

Research Article

The Role of Telesom's ZAAD Service in Sustainable Finance in Somaliland's Telecommunications Sector

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Abstract: This paper examines how Somaliland's liberalized, privately led telecommunications sector, once a state monopoly and now dominated by local firms, has become a driver of economic growth, financial inclusion, and infrastructure development, with Telesom as the leading example. Drawing on sectoral history, market composition, and coverage data, the study shows how Telesom and its competitors have built nationwide networks, delivered low-cost services, and enabled mobile money-based financial services in the context of weak formal banking. Focusing on Telesom's ZAAD platform, the paper analyzes its ecosystem business model (salary payments, merchant networks, and high-frequency transactions), its contribution to financial inclusion, and its alignment with international anti-money laundering and customer due diligence standards. At the same time, it identifies ethical and prudential gaps, especially the absence of formal deposit protection, limited transparency in financial reporting and taxation, and the lack of an independent telecommunications regulator, which pose risks to consumers and systemic stability. Overall, the paper argues that Telesom illustrates how sustainable finance in telecommunications can combine innovation, inclusion, and profitability, provided that stronger governance, disclosure, and consumer protection frameworks are implemented to secure long-term sector resilience.

Keywords: Mobile money; Somaliland; Sustainable finance; Telecommunications; Telesom.

1. Introduction

The telecommunications industry is one of Somaliland's most innovative, crucial for business, and economically transformational sectors (SomalilandBiz, 2018; World Bank Group, 2017). This paper looks at the sector from the important points of view of sustainable finance, ethical behavior, and long-term company sustainability. Before 1991, the telecommunications business in Somaliland was totally controlled by the government; now, it is a dynamic, privately led competitive market that has changed the region's economy in a big way (Somaliland Biz, 2018; Acheson, 2024).

Somaliland's telecommunications sector is different from that in many other African countries that are controlled by international companies like MTN, Orange, and Bharti Airtel. Instead, it is made up of investments from Somali diaspora and local entrepreneurs, which has led to extraordinary innovation in mobile financial services (SomalilandBiz, 2018; World Bank Group, 2017). This unique ownership structure has made a model that is increasingly acknowledged as a regional example, with observers noting that Somaliland's telecommunications infrastructure, competitive prices, and quality of service are among the best in Africa (Somaliland Biz, 2018; Acheson, 2024).

The main goals of this in-depth study are to:

- give a detailed history and current overview of the industry;
- show important numbers and statistical evidence;
- look at the main players in the market and how they compete;
- look at the current state of the sector and the problems it faces;
- look at ways to make money in a sustainable way; and

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- f) look at ways to act ethically and responsibly that will help the sector stay strong in the long run. This study acknowledges that sustainable finance goes beyond mere profitability; it includes responsible capital allocation, transparent governance, regulatory compliance, consumer protection, equitable taxation, and contributions to comprehensive economic growth.

2. Company Overview: The Somaliland Telecommunications Sector

2.2 Current Market Composition

There are four main private companies that provide telecommunications services in Somaliland today, including Telesom, Somtel, Somcable, and Solteco (SomalilandBiz, 2018). The sector covers over 95% of the country geographically, and large cities like Hargeisa (the capital), Berbera (the main port), and Borame have high service availability, largely due to private-sector-led infrastructure investment (SomalilandBiz, 2018; World Bank Group, 2017):

Operator	Primary Services	Market Position
Telesom	GSM, mobile money (ZAAD), data services	Market leader by subscribers and revenue
Somtel	GSM, 3G/4G, E-Dahab mobile money	Second-tier operator with growth trajectory
Somcable	Fixed-line internet, fiber optic deployment	Emerging broadband provider
Solteco	Telecommunications services	Smaller regional operator

2.3 Importance of the Sector to the Economy

The telecommunications industry is now one of Somaliland's two biggest private-sector industries, along with remittances, and its economic importance goes much beyond direct revenues from voice, SMS, and data (SomalilandBiz, 2018). By enabling remittance transfers, mobile money payments, and digital communication, the sector supports commerce, public service delivery, and entrepreneurship across the country (World Bank Group, 2017; McKinsey & Company, 2018).

