresponding financial transaction Legislation and Regulations across the COMESA region.
2.2.10 Review, localisation and ongoing update of Compliance policies and standards and dissemination of Compliance policy related matters to the Digital Financial Services.
2.2.11 Coordinate investigation exercises on non-compliance related breaches and propose remedial actions.
2.2.12 Manage the AML/CFT Compliance program for the Regional Retail Payment Scheme.
2.2.13 To facilitate and embed policies, processes, and business requirements to ensure that risk is sufficiently mitigated.
2.2.14 Identify work areas, processes and ethics that require an enabling policy.
2.2.15 Reviews and fine-tunes the compliance management framework in line with the regulatory requirements.

2.3. Regulatory Affairs Management

2.3.1 Develop appropriate strategic plans for the Regulatory Affairs Department.
2.3.2 Initiate and establish effective relationships with relevant Government ministries/departments and regulatory agencies to learn about and analyse the potential impacts of emerging regulatory developments or public policy issues.
2.3.3 Collaborate with regulatory affairs coverage officers of collaborative banks to keep tabs on recent interactions and develop and maintain a strong understanding of the regulatory landscape in the Scheme, including hot topics and themes.
2.3.4 Prepare recurring and ad-hoc reports for Senior Management which incorporates salient information across the spectrum of the regulatory affairs landscape (exams, commitments, inquiries, notifications, ongoing monitoring meetings, etc.)
2.3.5 Track and monitor the remediation status of regulatory commitments to provide key data and insight to Senior Management and other key partners.
2.3.6 Facilitate operational processes in the section including but not limited to managing communications to Regulators, handling complaints escalated to Regulators, management of the review, impact assessment and roll out of new regulatory requirements, responding to requests for information and business advisory.
2.3.7 Identify relevant current and future regulatory compliance developments of significance and provided insightful and practical analysis on those developments and determined possible implications on the Regional Retail Payment Scheme's operations on both short- and long-term bases.
2.3.8 Coordinate lobbying activities during legislative changes and overall favourable Digital Financial Services regulatory environment for the benefit of the Scheme.
2.3.9 Facilitate and attend meetings with the regional Regulatory Authorities like COMESA Committee of Central Bank Governors, COMESA Monetary Institute and external stakeholders.
2.3.10 Communicate regulatory information to multiple departments and ensure that information is interpreted correctly.

2.4. DFS Technical Requirements and Process Management

2.4.1. Conduct research on the emerging technologies and understanding the implications of convergence amongst several disciplines (e.g., Financial and ICT) and advise Executive management on modern ways of regulating this new digital era.
2.4.2. Provide technical input to regional or international DFS organizations’ consultative documents on the Financial Services.
2.4.3 Liaise with the regional and international telecommunications bodies (e.g., ITU, ATU, CRASA) to develop and
localize the Quality-of-Service parameters for the DFS
2.4.4 Assist in the development of working Memorandums of Understanding with other Regulatory institutions
like the Central Banks, Revenue Authorities and Standards Bureaus to help fast track implementation of the
emerging technologies such FinTech Hubs.
2.4.5 Assist in the development of regional or in-country Regulatory sandboxes for the development of the
Fin Tech incubators.
2.4.6 Assessment of rural telecommunications coverage and broadband connectivity which support the DFS
penetration.
2.4.7 Assist in the development of and reviewing of regional regulations/rules which should effectively govern the
new digital economy
2.4.8 Compile and maintains the Business Continuity Plan (BCP) documentation for the Scheme
2.4.9 Advise the Scheme’s IT personnel on the minimum regulatory requirements expected on the operating
systems to ensure adequate cyber security on the transactions.

2.5 Financial Management and Control
2.5.1 Develop and present Departmental budget
2.5.2 Check, monitors and controls the Departmental expenses against the monthly budgets and takes appropriate
action in the event of budget overruns.

2.6 Governance
2.6.1 Review, update and maintain the relevant organisation structures;
2.6.2 Develop the necessary plan(s) to ensure that the Department meets its agreed goals and objectives, meet
staff on a pre-agreed basis, identify and agree key performance areas, key objectives/tasks, and action
plans;
2.6.3 Carry out evaluation of staff, identify performance strengths and deficiencies, and arrange for necessary
action (for example further on the job training);
2.6.4 Ensure, through the Line Managers, the enablement, and implementation of the requisite SPV Regulatory
and Compliance policies and processes and the maintenance of good Corporate Governance;

3. Requirements: Qualifications and Skills
3.1. Bachelor’s degree in law, Computer Science, Engineering, Information Technologies, Banking, or any other related
qualification. Professional certification in Regulatory Affairs management or Compliance management will be an
added advantage.
3.2. A minimum of 10+ Banking, Telecommunications or Digital Finance Services experience at a management level
3.3. 6+ plus demonstratable Regulatory Affairs and Compliance management at large telecommunications of FinTech
organisations/Bank.
3.4. Proven understanding in telecommunication services Quality of Services management as it relates to the provision of
DFS
3.5. Possess an understanding and interest in the global regulatory environment
3.6. Demonstrable knowledge of the emerging technologies changing the landscape of the financial industry
3.7. A strong practical knowledge in developing and management Regulatory Compliance Risk register for the ICT or
banking industry
3.8. Sufficient experience in developing and implementing AML/CFT Compliance programs in large organisation
3.9. Have skills to research and locate information on regulatory requirements and obligations
3.10. Dedication to fostering an inclusive culture and value diverse perspectives
3.11. Sound interpersonal and communication skills with a team-focused approach.

Appendix 4 – Assumptions to the Financial Model
Appendix 5 – Projected Cashflows in US Dollars
Appendix 6 – Breakeven for Number of Transactions

For Appendices 4, 5, and 6, refer to the Financial Modelling Excel Sheet.