

THE STATE OF INSTANT AND INCLUSIVE PAYMENT SYSTEMS IN AFRICA

SIIPS 2022 - CASE STUDY

TRANSACTIONS CLEARED ON AN IMMEDIATE BASIS (TCIB)



Origin story

Challenge

High cost associated with cross-border transfers due to lack of competition. While some countries within the Southern African Development Community (SADC) region have a well-established financial services system with a closed-loop intra-regional payments system, high costs, low speed, limited access, and limited transparency affected cross-border payments (SADC PSOC, 2021). In SADC, these issues are primarily due to regulatory costs of compliance and the costs associated with maintaining complex bilateral relationships. This is further affected by the lack of widespread competition in the formal financial system, which is capitalized by well-established and active commercial financial services and contributes to the significant price point barrier for the average SADC end user.

Value proposition

A regional instant payments system to reduce costs and simplify the payments process. To improve the cross-border payment process, standardize compliance requirements, remove the need complex bilateral cross-border arrangements, and create more competition in the formal financial system, SADC created the Transactions Cleared on an Immediate Basis (TCIB) system. TCIB provides opportunity for both bank and non-bank financial institutions to connect directly and indirectly to a payments system to process regional payments requests instantly. Furthermore, it aims to reduce the complexities and multiple currency conversion layers typically present in cross-border arrangements by processing all transactions through the SADC real-time gross settlement (RTGS) system and in South African rand (ZAR).

Timeline

The SADC Payments System Oversight Committee (PSOC) and SADC Bankers Association developed TCIB with technical support from BankservAfrica (BSA).

The concept was catalyzed initially in 2015 by the Committee of Central Bank Governors (CCBG), who approved the development of a cross-border payment system to create a retail companion to SADC RTGS.¹ The development was delegated to the SADC PSOC within the bankers association. BSA was then selected by CCBG to facilitate the operationalization of the system and to lead the implementation.

In November 2021, the system was launched and is now operational with a total of two participants and 12 members as of June 7, 2022.² The five-year gap between concept to operation was due to pre-conditions for implementation, namely changes to the regulatory environment and the development of scheme rules. Potential participants and regulators stressed the importance of finalizing these aspects before they felt comfortable to join. BSA finalized the SADC Rule book (scheme rules) in 2021.

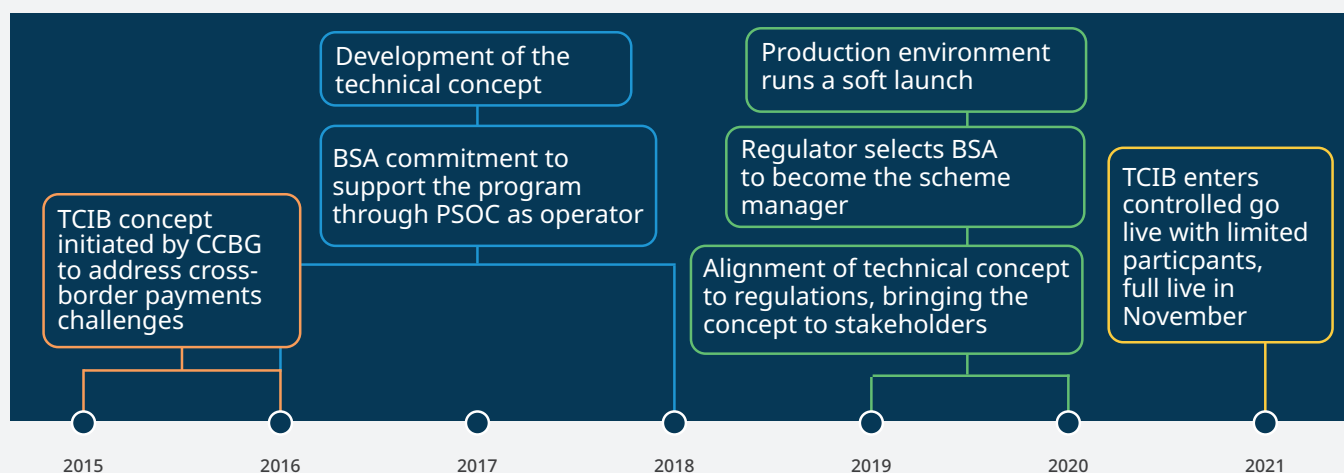
In July 2021, two participants (ZB Bank in Zimbabwe and Virtual Technology Service in Namibia) entered into a trial period, considered “controlled live” by TCIB to encourage further interest among participants.³ The trial period allowed SADC to test the system and to correct any potential issues before the full-live date. Specifically, it was used to test regulatory support at domestic level in terms of the access criteria, as well as the ability for the market players to comply with the rules and standards, and for BSA to test whether there were any gaps in the offering (in terms of minimum viable product or value proposition) to determine whether any critical enhancements and/or changes in processes were required before going live. As a result of this process, BSA was able to evaluate most of the above elements, support the participants to comply with processes and standards, and identify key enhancements to be made to the scheme constructs (constitution, rulebook, legal framework, regulatory operating framework, etc.) (Stakeholder Interviews, 2022).