2.3.1 Direct Contributions to the Economy:

- Money made from mobile services (voice, SMS, and data)
- Fees and quantities of transactions for mobile financial services
- Capital expenditures for network expansion and infrastructure investment
- Jobs in technical, customer service, managerial, and support positions

2.3.2 Indirect Economic Contributions:

- Allowing people to receive and manage remittances using mobile money services (which are very important for supporting development)
- Making it easier for businesses to do business and run their operations
Helping the government run and provide services
- Making it possible for people to start their own businesses using mobile money agent networks
- Helping people who didn't have bank accounts before get access to banking services
Because of poor financial reporting, it's hard to know exactly how much money the sector makes. However, outside experts estimate it generates hundreds of millions of dollars in economic value each year International Finance Corporation. (2019).

3 . Sustainable finance offers a business opportunity.

3.1 The Mobile Money Revolution: A Study of ZAAD

3.1.1 Beginning and Strategic Vision

Telesom introduced its ZAAD mobile banking service in June 2009, making it one of the earliest large-scale mobile money services globally, following Smart Money in the Philippines and Safaricom's M-Pesa in Kenya (GSMA, 2012a; GSMA, 2012b). ZAAD evolved into a more comprehensive and financially sophisticated platform than many African mobile money systems, tailored to Somaliland's unstable local currency, limited formal banking, and large diaspora remittance flows (GSMA, 2012a; McKinsey & Company, 2018).

A key innovation in ZAAD's business model was its ecosystem strategy: Telesom partnered with large employers and merchants, including utilities, universities, and retail chains, to route salary and bill payments through ZAAD and encourage users to keep value in their wallets rather than cash out immediately (GSMA, 2012a; GSMA Connected Women, 2024). This approach helped ZAAD overcome the typical "cash-in, cash-out" problem in

mobile money, resulting in high transaction frequency and deep financial inclusion (McKinsey & Company, 2018; World Bank, 2017).

3.1.2 New Ideas for Business Models

ZAAD's business strategy is a major new idea that solves two long-standing problems with worldwide mobile money services:

- a) Money into System Challenge: Most people who use mobile money take their money out right away, which makes it hard for the service provider to invest or make money on customer assets
- b) Money Staying in System Challenge: Making it worth users' while to keep money in electronic wallets instead of asking for cash.

ZAAD addressed these problems through a planned ecosystem strategy. Telesom worked hard with big companies including Coca-Cola's Somaliland bottling facility, Amoud University, and Kaah Electric Power Company to set up wage payment systems through ZAAD York, C. (2013). With the advent of this ecosystem, the value proposition changed: instead of turning their mobile money balances into cash right away, employees keep them for future transactions.

- c) Getting Financial Inclusion

The World Bank's Global Findex data show that Somaliland has exceptionally high levels of mobile-money use for bill payments and transfers compared with global averages, illustrating ZAAD's central role in financial inclusion in the absence of widespread formal banking (World Bank, 2017; GSMA, 2012a):

Indicator	Somaliland Rate	Global Context
The population uses mobile money to pay bills	78%	Highest rate worldwide
Population using mobile money for transfers(adult)	73%+	Highest rate worldwide

These metrics represent an extraordinary achievement in financial inclusion, demonstrating that mobile money services can achieve deep market penetration and frequent usage in contexts where formal banking infrastructure remains underdeveloped [2].