¹ SADC RTGS, formerly known as SIRESS, is the SADC region's cross-border real-time gross settlement system that went live July 2013 for high-value payments. The South African Reserve Bank is the operator of the system and is appointed by SADC participating member central banks. Central banks and financial institutions, which include authorized banks and non-banks in the SADC region, are participants in SADC RTGS. Currently, the system settles payments in ZAR but additional currencies are being considered.

² These members are Angola, Botswana, the Democratic Republic of the Congo, Lesotho, Malawi, Mozambique, Namibia, South Africa, Eswatini, Tanzania, Zambia, and Zimbabwe.

³ Virtual Technology Services is a licensed PSP in Namibia.

FIGURE 1. TCIB timelines



Governance and operations

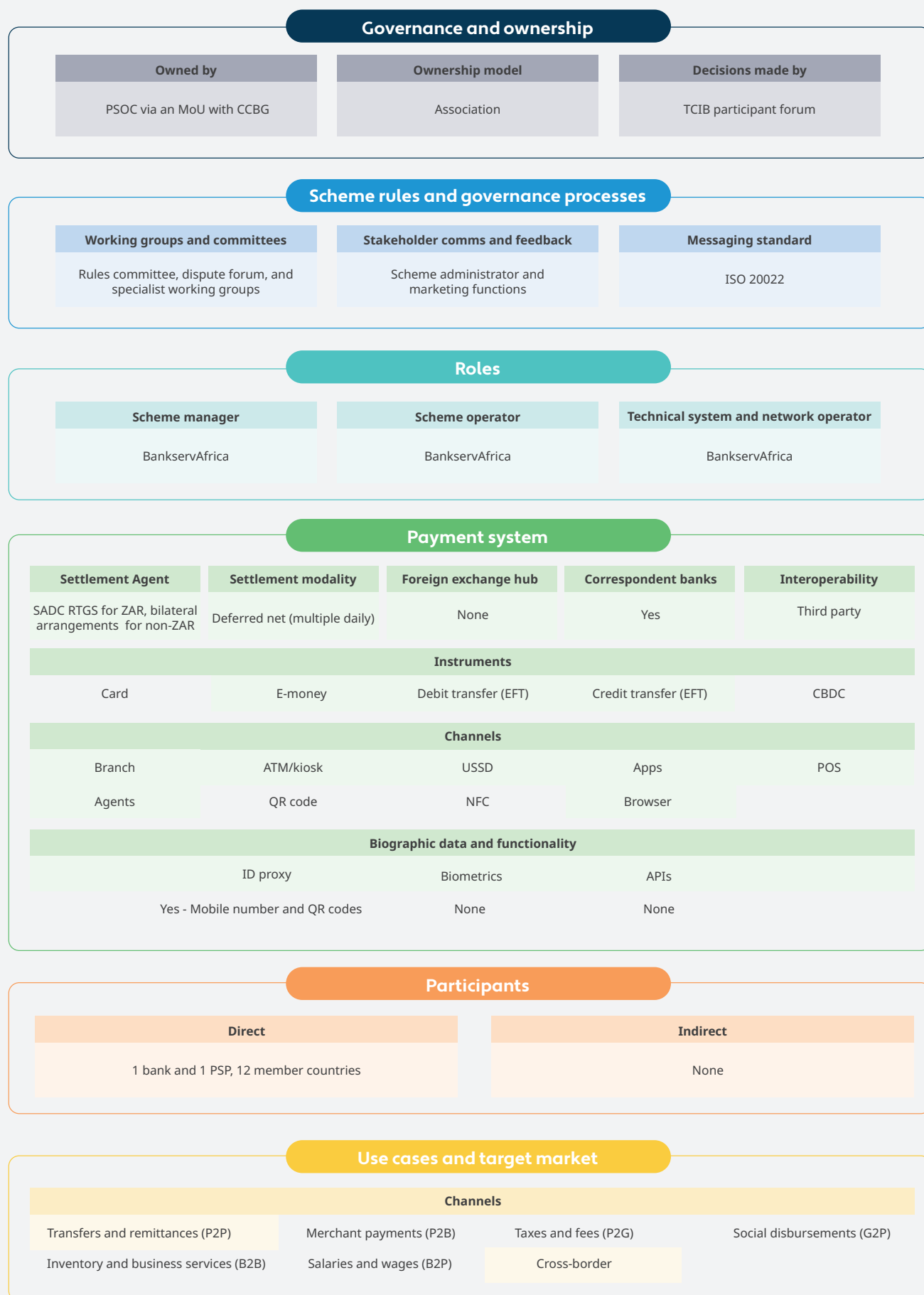
Payment system overview

The TCIB system is exclusive to cross-border payments and is based on a central processing hub, able to connect directly to banks and non-banks across SADC and to local clearing houses of each country. Payments can be routed directly to BSA, or through intermediaries (i.e., the regional clearing and settlement operator (RCSO), an integrator, or local automated clearing houses (ACHs)) who transmit the

payment on the sender's behalf. There are three additional technology partners in the platform: Terrapay, Traderoot, and GluGlobal. Terrapay is the product partner and vendor for the clearing platform. Traderoot and GluGlobal are certified integrators—providing integration services to prospective participants that do not have the in-house capability to integrate into the switch.



FIGURE 2. TCIB model overview



Governance structure

Inclusion through member participation and collaborative decision-making. TCIB is a private-sector led (member- and market-led), non-profit organization and governed under a democratic “constitution” model, which sets out the remit and obligations for the scheme to organize, integrate, manage, and monitor the participants—and to develop the scheme rules. Further, TCIB hosts the participants forum with representation from the scheme manager (BSA), owner (PSOC), and the participants. The forum discusses the scheme rules, operations, governance, or other related issues. Members have direct voting rights into the rules committee via their representation in the TCIB participant forum, ensuring that their voices are heard and considered when managing the system; however, the scheme manager has veto rights. They are also represented in the dispute resolution committee and have voting rights in any ad hoc working groups emerging from the participant forum. The SADC PSOC is a non-voting observer across these forums and groups.

Collaboration toward efficiency and scale a priority. TCIB's participants include banks and non-banks. However, BSA is currently focused on expanding mobile and non-traditional channels and instruments to improve functionality, use, and scale. The scheme facilitates interoperability between partners through multilateral relationships; however, participants can choose the institutions with which they want to connect depending on their risk appetite, among other factors (Stakeholder interviews, 2022). This reduces the barriers to join TCIB but can perpetuate exclusive arrangements between specific participants.

Functionality

TCIB offers instant clearing of low-value transactions within and between countries in the SADC region. It currently supports USSD, apps, agents, and POS channels, with a strategy to cover all channels for Common Monetary Area (CMA) countries, transactions are settled in ZAR—the transaction is converted to ZAR, settled in ZAR and then converted to the receiving currency, all at a fixed rate of exchange.⁴ The remaining SADC countries have an

alternative option to send transactions in USD, which are settled via US correspondents.⁵ Any participants choosing to settle in ZAR, must have accounts in South Africa. This set-up creates conditions for easier and lower-cost access to foreign exchange for the purpose of cross-border transactions, as opposed to complex arrangements outside the TCIB scheme, which often involve complex bilateral arrangements from foreign exchange, and may take days to process. The wholesale settlement options also facilitate bulk foreign exchange movements for small-value transactions.

Technical standards and use cases

Creating an inclusive payments ecosystem, starting with P2P and P2B. TCIB caters for the P2P use case via various channels. Currently, it is working on integrating P2B, with plans to bring in all additional use cases in the future. The P2B use case will be a key component driving inclusive instant payments ecosystem across SADC, by driving cashless purchase and sale of goods. TCIB operates using the ISO 20222 standard and leverages the infrastructure of member banks for non-ZAR transactions. As mentioned, participants can choose who to connect to and which services to participate in via a master data management system, which defines the relationship for each participant and affects the technical implementation.

Business model

Leveraging shared infrastructure to create inclusive prices. TCIB received funding from the Bill and Melinda Gates Foundation and the World Bank to defray the start-up costs and to build a commercial model. The original business case for the service earmarked break-even in Year 4, with funding obtained for the central infrastructure and operations during the first two years. Although the original growth path has been refactored based on the reduced adoption rate due to slower-than-anticipated rollout, TCIB is still aiming to be able to cover the costs in Year 3, with a minimal increase in proposed fees. Further funding is earmarked into Year 3, to cover budgetary gaps and to reinvest capital into the development of the scheme. The system operates on a cost-recovery basis. There are fees for the participants and members:⁶

⁴ CMA countries consists of South Africa, Lesotho, Namibia, and Eswatini. The ZAR is a legal tender that is accepted across the CMA; however, each country within the CMA can and has issued their own currency which is pegged to the ZAR at a fixed rate but can only be used in the issuing country (van Zyl, n.d.).

⁵ Remaining SADC countries include Angola, Botswana, Comoros, Democratic Republic of Congo, Madagascar, Malawi, Mauritius, Mozambique, Seychelles, Tanzania, Zambia, and Zimbabwe.