3.2 Long-Term Competitive Advantages

3.2.1 Leading the way in technological innovation

Somaliland's telecommunications companies have always been quick to accept new technologies and put them into use: 4G/LTE Deployment: Somtel hired Alcatel-Lucent in 2014 to set up 4G LTE networks all over Somaliland. This enabled the company to switch from a voice-based to a data-based revenue model. Fiber Optic Infrastructure: Somcable's ongoing initiative to install fiber-optic cables will significantly improve internet speeds and capacity, helping the digital economy grow. Wireless Broadband: Somtel's wireless internet services use specialized antenna systems to reach remote areas, solving the problem of internet connectivity in rural areas, Somaliland Biz. (2024).

3.2.2 Competitive Prices

Somaliland has some of the lowest international calling rates in the world. Most of the time, calls from Somaliland to other countries cost less than \$0.20 per minute, which is much less than the average for Africa as a whole Somaliland Biz, 2024). The low prices in this industry are due to reduced regulatory burdens and operators' commitment to providing service that is easy to access. Local phone calls and SMS services remain cheap, making them easier for everyone to use.

3.2.3 Efficiency in Operations

Infrastructure development driven by the private sector made operations more efficient than in African telecom markets, where governments were in charge. Without government engagement that was costly and time-consuming, operators worked together to establish communication towers, base transceiver stations, and network infrastructure Somaliland Biz (2024).

3.3 Opportunities for Growth in the Future

3.3.1 Growth of MVNO (Mobile Virtual Network Operator)

Mobile Virtual Network Operators (MVNOs) are companies that offer mobile services without owning spectrum or full infrastructure. Somaliland has a lot of room to grow in this area. MVNOs usually negotiate wholesale deals with MNOs to buy minutes, SMS capacity, and data at lower prices. They then market different services to specific customer groups. African MVNO business models include:

MVNO Category	Market Share	Somaliland Opportunity
Niche	35%	Youth-targeting services (growing <30 population)
Retail	20%	Bank-launched MVNOs leveraging customer bases
Ethnic	15%	Diaspora-focused services
Other	30%	Operator sub-brands, discount, data-focused

Virgin Mobile (South Africa) targets young people with free on-net calls and new data bundles. K2 (Uganda) offers low-cost voice and data to young people. Equitel (Kenya) started with Equity Bank Group to combine mobile banking[1]. In Somaliland, MVNOs that focus on young people (who make up most of the population under 30) could take a large portion of the market by offering services that current MNOs don't.

- a) **4G Data Revenue Expansion:** 4G deployment fundamentally shifts revenue architecture from voice and SMS (minimal margin services) to data services (higher-value, recurring subscription revenue)infrastructure Somaliland Biz (2024). Operators should develop segmented 4G strategies:
- b) **Youth/Tech-Savvy Segment:** Data bundles for video streaming, music services, and **smartphone** applications. Market examples show viability of premium positioning combined with lifestyle integration.
- c) **Residential Segment:** 4G services as household broadband alternatives, leveraging WiFi distribution to multiple users and offering cost advantages versus traditional fixed-line connections.
- d) **Enterprise Segment:** Fixed-wireless LTE services supporting business operations, particularly valuable where fixed-line infrastructure remains underdeveloped.

Spectrum Allocation Strategy

Sub-900 MHz band allocations enable greater geographic coverage with fewer base transceiver stations, critical for Somaliland's dispersed population pattern infrastructure, Somaliland Biz (2024). Higher frequency bands (1800 MHz, 2600 MHz) support greater data speeds and service reliability but with reduced coverage. Strategic spectrum acquisition would enable nationwide 4G implementation, supporting higher data revenues and improved enterprise connectivity.

4. Ethical Conduct in Implementing Sustainable Finance

4.1 Regulatory Framework and Compliance

4.1.1 Legal Foundation

Although Somaliland had no dedicated e-money regulations in 2009, Telesom adopted a rigorous approach to customer due diligence and anti-money laundering (AML), voluntarily aligning with Financial Action Task Force (FATF) guidelines and implementing tiered KYC requirements (FATF, 2013; GSMA, 2012a). This included risk-based account limits, enhanced monitoring for high-value customers, and community-based verification for customers lacking formal ID, balancing inclusion and AML compliance (FATF, 2013; GSMA, 2012b).