⁶ Membership is at an institution governance level, and participation is based on integrating into the switch to transact.

Annual Membership Fee:	Annual Participation Fee:	Transaction Fee:
USD 500 (ZAR 8,869) per year ⁸⁹	USD 2,500 (ZAR 44,345) per year	USD 0.10 (ZAR 1.77) per processed transaction

Scheme rules

Scheme rules require adherence to local regulations and standards. SADC payment systems are guided by the SADC Payment Scheme Rules Book (Beige Book) which covers the operating model, rules, and regulatory requirements for payment systems, which also includes the SADC RTGS. The TCIB scheme is referenced in this book, and TCIB has its own separate scheme rules book, which participants must also follow. A key requirement is the need for participants in the scheme to obtain a

letter of authority from their respective central bank or government authorities before they are considered for integration with the scheme.

Volumes and values processed by the payments system

Given the recent commercial launch, November 2021 TCIB volumes are low. Volumes and values will be catalogued in subsequent SIIPS reports.

Regulation

Participation in TCIB requiring members to comply with the regulatory environment of their country.

TCIB is a regional payment system, with relevant regulation originating in each participant's country of domicile. TCIB itself is accountable to the CCBG, and the rules set out in its Rule Book align with best practices. However, TCIB plays a role in shaping development and harmonization of regulation at the regional level, by highlighting regulatory issues or clashes across countries that present barriers

to effective cross-border payments. For example, CCBG played a significant role in the harmonization of e-money regulation across SADC by engaging with regional initiatives. A positive reinforcement cycle exists between the organizations, with the collaboration to ensure that the system functions effectively to drive a more integrated SADC. For example, recent activities include the harmonization of balance-of-payment (BoP) codes for the scheme and involved deliberation across regulatory bodies.

7 South African rand converted to USD using an exchange rate of USD 1 = ZAR 17.74 as of 19 September 2022.

Inclusivity learnings

Not ranked in terms of level of inclusivity but shows considerable promise. Measured by the inclusivity criteria in Chapter 2.6, TCIB is not yet ranked in the inclusivity categorization as it does not offer P2B payments at this young stage. TCIB has inclusive governance through its stakeholder forums, which involve participants, the scheme manager, as well as the respective participant country's regulator. With further scaling of the scheme and expansion of its use cases, it will be closer to mature inclusivity.

The following inclusion learnings were identified for TCIB:

- **Clear value proposition with stakeholder engagement needed to drive participation.** For a payment system to be inclusive, it needs to present a genuine commercial improvement on budget or transaction effort. TCIB does this by simplifying the underlying economics behind cross-border payments. The per transaction fees are published externally, which will pressure financial service providers to keep costs low to consumers. Further, TCIB's streamlined forex functionality makes lower-value transactions viable, as their relative fee burden for per-item processing fee and foreign exchange spreads is diminished.
- **Regulatory buy-in and endorsement processes a precondition for success.** Cross-border payments systems can be difficult to implement because they require buy-in and endorsement from all the regulators involved. In a multi-party system, this required significant time, energy, and commitment. The level of buy-in of each country can affect the participation by the domiciled institutions. As with most regional initiatives, a challenge with TCIB relates to these differing regulatory environments. While the process is costly and time-intensive, identifying those areas for regulatory harmonization will have outsized impact on the development of an integrated African digital economy. DFSPs and regulators will need to collaborate to identify improved methods for risk evaluation, so as to not exclude populations or DFSPs in certain geographies from fully participating in a regional scheme.
- **Collaboration on existing infrastructure key for inclusion.** TCIB was able to minimize its operating and participation costs due to its emphasis on shared infrastructure. Participants contribute some of their functionality to the system (e.g., forex and settlement ability), removing the need for TCIB to recreate these structures. Since participants have already established their own arrangements to facilitate payments across borders, a regional payments system needs to offer a higher-value alternative. Sharing infrastructure across players is vital in achieving this.⁸
- **A level playing field for smaller players bodes well for inclusion, but large anchor-players are still key.** TCIB provides the possibility of region-wide connections without provider-level investment into infrastructure, enabling smaller players to participate and providing curated services to consumers. At the same time, the effectiveness, reach, and potential of the system also depend on large anchor-players being involved, especially providing services and infrastructure. Large and small participants both help to bring scale: the former by bringing a highly digitized customer base (more frequent transactors) and the latter by having a larger reach to low-income populations (greater economic empowerment).

⁸ Although this creates potential for large players to generate scale from their pre-existing infrastructure that they commit, it is important that smaller players benefit from the various components via non-discrimination of traffic so they are not structurally disadvantaged, creating a long-term dependency on larger players.



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