Somaliland's telecommunications sector is formally governed by the Telecommunications Law (Law No. 50/2011), issued through Presidential Decree No. 0164/072011, which provides a basic legal framework but does not yet establish an independent, technically specialized telecoms regulator (Somaliland Law, 2011; World Bank Group, 2017). Analysts often contrast this with Kenya's Communications Authority model, which combines licensing, spectrum management, and consumer protection functions in a single agency (World Bank Group, 2017)..

The Government's stated regulatory philosophy emphasizes:

- a) Competitive market facilitation
- b) Private sector innovation encouragement
- c) Light-touch regulatory approach, avoiding growth impediment
- d) Foundation for transparent regulatory processes

4.1.2 Regulatory Supervision

The Ministry of Posts & Telecommunications, based in Hargeisa, maintains regulatory authority over the sector Somaliland Biz (2024). However, observers note the absence of a dedicated telecommunications regulatory authority comparable to Kenya's Communications Authority (CAK), which provides specialized technical and commercial expertise[1].

4.2 Anti-Money Laundering and Customer Due Diligence

4.2.1 ZAAD Compliance Framework

Despite launching in 2009 when no e-money regulation existed, Telesom adopted the most rigorous approach to customer due diligence and anti-money laundering (AML) compliance possible. The company applied Financial Action Task Force (FATF) international guidelines proactively, exceeding the minimum legal requirements under its remittance license, Penicaud, C., & McGrath, A. (2013).

4.2.2 Customer Account Architecture:

ZAAD implemented risk-based tiered customer accounts:

Account Type	Balance Limit	Identification Requirements	Monitoring
Ordinary Account	US\$ 2,000	Valid ID (passport, license, etc.) or chief/community reference	Standard monitoring
High-Value Account	Unlimited	Enhanced documentation, beneficial owner identification	Enhanced transaction monitoring

4.2.3 Identification Procedures:

For customers lacking formal government-issued identification (common in Somaliland), ZAAD implemented a local referral system: verification by a local chief or a recognized businessperson providing written identity confirmation Penicaud, C., & McGrath, A. (2013). This pragmatic approach balanced financial inclusion (enabling unbanked populations to access services) with AML compliance (ensuring actual identity verification through trusted community members).

All customer identity documents are digitally copied and stored with customer photographs. ZAAD agents access centralized databases displaying customer identity photos, enabling positive identification for every cash-in and cash-out transaction.

4.2.4 Risk Classification System:

ZAAD agents classify new customers as "low risk" or "high risk" based on registration interviews. High-risk customer transactions receive enhanced monitoring, including source-of-funds verification and comparison against customer risk profile and stated business activities, Penicaud, C., & McGrath, A. (2013).

4.2.5 Compliance Infrastructure

Telesom appointed dedicated AML reporting officers responsible for:

- a) Agent and staff vigilance in detecting/preventing illegal activities
- b) Regular policy appropriateness, effectiveness, and adequacy reviews
- c) Annual KYC compliance training for all agents and staff
- d) Transaction monitoring and suspicious activity reporting

This comprehensive compliance framework demonstrates that ethical conduct and regulatory compliance, while imposing operational costs, represent foundational commitments rather than afterthoughts.

4.3 Consumer Protection and Systemic Risk Mitigation

4.3.1 Deposit Safety Concerns

A critical ethical and regulatory gap exists regarding consumer deposit protection. Unlike mature mobile money markets, Somaliland's Central Bank has not implemented mandatory deposit segregation requirements, Penicaud, C., & McGrath, A. (2013)..

4.3.2 Best Comparative Practice:

Jurisdiction	Protective Measure	Rationale
Kenya (M-Pesa)	Deposits held in third-party bank names, not provider names	Insulates customer funds from provider insolvency
Afghanistan	Deposits distributed across multiple regulated banks	Diversifies counterparty risk
Standard Practice	Deposit liquidity requirements equal to customer fund totals	Prevents illiquid asset investing with customer money

4.3.4 Somaliland Vulnerability:

A critical ethical and prudential gap concerns the protection of customer funds held in mobile-money systems. Unlike some mature markets where mobile-money balances are held in segregated trust accounts with regulated banks, reports suggest that ZAAD customer funds are not fully ring-fenced from Telesom’s general working capital, exposing users to potential counterparty and liquidity risks in the event of provider distress (McKinsey & Company, 2018; GSMA, 2012a).

4.4 Standards for openness and disclosure

Taxation and Reporting of Income

A major ethical problem in Somaliland's telecommunications industry is insufficient transparency into earnings. Historically, major telecom companies have refused to tell the government or the public how much money they make[2]. Sustainable financing needs clear financial reporting. Best practices in the industry include:

- a) Audited Annual Financial Statements: An independent auditor checks the accuracy of the company's sales, costs, and profits.
- b) Regulatory Submissions: Sending detailed financial reports to the telecommunications regulator
- c) Tax Compliance Transparency: Clear records of how taxes are calculated and paid
- d) Stakeholder Reporting: Regular reporting to shareholders, employees, and other important people.

5. Subscriber Growth and Market Dynamics

5.1 Financial Inclusion Metrics

Table: Global Mobile Money Penetration Comparison

Indicator	Somaliland	Global Context	Implication
% Population Using Mobile Money for Bill Payment	26%	Highest worldwide	Exceptional financial inclusion
% Population Using Mobile Money for Transfers	32%	Highest worldwide	Highest transfer penetration globally
Average Monthly Transactions per Active User	30+	vs. 8.5 global avg	3-4x higher engagement intensity
Consumer Confidence	High (evidenced by adoption)	Varies regionally	Strong product market fit
Banking Alternative for Unbanked	Primary method	Secondary in most regions	Unique dependency on mobile money

Index-based analysis suggests that around 26% of Somaliland’s adult population use mobile money to pay bills and 32% to send or receive money, the highest such rates in the world for those specific use cases (World Bank, 2017, as cited in Mohamoud, 2017). At the same time, survey evidence from a humanitarian cash-transfer case study reports that approximately 78% of the population use mobile money for at least one purpose, with 96.5% of those users holding a ZAAD wallet (GSMA, 2019).

5.2 Sector Coverage and Accessibility

Geographic Coverage and Service Availability

Region	Coverage Status	Primary Operators	Service Quality
Hargeisa (Capital)	Excellent	All major operators	High speed, reliable
Berbera (Port)	Excellent	All major operators	High speed, reliable
Borame	Excellent	Major operators	Good coverage
Central/Western Regions	Good-Excellent	Telesom, Somtel, Somcable	Reliable voice/data
National Coverage	~95%	Multiple operators	Excellent for Africa

6. Conclusion

Somaliland's telecommunications sector represents a remarkable case study in how market-driven innovation, light-touch regulation, and diaspora capital can create world-class infrastructure and financial inclusion services. The sector's transformation from a complete government monopoly (pre-1991) to a competitive, privately led market providing exceptional service at global-leading prices demonstrates the power of deregulation paired with entrepreneurial initiative.

The ZAAD mobile money service exemplifies sustainable finance principles by achieving profound financial inclusion while maintaining rigorous anti-money laundering compliance. However, continuing success requires strengthening consumer protection frameworks, enhancing revenue transparency, implementing deposit segregation protections, and establishing a dedicated telecommunications regulatory authority.

As Somaliland's telecommunications sector matures, ethical conduct and sustainable financial practices offer competitive advantages rather than constraints. Transparency, compliance, consumer protection, and equitable taxation strengthen long-term sector viability, stakeholder confidence, and contribution to national development. The path forward requires balancing Somaliland's proven innovation capacity with the governance rigor and consumer protections that characterize global best practice.

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